

Financial Highlights

- \$2.62 Billion Net Income
- 10.5% Return on Equity
- \$29.15 Billion Record Net Written Premiums
- \$2.40 Billion Capital Returned to Shareholders

At and for the year ended December 31. Dollar amounts in millions, except per share amounts.

	2019	2018	2017	2016	2015
Earned Premiums	\$ 28,272	\$ 27,059	\$ 25,683	\$ 24,534	\$ 23,874
Total Revenues	\$ 31,581	\$ 30,282	\$ 28,902	\$ 27,625	\$ 26,815
Core Income	\$ 2,537	\$ 2,430	\$ 2,043	\$ 2,967	\$ 3,437
Net Income	\$ 2,622	\$ 2,523	\$ 2,056	\$ 3,014	\$ 3,439
Net Income Per Diluted Share	\$ 9.92	\$ 9.28	\$ 7.33	\$ 10.28	\$ 10.88
Total Investments	\$ 77,884	\$ 72,278	\$ 72,502	\$ 70,488	\$ 70,470
Total Assets	\$110,122	\$104,233	\$103,483	\$100,245	\$100,184
Shareholders' Equity	\$ 25,943	\$ 22,894	\$ 23,731	\$ 23,221	\$ 23,598
Return On Equity	10.5%	11.0%	8.7%	12.5%	14.2%
Core Return On Equity	10.9%	10.7%	9.0%	13.3%	15.2%
Book Value Per Share	\$ 101.55	\$ 86.84	\$ 87.46	\$ 83.05	\$ 79.75
Dividends Per Share	\$ 3.23	\$ 3.03	\$ 2.83	\$ 2.62	\$ 2.38

The Travelers Companies, Inc. (NYSE: TRV) is a leading provider of property and casualty insurance for auto, home and business. The company's diverse business lines offer its customers a wide range of coverage sold primarily through independent agents and brokers. A component of the Dow Jones Industrial Average, Travelers has approximately 30,000 employees and operations in the United States and select international markets.



To My Fellow Shareholders

As I write this letter, the world is in a state of emergency due to the COVID-19 pandemic. Across the United States and around the globe, businesses and borders have been closed, flights grounded and quarantine zones established.

By the time you read this, conditions may have improved, or they may have worsened. Foremost in all our minds is the tragic loss of life and human suffering caused by this pandemic. Our thoughts and prayers go out to all those affected. I hope you and your loved ones are, and remain, safe.

Prepared for the Unpredictable

Events like the COVID-19 pandemic are, by their very nature, unpredictable. But with over 160 years of experience as a leading property and casualty insurer, we are well positioned to weather this unprecedented storm as we have weathered so many before. Planning for the unknown and unforeseeable is core to everything we do at Travelers. We have learned to operate with a level of preparedness designed to withstand the inevitable times of crisis. It is in the way we underwrite, the way we invest, the way we control expenses, the way we manage our resources, and the way we assess trends and adjust our strategies accordingly. In that regard, compromising discipline in pursuit of outsized gains during good times can be irresistible for some. But the companies that outperform over time will be the ones that are braced for uncertainty and managed with a long-term perspective.

In short, Travelers is built to take on the challenges of times like these. We balance risk and reward for long-term success because we know we are going to be tested from time to time. As I told our team when, practically overnight, we moved nearly 30,000 employees to remote work arrangements in the face of the pandemic: "We have the talent, the technology, the risk management processes and procedures, and, importantly, the balance-sheet strength and liquidity to manage through this." But that is not all. In recent days, we have seen the commitment, ingenuity and compassion of our extraordinary workforce on full display. Our employees have stepped up in more ways than I can count – big and small – for our customers, agents and brokers, our communities and one another. I am grateful for their focused professionalism in the face of this crisis, and I have never felt more privileged to call them my colleagues.

During these extraordinary times, we will continue to operate consistent with our long-term financial strategy. With that, let me turn to how we executed on that plan in 2019 and over the past few years.

Starting from a Position of Strength

In 2019, Travelers delivered net income of \$2.6 billion and return on equity of 10.5%, a meaningful spread over the 10-year Treasury and our cost of equity. We are steadfast in our view that return on equity over time is the right way to measure our success. Having said that, any strategy to deliver industry-leading returns over time requires a strategy to grow over time. On that note, we are very pleased that

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Underlying Underwriting Gain¹

(\$ in billions, after-tax)



- ¹ Excludes the impact of catastrophes and prior year reserve development.
- ² The results for 2018 and 2019 reflect lower tax rates associated with the Tax Cuts and Jobs Act of 2017.

the successful execution of our business and marketplace strategies over recent years resulted in record net written premiums of more than \$29 billion in 2019, with each of our business segments contributing.

These results are a testament to the strength and resilience of our franchise, built upon the competitive advantages that Travelers employees have developed over decades. That foundation enabled Travelers to deliver strong results in 2019 against the backdrop of what continued to be a demanding environment characterized by persistent low interest rates, continued uncertainty about weather volatility and a challenging tort environment.

We also continued to pursue our ambitious innovation agenda, which is designed to ensure that our competitive advantages remain relevant and differentiating to drive our long-term success. These efforts are largely geared toward positioning Travelers for top-line growth at attractive returns. As I discuss in greater detail below, this past year we saw the benefits from these initiatives in the form of record net written premiums and our lowest expense ratio in more than a decade.

Our 2019 Results

Travelers generated \$2.6 billion of net income, an increase of 4% over the prior year, and \$9.92 per diluted share, an increase of 7%. Core income³ was \$2.5 billion, and core return on equity was 10.9%. Our earnings and strong balance sheet enabled us to grow book value per share by 17% and adjusted book value per share by 6%, after continuing to make important investments in our business and returning \$2.4 billion of excess capital to our shareholders through dividends and share repurchases.

This year marked the 14th consecutive year in which we increased our dividend. Our ability to generate a significant profit in the current environment, while also investing in our business and returning substantial capital to our shareholders, speaks to the value of our diversified business and our investment expertise.

In 2019, we once again produced strong underlying underwriting profit thanks to continued underwriting excellence and the successful execution of our strategy to create attractive top-line opportunities and to improve productivity and efficiency. The effective execution of our strategy over the past several years to grow the top line, or, as we say internally, "do more," has been an important contributor to the significant levels of underwriting income we are generating.

Our underwriting expertise is a hallmark of our success, and evaluating risk and reward is at the heart of what we do. Our customers and shareholders can rely on Travelers to identify emerging issues early, respond aggressively to changing conditions as they arise and take action to capitalize on opportunities. For example, we have led the industry in raising awareness of the more challenging tort environment. While we have been actively managing social inflation for some time, the environment deteriorated dramatically over the past year or so even beyond our elevated expectations. We remain confident that this is an industrywide issue and that we are responding appropriately as new data emerges. In this business, it is important to have the right data and analytics, expertise and culture of candor necessary to recognize and address changing conditions quickly.

Net Written Premium Growth (\$ in billions)



We continue to execute on our thoughtful and deliberate strategy to deliver industry-leading returns. We are leveraging our advanced data and analytics, and executing on a granular basis to improve pricing, terms and conditions where needed on an account-by-account, class-by-class basis. And, as always, we are also actively managing all other levers of profitability available to us. There are a number of factors that impact our returns beyond rate and loss trend, including risk selection, mix of business, claim and expense initiatives, volume and reinsurance. We will continue to manage all these levers to make sure we are meeting our performance objectives.

Much like our underwriting strategy, successfully balancing risk and reward is also at the heart of our welldefined and consistent investment philosophy. As we have said before, our investment portfolio is managed first and foremost to support our insurance operations and, accordingly, is positioned to meet our obligations to policyholders under a wide range of conditions. To that end, we emphasize risk-adjusted returns and credit quality rather than reaching for yield that is not consistent with the underlying risk. Even in the context of a record low interest rate environment and extremely volatile equity markets, our asset allocation is designed so that the predictable stream of investment income from our fixed income portfolio will provide a firm and reliable foundation for our business. That is the core of our investment philosophy, and we saw the benefits of this approach again this past year. In 2019, our high-quality investment portfolio generated strong net investment income of \$2.1 billion after-tax.

Succeeding Through the Forces of Change

A few years ago, we laid out a strategy to position Travelers for continued success in the context of the forces of change we have previously identified as impacting our industry – namely, changing consumer expectations, emerging technology trends, more sophisticated data and analytics, and evolving distribution models. In light of these trends, we established key innovation priorities and are investing in capabilities consistent with those priorities. As was the plan, the successful execution of this strategy has contributed to strong top-line performance and improved operating leverage over the past several years and again in 2019.

Strong Top-Line Performance

Turning to the top line, today's production generates tomorrow's earned premiums. That is why we are particularly pleased that over the past four years we grew net written premiums at a compound annual rate of 5%, as compared to 2% in the prior years in the decade. Net written premiums were a record \$29.2 billion in 2019. Premium growth has been driven by strong production, with high levels of retention, higher pricing and new business all contributing. As to retention, we have a very high-quality book of business, and we are pleased that we have achieved historically high levels of retention across all our businesses in recent years. The higher pricing we have achieved is driven by both higher levels of pure rate and exposure growth. The new business we have added has been in products, industries and geographies that we know well, and has been written through distribution partners with whom we have long and excellent relationships.

In other words, we have pursued growth without compromising our return objectives or changing our risk profile. This is evidenced by our underlying combined ratio, which has remained remarkably consistent over the past decade. In short, we are growing with confidence.

Underlying Combined Ratio⁴

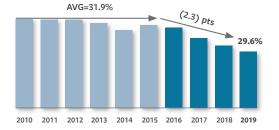


In terms of geography, as I have commented in the past, we continue to believe that geopolitical risk and economic instability around the world are underappreciated today. Accordingly, we like our North America concentration. That is not to say we do not continue to recognize value and evaluate opportunities outside of North America, but we have set an even higher bar for those opportunities today.

Optimizing Operating Leverage

As we have grown our business, we have also successfully executed on our strategic initiative to improve productivity and efficiency. During 2019, we improved our expense ratio to 29.6%, a 50-basis-point improvement over the prior year. Significantly, as reflected in the following chart, our consolidated expense ratio has improved by more than 7%, from an average of 31.9% during the period from 2010 to 2015 to 29.6% for 2019.

Expense Ratio



Importantly, we achieved this improvement by leveraging technology investments and workflow enhancements and not by depriving our business of important investments. Achieving further productivity and efficiency gains remains a strategic priority for us, as it provides us with important

flexibility. By improving operating leverage, we can invest further in our strategic priorities, let the benefit fall to the bottom line and/or be more competitive on pricing without compromising our return objectives.

Growing Our Investment Portfolio

Another significant benefit of our efforts to grow the top line and improve productivity and efficiency is meaningfully higher levels of cash flow from operations. In 2019, we generated cash flow from operations of \$5.2 billion, the highest since 2007, and for the past four years, the average annual cash flow from operations has been approximately \$1.3 billion higher than the average over the prior six years.

This higher level of cash flow has enabled us to grow our investment portfolio by about \$6.4 billion over the past four years (after excluding the impact of changes in net unrealized investment gains (losses)). This increase in invested assets has meaningfully benefited our net investment income in a record low interest rate environment.



Our Diversified Businesses

We engage broadly across nine major lines of insurance through our three business segments – Business Insurance, Bond & Specialty Insurance and Personal Insurance. Our portfolio is balanced across these lines of business and further diversified by geography, customer size and our deep underwriting specialization. Each of our businesses is high performing and contributed meaningfully to our 2019 performance.

Business Insurance

2019 Record Net Written Premiums of \$15.6 Billion

Business Insurance produced a solid underlying combined ratio of 96.2%, which included the negative impact of the environmental factors associated with a more aggressive tort environment mentioned above.

⁴ Excludes the impact of catastrophes and prior year reserve development.

⁵Invested assets excluding net unrealized investment gains (losses) as of December 31.

The segment's marketplace execution was excellent, with net written premiums up 4% to a record \$15.6 billion. In our domestic business, we did this by achieving historically high retentions while delivering almost 7 points of positive renewal premium change for the year, including renewal rate change of almost 4 points, both their highest levels since 2013. We also generated more than \$2.1 billion in domestic new business premiums, a 5% increase over the prior year. For the third consecutive year, we grew our domestic customer base (excluding the National Programs business, much of which we put into runoff).

As impressive as those headline numbers are, the texture underlying how we achieved these results is just as compelling. We comment frequently about how we execute in a granular, account-by-account, class-by-class manner. For example, in our core Commercial Accounts business, our segmented execution of rate and retention resulted in a 10-point favorable loss ratio differential between the business we retained and the business we let go in 2019. In other words, through disciplined execution, we keep the business we want after taking appropriate pricing action and do not renew the business that does not meet our return thresholds.

Bond & Specialty Insurance

2019 Record Net Written Premiums of \$2.7 Billion

Bond & Specialty Insurance had another excellent year, with a very impressive underlying combined ratio of 81.8%. The segment delivered net written premium growth of approximately 8%, driven by premium growth in both Management Liability and Surety. The domestic Management Liability results reflect record levels of retention and new business. These results are just the latest example of this segment's remarkable performance over time.

Personal Insurance

2019 Record Net Written Premiums of \$10.8 Billion

Personal Insurance results were excellent, with an underlying combined ratio of 91.5%. The segment achieved strong overall net written premium growth of 5% to a record \$10.8 billion, driven by high levels of retention, positive renewal premium change and higher levels of new business.

Our balanced portfolio of Auto and Homeowners and our ability to provide a whole account solution continue to be important differentiators for us. Our continued progress reflects the successful execution of our strategy to meet our customers where they are, give them what they need and serve them how they want. One example of this strategy in action is the continued successful rollout of our Quantum Home 2.0® product. Its granular pricing segmentation, customizable coverages and ease of quoting combine to form a solution that is both sophisticated and simple, delivering value to both agents and customers. Quantum Home 2.0 is now available in 36 states and the District of Columbia, contributing to the growth in Homeowners.

Our Claim Excellence

A review of last year's results would not be complete without acknowledging the continued excellence of our claim response. Our highly sophisticated claim model enables us to handle virtually 100% of our claims under nearly any foreseeable circumstance without resorting to third-party claim handlers, which produces a better experience for our customers and a more efficient outcome for us. Impressively, this year we resolved nearly 95% of our customers' property claims arising out of catastrophes within 30 days. Our claims-handling ability is more than just a competitive advantage – it lies at the very heart of our promise to take care of the customers and communities we serve. Every day, our claim professionals bring great expertise and dedication to their work, often going above and beyond on behalf of our customers. Their commitment and compassion go a long way toward reassuring customers who are facing challenging circumstances. Our customers and distribution partners often tell us that Travelers' claim service is a deciding factor in customers' insurance purchasing decisions. Seeing our Claim organization in action, I have no doubt that is true.

Consistent and Successful Long-Term Financial Strategy Delivers Shareholder Value

It is always important to share our results in the context of what we are trying to achieve. At Travelers, our simple and unwavering mission for creating shareholder value is to:

- Deliver superior returns on equity by leveraging our competitive advantages;
- Generate earnings and capital substantially in excess of our growth needs; and
- Thoughtfully rightsize capital and grow book value per share over time.

Return on Equity



⁶Source: ©2020 Conning, Inc. Used with permission. Historical data sources: ©2019 A.M. Best Company, Conning, Inc. 2019 is a forecast.

The results we deliver are due to our deliberate and consistent approach to creating shareholder value. We have been clear for many years that one of our crucial responsibilities is to produce an appropriate return on equity for our shareholders. This has meant developing and executing financial and operational plans consistent with our goal of achieving superior returns, which we defined many years ago as a mid-teens core return on equity over time. We emphasize that the objective is measured over time because we recognize that interest rates, reserve development and weather, among other factors, impact our results from year to year, and that there are years - or longer periods – and environments in which a mid-teens return is not attainable. In that regard, we established the mid-teens goal at a time when the 10-year Treasury was yielding around 5%, and in that environment, a mid-teens return was industry leading. As we have said before, our ability to achieve a mid-teens return over time going forward will depend on interest rates returning to more normal levels by historical standards. In any event, we will always seek to deliver industry-leading returns over time.

Our 2019 return on equity of 10.5% and core return on equity of 10.9% again meaningfully exceeded the average return on equity for the domestic property and casualty industry, which was approximately 8.2% in 2019, according to estimates from Conning, Inc., an insurance asset management firm. As shown in the chart above, our return on equity has significantly outperformed the average return on equity for the industry in each of the past 10 years.

Importantly, over this 10-year period, our return on equity has also been less volatile than that of others in the property and casualty industry. The level and consistency of our return on equity over time reflect the value of our competitive advantages and demonstrate the discipline with which we run our business.

Our Financial Strength

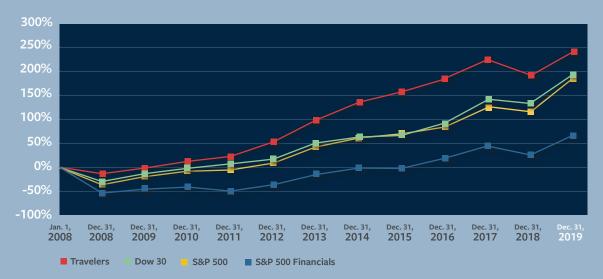
We once again ended the year extremely well capitalized, with only \$500 million of debt maturing in the next six years and all our financial strength indicators at or better than our target levels, including a debt-to-capital ratio of 20.2% (21.7% excluding after-tax net unrealized investment gains included in shareholders' equity), well within our target range of 15% to 25%. Our strong balance sheet and our consistent returns over time have enabled us to grow book value per share and adjusted book value per share each at a compound annual rate of 7% over the last 10 years.

Adjusted Book Value Per Share7



At the same time, we returned a significant amount of excess capital to our shareholders through dividends and share repurchases. Over this 10-year period, we increased

Total Return to Shareholders8



⁸ Represents the change in stock price plus the cumulative amount of dividends, assuming dividend reinvestment. For each year on the chart, total return is calculated with January 1, 2008, as the starting point and December 31 of the relevant year as the ending point. Source: Bloomberg.

our dividend each year and grew dividends per share at an average annual rate of 10%.

Dividends Per Share



Notably, since we began our share repurchase program in 2006, we have returned approximately \$45 billion of excess capital to our shareholders, including through \$35 billion of share repurchases, which is well in excess of the market capitalization of the company at that time. We repurchased those shares at an average price per share of \$67.39.

Our capital management strategy has been an important driver of shareholder value creation over time. We remain firm that our first objective for the capital we generate is to reinvest it in our business – organically and inorganically – to create shareholder value. For example, as we continue to grow our premium volumes, as we have for the past few years, we will retain more capital to support that growth. At the same time, we continue to invest in everything from talent to technology to further our innovation agenda and advance our other strategic objectives. Having said that, we are disciplined stewards of our shareholders' capital, and to the extent that

we continue to generate capital that we cannot reinvest consistent with our objective of generating industry-leading returns over time, we will manage it the same way we have for more than a decade – by returning it to our shareholders through dividends and share repurchases. The capital we return to our shareholders in the form of dividends or share repurchases allows them to allocate their investment dollars as they see fit, including by investing in companies with different growth profiles or capital needs, thereby efficiently allocating capital across the economy.

Total Shareholder Return

Ultimately, the success of our strategy – with all its component parts – drives our total return to shareholders over time. In these trying times, it is important to remember that we have a long track record of managing the company to create value over the long term, through periods of weather volatility; through anticipated and unanticipated developments impacting loss trends; and through both foreseeable economic cycles and more extreme economic conditions. With that in mind, the graph above compares our returns since the financial crisis to the returns for the Dow 30, the S&P 500 and the S&P 500 Financials.

We could not be more confident that executing on our long-term financial strategy, managing Travelers with an over-time discipline and continuing to invest in our competitive advantages is the right approach for building on Travelers' outstanding record.



A Culture of Innovation

Our innovation agenda is designed to ensure that our competitive advantages remain relevant and differentiating. We are fostering a culture of innovation and have established an innovation ecosystem to develop key capabilities in service of our vision to be the undeniable choice for the customer and an indispensable partner for our agents and brokers.



Driving Innovation Across the Enterprise

To drive innovation and collaboration across the enterprise, we have designated a network of innovation leaders spanning our businesses and

functions. This network is supported by hundreds of subject matter experts, software engineers, design specialists and data and analytics professionals. These teams deploy their unique insights, perspectives and skills to bring innovative products and services to market, better serve our customers and agent and broker partners and optimize our productivity and efficiency. One of our innovations, our Wildfire Loss Detector, leverages high-resolution images and machine learning to evaluate the space around a property to determine its likelihood of damage during a wildfire. We were proud to receive the Gartner Eye on Innovation Award and a CIO 100 Award for our Wildfire Loss Detector – a recognition of our efforts to leverage technology to better serve customers and create value for our business.



Fostering an Innovation Mindset

We have developed tools, training and events to foster an innovation mindset across the organization. To elicit new ideas, we regularly host innovation jams. These competitive events take place

over 24 hours and feature cross-functional teams of employees developing technology prototypes to address business challenges and create customer solutions. These events have not only engaged thousands of employees but have also inspired a number of practical innovations and led to nearly 30 patent applications.



Strategic Partnerships

We position ourselves in the flow of innovation around the globe through our relationships with incubators, startups, venture capital and private equity firms, and others that are developing

exciting new technologies and capabilities. Forging new alliances broadens our perspective and enables us to identify new opportunities. Through these partnerships, we gain early access to new ideas and the chance to develop solutions to some of the most interesting challenges impacting our industry.

Investing in Our Future

Moments of crisis require that we focus our attention on the here and now. And yet, the forces of change also require us to look to, and plan for, the future. Fortunately, our position of strength gives us the ability to do both. In fact, we feel that it is exactly in moments like this that we must focus on our dual imperatives to *Perform and Transform*.

That is why we are continuing to pursue an aggressive innovation agenda and building a culture of innovation to develop the capabilities we need for the future by leveraging the best from both inside and outside our company. As we have discussed previously, it is not innovation for the sake of innovation; it is innovation in the service of a clear vision to be:

the undeniable choice for the customer and an indispensable partner for our agents and brokers.

In support of that vision, our innovation agenda is focused on three priorities:

- Extending our advantage in risk expertise;
- Providing great experiences for our customers, agents and brokers and employees; and
- Optimizing our productivity and efficiency.

We have the talent and expertise to navigate a rapidly evolving landscape, and we have the scale and resources necessary to innovate and invest for tomorrow while also continuing to deliver industry-leading results today. We believe the winners in our industry will be those with deep domain expertise that can continue to deliver industry-leading results while innovating successfully on top of a foundation of excellence. The value of our deep domain expertise cannot be overstated as the starting point for innovation.

The Travelers Promise

Our sustainability - our ability to maintain our industryleading position and maximize shareholder value over the long term - depends not only on successfully executing our financial strategy and innovation agenda but also on fulfilling the Travelers Promise. The Travelers Promise is our commitment to take care of our customers, our communities and our employees. This includes providing our customers with the security they need to invest in their families and businesses and being there to help them recover after a disaster. It also includes caring for the communities in which we live and work through good times and bad. We do this by supporting academic and career success, and by promoting the development of thriving neighborhoods and enriched communities. Finally, it is about making Travelers a great place to work for the best talent in the industry and a great partner for our agents and brokers. In the end, the Travelers Promise is about taking care of the people we are privileged to serve.

At Travelers, we have long understood that as stewards of our shareholders' capital, our responsibility is to create shareholder value. We do not see that mission as separate and apart from the need to uphold the Travelers Promise; we see them as inextricably linked. Only by successfully delivering on our financial strategy and executing our innovation agenda will we earn the resources we need to keep the Travelers Promise. And only by faithfully keeping the Travelers Promise will we earn the support of the key stakeholders essential to creating shareholder value.

I wrote about the link between shareholder value and the Travelers Promise in my annual letter to shareholders last year, and it was with that principle in mind that, in August 2019, I joined 180 other CEOs in signing the Business Roundtable's Statement on the Purpose of a Corporation. The statement articulates a shared commitment to delivering value to our *customers*, investing in our *employees*, dealing fairly and ethically with our suppliers, supporting the *communities* in which

we work and generating long-term value for shareholders. My decision to sign the statement was an acknowledgment of how we have managed our business for decades. In fact, we articulated our long-standing view of sustained value creation earlier in 2019, when we published our first comprehensive sustainability website. I invite you to read more about our holistic approach to sustained value creation at *sustainability.travelers.com*.

I am confident that I can speak for my Travelers colleagues when I say that we take great satisfaction in our work – the service we provide to our customers, particularly during difficult times; the livelihood and support we provide to our employees and their families; the contributions we make to our communities; and, of course, the value we create for our shareholders. It is particularly during unique and unprecedented times like this – when people are anxious about what the next day will bring for them – that we show our enduring value. We are well positioned to continue to succeed through these challenging times, and we will continue to serve our customers today and in the brighter days that we are certain are ahead.

It is an honor to lead this great company. I am enormously grateful for the trust of the customers we are privileged to serve and for the confidence of our shareholders. I am also enormously grateful to everyone who works tirelessly to deliver our strong results. Travelers' success is only possible thanks to the drive and commitment of our employees, the insight and partnership of our agents and brokers, and the leadership and counsel of our Board of Directors.

Alan D. Schnitzer

Chairman and Chief Executive Officer



The Travelers Promise:

Taking Care of Our Customers, Our Communities and Our Employees

The Travelers Promise is our commitment to take care of our customers, our communities and our employees. This includes providing our customers with the security they need to invest in their families and businesses and being there to help them recover after a disaster. It also includes caring for the communities in which we live and work through good times and bad. We do this by supporting academic and career success, and by promoting the development of thriving neighborhoods and enriched communities. Finally, it is about making Travelers a great place to work for the best talent in the industry and a great partner for our agents and brokers. In the end, the Travelers Promise is about taking care of the people we are privileged to serve.





Helping Our Customers Protect What Is Important to Them

We provide coverages our customers need to protect the things that are important to them – their homes, their cars, their valuables and their businesses. We are developing products and services to meet consumers where they are, and we are creating solutions that put our expertise directly in the hands of our customers. By providing the protections our customers need in a simple, straightforward manner, we are giving them the confidence to achieve their personal and business goals – whether that means a bigger car for a growing family or a bigger facility for a growing business. Below are a few examples of how we help our customers protect what is important to them.



Our new Quantum Home 2.0® product. In 2019, we continued the successful rollout of our Quantum Home 2.0 product, which is now available in 36 states and the District of Columbia. Through its rebuilt quote and issue system, Quantum Home 2.0 makes it easier than ever to tailor

flexible and cost-effective coverage packages and specialty options for home and condo owners, tenants and landlords. Its granular pricing segmentation, customizable coverages and ease of quoting offer a sophisticated and simple solution that delivers value to both customers and agents.

Travelers BOP 2.0. In 2019, we began the launch of our BOP (Business Owner Policy) 2.0 product. With input from our agents, we have made the quoting experience faster and easier with simplified screens, fewer questions, more customer information prefill and modernized business classifications. We also adjusted our pricing, introduced new discounts and provided flexible offerings that allow agents to package coverages in a way that best meets the needs of our customers.

Mobile risk management app for business customers. Our Risk Toolworks[™] mobile app helps customers protect their businesses and keep their employees safe by providing real-time access to interactive risk management tools and resources that help our customers monitor

workplace hazards, track safety tasks and evaluate safety considerations, among other things. For example, using the app, customers can access Travelers' online construction vibration tool, <code>ZoneChecksm</code>, which is designed to help identify potential equipment-generated ground vibration risks. <code>ZoneCheck</code> centralizes industry-recognized ground vibration data for construction equipment by soil types. With just a few inputs, <code>ZoneCheck</code> calculates how far ground vibrations can extend to surrounding structures or people in order to establish or refine preconstruction surveys and develop measures to help mitigate against damage caused by vibration-generating work.

Helping Our Customers and Their Employees Stay Healthy

We offer various products and services designed to maximize the wellness of our customers and their employees, enable workplace safety and ensure that when work-related injuries do occur, injured employees can return to work as soon as they are able. Below are a few examples of how our innovative products help our customers and their employees stay healthy.

Early Severity Predictor®. By analyzing claim data, we created the Early Severity Predictor model to help forecast which injured employees are the most at risk for chronic pain and therefore opioid addiction. Since its inception in 2015, our Early Severity Predictor has benefited more than 65,000 injured employees, resulting in a substantial reduction in surgeries performed and opioids prescribed, as well as a more rapid return to work by impacted employees. We estimate that this has resulted in loss cost savings of more than \$150 million. Today, we apply this model to 100% of the workers compensation lost time claims that we receive.

MyTravelers® for Injured Employees. In response to the evolving needs of our customers and their injured employees, we have made a number of investments in our workers compensation claims-handling model, TravComp®. For example, we introduced our self-service workers compensation claim portal, MyTravelers for Injured Employees. Through this innovative platform, injured employees are empowered to engage in their return-to-work journey and interact with us digitally throughout the claim process. In-portal claim notifications, messaging with claim and medical professionals, two-way document sharing and tailored digital content help ensure we quickly get the right claim information into the hands of injured employees.

ConciergeCLAIM® Nurse program. Our Travelers ConciergeCLAIM Nurse program provides a one-on-one connection between one of our 500 registered nurses and an injured employee, helping those employees find access to quality health care, stay engaged in the claim process and return to work as soon as medically appropriate. By placing nurse case managers in local health care clinics across the United States, the Travelers ConciergeCLAIM Nurse program has reduced days out of work by 35%.

Helping Our Customers Through a Loss

Whether an insurance policy is sold to an individual or a business, the policy represents our promise to be there for our customers in the event of a covered loss. Making sure our customers understand the scope of their coverage is an important part of our claim process – a process that also includes sharing timely identification and communication of applicable coverages and limits. For certain claim types, our dedicated loss consultants are available to provide our customers with information about coverages, deductibles and the probable impact to loss history before a claim is filed to help them make an informed decision that is in their best interest. The following examples illustrate how we are using technology to help our customers through a loss.



Using Smartphones for Quicker, Safer Claim Inspections

Thanks to innovative virtual inspection and measurement technology, we are able to transform smartphone photos of a property into an accurate, three-dimensional model so that

our claim professionals can easily inspect property damage without climbing ladders, and our policyholders can provide information without having to schedule an on-site inspection. In other words, we are creating a faster and easier claim process for our customers, and a safer environment for our employees.



Using Satellite and Geospatial Technology to View Disaster Areas

The Travelers Catastrophe Map Viewer provides agents and brokers with searchable, high-resolution before-and-after images of areas

affected by disasters. This new capability also provides our claim professionals with the ability to quickly assess damage and begin the claim process – often before physical access to the affected area is possible.



Wildfire Loss Prevention and Recovery

We have developed several new Travelers products and services to help our customers mitigate wildfire risk and recover more quickly from wildfire damage.

As just one example, we are working with Wildfire Defense Systems (WDS) to give California home and landlord policyholders an added layer of wildfire protection at no additional cost. WDS uses proprietary forecasting and threat analysis to identify which Travelers customers could be impacted by a wildfire, and then assists them in taking preventive measures.





Travelers can only have a thriving, sustainable business if our communities are thriving, too. To that end, our connection to the community is fundamental to our company, and it is one of the reasons we work to foster resilience and opportunity in the communities we serve. Below are highlights from our community-focused initiatives.

Travelers EDGE®: Transforming Tomorrow's Workforce

Our signature career pipeline program, Travelers EDGE (Empowering Dreams for Graduation and Employment), aims to increase the number of underrepresented students who complete a bachelor's degree and are prepared for a career at Travelers or elsewhere in our industry. Since its inception in 2007, Travelers EDGE has provided financial support, professional development and mentoring to more than 500 students.

Building FORTIFIED Homes

Several years ago, we joined forces with Habitat for Humanity® and the Insurance Institute for Business & Home Safety to build affordable, wind-resistant homes to FORTIFIED Home™ standards throughout the United States. In 2019, we expanded that program to include a FORTIFIED building pilot with SBP (formerly the St. Bernard Project), a nonprofit organization that works to shorten the time between disaster and recovery. Through these partnerships, we have helped build nearly 100 FORTIFIED homes for low-income families. In addition, data gathered from the FORTIFIED program helps promote better building codes in hurricane-prone regions and demonstrate the affordability of building to FORTIFIED standards.

Rewarding Leadership in Community Response

Travelers is committed to raising awareness about disaster preparedness and the importance of improving response-and-recovery actions after major events. To that end, we offered a \$100,000 Travelers Excellence in Community Resilience Award through our charitable giving arm, the Travelers Foundation, and our public policy division, the *Travelers Institute*®. In 2019, we were pleased to present the award to Rebuilding Together, Inc., to support the launch of the organization's new program aimed at educating communities about the essentials of safely restoring homes after disasters.



The Travelers Promise:

Taking Care of Our Customers, Our Communities and Our Employees

Team Rubicon Sponsorship

Travelers is the exclusive insurance sponsor of Team Rubicon's Mobile Training Center, which provides large-scale training events, recruits volunteers and establishes relationships with state and local emergency management agencies to help communities across the United States prepare for, and recover from, catastrophes. Throughout 2018 and 2019, Travelers provided funding for Team Rubicon to begin scaling its rebuild program, which focuses not only on large catastrophes but also on low-attention disasters – that is, devastating weather events that impact communities but are not large enough in scale to draw media attention and resources from the government and philanthropic organizations.

Empowering Small Business Owners

The Travelers Small Business Risk Education (SBRE) program leverages our employees' expertise to help women-, minority- and veteran-owned small businesses learn about risk management and business continuity, develop safety risk management plans and qualify for microloans. During 2019, nearly 500 entrepreneurs attended our SBRE workshops. We also launched a partnership with the venture capital firm Village Capital to provide investment-readiness and risk management education through the SBRE curriculum to six diverse entrepreneurial support organizations focused on social enterprise, innovation and access to capital.

Combating Distracted Driving

The *Travelers Institute* has long recognized that every driver, passenger, cyclist and pedestrian has a role to play in enhancing roadway safety. To that end, in 2017, the *Travelers Institute* launched the *Every Second Matters*SM education campaign to help combat distracted driving. The campaign is founded on three key principles: creating a social stigma around distracted driving; increasing the situational awareness of all roadway users, including pedestrians and cyclists; and examining scalable technology and insurtech solutions. In 2019, the campaign hosted nearly 30 educational programs at universities and at industry and safety conferences in communities across the United States, and released two new "Unfinished Stories" videos, which honor real victims of distracted driving by telling their stories through a series of animated shorts.

The Travelers Championship®: Our Signature Community Event

The Travelers Championship is an annual stop on the PGA TOUR, which showcases how our company and our employees maintain a strong commitment to the communities in which we live and work. All net proceeds from the Travelers Championship go to charities throughout the Greater Hartford region. Since Travelers became title sponsor in 2007, the tournament has generated nearly \$20 million for more than 750 local charities, including more than \$2.1 million for 150 nonprofits in 2019. The event is also a popular volunteer opportunity for Travelers employees; more than 1,700 employees volunteered at the 2019 Travelers Championship. The value of the tournament – Connecticut's largest sporting event – extends beyond charitable giving. A recent survey by the Connecticut Economic Resource Center estimated that the average annual economic impact from the tournament is nearly \$70 million.





We owe our success to Travelers' extraordinary talent. The expertise of our approximately 30,000 employees is critical to maintaining our competitive advantages in a rapidly evolving business landscape. Our employees collectively drive our performance and fuel our innovation agenda. Fostering a thriving, vibrant and authentic culture is essential to attracting and retaining talented, diverse and qualified employees. We also know that when employees and their families are healthy – physically, emotionally and financially – they can be more fully engaged, both personally and professionally. Below are just a few of the ways we take care of our employees.

Equitable Compensation Practices

Our compensation programs are designed to attract, motivate and retain high-performing talent. Our long-standing pay-for-performance philosophy rewards individual and company performance, regardless of gender, race or any other protected classification. In the United States, we have increased the minimum hourly wage to \$15. The median total compensation of our employees was more than \$111,000, and the median total compensation of our full-time U.S. employees, who comprise over 90% of our workforce, was nearly \$128,000, as calculated and reported in our 2020 Proxy Statement for 2019, putting us in the top quartile of the S&P 500.

Preparation for Retirement

In 2019, approximately \$450 million went to providing our employees with security in their retirement through pension payments and credits and 401(k) matching contributions. We offer our employees a pension plan that is 100% funded by Travelers and does not require them to contribute personally. Travelers also annually matches employee 401(k) contributions dollar for dollar up to the first 5% of eligible pay, up to a maximum of \$7,000. We also launched an innovative new benefit in 2019 that eliminates the tough choice many employees face of paying down student debt or saving for retirement. The Travelers Paying It Forward Savings Program allows our employees to focus on paying off student debt while we help them grow their retirement savings. When an employee makes a payment toward their student loan, Travelers contributes that amount into that employee's 401(k) savings plan account.

Health and Wellness

We offer comprehensive benefit options for our employees, which include medical, dental and prescription drug coverage; flexible spending accounts; life insurance; paid time off; short- and long-term disability; parental leave; child care discounts; and preventive care incentives. Employees and their dependents and partners (including, for more than 20 years, same-sex domestic partners) are generally eligible for coverage beginning the first day of employment. To keep rates affordable, we subsidize premiums on health care plans through a progressive, cost-sharing model. In other words, our higher-paid employees pay a significantly higher percentage of the cost of their health benefits as compared to our lower-paid employees.

- In the United States, our medical plans cover 52,000 individuals, including employees, children, spouses and domestic partners. In 2019, we paid approximately \$240 million in medical-related costs on behalf of our employees and their dependents.
- In our international operations, we provide medical coverage that supplements government-provided plans to our 2,000 employees and their families, subsidizing the employee health benefit costs between 90% and 100%.

We also offer easy-to-use tools and resources that support employees in achieving their wellness goals. These programs include a robust Employee Assistance Program, which offers a variety of services such as professional counseling and work-life seminars; discounts at health clubs; discounted weight management and tobacco cessation programs; wellness screenings; and a diabetes management program, as well as other programs and benefits. In 2019, we launched several new efforts to promote the mental and physical health of our employees, including our new *my* Wellness platform, which allows employees to set their physical and mental wellness goals, find top-rated doctors in their area, review information about a new diagnosis or treatment, track healthy habits, challenge colleagues to health competitions, get discounts and more.



Diversity and Inclusion

At Travelers, diversity and inclusion is a business imperative. Diverse experiences and viewpoints yield greater insights and better outcomes, enable new ideas and spark innovation, raise the bar on individual and team

performance, and sharpen our focus on our customers. That is why we are creating a pipeline of diverse candidates and providing learning and development opportunities to advance diverse leaders. We are committed to fostering a welcoming work environment and a culture in which all employees feel valued, respected and supported.

In 2019, to further our commitment to diversity and inclusion, we grew our eight **Diversity Networks** to more than 11,500 members – more than a third of our employee base. Many employees have joined multiple networks, which total more than 23,500 memberships. These voluntary groups are dedicated to fostering a diverse and inclusive work environment, as well as the engagement, retention, development and success of all our employees.

Our **Diversity Speaks** series, which is designed to cultivate a work environment that embraces the power of difference through speaker-led discussions, held five events in 2019. We also hosted approximately 2,500 women agents and employees at **SHE Travels** events. SHE Travels is our initiative to be the leading advocate for women in insurance. The program seeks to raise awareness of insurance as a fantastic career opportunity, promote professional development and facilitate effective networking and mentoring for women in the industry.

We continue to partner with local nonprofits, such as Viability and Lifeworks, to provide **employment opportunities for people with disabilities.** According to our employees, these programs can be life changing. Our relationship with these nonprofits also gives us access to previously untapped sources of employee talent, helping us meet our business needs in an efficient and effective manner while fulfilling a crucial need in our communities. In 2019, Lifeworks recognized Travelers with its Employer of the Year award.



Our Approach to Changing Climate Conditions

At Travelers, we're not only well positioned to handle natural disasters – like wildfires, droughts, hurricanes and floods – but also to handle risks that evolve over longer periods of time, such as changing climate conditions. These risks require a different kind of preparation, a different kind of response and a different kind of resilience. Through our thoughtful approach to changing climate conditions, we hope to leave a better world for our children and future generations, while ensuring that our business is positioned for future success.

We rely on a multifaceted approach that allows us to mitigate our exposure to climate-related risks, help our customers manage those risks and meet our longterm financial objectives. To manage our exposure and response to catastrophic events, we use various methods, including proprietary and third-party modeling processes and geospatial analysis, to determine our climate-related risks and make underwriting, pricing and reinsurance decisions. We also regularly evaluate insurance products and services that could be useful to our customers for addressing climate-related risks. Additionally, we are supporting the transition to a lower-carbon economy over time. For example, our dedicated Global Renewable Energy Practice provides solutions for the life span of renewable energy businesses, from research, development and manufacturing to permanent operations, as well as onshore and offshore wind, solar and biopower operations.

Through our range of services, programs and public policies, we take a thoughtful approach to both being a socially responsible company and meeting our overall business objectives. We have several initiatives that seek to mitigate the risks associated with changing climate conditions and support the transition over time to a lower-carbon economy.

GREENER FOR CUSTOMERS

COMMERCIAL INSURANCE

From 2018 to 2019, our Global Renewable Energy Practice grew its gross written premiums by nearly 30%. We offer renewable energy solutions to cover solar, bioenergy and wind industries.

We cover the additional costs to help policyholders repair, replace or rebuild with "green" materials after a loss.







PERSONAL INSURANCE



We are partnering with American Forests, the oldest conservation organization in the United States, to plant a tree when personal lines customers choose paperless billing. We've committed to plant up to one million trees, and as of March 2020, we've planted more than 825,000.

WE OFFER POLICY DISCOUNTS*:



For homes that are **LEED** (Leadership in Energy and Environment Design) certified.

On hurricane premium for Insurance Institute for Business & Home Safety (IBHS) **FORTIFIED™ homes.**



For hybrid, electric or flexible-fuel vehicles.



For hull and liability coverages on hybrid boats and yachts.



For electric boats run by motors instead of engines.

^{*}Savings will vary by state, policy type and individual risk characteristics. Discounts are subject to eligibility and availability. Individual savings will vary.

GREENER FOR COMMUNITIES

We partner with Habitat for Humanity[®] and SBP to construct IBHS FORTIFIED $^{\text{TM}}$ homes.

Since these partnerships began, we have helped build nearly **100 FORTIFIED homes.**





GREENER FOR TRAVELERS

OUR OPERATIONS

Approximate reduction in greenhouse gas emissions since 2011.

50%
Approximate reduction in energy consumption at largest-owned campus since 2006.

17%
Electricity that comes from renewable energy sources at our owned facilities.

100%
Owned campuses that are ENERGY STAR® certified.

We expect our suppliers to work to minimize any negative environmental impact from their operations, including reducing or mitigating emissions, increasing sustainable use of natural resources, and reducing or eliminating waste.

OUR PARTNERS

Our climate strategy also includes advocating for, and supporting, community resiliency. We sponsor the Insurance Institute for Business & Home Safety, the BuildStrong Coalition, Habitat for Humanity and the Wharton Risk Center to promote stronger industry standards and more resilient communities.

We are also continually finding cost-effective ways to improve the eco-efficiency of our own operations. We are proud of the progress we have made across the company. Thanks to a lot of hard work, we have reduced our already small carbon footprint. We have reduced our greenhouse gas emissions by about 35% over the past decade. Additionally, all our owned facilities are ENERGY STAR® certified, which means that we are in the top quartile in terms of energy performance standards. We have also entered into a partnership with American Forests to plant up to a million trees - one tree for each personal lines customer who chooses paperless billing. This benefits the environment while saving our company millions of dollars in printing and mailing costs.

We are proud to be the leader among domestic property and casualty insurance companies in issuing a report discussing our approach to managing changing climate conditions, consistent with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Visit sustainability.travelers.com to read our TCFD Report and learn more about our multifaceted climate strategy.

Management

Alan D. Schnitzer*+

Chairman and
Chief Executive Officer

Scott C. Belden+

Senior Vice President, Reinsurance

D. Keith Bell

Senior Vice President, Accounting Standards

Jay S. Benet*+

Vice Chairman

Diane D. Bengston*+

Executive Vice President and Chief Human Resources Officer

Andy F. Bessette*+

Executive Vice President and Chief Administrative Officer

Lisa M. Caputo*+

Executive Vice President, Marketing, Communications and Customer Experience

Claudiu L. Coltea+

Senior Vice President, Enterprise Customer Experience

Susanne M. Figueredo+

Senior Vice President, Enterprise Operations

Daniel S. Frey*+

Executive Vice President and Chief Financial Officer

Patrick C. Gee+

Senior Vice President, Claim Personal Insurance

Myles P. Gibbons+

Senior Vice President and President, Commercial Accounts Group, and Chief Underwriting Officer, Middle Market

Abbe F. Goldstein+

Senior Vice President, Investor Relations

Martin J. Henry+

Senior Vice President, Risk Control

William H. Heyman*+

Vice Chairman and Chairman of the Investment Policy Committee

Scott F. Higgins*+

Executive Vice President and President, Middle Market, National Property and Business Insurance Field

Bruce R. Jones*+

Executive Vice President, Enterprise Risk Management and Chief Risk Officer

Julie M. Joyce+

Vice President and Chief Corporate Actuary

Christine K. Kalla*+

Executive Vice President and General Counsel

Patrick F. Keegan Jr.*+

Senior Vice President and Enterprise Chief Underwriting Officer

Avrohom J. Kess*+

Vice Chairman and Chief Legal Officer

Patrick J. Kinney*+

Executive Vice President, Enterprise Distribution Management

Michael F. Klein*+

Executive Vice President and President, Personal Insurance

Jeffrey P. Klenk*+

Executive Vice President, Management Liability, Bond & Specialty Insurance

Thomas M. Kunkel*+

Executive Vice President and President, Bond & Specialty Insurance

Mojgan M. Lefebvre*+

Executive Vice President and Chief Technology and Operations Officer

Patrick L. Linehan+

Senior Vice President, Corporate Communications

William C. Malugen Jr.*+

Executive Vice President and President, National Accounts

Mano Mannoochahr+

Senior Vice President and Chief Data and Analytics Officer

Eric M. Nelson+

Senior Vice President, Catastrophe Risk Management

Eric Nordquist+

Senior Vice President, Product Management, Personal Insurance

Maria Olivo*+

Executive Vice President, Strategic Development, and President, International

Brian P. Reilly

Senior Vice President and Chief Auditor

Ellen M. Rizzo+

Senior Vice President, Claim Shared Services, and Chief Financial Officer, Claim

Timothy D. Rogers+

Senior Vice President, Chief Financial Officer and Chief Operating Officer, Business Insurance

David D. Rowland*+

Executive Vice President and Co-Chief Investment Officer

Douglas K. Russell+

Senior Vice President, Corporate Controller and Treasurer

Scott W. Rynda

Senior Vice President, Corporate Tax

Richard D. Schug*+

Executive Vice President and Chief Actuary

Peter Schwartz

Senior Vice President and Group General Counsel, Corporate Litigation

Nicholas Seminara*+

Executive Vice President and Chief Claim Officer

Wendy C. Skjerven

Vice President, Corporate Secretary and Group General Counsel

Kevin C. Smith*+

Executive Vice President and Chief Innovation Officer

Gregory C. Toczydlowski*+

Executive Vice President and President, Business Insurance

Glenn E. Westrick

Senior Vice President, Government Relations

Joan K. Woodward*+

Executive Vice President, Public Policy, and President, The Travelers Institute

Daniel T. H. Yin*+

Executive Vice President and Co-Chief Investment Officer

^{*} Management Committee Member

⁺ Operating Committee Member

Board of Directors



Back row, from left: Otis, Shepard, Thomsen, Schnitzer, Beller and Schermerhorn. Front row, from left: Ruegger, Higgins, Kane and Dolan.

Alan L. Beller

Senior Counsel Cleary Gottlieb Steen & Hamilton LLP

Director since 2007

Janet M. Dolan

President

Act 3 Enterprises, LLC Retired President and CEO Tennant Company

Director since 2001

Patricia L. Higgins

Retired President and CEO Switch and Data Facilities, Inc. *Director since 2007*

William J. Kane

Retired Audit Partner Ernst & Young Director since 2012

Clarence Otis Jr.

Retired Chairman and CEO Darden Restaurants, Inc. Director since 2017

Philip T. Ruegger III

Retired Chairman Simpson Thacher & Bartlett LLP

Director since 2014

Todd C. Schermerhorn*

Retired Senior Vice President and CFO C. R. Bard, Inc. Director since 2016

Alan D. Schnitzer

Chairman and CEO Travelers

Director since 2015

Donald J. Shepard

Retired Chairman of the Executive Board and CEO AEGON N.V.

Director since 2009

Laurie J. Thomsen

Retired Partner and Co-Founder Prism Venture Partners Director since 2004

Board Committees

Audit

Kane (Chair) Beller Higgins Schermerhorn Thomsen

Compensation

Shepard (Chair) Dolan Otis Ruegger

Executive

Schnitzer (Chair) Dolan Kane Ruegger Schermerhorn Shepard

Investment and Capital Markets

Dolan (Chair) Otis Ruegger Shepard

Nominating and Governance

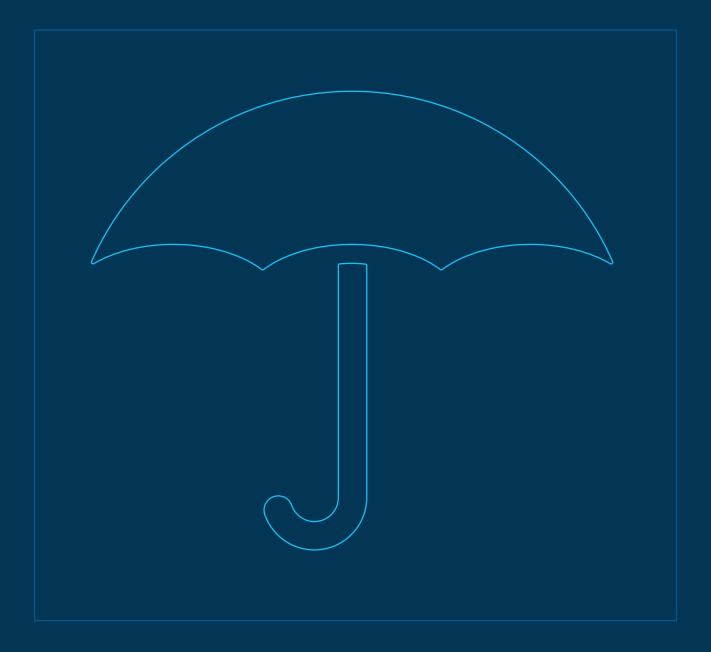
Ruegger (Chair) Dolan Otis Shepard

Risk

Schermerhorn (Chair) Beller Higgins Kane Thomsen

^{*}Independent Lead Director





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, 2019 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period from ____ Commission file number 001-10898 The Travelers Companies, Inc. (Exact name of registrant as specified in its charter) Minnesota 41-0518860 (State or other jurisdiction of (I.R.S. Employer incorporation or organization) Identification No.) 485 Lexington Avenue New York, NY 10017 (Address of principal executive offices) (Zip code) (917) 778-6000 (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 New York Stock Exchange Common stock, without par value **Securities registered pursuant to Section 12(g) of the Act:** 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 \(\square\) Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes 🗵 No 🗆 Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Act: Large accelerated filer X Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

As of February 7, 2020, 255,030,905 shares of the registrant's common stock (without par value) were outstanding.

\$38,824,535,607.

DOCUMENTS INCORPORATED BY REFERENCE

As of June 28, 2019, the aggregate market value of the registrant's voting and non-voting common equity held by non-affiliates was

Portions of the Registrant's Proxy Statement relating to the 2020 Annual Meeting of Shareholders are incorporated by reference into Part III of this report.

The Travelers Companies, Inc.

Annual Report on Form 10-K

For Fiscal Year Ended December 31, 2019

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PART I

Item 1. BUSINESS

The Travelers Companies, Inc. (together with its consolidated subsidiaries, the Company) is a holding company principally engaged, through its subsidiaries, in providing a wide range of commercial and personal property and casualty insurance products and services to businesses, government units, associations and individuals. The Company is incorporated as a general business corporation under the laws of the State of Minnesota and is one of the oldest insurance organizations in the United States, dating back to 1853. The principal executive offices of the Company are located at 485 Lexington Avenue, New York, New York 10017, and its telephone number is (917) 778-6000. The Company also maintains executive offices in Hartford, Connecticut, and St. Paul, Minnesota. The term "TRV" in this document refers to The Travelers Companies, Inc., the parent holding company excluding subsidiaries.

PROPERTY AND CASUALTY INSURANCE OPERATIONS

The property and casualty insurance industry is highly competitive in the areas of price, service, product offerings, agent relationships and methods of distribution. Distribution methods include the use of local independent agents, national agent partners, agency aggregators and carrier-based agencies, as well as direct to consumer, affinity and emerging partner platforms. According to A.M. Best, there are approximately 1,130 property and casualty groups in the United States, comprising approximately 2,600 property and casualty companies. Of those groups, the top 150 accounted for approximately 93% of the consolidated industry's total net written premiums in 2018. The Company competes with both foreign and domestic insurers. In addition, several property and casualty insurers writing commercial lines of business, including the Company, offer products for alternative forms of risk protection in addition to traditional insurance products. These products include large deductible programs and various forms of self-insurance, some of which utilize captive insurance companies and risk retention groups. The Company's competitive position in the marketplace is based on many factors, including the following:

- ability to profitably price business, retain existing customers and obtain new business;
- premiums charged, contract terms and conditions, products and services offered (including the ability to design customized programs);
- agent, broker and policyholder relationships;
- ability to keep pace relative to competitors with changes in technology and information systems;
- ability to use data and analytics to make decisions;
- speed of claims payment;
- ability to provide a positive customer experience;
- ability to provide products and services in a cost effective manner;
- ability to provide new products and services to meet changing customer needs;
- ability to adapt to changes in business models, technology, customer preferences or regulation impacting the markets in which the Company operates;
- perceived overall financial strength and corresponding ratings assigned by independent rating agencies;
- reputation, experience and qualifications of employees;
- · geographic scope of business; and
- · local presence.

In addition, the marketplace is affected by the available capacity of the insurance industry, as measured by statutory capital and surplus, and the availability of reinsurance from both traditional sources, such as reinsurance companies and capital markets (through catastrophe bonds), and non-traditional sources, such as hedge funds and pension plans. Industry capacity as measured by statutory capital and surplus expands and contracts primarily in conjunction with profit levels generated by the industry, less amounts returned to shareholders through dividends and share repurchases. Capital raised by debt and equity offerings may also increase statutory capital and surplus.

Pricing and Underwriting

Pricing of the Company's property and casualty insurance products is generally developed based upon an estimation of expected losses, the expenses associated with producing, issuing and servicing business and managing claims, the time value of money related to the expected loss and expense cash flows, and a reasonable profit margin that considers the capital needed to support the Company's business. The Company has a disciplined approach to underwriting and risk management that emphasizes product returns and profitable growth over the long-term rather than premium volume or market share. The Company's insurance subsidiaries are subject to state laws and regulations regarding rate and policy form approvals. The applicable state laws and regulations establish standards in certain lines of business to ensure that rates are not excessive, inadequate, unfairly discriminatory,

or used to engage in unfair price competition. The Company's ability to increase rates and the relative timing of the process are dependent upon each respective state's requirements, as well as the competitive market environment.

Geographic Distribution

The following table shows the geographic distribution of the Company's consolidated direct written premiums for the year ended December 31, 2019:

Location	% of Total
Domestic:	
California	10.0%
New York	9.6
Texas	8.0
Pennsylvania	4.4
Florida	4.1
New Jersey	3.9
Illinois	3.8
Georgia	3.5
All other domestic (1)	46.3
Total Domestic	93.6
International:	
Canada	4.3
All other international (1)	2.1
Total International	6.4
Consolidated total	100.0%

⁽¹⁾ No other single state or country accounted for 3.0% or more of the Company's consolidated direct written premiums written in 2019.

Catastrophe Exposure

The Company's property and casualty insurance operations expose it to claims arising out of catastrophes. The Company uses various analyses and methods, including proprietary and third-party computer modeling processes, to continually monitor and analyze underwriting risks of business in natural catastrophe-prone areas and target risk areas for conventional terrorist attacks (defined as attacks other than nuclear, biological, chemical or radiological events). The Company relies, in part, upon these analyses to make underwriting decisions designed to manage its exposure on catastrophe-exposed business. For example, as a result of these analyses, the Company has at various times limited the writing of new property and homeowners business in some markets and has selectively taken underwriting actions on new and existing business. These underwriting actions on new and existing business include tightening underwriting standards, selective price increases and changes to policy terms specific to hurricane-, tornado-, wind-, wildfire- and hail-prone areas. See "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Catastrophe Modeling" and "—Changing Climate Conditions." The Company also utilizes reinsurance to manage its aggregate exposures to catastrophes. See "—Reinsurance."

BUSINESS INSURANCE

Business Insurance offers a broad array of property and casualty insurance and insurance-related services to its customers, primarily in the United States, as well as in Canada, the United Kingdom, the Republic of Ireland and throughout other parts of the world as a corporate member of Lloyd's. Business Insurance is organized as follows:

Domestic

• Select Accounts provides small businesses with property and casualty insurance products and services, including commercial multi-peril, workers' compensation, commercial automobile, general liability and commercial property.

- Middle Market provides mid-sized businesses with property and casualty insurance products and services, including workers' compensation, general liability, commercial multi-peril, commercial automobile and commercial property, as well as risk management, claims handling and other services. Middle Market generally provides these products to mid-sized businesses through Commercial Accounts, as well as to targeted industries through Construction, Technology, Public Sector Services and Oil & Gas, and additionally, provides mono-line umbrella and excess coverage insurance through Excess Casualty. Middle Market also provides insurance for goods in transit and movable objects, as well as builders' risk insurance, through Inland Marine; insurance for the marine transportation industry and related services, as well as other businesses involved in international trade, through Ocean Marine; and comprehensive breakdown for equipment, including property and business interruption, through Boiler & Machinery.
- National Accounts provides large companies with casualty insurance products and services, including workers' compensation, commercial automobile and general liability, generally utilizing loss-sensitive products, on both a bundled and unbundled basis, as well as risk management, claims handling and other services. National Accounts also includes the Company's commercial residual market business, which primarily offers workers' compensation claims, policy management and other administrative services related to the involuntary market.
- National Property and Other provides traditional and customized commercial property insurance programs to large and mid-sized customers through National Property. National Property and Other also provides insurance coverage for the commercial transportation industry through Northland Transportation and serves small- to medium-sized agricultural businesses, including farms, ranches and other agricultural-related operations through Agribusiness. National Property and Other also includes commercial property and general liability policies for small, difficult-to-place specialty classes of commercial business primarily on an excess and surplus lines basis through Northfield and also offers tailored property and casualty insurance programs on an admitted basis for customers with common risk characteristics or coverage requirements through National Programs.

International

• International, through operations in Canada, the United Kingdom and the Republic of Ireland, provides property and casualty insurance and risk management services to several customer groups, including, among others, those in the technology, manufacturing and public services industry sectors. International also provides insurance for both the foreign exposures of United States organizations and the United States exposures of foreign organizations through Global Services. At its Lloyd's syndicate (Syndicate 5000), for which the Company provides 100% of the capital, International underwrites six principal businesses—international marine, retail marine, global property, construction & special risks, energy and aviation.

Business Insurance also includes Simply Business, a leading provider of small business insurance policies primarily in the United Kingdom that was acquired in August 2017, as well as Business Insurance Other, which primarily comprises the Company's asbestos and environmental liabilities, and the assumed reinsurance and certain other runoff operations.

Selected Market and Product Information

The following table sets forth Business Insurance's net written premiums by market and product line for the periods indicated. For a description of the markets and product lines referred to in the table, see "—Principal Markets and Methods of Distribution" and "—Product Lines," respectively.

(for the year ended December 31, in millions)	2019	2018	2017	% of Total 2019
By market:				
Domestic:				
Select Accounts	\$ 2,911	\$ 2,828	\$ 2,800	18.6%
Middle Market	8,630	8,214	7,756	55.2
National Accounts	1,051	1,025	1,010	6.7
National Property and Other	1,965	1,805	1,691	12.6
Total Domestic	14,557	13,872	13,257	93.1
International	1,072	1,084	1,013	6.9
Total Business Insurance by market	\$ 15,629	\$ 14,956	\$ 14,270	100.0%
By product line:				
Domestic:				
Workers' compensation	\$ 3,806	\$ 3,840	\$ 3,926	24.3%
Commercial automobile	2,736	2,518	2,219	17.5
Commercial property	2,014	1,867	1,772	12.9
General liability	2,416	2,227	2,086	15.4
Commercial multi-peril	3,542	3,390	3,228	22.7
Other	43	30	26	0.3
Total Domestic	14,557	13,872	13,257	93.1
International	1,072	1,084	1,013	6.9
Total Business Insurance by product line	\$ 15,629	\$ 14,956	\$ 14,270	100.0%

Principal Markets and Methods of Distribution

Business Insurance markets and distributes products through approximately 9,400 independent agencies and brokers. Agencies and brokers are serviced by 101 field offices and supported by customer service centers where the Company performs services for agents for a fee and centralized business centers where the Company processes new and renewal business that meet certain underwriting criteria.

Business Insurance builds relationships with well-established, independent insurance agencies and brokers. In selecting new independent agencies and brokers to distribute its products, Business Insurance considers, among other attributes, each agency's or broker's financial strength, staff experience and strategic fit with the Company's operating and marketing plans. Once an agency or broker is appointed, Business Insurance carefully monitors its performance. The majority of products offered in the United States are distributed through independent agents and brokers, many of whom also sell the Company's Personal Insurance and Bond & Specialty Insurance products. Business Insurance continues to make significant investments to enable real-time interface capabilities with its independent agencies and brokers.

Domestic

- Select Accounts markets and distributes products and services to small businesses, generally with fewer than 50 employees, through a large network of independent agents and brokers. Products offered by Select Accounts are guaranteed-cost policies, including packaged products covering property and liability exposures. Each small business risk is independently evaluated via an automated underwriting platform which in turn enables agents to quote, bind and issue a substantial amount of new small business risks in an efficient manner. Risks with more complex characteristics are underwritten with the assistance of Company personnel.
- Middle Market markets and distributes products and services primarily to mid-sized businesses with 50 to 1,000 employees through a large network of independent agents and brokers. The Company offers a full line of products to its Middle Market customers with an emphasis on guaranteed-cost programs. Each account is underwritten based on the unique risk characteristics, loss history and coverage needs of the account. The ability to underwrite at this detailed level allows Middle Market to have a broad risk appetite and a diversified customer base. Within Middle Market, products and services are tailored to certain targeted industry segments of significant size and complexity that require unique underwriting, claims handling services, risk management or other insurance-related products and services.

- National Accounts markets and distributes products and services to large companies through a network of national and regional brokers. Products offered by National Accounts are primarily casualty programs that utilize loss-sensitive products, such as large deductible, and to a lesser extent, retrospectively rated insurance and self-insured retention plans. National Accounts also offers insurance-related services, such as claims administration, risk management, loss control and risk management information services through Constitution State Services LLC, a wholly-owned subsidiary of the Company. The commercial residual market business of National Accounts services approximately 38% of the total workers' compensation assigned risk market, making the Company one of the largest servicing carriers in the industry.
- National Property and Other markets and distributes products and services to a wide customer base, providing traditional and customized insurance programs to a broad range of customer sizes through a large network of agents and brokers. National Property and Other also markets and distributes its products through brokers, wholesale agents, program managers and specialized retail agents who operate in certain markets that are not typically served by the Company's appointed retail agents, or who maintain certain affinity arrangements in specialized market segments. The wholesale excess and surplus lines market, which is characterized by the absence of rate and form regulation, allows for more pricing and coverage flexibility to write certain classes of business. In working with agents or program managers on a brokerage basis, National Property and Other underwrites the business internally and sets the premium level. In working with agents or program managers with delegated underwriting authority, the agents produce and underwrite business subject to pricing and underwriting guidelines that have been specifically designed for each facility or program.

International markets and distributes products principally through brokers in each of the countries in which it operates. International also writes business at Lloyd's, where its products are distributed through Lloyd's wholesale and retail brokers. By virtue of Lloyd's worldwide licenses, Business Insurance has access to international markets across the world.

Pricing and Underwriting

Business Insurance utilizes underwriting, claims, engineering, actuarial and product development disciplines for particular industries, together with extensive amounts of proprietary data gathered and analyzed over many years, as well as third-party data, to facilitate its risk selection process and develop pricing parameters. Business Insurance utilizes both standard industry forms and proprietary forms for the insurance policies it issues.

A portion of business in this segment, particularly in National Accounts and Construction, is written with large deductible insurance policies. Under workers' compensation insurance contracts with large deductible features, the Company is obligated to pay the claimant the full amount of the claim. The Company is subsequently reimbursed by the contractholder for the deductible amount and, as a result, is subject to credit risk until such reimbursement is made. At December 31, 2019, contractholder payables on unpaid losses within the deductible layer of large deductible policies and the associated receivables were both approximately \$4.62 billion. Business Insurance also utilizes retrospectively rated policies for a portion of its business, primarily for workers' compensation coverage. Although the retrospectively rated feature of the policy substantially reduces insurance risk for the Company, it introduces additional credit risk to the Company. Premiums receivable from holders of retrospectively rated policies totaled approximately \$91 million at December 31, 2019. Significant collateral, primarily letters of credit and, to a lesser extent, cash collateral, trusts or surety bonds, is generally obtained for large deductible plans and/or retrospectively rated policies that provide for deferred collection of deductible recoveries and/or ultimate premiums. The amount of collateral requested is based upon the creditworthiness of the customer and the nature of the insured risks. Business Insurance continually monitors the credit exposure on individual accounts and the adequacy of collateral. For additional information concerning credit risk in certain of the Company's businesses, see "Item 1A—Risk Factors—We are exposed to credit risk in certain of our insurance operations and with respect to certain guarantee or indemnification arrangements that we have with third parties."

Product Lines

Business Insurance provides the following types of products and services:

Domestic

• Workers' Compensation. Provides coverage for employers for specified benefits payable under state or federal law for workplace injuries to employees. There are typically four types of benefits payable under workers' compensation policies: medical benefits, disability benefits, death benefits and vocational rehabilitation benefits. The Company emphasizes managed care cost containment strategies, which involve employers, employees and care providers in a collaborative effort that focuses on the injured employee's early return to work and cost-effective quality care. The Company offers the following types of workers' compensation products:

- guaranteed-cost insurance products, where the premiums charged are not adjusted for actual loss experience during the covered period;
- loss-sensitive insurance products, including large deductible and retrospectively rated policies, where fees or premiums
 are adjusted based on actual loss experience of the insured during the policy period; and
- service programs, which are generally sold to the Company's National Accounts customers, where the Company
 receives fees rather than premiums for providing loss prevention, risk management, and claim and benefit
 administration services.

The Company also participates in state assigned risk pools as a servicing carrier and pool participant.

- Commercial Automobile. Provides coverage for businesses against losses incurred from personal bodily injury, bodily injury to third parties, property damage to an insured's vehicle and property damage to other vehicles and other property resulting from the ownership, maintenance or use of automobiles and trucks in a business.
- Commercial Property. Provides coverage for loss of or damage to buildings, inventory and equipment resulting from a variety of events, including, among others, hurricanes and other windstorms, tornadoes, earthquakes, hail, wildfires, severe winter weather, floods, volcanic eruptions, tsunamis, theft, vandalism, fires, explosions, terrorism and financial loss due to business interruption resulting from covered property damage. Commercial property also includes specialized equipment insurance, which provides coverage for loss or damage resulting from the mechanical breakdown of boilers and machinery, and ocean and inland marine insurance, which provides coverage for goods in transit and unique, one-of-a-kind exposures.
- General Liability. Provides coverages for businesses against third-party claims arising from accidents occurring on their premises or arising out of their operations, including as a result of injuries sustained from products sold. Coverages may also include directors' and officers' liability arising in their official capacities, employment practices liability insurance, fiduciary liability for trustees and sponsors of pension, health and welfare, and other employee benefit plans, errors and omissions insurance for employees, agents, professionals and others arising from acts or failures to act under specified circumstances, cyber liability, as well as umbrella and excess insurance.
- Commercial Multi-Peril. Provides a combination of the property and liability coverages described in the foregoing product line descriptions.

International

Provides coverage for employers' liability (similar to workers' compensation coverage in the United States), public and product liability (the equivalent of general liability), professional indemnity (similar to professional liability coverage), commercial property, commercial automobile, marine, aviation, onshore and offshore energy, construction, terrorism, personal accident and kidnap & ransom. Marine provides coverage for ship hulls, cargoes carried, private yachts, marine-related liability, ports and terminals, and fine art. Aviation provides coverage for worldwide aviation risks including physical damage and liabilities for airline, aerospace, general aviation, aviation war and space risks. Personal accident provides financial protection in the event of death or disablement due to accidental bodily injury, while kidnap & ransom provides financial protection against kidnap, hijack, illegal detention and extortion. While the covered hazards may be similar to those in the U.S. market, the different legal environments can make the product risks and coverage terms very different from those the Company faces in the United States.

Net Retention Policy Per Risk

The following discussion reflects the Company's retention policy with respect to Business Insurance as of January 1, 2020. For third-party liability, Business Insurance generally limits its net retention, through the use of reinsurance, to a maximum of \$14.0 million per insured, per occurrence, subject further to a significant aggregate annual deductible. For property exposures, Business Insurance generally limits its net retention, through the use of reinsurance, to a maximum amount per risk of \$21.0 million per occurrence. Business Insurance generally retains its workers' compensation exposures. Reinsurance treaties often have aggregate limits or caps which may result in larger net per-risk retentions if the aggregate limits or caps are reached. Business Insurance utilizes facultative reinsurance to provide additional limits capacity or to reduce retentions on an individual risk basis. Business Insurance may also retain amounts greater than those described herein based upon the individual characteristics of the risk.

Geographic Distribution

The following table shows the geographic distribution of Business Insurance's direct written premiums for the year ended December 31, 2019:

Location	% of Total
Domestic:	
California	12.1%
New York	9.8
Texas	7.1
Illinois	4.5
Florida	4.0
Pennsylvania	3.9
New Jersey	3.8
Massachusetts	3.1
All other domestic (1)	45.9
Total Domestic	94.2
International:	
Canada	3.0
All other international (1)	2.8
Total International	5.8
Total Business Insurance	100.0%

⁽¹⁾ No other single state or country accounted for 3.0% or more of Business Insurance's direct written premiums in 2019.

Competition

The insurance industry is represented in the commercial marketplace by many insurance companies of varying size as well as other entities offering risk alternatives, such as self-insured retentions or captive programs. Market competition operates within the insurance regulatory framework to set the price charged for insurance products and the levels of coverage and service provided. A company's success in the competitive commercial insurance landscape is largely measured by its ability to profitably provide insurance and services, including claims handling and risk management, at prices and terms that retain existing customers and attract new customers. See "Item 1A—Risk Factors—The intense competition that we face, and the impact of innovation, technological change and changing customer preferences on the insurance industry and the markets in which we operate, could harm our ability to maintain or increase our business volumes and our profitability."

Domestic

Competitors typically write Select Accounts business through independent agents and brokers and, to a lesser extent, as direct writers. Both national (including international companies doing business in the U.S.) and regional property and casualty insurance companies compete in the Select Accounts market which generally comprises lower-hazard, "Main Street" business customers. Risks are underwritten and priced using standard industry practices and a combination of proprietary and standard industry product offerings. Competition in this market is focused on ease and speed of doing business and price.

Competitors typically write Middle Market business through independent agents and brokers. Several of Middle Market's operations require unique combinations of industry knowledge, customized coverage, specialized risk control and loss handling services, along with partnerships with agents and brokers that also focus on these markets. Competitors in this market are primarily national property and casualty insurance companies (including international companies doing business in the U.S.) that write most classes of business using traditional products and pricing, and regional insurance companies. Companies compete based on product offerings, service levels, price, claim and loss prevention services and ease and speed of doing business. Efficiency through automation and response time to agent, broker and customer needs is one key to success in this market.

In the National Accounts market, competition is based on price, product offerings, claim and loss prevention services, managed care cost containment, risk management information systems and collateral requirements. National Accounts primarily competes

with national property and casualty insurance companies (including international companies doing business in the U.S.), as well as with other underwriters of property and casualty insurance in the alternative risk transfer market, such as self-insurance plans, captives managed by others, third-party administrators and a variety of other risk-financing vehicles and mechanisms. The residual market division competes for state contracts to provide claims and policy management services.

National Property and Other competes in focused target markets. Each of these markets is different and requires unique combinations of industry knowledge, customized coverage, specialized risk management and claims handling services, along with partnerships with agents and brokers that also focus on these markets. Some of these businesses compete with national carriers (including international companies doing business in the U.S.) with similarly dedicated underwriting and marketing groups, whereas others compete with smaller regional companies. Specialized agents and brokers, including wholesale agents and program managers, supplement this focused target market approach. National Property and Other's competitive strategy typically is based on the application of focused industry knowledge to insurance and risk needs.

International

International competes with numerous international and domestic insurers in Canada, the United Kingdom and the Republic of Ireland. Companies compete on the basis of price, product offerings, distribution partnerships, the level of claim and risk management services provided and the ease and speed of doing business. The Company has developed expertise in various markets in these countries similar to those served in the United States and provides both property and casualty coverage for these markets.

At Lloyd's, International competes with other syndicates operating in the Lloyd's market as well as international and domestic insurers in the various markets where the Lloyd's operation writes business worldwide, with an emphasis on short-tail insurance lines. Competition is based on price, product and service.

BOND & SPECIALTY INSURANCE

Bond & Specialty Insurance provides surety, fidelity, management liability, professional liability, and other property and casualty coverages and related risk management services to its customers in the United States and certain surety and specialty insurance products in Canada, the United Kingdom, the Republic of Ireland and Brazil (through a joint venture as described below), utilizing various degrees of financially-based underwriting approaches. The range of coverages includes performance, payment and commercial surety bonds for construction and general commercial enterprises; fidelity insurance for private companies, not-for-profit organizations and financial institutions; management liability coverages including directors' and officers' liability, employment practices liability, fiduciary liability and cyber risk for public corporations, private companies, not-for-profit organizations and financial institutions; professional liability coverage for a variety of professionals including, among others, lawyers and design professionals; and in the United States only, property, workers' compensation, auto and general liability for financial institutions.

Bond & Specialty Insurance's surety business in Brazil and Colombia is conducted through Junto Holding Brasil S.A. (Junto) and Junto Holding Latam S.A. in Brazil. The Company owns 49.5% of both Junto, a market leader in surety coverages in Brazil, and Junto Holding Latam S.A., which owns a majority interest in JMalucelli Travelers Seguros S.A., a Colombian surety provider. These joint venture investments are accounted for using the equity method and are included in "other investments" on the consolidated balance sheet.

Selected Product Information

The following table sets forth Bond & Specialty Insurance's net written premiums by product line for the periods indicated. For a description of the product lines referred to in the table, see "—Product Lines." In addition, see "—Principal Markets and Methods of Distribution" for a discussion of distribution channels for Bond & Specialty Insurance's product lines.

(for the year ended December 31, in millions)	2019	2018	2017	% of Total 2019
Domestic:				
Fidelity and surety	\$ 1,089	\$ 1,049	\$ 993	39.8%
General liability	1,148	1,037	977	41.9
Other	234	204	190	8.5
Total Domestic	2,471	2,290	2,160	90.2
International	268	238	199	9.8
Total Bond & Specialty Insurance	\$ 2,739	\$ 2,528	\$ 2,359	100.0%

Principal Markets and Methods of Distribution

Bond & Specialty Insurance markets and distributes the vast majority of its products in the United States through approximately 5,000 of the same independent agencies and brokers that distribute Business Insurance's products in the United States. Bond & Specialty Insurance builds relationships with well-established, independent insurance agencies and brokers. In selecting new independent agencies and brokers to distribute its products, Bond & Specialty Insurance considers, among other attributes, each agency's or broker's profitability, financial stability, staff experience and strategic fit with its operating and marketing plans. Once an agency or broker is appointed, its ongoing performance is closely monitored. Bond & Specialty Insurance continues to make investments to enable real-time interface capabilities with its independent agencies and brokers.

Pricing and Underwriting

Bond & Specialty Insurance utilizes underwriting, claims, engineering, actuarial and product development disciplines for specific accounts and industries, together with extensive amounts of proprietary data gathered and analyzed over many years, as well as third-party data, to facilitate its risk selection process and develop pricing parameters. Bond & Specialty Insurance utilizes both standard industry forms and proprietary forms for the insurance policies it issues.

Product Lines

Bond & Specialty Insurance writes the following types of coverages:

Domestic

- **Fidelity and Surety.** Provides fidelity insurance coverage, which protects an insured for loss due to embezzlement or misappropriation of funds by an employee, and surety, which is a three-party agreement whereby the surety company agrees to pay a third party or complete an obligation in response to the default, acts or omissions of a bonded party. Surety bonds are generally provided for construction performance, legal matters such as appeals, trustees in bankruptcy and probate and other performance obligations.
- **General Liability.** Provides coverage for specialized liability exposures as described above in more detail in the "Business Insurance" section of this report.
- Other. Coverages include Commercial Property, Workers' Compensation, Commercial Automobile and Commercial Multi-Peril, which are described above in more detail in the "Business Insurance" section of this report.

International

 Fidelity and Surety and certain General Liability products, as well as cyber risk coverages, are provided internationally to various customer groups.

Net Retention Policy Per Risk

The following discussion reflects the Company's retention policy with respect to Bond & Specialty Insurance as of January 1, 2020. For third party liability, including but not limited to directors' and officers' liability, professional liability, employment practices liability, fidelity liability, fiduciary liability and cyber risk liability, Bond & Specialty Insurance generally limits net retentions to \$25.0 million per policy. For surety, where limits are often significant, Bond & Specialty Insurance generally retains up to \$122.5 million probable maximum loss (PML) per principal, after reinsurance, but may retain higher amounts based on the

type of obligation, credit quality and other credit risk factors. Reinsurance treaties often have aggregate limits or caps which may result in larger net per risk retentions if the aggregate limits or caps are reached. Bond & Specialty Insurance utilizes facultative reinsurance to provide additional limits capacity or to reduce retentions on an individual risk basis. Bond & Specialty Insurance may also retain amounts greater than those described herein based upon the individual characteristics of the risk.

Geographic Distribution

The following table shows the geographic distribution of Bond & Specialty Insurance's direct written premiums for the year ended December 31, 2019:

Location	% of Total
Domestic:	
California	10.2%
Texas	6.7
New York	6.7
Florida	5.1
Illinois	4.2
Pennsylvania	3.5
All other domestic (1)	53.6
Total Domestic	90.0
International:	
United Kingdom	5.1
Canada	4.0
All other international (1)	0.9
Total International	10.0
Total Bond & Specialty Insurance	100.0%

⁽¹⁾ No other single state or country accounted for 3.0% or more of Bond & Specialty Insurance's direct written premiums in 2019.

Competition

The competitive landscape in which Bond & Specialty Insurance operates is affected by many of the same factors described previously for Business Insurance. Competitors in this market are primarily national property and casualty insurance companies (including international companies doing business in the U.S.) that write most classes of business and, to a lesser extent, regional insurance companies and companies that have developed niche programs for specific industry segments.

Domestic

Bond & Specialty Insurance underwrites and markets its products to all sizes of businesses and other organizations, as well as individuals. The Company believes that its reputation for timely and consistent decision making, a nationwide network of local underwriting, claims and industry experts and strong producer and customer relationships, as well as its ability to offer its customers a full range of products, provides Bond & Specialty Insurance an advantage over many of its competitors and enables it to compete effectively in a complex, dynamic marketplace. The Company believes that the ability of Bond & Specialty Insurance to cross-sell its products to customers of Business Insurance and Personal Insurance provides additional competitive advantages for the Company. See "Item 1A—Risk Factors—The intense competition that we face, and the impact of innovation, technological change and changing customer preferences on the insurance industry and the markets in which we operate, could harm our ability to maintain or increase our business volumes and our profitability."

International

International competes with numerous international and domestic insurers in Canada, the United Kingdom, the Republic of Ireland, and in Brazil and Colombia through joint ventures. Companies compete on the basis of price, product offerings, the level of claim

and risk management services provided and the ease and speed of doing business. The Company has developed expertise in various markets in these countries similar to those served in the United States and provides certain specialty coverages for these markets.

PERSONAL INSURANCE

Personal Insurance writes a broad range of property and casualty insurance covering individuals' personal risks, primarily in the United States, as well as in Canada. The primary products of automobile and homeowners insurance are complemented by a broad suite of related coverages.

Selected Product and Distribution Channel Information

The following table sets forth net written premiums for Personal Insurance's business by product line for the periods indicated. For a description of the product lines referred to in the following table, see "—Product Lines." In addition, see "—Principal Markets and Methods of Distribution" for a discussion of distribution channels for Personal Insurance's product lines.

(for the year ended December 31, in millions)		2019		2018		2017	% of Total 2019	
Domestic:								
Agency:								
Automobile	\$	5,124	\$	4,972	\$	4,646	47.5%	
Homeowners and Other		4,540		4,148		3,933	42.1	
Total Agency		9,664		9,120		8,579	89.6	
Direct-to-Consumer		412		396		361	3.8	
Total Domestic		10,076		9,516		8,940	93.4	
International		707		708		650	6.6	
Total Personal Insurance	\$	10,783	\$	10,224	\$	9,590	100.0%	

Principal Markets and Methods of Distribution

Domestic

Personal Insurance products are marketed and distributed primarily through approximately 9,900 active independent agencies located throughout the United States, supported by personnel in eight sales regions. In addition, sales and service are provided to customers through five contact centers. While the principal markets for Personal Insurance products continue to be in states along the East Coast, California and Texas, the business continues to expand its geographic presence across the United States.

In selecting new independent agencies to distribute its products, Personal Insurance considers, among other attributes, each agency's profitability, financial stability, staff experience and strategic fit with its operating and marketing plans. Once an agency is appointed, Personal Insurance carefully monitors its performance.

Agents can access the Company's agency service portal for a number of resources including customer service, marketing and claims management. In addition, agencies can choose to shift the ongoing service responsibility for Personal Insurance's customers to one of the Company's Customer Care Centers, where the Company provides, on behalf of an agency, a comprehensive array of customer service needs, including response to billing and coverage inquiries, and policy changes. Approximately 1,950 agents take advantage of this service alternative, for which they generally pay a fee.

Personal Insurance also markets and distributes its products through additional channels, including corporations that make the Company's product offerings available to their employees primarily through payroll deductions, consumer associations and affinity groups. Personal Insurance handles the sales and service for these programs either through a sponsoring independent agent or through the Company's contact center locations. In addition, since 1995, the Company has had a distribution agreement with GEICO to underwrite homeowners business for certain of their auto customers.

The Company also markets its insurance products directly to consumers, largely through online channels. The Company's direct-to-consumer business continues to grow but still represents modest premium volume for Personal Insurance.

International

International markets and distributes its products principally through approximately 600 brokers located throughout Canada.

Pricing and Underwriting

Personal Insurance has developed a product management methodology that integrates the disciplines of underwriting, claims, actuarial and product development. This approach is designed to maintain high-quality underwriting discipline and pricing segmentation. Proprietary and third-party data accumulated over many years is analyzed, and Personal Insurance uses a variety of risk differentiation models to facilitate its pricing segmentation and underwriting. The Company's product management area establishes underwriting guidelines integrated with its filed pricing and rating plans, which enable Personal Insurance to effectively execute its risk selection and pricing processes.

Domestic

Pricing for personal automobile insurance is driven in large part by changes in the frequency of claims and changes in severity, including inflation in the cost of automobile repairs, medical care and resolution of liability claims. Pricing in the homeowners business is driven in large part by changes in the frequency of claims and changes in severity, including inflation in the cost of building supplies, labor and household possessions. In addition to the normal risks associated with any multiple peril coverage, the profitability and pricing of both homeowners and automobile insurance are affected by the incidence of catastrophes and other weather-related events. Insurers writing personal lines property and casualty policies may be unable to increase prices until some time after the costs associated with coverage have increased, primarily because of state insurance rate regulation. The pace at which an insurer can change rates in response to increased costs depends, in part, on whether the applicable state law requires prior approval of rate increases or notification to the regulator either before or after a rate change is imposed. In states with prior approval laws, rates must be approved by the regulator before being used by the insurer. In states having "file-and-use" laws, the insurer must file rate changes with the regulator, but does not need to wait for approval before using the new rates. A "use-and-file" law requires an insurer to file rates within a period of time after the insurer begins using the new rate. Approximately one-half of the states require prior approval of most rate changes. In addition, changes to methods of marketing and underwriting in some jurisdictions are subject to state-imposed restrictions, which can make it more difficult for an insurer to significantly manage catastrophe exposures.

The Company's ability or willingness to raise prices, modify underwriting terms or reduce exposure to certain geographies may be limited due to considerations of public policy, the competitive environment, the evolving political and legislative environment and/or changes in the general economic climate. The Company also may choose to write business it might not otherwise write in some states for strategic purposes, such as improving access to other commercial or personal underwriting opportunities. In choosing to write business in some states, the Company also considers the costs and benefits of those states' residual markets and guaranty funds, as well as other property and casualty business the Company writes in those states.

International

Pricing and underwriting for personal automobile and homeowners insurance in Canada is driven in large part by the same factors as in the United States. For personal automobile insurance, all provinces in Canada require prior approval before rates are implemented.

Product Lines

Domestic

The primary coverages in Personal Insurance are personal automobile and homeowners and other insurance sold to individuals. Personal Insurance had approximately 7.9 million active policies (i.e., policies-in-force) in the United States at December 31, 2019.

Personal Insurance writes the following types of coverages:

- **Personal Automobile** provides coverage for liability to others for both bodily injury and property damage, uninsured motorist protection, and for physical damage to an insured's own vehicle from collision, fire, flood, hail and theft. In addition, many states require policies to provide first-party personal injury protection, frequently referred to as no-fault coverage.
- Homeowners and Other provides protection against losses to dwellings and contents from a variety of perils (excluding flooding) as well as coverage for personal liability. The Company writes homeowners insurance for dwellings, condominiums and tenants, and rental properties. The Company also writes coverage for boats and yachts and valuable personal items such as jewelry, and also writes coverages for umbrella liability, identity fraud, and weddings and special events.

International

• **International** provides automobile and homeowners and other coverages in Canada (similar to coverages in the United States). Personal Insurance had approximately 536,000 active policies in Canada at December 31, 2019.

Net Retention Policy Per Risk

The following discussion reflects the Company's retention policy with respect to Personal Insurance as of January 1,2020. Personal Insurance generally retains its primary personal auto exposures in their entirety. For personal property insurance, there is an \$8.0 million maximum retention per risk, net of reinsurance. Personal Insurance uses facultative reinsurance to provide additional limits capacity or to reduce retentions on an individual risk basis. Personal Insurance issues umbrella policies up to a maximum limit of \$10.0 million per risk. Personal Insurance may also retain amounts greater than those described herein based upon the individual characteristics of the risk.

Geographic Distribution

The following table shows the geographic distribution of Personal Insurance's direct written premiums for the year ended December 31, 2019:

Location	% of Total
Domestic:	
New York	10.0%
Texas (1)	9.9
California	6.6
Pennsylvania	5.3
Georgia	5.0
New Jersey	4.4
Florida	4.2
Virginia	3.6
Colorado	3.3
South Carolina	3.1
Maryland	3.0
All other domestic (2)	35.2
Total Domestic	93.6
International:	
Canada	6.4
Total International	6.4
Total Personal Insurance	100.0%

⁽¹⁾ The percentage for Texas includes business written by the Company through a fronting agreement with another insurer.

⁽²⁾ No other single state accounted for 3.0% or more of Personal Insurance's direct written premiums in 2019.

Competition

Domestic

Although national companies (including international companies doing business in the U.S.) write the majority of this business, Personal Insurance also faces competition from many regional and hundreds of local companies. Competitors write business through independent agents and as direct writers, either through the use of exclusive agents, salaried employees or direct marketing strategies. Personal Insurance primarily competes based on breadth of product offerings, price, service (including claims handling), ease and speed of doing business, stability of the insurer and name recognition. Personal Insurance competes for business within each independent agency since these agencies also offer policies of competing companies. Most independent personal insurance agents utilize price comparison rating technology, sometimes referred to as "comparative raters," as a cost-efficient means of obtaining quotes from multiple companies. Because the use of this technology facilitates the process of generating multiple quotes, the technology has increased price comparison on new business and, increasingly, on renewal business.

International

Personal Insurance competes with numerous international and domestic insurers in Canada. Companies compete on the basis of price, breadth of product offerings, the level of claim and risk management services provided and the ease and speed of doing business. The Company has developed expertise in various markets in Canada similar to those served in the United States and provides both automobile and homeowners and other coverages for this market.

See "Item 1A—Risk Factors—The intense competition that we face, and the impact of innovation, technological change and changing customer preferences on the insurance industry and the markets in which we operate, could harm our ability to maintain or increase our business volumes and our profitability."

CLAIMS MANAGEMENT

The Company's claim functions are managed through its Claims Services organization, with locations in the United States and in the other countries where it does business. With more than 12,000 employees, Claims Services employs a group of professionals with diverse skills, including claim adjusters, appraisers, attorneys, investigators, engineers, accountants, nurses, data and analytics professionals, system specialists and training, management and support personnel. Approved external service providers, such as investigators, attorneys and, when necessary, independent adjusters and appraisers, are available for use as appropriate.

United States field claim management teams located in 16 claim centers and 51 satellite and specialty-only offices in 44 states are organized to maintain focus on the specific claim characteristics unique to the businesses within the Company's business segments. Claim teams with specialized skills, required licenses, resources and workflows are matched to the unique exposures of those businesses, with local claims management dedicated to achieving optimal results within each segment, including acting as a third party administrator for large customers who self-insure and retain the Company to handle their claims process on a fee-for-service basis. The Company's home office operations provide additional support in the form of workflow design, quality management, information technology, advanced management information and data analysis, training, financial reporting and control, and human resources strategy. This structure permits the Company to maintain the economies of scale of a large, established company while retaining the agility to respond promptly to the needs of customers, brokers, agents and underwriters. Claims management for International, while generally provided locally by staff in the respective international locations due to local knowledge of applicable laws and regulations, is also managed by the Company's Claims Services organization in the United States to leverage that knowledge base and to share best practices.

An integral part of the Company's strategy to benefit customers and shareholders is its continuing industry leadership in the fight against insurance fraud through its Investigative Services unit. The Company has a nationwide staff of experts who investigate a wide array of insurance fraud schemes using in-house forensic resources and other technological tools. This staff also has specialized expertise in fire scene examinations, medical provider fraud schemes, law firm fraud schemes and data mining. The Company also dedicates investigative resources to ensure that violations of law are reported to and prosecuted by law enforcement agencies.

Claims Services uses technology, management information and data analysis to assist the Company in reviewing its claim practices and results in order to evaluate and improve its claims management performance. The Company's claims-management strategy is focused on segmentation of claims and appropriate technical specialization to drive effective claim resolution. The Company continually monitors its investment in claim resources to maintain an effective focus on claim outcomes and a disciplined approach to continual improvement. The Company operates a state-of-the-art claims-training facility which offers hands-on experiential learning to help ensure that its claim professionals are properly trained. In recent years, the Company has invested significant

additional resources in many of its claims handling operations, including the utilization of drone technology, and routinely monitors the effect of those investments to ensure a consistent optimization among outcomes, cost and service.

Claims Services' catastrophe response strategy is to respond to a significant catastrophic event using its own personnel, enabling it to minimize reliance on independent adjusters and appraisers. The Company has developed a large dedicated catastrophe response team and trained a large Enterprise Response Team of existing employees who can be deployed on short notice in the event of a catastrophe that generates claim volume exceeding the capacity of the dedicated catastrophe response team. In recent years, these internal resources were successfully deployed to respond to a significant level of catastrophe claims.

REINSURANCE

The Company reinsures a portion of the risks it underwrites in order to manage its exposure to losses and to protect its capital. The Company cedes to reinsurers a portion of these risks and pays premiums based upon the risk and exposure of the policies subject to such reinsurance. The Company utilizes a variety of reinsurance agreements to manage its exposure to large property and casualty losses, including facultative as well as catastrophe and individual risk treaties. Ceded reinsurance involves credit risk, except with regard to mandatory pools and associations, and is predominantly subject to aggregate loss limits. Although the reinsurer is liable to the Company to the extent of the reinsurance ceded, the Company remains liable as the direct insurer on all risks reinsured. Reinsurance recoverables are reported after reductions for known insolvencies and after allowances for uncollectible amounts. The Company also holds collateral, including trust agreements, escrow funds and letters of credit, under certain reinsurance agreements. The Company monitors the financial condition of reinsurers on a regular basis and reviews its reinsurance arrangements periodically. Reinsurers are selected based on their financial condition, business practices, the price of their product offerings and the value of collateral provided. After reinsurance is purchased, the Company has limited ability to manage the credit risk of a reinsurer. In addition, in a number of jurisdictions, particularly the European Union and the United Kingdom and a small number of U.S. states, a reinsurer is permitted to transfer a reinsurance arrangement to another reinsurer, which may be less creditworthy, without a counterparty's consent, provided that the transfer has been approved by the applicable regulatory and/or court authority.

For additional information regarding reinsurance, see note 5 of notes to the consolidated financial statements and "Item 1A—Risk Factors." For a description of reinsurance-related litigation, see note 16 of notes to the consolidated financial statements.

Catastrophe Reinsurance

Catastrophes include hurricanes, tornadoes and other windstorms, earthquakes, hail, wildfires, severe winter weather, floods, tsunamis, volcanic eruptions, solar flares and other naturally-occurring events. Catastrophes can also result from terrorist attacks and other intentionally destructive acts including those involving nuclear, biological, chemical and radiological events, cyber events, explosions and destruction of infrastructure. The incidence and severity of catastrophes are inherently unpredictable. The extent of losses from a catastrophe is a function of both the total amount of insured exposure affected by the event and the severity of the event. Most catastrophes are restricted to small geographic areas; however, hurricanes, earthquakes, wildfires and cyber attacks may produce significant damage in larger areas, especially those areas that are heavily populated. The Company generally seeks to manage its exposure to catastrophes through individual risk selection and the purchase of catastrophe reinsurance. In addition to the Company's catastrophe reinsurance coverages, the Company is also party to other reinsurance treaties that can provide additional coverage for losses arising from catastrophes, as described in the "Net Retention Policy Per Risk" sections of the respective segment discussions above. The Company conducts reviews of its risk and catastrophe coverages on a regular basis and makes changes as it deems appropriate. The following discussion summarizes the Company's catastrophe reinsurance coverage at January 1, 2020.

Corporate Catastrophe Excess-of-Loss Reinsurance Treaty. This treaty covers the accumulation of certain property losses arising from one or multiple occurrences for the period January 1, 2020 through and including December 31, 2020. The treaty provides for recovery of 75% of the dollar amount of each qualifying loss in excess of a \$3.0 billion retention, up to a maximum amount of qualifying losses of \$2.0 billion (i.e. for every dollar of loss between \$3.0 billion and \$5.0 billion this treaty provides for 75 cents of coverage). Therefore, the maximum recovery under the treaty would be \$1.5 billion. Qualifying losses for each occurrence are after a \$100 million deductible. The treaty covers all of the Company's exposures in North America and all waters contiguous thereto. The treaty only provides coverage for terrorism events in limited circumstances and excludes entirely losses arising from nuclear, biological, chemical or radiological attacks.

Underlying Property Aggregate Catastrophe Excess-of-Loss Reinsurance Treaty. This treaty covers the accumulation of certain property losses arising from one or multiple occurrences for the period January 1,2020 through and including December 31,2020. The treaty provides for up to \$280 million part of \$500 million of coverage, subject to a \$1.55 billion retention (i.e. for every dollar of loss between \$1.55 billion and \$2.05 billion this treaty provides for 56 cents of coverage), of aggregate qualifying losses.

Qualifying losses are subject to a \$5 million franchise deductible per occurrence, so that qualifying catastrophic events at or greater than \$5 million count toward the aggregate retention from dollar one. Coverage for, and contributions to the \$1.55 billion retention from, hurricanes and/or tropical storms and earthquakes are limited to \$250 million per event. The treaty covers property perils for PCS events in North America and all waters contiguous thereto. The treaty excludes most losses arising from cyber and terrorism, including nuclear, biological, chemical or radiological.

Catastrophe Bonds. The Company has catastrophe protection through an indemnity reinsurance agreement with Long Point Re III Ltd. (Long Point Re III), an independent Cayman Islands company licensed as a Class C insurer in the Cayman Islands. The reinsurance agreement meets the requirements to be accounted for as reinsurance in accordance with the guidance for reinsurance contracts. In connection with the reinsurance agreement, Long Point Re III issued notes (generally referred to as "catastrophe bonds") to investors in amounts equal to the full coverage provided under the reinsurance agreement as described below. The proceeds were deposited in a reinsurance trust account. The businesses covered by this reinsurance agreement are subsets of the Company's overall insurance portfolio, comprising specified property coverages spread across the following geographic locations: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia and Vermont.

The reinsurance agreement provides coverage of up to \$500 million to the Company through May 24, 2022 for certain losses from tropical cyclones, earthquakes, severe thunderstorms or winter storms in the locations listed above. The attachment point and maximum limit under this agreement are reset annually to adjust the expected loss of the layer within a predetermined range. Until and including May 24, 2020, the Company is entitled to begin recovering amounts under this reinsurance agreement if the covered losses in the covered area for a single occurrence reach an initial attachment amount of \$1.79 billion. The full \$500 million coverage amount is available until such covered losses reach a maximum \$2.29 billion. The coverage under the reinsurance agreement is limited to specified property coverage written in Personal Insurance; Select Accounts, Middle Market (excluding Excess Casualty and Boiler & Machinery) and National Property and Other in Business Insurance; and Bond & Specialty Insurance Other in Bond & Specialty Insurance.

Under the terms of the reinsurance agreement, the Company is obligated to pay annual reinsurance premiums to Long Point Re III for the reinsurance coverage. Amounts payable to the Company under the reinsurance agreement with respect to any covered event cannot exceed the Company's actual losses from such event. The principal amount of the catastrophe bonds will be reduced by any amounts paid to the Company under the reinsurance agreement.

As with any reinsurance agreement, there is credit risk associated with collecting amounts due from reinsurers. With regard to Long Point Re III, the credit risk is mitigated by a reinsurance trust account that has been funded by Long Point Re III with money market funds that invest solely in direct government obligations and obligations backed by the U.S. government with maturities of no more than 13 months. The money market funds must have a principal stability rating of at least AAAm by Standard & Poor's or AAAmmf by Fitch Ratings on the issuance date of the bonds and thereafter must be rated by Standard & Poor's or Fitch Ratings, as applicable. Other permissible investments include money market funds which invest in repurchase and reverse repurchase agreements collateralized by direct government obligations and obligations of any agency backed by the U.S. government with terms of no more than 397 calendar days, and cash.

At the time the agreement was entered into with Long Point Re III, the Company evaluated the applicability of the accounting guidance that addresses variable interest entities or VIEs. Under this guidance, an entity that is formed for business purposes is considered a VIE if: (a) the equity investors lack the direct or indirect ability through voting rights or similar rights to make decisions about an entity's activities that have a significant effect on the entity's operations or (b) the equity investors do not provide sufficient financial resources for the entity to support its activities. Additionally, a company that absorbs a majority of the expected losses from a VIE's activities or is entitled to receive a majority of the entity's expected residual returns, or both, is considered to be the primary beneficiary of the VIE and is required to consolidate the VIE in the company's financial statements.

As a result of the evaluation of the reinsurance agreement with Long Point Re III, the Company concluded that it was a VIE because the conditions described in items (a) and (b) above were present. However, while Long Point Re III was determined to be a VIE, the Company concluded that it did not have a variable interest in the entity, as the variability in its results, caused by the reinsurance agreement, is expected to be absorbed entirely by the investors in the catastrophe bonds issued by Long Point Re III and residual amounts earned by it, if any, are expected to be absorbed by the equity investors (the Company has neither an equity nor a residual interest in Long Point Re III).

Accordingly, the Company is not the primary beneficiary of Long Point Re III and does not consolidate that entity in the Company's consolidated financial statements. Additionally, because the Company has no intention to pursue any transaction that would result in it acquiring interest in and becoming the primary beneficiary of Long Point Re III, the consolidation of that entity in the Company's consolidated financial statements in future periods is unlikely.

The Company has not incurred any losses that have resulted or are expected to result in a recovery under the Long Point Re III agreement since its inception.

Northeast Property Catastrophe Excess-of-Loss Reinsurance Treaty. This treaty provides up to \$600 million part of \$850 million of coverage, subject to a \$2.25 billion retention (i.e., for every dollar of loss between \$2.25 billion and \$3.10 billion, this treaty provides 71 cents of coverage), for losses arising from a single occurrence, subject to one reinstatement. Coverage is provided on an all-perils basis, including but not limited to hurricanes, tornadoes, hail storms, earthquakes and winter storm and/or freeze losses (coverage is included for terrorism events in limited circumstances, but nuclear, biological and radiological attacks are entirely excluded) from Virginia to Maine for the period July 1, 2019 through and including June 30, 2020. Losses from a covered event anywhere in the United States, Canada, the Caribbean and Mexico and waters contiguous thereto may be used to satisfy the retention. Recoveries under the catastrophe bonds (if any) would be first applied to reduce losses subject to this treaty.

Middle Market Earthquake Catastrophe Excess-of-Loss Reinsurance Treaty. This treaty provides for up to \$255 million part of \$250 million of coverage, subject to a \$100 million retention (i.e., for every dollar of loss between \$100 million and \$350 million, this treaty provides 90 cents of coverage), for losses arising from an earthquake, including fire following and sprinkler leakage incurred under policies written by Technology, Public Sector Services and Commercial Accounts in Business Insurance for the period July 1, 2019 through and including June 30, 2020. The treaty covers the United States and Canada, their territories, possessions and waters contiguous thereto.

Personal Insurance Earthquake Catastrophe Excess-of-Loss Reinsurance Treaty. This treaty provides for up to \$200 million of coverage, subject to a \$150 million retention, for losses arising from an earthquake, including fire following and sprinkler leakage incurred under policies written by Personal Insurance for the period January 1, 2020 through and including December 31, 2020. This treaty also provides up to an additional \$50 million of coverage for an earthquake in California only, subject to a \$100 million retention. The treaty covers the United States, its territories, possessions and waters contiguous thereto.

Canadian Property Catastrophe Excess-of-Loss Reinsurance Treaty. This treaty provides coverage for 50% of losses in excess of C\$100 million (US\$77 million at December 31, 2019) up to C\$200 million (US\$154 million at December 31, 2019) and for 100% of losses in excess of C\$200 million (US\$154 million at December 31, 2019) up to C\$600 million (US\$463 million at December 31, 2019), in each case with respect to the accumulation of net property losses arising out of one occurrence on business written by the Company's Canadian businesses for the period July 1, 2019 through and including June 30, 2020. The treaty covers all property written by the Company's Canadian businesses, including, but not limited to, habitational property, commercial property, inland marine, ocean marine and auto physical damages exposures.

Other International Reinsurance Treaties. For other business underwritten in Canada, as well as for business written in the United Kingdom and the Republic of Ireland and in the Company's operations at Lloyd's, separate reinsurance protections are purchased locally that have lower net retentions more commensurate with the size of the respective local balance sheet.

Terrorism Risk Insurance Program. The Terrorism Risk Insurance Program is a Federal program administered by the Department of the Treasury authorized through December 31, 2027 that provides for a system of shared public and private compensation for certain insured losses resulting from certified acts of terrorism. For a further description of the program, including the Company's estimated deductible under the program in 2020, see note 5 of notes to the consolidated financial statements and "Item 1A—Risk Factors—High levels of catastrophe losses, including as a result of factors such as increased concentrations of insured exposures in catastrophe-prone areas, could materially and adversely affect our results of operations, our financial position and/or liquidity, and could adversely impact our ratings, our ability to raise capital and the availability and cost of reinsurance."

CLAIMS AND CLAIM ADJUSTMENT EXPENSE RESERVES

Claims and claim adjustment expense reserves represent management's estimate of the ultimate liability for unpaid losses and loss adjustment expenses for claims that have been reported and claims that have been incurred but not yet reported as of the balance sheet date.

The Company continually refines its reserve estimates as part of a regular ongoing process that includes reviews of key assumptions, underlying variables and historical loss experience. The Company reflects adjustments to reserves in the results of operations in the periods in which the estimates are changed. In establishing reserves, the Company takes into account estimated recoveries for reinsurance, salvage and subrogation. The reserves are reviewed regularly by qualified actuaries employed by the Company. For additional information on the process of estimating reserves and a discussion of underlying variables and risk factors, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates."

The process of estimating loss reserves involves a high degree of judgment and is subject to a number of variables. These variables (discussed by product line in the "Critical Accounting Estimates" section of "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations") are affected by both internal and external events, such as changes in claims handling procedures, inflation, judicial trends, the tort environment and the legislative landscape, among others. The impact of many of these items on ultimate costs for claims and claim adjustment expenses is difficult to estimate. Reserve estimation difficulties also differ significantly by product line due to differences in the underlying insurance contract (e.g., claims-made versus occurrence), claim complexity, the volume of claims, the potential severity of individual claims, the determination of the occurrence date for a claim, and reporting lags (the time between the occurrence of the insured event and when it is actually reported to the insurer). Informed judgment is applied throughout the process.

The Company derives estimates for unreported claims and development with respect to reported claims principally from actuarial analyses of historical patterns of loss development by accident year for each business unit, product line and type of exposure. Similarly, the Company derives estimates of unpaid loss adjustment expenses principally from actuarial analyses of historical development patterns and the relationship of loss adjustment expenses to losses for each product line and type of exposure. For a description of the Company's reserving methods for asbestos and environmental claims, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Asbestos Claims and Litigation," and "—Environmental Claims and Litigation."

Certain of the Company's claims and claim adjustment expense reserves are discounted to present value. See note 7 of notes to the consolidated financial statements for further discussion.

Reserves on Statutory Accounting Basis

At December 31, 2019, 2018 and 2017, claims and claim adjustment expense reserves (net of reinsurance) prepared in accordance with U.S. generally accepted accounting principles (GAAP reserves) were \$58 million higher, \$62 million higher and \$56 million higher, respectively, than those reported in the Company's respective annual financial reports filed with insurance regulators, which are prepared in accordance with statutory accounting practices (statutory reserves).

The differences between GAAP and statutory reporting for reserves are primarily due to the differences in GAAP and statutory accounting for two items: (1) fee reimbursements associated with large deductible business and (2) the accounting for reinsurance. For large deductible business, the Company pays the deductible portion of a casualty insurance claim and then seeks reimbursement from the insured, plus a fee. The associated reserves for claim adjustment expenses are reported gross of the expected fee income (i.e., the reserves are not net of the expected fees) for GAAP reporting. For statutory reporting, the associated reserves are reported net of the expected fee income.

Reserves for claims and claim adjustment expenses are reported gross of reinsurance recoverables (i.e., without reduction for amounts recoverable for reinsurance) for GAAP reporting. For statutory reporting, the reserves are reported net of reinsurance recoverables. Reinsurance balances resulting from reinsurance placed to cover losses on insured events occurring prior to the inception of a reinsurance contract (retroactive reinsurance) are included in reinsurance recoverables for GAAP reporting. Statutory accounting practices require retroactive reinsurance balances to be recorded in other liabilities as contra-liabilities rather than in loss reserves.

Asbestos and Environmental Claims

Asbestos and environmental claims are segregated from other claims and are handled separately within the Company's Strategic Resolution Group, a separate unit staffed by dedicated legal, claim, finance and engineering professionals which also has responsibility for enterprise-wide major case activity. For additional information on asbestos and environmental claims, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Asbestos Claims and Litigation" and "—Environmental Claims and Litigation."

INTERCOMPANY REINSURANCE POOLING ARRANGEMENTS

Most of the Company's domestic insurance subsidiaries are members of an intercompany property and casualty reinsurance pooling arrangement. Pooling arrangements permit the participating companies to rely on the capacity of the entire pool's statutory capital and surplus rather than just on its own statutory capital and surplus. Under such arrangements, the members share substantially all insurance business that is written and allocate the combined premiums, losses and expenses.

RATINGS

Ratings are an important factor in assessing the Company's competitive position in the insurance industry. The Company receives ratings from the following major rating agencies: A.M. Best Company (A.M. Best), Fitch Ratings (Fitch), Moody's Investors Service (Moody's) and Standard & Poor's Corp. (S&P). Rating agencies typically issue two types of ratings for insurance companies: claims-paying (or financial strength) ratings, which reflect the rating agency's assessment of an insurer's ability to meet its financial obligations to policyholders, and debt ratings, which reflect the rating agency's assessment of a company's prospects for repaying its debts and are considered by lenders in connection with the setting of interest rates and terms for a company's short- and long-term borrowings. Agency ratings are not a recommendation to buy, sell or hold any security, and they may be revised or withdrawn at any time by the rating agency. Each agency's rating should be evaluated independently of any other agency's rating. The system and the number of rating categories can vary widely from rating agency to rating agency. Customers usually focus on claims-paying ratings, while creditors focus on debt ratings. Investors use both to evaluate a company's overall financial strength. The ratings issued on the Company or its subsidiaries by any of these agencies are announced publicly and are available on the Company's website and from the agencies.

A downgrade in one or more of the Company's claims-paying ratings could negatively impact the Company's business volumes and competitive position because demand for certain of its products may be reduced, particularly because some customers require that the Company maintain minimum ratings to enter into, maintain or renew business with it.

Additionally, a downgrade in one or more of the Company's debt ratings could adversely impact the Company's ability to access the capital markets and other sources of funds, including in the syndicated bank loan market, and/or result in higher financing costs. For example, downgrades in the Company's debt ratings could result in higher interest expense under the Company's revolving credit agreement (under which the cost of borrowing could range from LIBOR plus 75 basis points to LIBOR plus 137.5 basis points, depending on the Company's debt ratings), the Company's commercial paper program, or in the event that the Company were to access the capital markets by issuing debt or similar types of securities. See note 8 of notes to the consolidated financial statements for a discussion of the Company's revolving credit agreement and commercial paper program. The Company considers the level of increased cash funding requirements in the event of a ratings downgrade as part of the evaluation of the Company's liquidity requirements. The Company currently believes that a one- to two-notch downgrade in its debt ratings would not result in a material increase in interest expense under its existing credit agreement and commercial paper programs. In addition, the Company considers the impact of a ratings downgrade as part of the evaluation of its common share repurchases.

Claims — Paying Ratings

The following table summarizes the current claims-paying (or financial strength) ratings for each of the Company's rated entities as of February 13, 2020, including the position of each rating in the applicable agency's rating scale.

	A.M. Best	Moody's	S&P	Fitch
Travelers Reinsurance Pool (a)(b)	A++ (1st of 16)	Aa2 (3rd of 21)	AA (3rd of 21)	AA (3rd of 21)
Travelers C&S Co. of America	A++ (1st of 16)	Aa2 (3rd of 21)	AA (3rd of 21)	AA (3rd of 21)
First Floridian Auto and Home Ins. Co	A- (4th of 16)	_	_	AA (3rd of 21)
Travelers Insurance Company of Canada.	A++ (1st of 16)	_	AA- (4th of 21)	_
The Dominion of Canada General Insurance Company	A (3rd of 16)	_	_	_
Travelers Insurance Company Limited	A++ (1st of 16)	_	AA (3rd of 21)	_
Travelers Insurance Designated Activity Company	A++ (1st of 16)	_	AA- (4th of 21)	_

⁽a) The Travelers Reinsurance Pool consists of: The Travelers Indemnity Company, The Charter Oak Fire Insurance Company, The Phoenix Insurance Company, The Travelers Indemnity Company of Connecticut, The Travelers Indemnity Company of America, Travelers Property Casualty Company of America, Travelers Commercial Casualty Company, TravCo Insurance Company, The Travelers Home and Marine Insurance Company, Travelers Casualty and Surety Company, Northland Insurance Company, Northland Casualty Company, American Equity Specialty Insurance Company, The Standard Fire Insurance Company, The Automobile Insurance Company of Hartford, Connecticut, Travelers Casualty Insurance Company of America, Farmington Casualty Company, Travelers Commercial Insurance Company, Travelers Casualty Company of Connecticut, Travelers Property Casualty Insurance Company, Travelers Personal Security Insurance Company, Travelers Personal Insurance Company, Travelers Excess

and Surplus Lines Company, St. Paul Fire and Marine Insurance Company, St. Paul Surplus Lines Insurance Company, The Travelers Casualty Company, St. Paul Protective Insurance Company, Travelers Constitution State Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., Discover Property & Casualty Insurance Company, Discover Specialty Insurance Company and United States Fidelity and Guaranty Company.

(b) The following affiliated companies are 100% reinsured by one of the pool participants noted in (a) above: Fidelity and Guaranty Insurance Company, Gulf Underwriters Insurance Company, American Equity Insurance Company, Select Insurance Company, The Travelers Lloyds Insurance Company and Travelers Lloyds of Texas Insurance Company.

Debt Ratings

The following table summarizes the current debt, trust preferred securities and commercial paper ratings of the Company and its subsidiaries as of February 13, 2020. The table also presents the position of each rating in the applicable agency's rating scale.

	A.M. Best	Moody's	S&P	Fitch
0 114	(5 600)	10 (6 001)	. (6 600)	. (6 600)
Senior debt	a+ (5th of 22)	A2 (6th of 21)	A (6th of 22)	A (6th of 22)
Subordinated debt	a (6th of 22)	A3 (7th of 21)	A- (7th of 22)	BBB+ (8th of 22)
Junior subordinated debt	a- (7th of 22)	A3 (7th of 21)	BBB+ (8th of 22)	BBB+ (8th of 22)
Trust preferred securities	a- (7th of 22)	A3 (7th of 21)	BBB+ (8th of 22)	BBB+ (8th of 22)
Commercial paper	AMB-1+ (1st of 6)	P-1 (1st of 4)	A-1 (2nd of 10)	F1 (2nd of 8)

Rating Agency Actions

The following rating agency actions were taken with respect to the Company from February 14, 2019, the date on which the Company filed its Annual Report on Form 10-K for the year ended December 31, 2018, through February 13, 2020:

- On February 28, 2019, A.M. Best assigned a financial strength rating of "A++" to the Company's newly established insurance subsidiary in the Republic of Ireland, Travelers Insurance Designated Activity Company. The outlook for this rating is stable.
- On May 20, 2019, Fitch affirmed all ratings of the Company. The outlook for all ratings is stable.
- On June 26,2019, S&P assigned a financial strength rating of "A+" to the Company's newly established insurance subsidiary in the Republic of Ireland, Travelers Insurance Designated Activity Company. The outlook for this rating is stable.
- On July 29, 2019, S&P affirmed all ratings of the Company. The outlook for all ratings is stable.
- On November 1, 2019, Moody's affirmed all ratings of the Company. The outlook for all ratings is stable.
- On November 5, 2019, A.M. Best affirmed all ratings of the Company. The outlook for all ratings is stable.
- On November 19, 2019, S&P upgraded the financial strength rating of Travelers Insurance Designated Activity Company to "AA-" from "A+." The outlook for this rating is stable.

INVESTMENT OPERATIONS

The majority of funds available for investment are deployed in a widely diversified portfolio of high quality, liquid, taxable U.S. government, tax-exempt U.S. municipal and taxable corporate and U.S. agency mortgage-backed bonds. The Company closely monitors the duration of its fixed maturity investments, and the Company's investment purchases and sales are executed with the objective of having adequate funds available to satisfy its insurance and debt obligations. Generally, the expected principal and interest payments produced by the Company's fixed maturity portfolio adequately fund the estimated runoff of the Company's insurance reserves. The Company's management of the duration of the fixed maturity investment portfolio, including its use of Treasury futures at times, has produced a duration that is less than the estimated duration of the Company's net insurance liabilities. The substantial amount by which the fair value of the fixed maturity portfolio exceeds the value of the net insurance liabilities,

as well as the positive cash flow from newly sold policies and the large amount of high-quality liquid bonds, contributes to the Company's ability to fund claim payments without having to sell illiquid assets or access credit facilities.

The Company also invests much smaller amounts in equity securities, real estate, private equity limited partnerships, hedge funds, and real estate partnerships and joint ventures. These investment classes have the potential for higher returns but also involve varying degrees of risk, including less stable rates of return and less liquidity.

See note 3 of notes to the consolidated financial statements for additional information regarding the Company's investment portfolio.

REGULATION

U.S. State and Federal Regulation

TRV's domestic insurance subsidiaries are collectively licensed to transact insurance business in all U.S. states, the District of Columbia, Guam, Puerto Rico, the U.S. Virgin Islands and the Northern Mariana Islands and are subject to regulation in the various states and jurisdictions in which they transact business. The extent of regulation varies, but generally derives from statutes that delegate regulatory, supervisory and administrative authority to a department of insurance in each state and jurisdiction. The regulation, supervision and administration relate, among other things, to standards of solvency that must be met and maintained, the licensing of insurers and their agents, the nature of and limitations on investments, premium rates, restrictions on the size of risks that may be insured under a single policy, reserves and provisions for unearned premiums, losses and other obligations, deposits of securities for the benefit of policyholders, approval of policy forms and the regulation of market conduct, including the use of credit information in underwriting as well as other underwriting and claims practices. State insurance departments also conduct periodic examinations of the financial condition and market conduct of insurance companies and require the filing of financial and other reports on a quarterly and annual basis.

State insurance regulation continues to evolve in response to the changing economic and business environment as well as efforts by regulators internationally to develop a consistent approach to regulation. While the U.S. federal government has not historically regulated the insurance business, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 established a Federal Insurance Office (FIO) within the U.S. Department of the Treasury. While the FIO has limited regulatory authority, it has been active in the discussions to develop international regulatory standards for the insurance industry. In response to these international efforts, the state insurance regulators, through the National Association of Insurance Commissioners (NAIC), are working with the Federal Reserve and the FIO to consider and develop changes to the U.S. regulatory framework, including an evaluation of an insurance group's capital adequacy.

These changes are evidenced by the incorporation of supervisory colleges into the U.S. regulatory framework. A supervisory college is a forum of the regulators having jurisdictional authority over a holding company's various insurance subsidiaries, including foreign insurance subsidiaries, convened to meet with the insurer's executive management, to evaluate the insurer from both a group-wide and legal-entity basis. Some of the items evaluated during the colleges include the insurer's business strategies, enterprise risk management and corporate governance.

While insurance in the United States is regulated on a legal-entity basis, the NAIC has adopted changes to its Model Holding Company Act that some states, including the State of Connecticut, have enacted to allow the insurance commissioner to be designated as the group-wide supervisor (i.e., lead regulator) for the insurance holding company system based upon certain criteria, including the place of domicile of the insurance subsidiaries holding the majority of the insurance group's premiums, assets, or liabilities. Based upon these criteria, the State of Connecticut Insurance Department is designated as TRV's lead regulator and conducts the supervisory colleges for the Company.

Insurance Regulation Concerning Dividends from Insurance Subsidiaries. TRV's principal domestic insurance subsidiaries are domiciled in the State of Connecticut. The Connecticut insurance holding company laws require notice to, and approval by, the state insurance commissioner for the declaration or payment of any dividend from an insurance subsidiary that, together with other distributions made within the preceding twelve months, exceeds the greater of 10% of the insurance subsidiary's statutory capital and surplus as of the preceding December 31, or the insurance subsidiary's net income for the twelve-month period ending the preceding December 31, in each case determined in accordance with statutory accounting practices and by state regulation. This declaration or payment is further limited by adjusted unassigned surplus, as determined in accordance with statutory accounting practices.

The insurance holding company laws of other states in which TRV's domestic insurance subsidiaries are domiciled generally contain similar, although in some instances somewhat more restrictive, limitations on the payment of dividends.

Rate and Rule Approvals. TRV's domestic insurance subsidiaries are subject to each state's laws and regulations regarding rate and rule approvals. The applicable laws and regulations generally establish standards to ensure that rates are not excessive, inadequate, unfairly discriminatory or used to engage in unfair price competition. An insurer's ability to adjust rates and the relative timing of the process are dependent upon each state's requirements. Many states have enacted variations of competitive ratemaking laws, which allow insurers to set certain premium rates for certain classes of insurance without having to obtain the prior approval of the state insurance department.

Requirements for Exiting Geographic Markets and/or Canceling or Nonrenewing Policies. Many states have laws and regulations which may impact the timing and/or the ability of an insurer to either discontinue or substantially reduce its writings in that state. These laws and regulations typically require prior notice, and in some instances insurance department approval, prior to discontinuing a line of business or withdrawing from that state. In addition, all states impose limitations on cancellations or nonrenewals of certain policies, including in particular, limitations on the reasons for cancellations and on the timing of non-renewals. States also have from time to time passed legislation, and regulators have taken action, that have the effect of restricting insurers from reducing exposures or withdrawing from catastrophe-prone areas. For example, a state recently passed legislation that restricts a carrier's ability to cancel or non-renew policies within or adjacent to declared state emergency zip codes.

Assessments for Guaranty Funds and Second-Injury Funds and Other Mandatory Assigned Risk and Reinsurance Arrangements. Virtually all states require insurers licensed to do business in their state, including TRV's domestic insurance subsidiaries, to bear a portion of the loss suffered by claimants of insurers that have become insolvent. Many states also have laws that establish second-injury funds to provide compensation to injured employees for aggravation of a prior condition or injury.

TRV's domestic insurance subsidiaries are also required to participate in various involuntary assigned risk pools, principally involving workers' compensation, automobile insurance, property windpools in states prone to property damage from hurricanes and Fair Access to Insurance Requirements (FAIR) plans, as well as automobile assigned risk plans the results of which are not pooled with other carriers, which provide various insurance coverages to individuals or other entities that otherwise are unable to purchase that coverage in the voluntary market.

Other assessments include any charge mandated by statute or regulatory authority that is related directly or indirectly to underwriting activities. Examples of such mechanisms include, but are not limited to, the Florida Hurricane Catastrophe Fund, Florida Citizens Property Insurance Corporation, National Workers' Compensation Reinsurance Pool, various workers' compensation related funds (e.g., the Florida Special Disability Trust), North Carolina Beach Plan, Louisiana Citizens Property Insurance Corporation, and the Texas Windstorm Insurance Association. Amounts payable or paid as a result of arrangements that are in substance reinsurance, including certain involuntary pools where insurers are required to assume premiums and losses from those pools, are accounted for as reinsurance (e.g., National Workers' Compensation Reinsurance Pool, North Carolina Beach Plan). Amounts related to assessments from arrangements that are not reinsurance are reported as a component of "General and Administrative Expenses," such as the Florida Special Disability Trust. For additional information concerning assessments for guaranty funds and second-injury funds and other mandatory assigned risk and reinsurance agreements including state-funding mechanisms, see "Item 1A —Risk Factors."

Insurance Regulatory Information System (IRIS). The NAIC developed the IRIS to help state regulators identify companies that may require regulatory attention. Financial examiners review annual financial statements and the results of key financial ratios based on year-end data with the goal of identifying insurers that appear to require immediate regulatory attention. Each ratio has an established "usual range" of results. A ratio result falling outside the usual range, however, is not necessarily considered adverse; rather, unusual values are used as part of the regulatory early monitoring system. Furthermore, in some years, it may not be unusual for financially sound companies to have several ratios with results outside the usual ranges. Generally, an insurance company may become subject to regulatory scrutiny or, depending on the company's financial condition, regulatory action if certain of its key IRIS ratios fall outside the usual ranges and the insurer's financial condition is trending downward.

Based on preliminary 2019 IRIS ratios calculated by the Company for its lead domestic insurance subsidiaries, The Travelers Indemnity Company had results outside the normal range for one IRIS ratio due to the size of its investments in certain non-fixed maturity securities, while Travelers Casualty and Surety Company had results outside the normal range for one IRIS ratio due to the amount of dividends received from its subsidiaries. In 2018, The Travelers Indemnity Company and Travelers Casualty and Surety Company had results outside the normal range for these same ratios. Additionally in 2018, The Standard Fire Insurance Company had results outside the normal range for one IRIS ratio due to the amount of dividends received from its subsidiaries.

Management does not anticipate regulatory action as a result of the 2019 IRIS ratio results for the lead insurance subsidiaries or their insurance subsidiaries. In all instances in prior years, regulators have been satisfied upon follow-up that no regulatory action was required.

Risk-Based Capital (RBC) Requirements. The NAIC has an RBC requirement which sets forth minimum capital standards for most U.S.-based property and casualty insurance companies that is intended to raise the level of protection for policyholder obligations. The Company's U.S. insurance subsidiaries are subject to these NAIC RBC requirements based on laws that have been adopted by individual states. These requirements subject insurers having policyholders' surplus less than that required by the RBC calculation to varying degrees of regulatory action, depending on the level of capital inadequacy. Each of the Company's U.S. insurance subsidiaries had policyholders' surplus at December 31, 2019 significantly above the level at which any RBC regulatory action would occur.

While there is currently no group regulatory capital requirement for insurers in the United States, a comparison of an insurer's policyholders' surplus on a combined basis to the legal entity NAIC RBC requirements on a combined basis can provide useful information regarding an insurance group's overall capital adequacy in the U.S. The amount of policyholders' surplus held by the Company's U.S. insurance subsidiaries at December 31, 2019, determined on a combined basis, significantly exceeded the level at which the subsidiaries would be subject to RBC regulatory action (company action level) on a combined basis at that date.

The formulas have not been designed to differentiate among adequately capitalized companies that operate with levels of capital above the RBC requirement. Therefore, it is inappropriate and ineffective to use the formulas to rate or to rank these companies.

Investment Regulation. Insurance company investments must comply with applicable laws and regulations which prescribe the kind, quality and concentration of investments. In general, these laws and regulations permit investments in federal, state and municipal obligations, corporate bonds, preferred and common equity securities, mortgage loans, real estate and certain other investments, subject to specified limits and certain other qualifications. At December 31, 2019, the Company was in compliance with these laws and regulations.

International Regulation

TRV's insurance subsidiaries based in Canada, and the Canadian branch of one of the Company's U.S. insurance subsidiaries, are regulated for solvency purposes by the Office of the Superintendent of Financial Institutions (OSFI) under the provisions of the Insurance Companies Act (Canada). These Canadian subsidiaries and the Canadian branch are also subject to Canadian provincial and territorial insurance legislation which regulates market conduct, including pricing, underwriting, coverage and claim conduct, in varying degrees by province/territory and by product line.

TRV's insurance subsidiaries based in the United Kingdom (U.K.) are regulated by two regulatory bodies, The Prudential Regulation Authority (PRA) and The Financial Conduct Authority (FCA). The PRA's primary objective 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.

TRV's managing agency (Travelers Syndicate Management Limited) (TSML) of its Lloyd's syndicate (Syndicate 5000 at Lloyd's) is also regulated by the PRA and the FCA, which have delegated certain regulatory responsibilities to the Council of Lloyd's. Travelers Syndicate 5000 is able to write business in over 75 jurisdictions throughout the world by virtue of Lloyd's international licenses. In each such jurisdiction, the policies written by TSML, as part of Lloyd's, are subject to the laws and insurance regulations of that jurisdiction. Travelers Underwriting Agency Limited, which as an insurance intermediary is regulated by the FCA, produces insurance business for Travelers Syndicate 5000.

TRV's operations in the U.K. and the Republic of Ireland are also 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 and solvency requirements (Solvency II), competition law and antitrust regulation, intermediary and distribution regulation, gender discrimination and data security and privacy. The applicability to TRV's businesses of all of the EU requirements are likely to change in ways yet to be determined as a result of the U.K.'s exit from the EU on January 31, 2020.

As a result of the U.K.'s exit from the EU, Travelers is conducting its insurance operations in the Republic of Ireland and across Europe through a newly established insurance subsidiary that is incorporated in the Republic of Ireland and authorized and regulated by the Central Bank of Ireland. Certain operations are conducted in the U.K. through a U.K. branch of the Irish subsidiary, which is supervised by the PRA and FCA as well as the Central Bank of Ireland. Since January 1, 2019, TRV has used a Lloyd's insurance subsidiary in Brussels, Belgium (Lloyd's Brussels) to cover its Lloyd's customers' risks in the EU. Lloyd's Brussels is regulated by the National Bank of Belgium.

TRV's Brazilian operations are regulated by the Superintendencia de Seguros Privados (SUSEP).

Regulators in these jurisdictions require insurance companies to maintain certain levels of capital depending on, among other things, the types of coverages written and amount of insurance reserves held. Each of the Company's foreign insurance subsidiaries had capital above their respective regulatory requirements at December 31, 2019.

Covered Agreements

The U.S. Department of the Treasury and the Office of the U.S. Trade Representative have signed covered agreements (the Covered Agreements) regarding prudential (solvency) insurance and reinsurance measures with each of the EU and the U.K. The Covered Agreements include three areas of prudential insurance supervision: reinsurance contracts, group supervision, and the exchange of information between U.S. and U.K. regulators and between U.S. and EU regulators on insurers and reinsurers that operate in the U.S., U.K. and EU markets. The Covered Agreement with the EU went into effect in April 2018, while the Covered Agreement with the U.K. took full effect upon the U.K.'s exit from the EU on January 31, 2020. The Covered Agreements are intended to promote cooperation between U.S. insurance regulators and EU and U.K. insurance regulators and to limit the ability of the EU and the U.K. to apply solvency and group capital requirements to the worldwide operations of any U.S. insurer operating in the EU or the U.K.

The Covered Agreements eliminate the collateral and local presence requirements for EU and U.K. reinsurers operating in the U.S., and for U.S. reinsurers operating in the EU and U.K., as a condition for credit for reinsurance in regulatory reporting and capital requirements. The prospective elimination of the collateral requirement is conditioned on the reinsurer meeting capital and solvency standards and maintaining a record of prompt payments to ceding insurers. The Covered Agreements include a five-year transition period to full compliance in the impacted jurisdictions.

Insurance Holding Company Statutes

As a holding company, TRV is not regulated as an insurance company. However, since TRV owns capital stock in insurance subsidiaries, it is subject to state insurance holding company statutes, as well as certain other laws, of each of its insurance subsidiaries' states of domicile. All holding company statutes, as well as other laws, require disclosure and, in some instances, prior approval of material transactions between an insurance company and an affiliate. The holding company statutes and other laws also require, among other things, prior approval of an acquisition of control of a domestic insurer, some transactions between affiliates and the payment of extraordinary dividends or distributions.

Insurance Regulations Concerning Change of Control. Many state insurance regulatory laws contain provisions that require advance approval by state agencies of any change in control of an insurance company that is domiciled, or, in some cases, having substantial business that it is deemed to be commercially domiciled, in that state.

The laws of many states also contain provisions requiring pre-notification to state agencies prior to any change in control of a non-domestic insurance company admitted to transact business in that state. While these pre-notification statutes do not authorize the state agency to disapprove the change of control, they do authorize issuance of cease-and-desist orders with respect to the non-domestic insurer if it is determined that some conditions, such as undue market concentration, would result from the acquisition.

Any transactions that would constitute a change in control of any of TRV's insurance subsidiaries would generally require prior approval by the insurance departments of the states in which the insurance subsidiaries are domiciled or commercially domiciled. They may also require pre-acquisition notification in those states that have adopted pre-acquisition notification provisions and in which such insurance subsidiaries are admitted to transact business.

Two of TRV's insurance subsidiaries and its operations at Lloyd's are domiciled in the United Kingdom and one of its insurance subsidiaries is domiciled in the Republic of Ireland. Insurers in the United Kingdom and the Republic of Ireland are subject to change of control restrictions, including approval of the PRA and FCA and of the Central Bank of Ireland, respectively. TRV's insurance subsidiaries domiciled in, or authorized to conduct insurance business in, Canada are also subject to regulatory change of control restrictions, including approval of OSFI. TRV's Brazilian operations are subject to regulatory change of control and other share transfer restrictions, including approval of SUSEP.

These requirements may deter, delay or prevent transactions affecting the control of or the ownership of common stock, including transactions that could be advantageous to TRV's shareholders.

Regulatory Developments

For a discussion of domestic and international regulatory developments, see "Item 1A—Risk Factors" including "Changes in federal regulation could impose significant burdens on us, and otherwise adversely impact our results" and "Regulatory changes outside of the United States, including in Canada, the U.K., the Republic of Ireland and the European Union, could adversely impact our results of operations and limit our growth."

ENTERPRISE RISK MANAGEMENT

As a large property and casualty insurance enterprise, the Company is exposed to many risks. These risks are a function of the products the Company writes and the environments within which the Company operates. Since certain risks can be correlated with other risks, an event or a series of events can impact multiple areas of the Company simultaneously and have a material effect on the Company's results of operations, financial position and/or liquidity. These exposures require an entity-wide view of risk and an understanding of the potential impact on all aspects of the Company's operations. It also requires the Company to manage its risk-taking to be within its risk appetite in a prudent and balanced effort to create and preserve value for all of the Company's stakeholders. The Company's Enterprise Risk Management (ERM) activities involve both the identification and assessment of a broad range of risks and the execution of coordinated strategies to effectively manage these risks. ERM also includes an evaluation of the Company's risk capital needs, which takes into account regulatory requirements and credit rating considerations, in addition to economic and other factors. ERM at the Company is an integral part of its business operations. All risk owners across all functions, all corporate leaders and the Board of Directors are engaged in ERM. ERM involves risk-based analytics, as well as reporting and feedback throughout the enterprise in support of the Company's long-term financial strategies and objectives.

The Company uses various analyses and methods, including proprietary and third-party computer modeling processes, to make underwriting and reinsurance decisions designed to manage its exposure to catastrophic events. In addition to catastrophe modeling and analysis, the Company also models and analyzes its exposure to other extreme events. The Company also utilizes proprietary and third-party computer modeling processes to evaluate capital adequacy. These analytical techniques are an integral component of the Company's ERM process and further support the Company's long-term financial strategies and objectives.

In addition to the day-to-day ERM activities within the Company's operations, key internal risk management functions include, among others, the Management and Operating Committees (comprised of the Company's Chief Executive Officer and the other most senior members of management), the Enterprise and Business Risk Committees of management, the Credit Committee, Chief Legal Officer, General Counsel, the Chief Ethics and Compliance Officer, the Corporate Actuarial group, the Corporate Audit group, the Corporate Controller group, the Accounting Policy group and the Enterprise Underwriting group, among others. A senior executive team comprised of the Chief Risk Officer and the Chief Underwriting Officer oversees the ERM process. The mission of this team is to facilitate risk assessment and to collaborate in implementing effective risk management strategies throughout the Company. Another strategic ERM objective of this team includes working across the Company to enhance effective and realistic risk modeling capabilities as part of the Company's overall effort to understand and manage its portfolio of risks to be within its risk appetite. Board oversight of ERM is provided by the Risk Committee of the Board of Directors, which reviews the strategies, processes and controls pertaining to the Company's insurance operations and oversees the implementation, execution and performance of the Company's ERM program. The Risk Committee of the Board of Directors meets with senior management at least four times a year to discuss ERM activities and provides a report to the full Board of Directors after each such meeting.

The Company's ERM efforts build upon the foundation of an effective internal control environment. ERM expands the internal control objectives of effective and efficient operations, reliable financial reporting and compliance with applicable laws and regulations, to foster, lead and support an integrated, risk-based culture within the Company that focuses on value creation and preservation. However, the Company can provide only reasonable, not absolute, assurance that these objectives will be met. Further, the design of any risk management or control system must reflect the fact that there are resource constraints, and the benefits must be considered relative to their costs. As a result, the possibility of material financial loss remains in spite of the Company's significant and comprehensive ERM efforts. An investor should carefully consider the risks and all of the other information set forth in this annual report, including the discussions included in "Item 1A—Risk Factors," "Item 7A—Quantitative and Qualitative Disclosures About Market Risk," and "Item 8—Financial Statements and Supplementary Data."

OTHER INFORMATION

Customer Concentration

In the opinion of the Company's management, no material part of the business of the Company and its subsidiaries is dependent upon a single customer or group of customers, the loss of any one of which would have a material adverse effect on the Company, and no one customer or group of affiliated customers accounts for 10% or more of the Company's consolidated revenues.

Seasonality

A discussion of the extent to which the Company's business may be seasonal can be found under "Outlook" within "Item 7— Management's Discussion and Analysis of Financial Condition and Results of Operations" and is incorporated by reference into this Item 1.

Employees

At December 31, 2019, the Company had approximately 30,800 employees. The Company believes that its employee relations are satisfactory. None of the Company's U.S. employees are subject to collective bargaining agreements.

Sources of Liquidity

For a discussion of the Company's sources of funds and maturities of the long-term debt of the Company, see "Item 7— Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources," and note 8 of notes to the consolidated financial statements.

Taxation

For a discussion of tax matters affecting the Company and its operations, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations" and note 12 of notes to the consolidated financial statements.

Intellectual Property

The Company relies on a combination of contractual rights and copyright, trademark, patent and trade secret laws to establish and protect its intellectual property. With respect to trademarks specifically, the Company has registrations in many countries, including the United States, for its material trademarks, including the "Travelers" name and the Company's iconic umbrella logo. The Company has the right to retain its material trademark rights in perpetuity, so long as it satisfies the use and registration requirements of all applicable countries. The Company regards its trademarks as highly valuable assets in marketing its products and services and vigorously seeks to protect its trademarks against infringement. See "Item 1A—Risk Factors—Intellectual property is important to our business, and we may be unable to protect and enforce our own intellectual property or we may be subject to claims for infringing the intellectual property of others."

Company Website, Social Media and Availability of SEC Filings

The Company's internet website is *www.travelers.com*. Information on the Company's website is not incorporated by reference herein and is not a part of this Form 10-K. The Company makes available free of charge on its website or provides a link on its website to the Company's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as soon as reasonably practicable after those reports are electronically filed with, or furnished to, the SEC. To access these filings, go to the Company's website and under the "Investors" heading, click on "Financial Information" then "SEC Filings."

The Company may use its website and/or social media outlets, such as Facebook and Twitter, as distribution channels of material company information. Financial and other important information regarding the Company is routinely posted on and accessible through the Company's website at http://investor.travelers.com, its Facebook page at https://www.facebook.com/travelers and its Twitter account (@Travelers) at https://www.twitter.com/Travelers. In addition, you may automatically receive email alerts and other information about the Company when you enroll your email address by visiting "Email Notifications" under the "Investor Toolkit" section at https://investor.travelers.com.

Glossary of Selected Insurance Terms

Accident year	The annual calendar accounting period in which loss events occurred, regardless of when the losses are actually reported, booked or paid.
Adjusted unassigned surplus	Unassigned surplus as of the most recent statutory annual report reduced by twenty-five percent of that year's unrealized appreciation in value or revaluation of assets or unrealized profits on investments, as defined in that report.

Admitted insurer	A company licensed to transact insurance business within a state.
Agent	A licensed individual who sells and services insurance policies, receiving a commission from the insurer for selling the business and a fee for servicing it. An independent agent represents multiple insurance companies and searches the market for the best product for its client.
Annuity	A contract that pays a periodic benefit over the remaining life of a person (the annuitant), the lives of two or more persons or for a specified period of time.
Assigned risk pools	Reinsurance pools which cover risks for those unable to purchase insurance in the voluntary market. Possible reasons for this inability include the risk being too great or the profit being too small under the required insurance rate structure. The costs of the risks associated with these pools are charged back to insurance carriers in proportion to their direct writings.
Assumed reinsurance	Insurance risks acquired from a ceding company.
Book value per share	Total common shareholders' equity divided by the number of common shares outstanding.
Broker	One who negotiates contracts of insurance or reinsurance on behalf of an insured party, receiving a commission from the insurer or reinsurer for placement and other services rendered.
Capacity	The percentage of statutory capital and surplus, or the dollar amount of exposure, that an insurer or reinsurer is willing or able to place at risk. Capacity may apply to a single risk, a program, a line of business or an entire book of business. Capacity may be constrained by legal restrictions, corporate restrictions or indirect restrictions.
Captive	A closely-held insurance company whose primary purpose is to provide insurance coverage to the company's owners or their affiliates.
Case reserves	Claim department estimates of anticipated future payments to be made on each specific individual reported claim.
Casualty insurance	Insurance which is primarily concerned with the losses caused by injuries to third persons, i.e., not the insured, and the legal liability imposed on the insured resulting therefrom. It includes, but is not limited to, employers' liability, workers' compensation, public liability, automobile liability, personal liability and aviation liability insurance. It excludes certain types of losses that by law or custom are considered as being exclusively within the scope of other types of insurance, such as fire or marine.

A severe loss designated a catastrophe by internationally recognized organizations Catastrophe that track and report on insured losses resulting from catastrophic events, such as Property Claim Services (PCS) for events in the United States and Canada. Catastrophes include hurricanes, tornadoes and other windstorms, earthquakes, hail, wildfires, severe winter weather, floods, tsunamis, volcanic eruptions, solar flares and other naturally-occurring events. Catastrophes can also be man-made, such as terrorist attacks and other intentionally destructive acts including those involving nuclear, biological, chemical and radiological events, cyber events, explosions and destruction of infrastructure. Each catastrophe has unique characteristics and catastrophes are not predictable as to timing or amount. Their effects are included in net and core income and claims and claim adjustment expense reserves upon occurrence. A catastrophe may result in the payment of reinsurance reinstatement premiums and assessments from various pools. The Company's threshold for disclosing catastrophes is primarily determined at the reportable segment level. If a threshold for one segment or a combination thereof is exceeded and the other segments have losses from the same event, losses from the event are identified as catastrophe losses in the segment results and for the consolidated results of the Company. Additionally, an aggregate threshold is applied for International business across all reportable segments. The threshold for $\bar{20}19$ ranged from approximately \$19 million to \$30 million of losses before reinsurance and taxes. Loss and directly identified loss adjustment expenses from catastrophes, as well Catastrophe loss..... as related reinsurance reinstatement premiums and assessments from various pools. Catastrophe reinsurance..... A form of excess-of-loss reinsurance which, subject to a specified limit, indemnifies the ceding company for the amount of loss in excess of a specified retention with respect to an accumulation of losses and related reinsurance reinstatement premiums resulting from a catastrophic event. The actual reinsurance document is called a "catastrophe cover." These reinsurance contracts are typically designed to cover property insurance losses but can be written to cover casualty insurance losses such as from workers' compensation policies. Cede; ceding company When an insurer reinsures its liability with another insurer or a "cession," it "cedes" business and is referred to as the "ceding company." Ceded reinsurance Insurance risks transferred to another company as reinsurance. See "Reinsurance." Claim Request by an insured for indemnification by an insurance company for loss incurred from an insured peril. See "Loss adjustment expenses (LAE)." Claim adjustment expenses Claims and claim adjustment expenses See "Loss" and "Loss adjustment expenses (LAE)." Claims and claim adjustment expense reserves..... See "Loss reserves." A group of items or individuals that share a particular statistical or demographic Cohort characteristic. For example, all claims for a given product in a given market for a given accident year would represent a cohort of claims.

Combined ratio	For Statutory Accounting Practices (SAP), the combined ratio is the sum of the SAP loss and LAE ratio and the SAP underwriting expense ratio as defined in the statutory financial statements required by insurance regulators. The combined ratio as used in this report is the equivalent of, and is calculated in the same manner as, the SAP combined ratio except that the SAP underwriting expense ratio is based on net <i>written</i> premium and the underwriting expense ratio as used in this report is based on net <i>earned</i> premiums.
	The combined ratio is an indicator of the Company's underwriting discipline, efficiency in acquiring and servicing its business and overall underwriting profitability. A combined ratio under 100% generally indicates an underwriting profit. A combined ratio over 100% generally indicates an underwriting loss.
	Other companies' method of computing a similarly titled measure may not be comparable to the Company's method of computing this ratio.
Commercial multi-peril policies	Refers to policies which cover both property and third-party liability exposures.
Commutation agreement	An agreement between a reinsurer and a ceding company whereby the reinsurer pays an agreed-upon amount in exchange for a complete discharge of all obligations, including future obligations, between the parties for reinsurance losses incurred.
Core income (loss)	Consolidated net income (loss) excluding the after-tax impact of net realized investment gains (losses), discontinued operations, the effect of a change in tax laws and tax rates at enactment date, and cumulative effect of changes in accounting principles when applicable. Financial statement users consider core income when analyzing the results and trends of insurance companies.
Debt-to-total capital ratio	The ratio of debt to total capitalization.
Debt-to-total capital ratio excluding net unrealized gain (loss) on investments	The ratio of debt to total capitalization excluding the after-tax impact of net unrealized investment gains and losses included in shareholders' equity.
Deductible	The amount of loss that an insured retains.
Deferred acquisition costs (DAC)	Incremental direct costs of acquired and renewal insurance contracts, consisting of commissions (other than contingent commissions) and premium-related taxes that are deferred and amortized to achieve a matching of revenues and expenses when reported in financial statements prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP).
Deficiency	With regard to reserves for a given liability, a deficiency exists when it is estimated or determined that the reserves are insufficient to pay the ultimate settlement value of the related liabilities. Where the deficiency is the result of an estimate, the estimated amount of deficiency (or even the finding of whether or not a deficiency exists) may change as new information becomes available.
Demand surge	Significant short-term increases in building material and labor costs due to a sharp increase in demand for those materials and services, commonly as a result of a large catastrophe resulting in significant widespread property damage.
Direct written premiums	The amounts charged by an insurer to insureds in exchange for coverages provided in accordance with the terms of an insurance contract. The amounts exclude the impact of all reinsurance premiums, either assumed or ceded.

Earned premiums or premiums earned	That portion of property casualty premiums written that applies to the expired portion of the policy term. Earned premiums are recognized as revenues under both SAP and GAAP.
Excess and surplus lines insurance	Insurance for risks not covered by standard insurance due to the unique nature of the risk. Risks could be placed in excess and surplus lines markets due to any number of characteristics, such as loss experience, unique or unusual exposures, or insufficient experience in business. Excess and surplus lines are less regulated by the states, allowing greater flexibility to design specific insurance coverage and negotiate pricing based on the risks to be secured.
Excess liability	Additional casualty coverage above a layer of insurance exposures.
Excess-of-loss reinsurance	Reinsurance that indemnifies the reinsured against all or a specified portion of losses over a specified dollar amount or "retention."
Exposure	The measure of risk used in the pricing of an insurance product. The change in exposure is the amount of change in premium on policies that renew attributable to the change in portfolio risk.
Facultative reinsurance	The reinsurance of all or a portion of the insurance provided by a single policy. Each policy reinsured is separately negotiated.
Fair Access to Insurance Requirements (FAIR) Plan	A residual market mechanism which provides property insurance to those unable to obtain such insurance through the regular (voluntary) market. FAIR plans are set up on a state-by-state basis to cover only those risks in that state. For more information, see "residual market (involuntary business)."
Fidelity and surety programs	Fidelity insurance coverage protects an insured for loss due to embezzlement or misappropriation of funds by an employee. Surety is a three-party agreement in which the insurer agrees to pay a third party or make complete an obligation in response to the default, acts or omissions of an insured.
Gross written premiums	The direct and assumed contractually determined amounts charged to the policyholders for the effective period of the contract based on the terms and conditions of the insurance contract.
Ground-up analysis	A method to estimate ultimate claim costs for a given cohort of claims such as an accident year/product line component. It involves analyzing the exposure and claim activity at an individual insured level and then through the use of deterministic or stochastic scenarios and/or simulations, estimating the ultimate losses for those insureds. The total losses for the cohort are then the sum of the losses for each individual insured.
	In practice, the method is sometimes simplified by performing the individual insured analysis only for the larger insureds, with the costs for the smaller insureds estimated via sampling approaches (extrapolated to the rest of the smaller insured population) or aggregate approaches (using assumptions consistent with the ground-up larger insured analysis).
Guaranteed-cost products	An insurance policy where the premiums charged will not be adjusted for actual loss experience during the covered period.
Guaranty fund	A state-regulated mechanism that is financed by assessing insurers doing business in those states. Should insolvencies occur, these funds are available to meet some or all of the insolvent insurer's obligations to policyholders.

Holding company liquidity	Total cash, short-term invested assets and other readily marketable securities held by the holding company.
Incurred but not reported (IBNR) reserves	Reserves for estimated losses and LAE that have been incurred but not yet reported to the insurer. This includes amounts for unreported claims, development on known cases and re-opened claims.
Inland marine	A broad type of insurance generally covering articles that may be transported from one place to another, as well as bridges, tunnels and other instrumentalities of transportation. It includes goods in transit, generally other than transoceanic, and may include policies for movable objects such as personal effects, personal property, jewelry, furs, fine art and others.
Insurance Regulatory Information System (IRIS) ratios	Financial ratios calculated by the NAIC to assist state insurance departments in monitoring the financial condition of insurance companies.
Large deductible policy	An insurance policy where the customer assumes at least \$25,000 or more of each loss. Typically, the insurer is responsible for paying the entire loss under those policies and then seeks reimbursement from the insured for the deductible amount.
Lloyd's	An insurance marketplace based in London, England, where brokers, representing clients with insurable risks, deal with Lloyd's underwriters, who represent investors. The investors are grouped together into syndicates that provide capital to insure the risks.
Loss	An occurrence that is the basis for submission and/or payment of a claim. Losses may be covered, limited or excluded from coverage, depending on the terms of the policy.
Loss adjustment expenses (LAE)	The expenses of settling claims, including legal and other fees and the portion of general expenses allocated to claim settlement costs.
Loss and LAE ratio	For SAP, the loss and LAE ratio is the ratio of incurred losses and loss adjustment expenses less certain administrative services fee income to net earned premiums as defined in the statutory financial statements required by insurance regulators. The loss and LAE ratio as used in this report is calculated in the same manner as the SAP ratio.
	The loss and LAE ratio is an indicator of the Company's underwriting discipline and underwriting profitability.
	Other companies' method of computing a similarly titled measure may not be comparable to the Company's method of computing this ratio.
Loss reserves	Liabilities established by insurers and reinsurers to reflect the estimated cost of claims incurred that the insurer or reinsurer will ultimately be required to pay in respect of insurance or reinsurance it has written. Reserves are established for losses and for LAE, and consist of case reserves and IBNR reserves. As the term is used in this document, "loss reserves" is meant to include reserves for both losses and LAE.
Loss reserve development	The increase or decrease in incurred claims and claim adjustment expenses as a result of the re-estimation of claims and claim adjustment expense reserves at successive valuation dates for a given group of claims. Loss reserve development may be related to prior year or current year development.

Losses incurred	The total losses sustained by an insurance company under a policy or policies, whether paid or unpaid. Incurred losses include a provision for IBNR.
National Association of Insurance Commissioners (NAIC)	An organization of the insurance commissioners or directors of all 50 states, the District of Columbia and the five U.S. territories organized to promote consistency of regulatory practice and statutory accounting standards throughout the United States.
Net written premiums	Direct written premiums plus assumed reinsurance premiums less premiums ceded to reinsurers.
New business volume	The amount of written premiums related to new policyholders and additional products sold to existing policyholders.
Pool	An organization of insurers or reinsurers through which particular types of risks are underwritten with premiums, losses and expenses being shared in agreed-upon percentages.
Premiums	The amount charged during the year on policies and contracts issued, renewed or reinsured by an insurance company.
Probable maximum loss (PML)	The maximum amount of loss that the Company would be expected to incur on a policy if a loss were to occur, giving effect to collateral, reinsurance and other factors.
Property insurance	Insurance that provides coverage to a person or business with an insurable interest in tangible property for that person's or business's property loss, damage or loss of use.
Quota share reinsurance	Reinsurance wherein the insurer cedes an agreed-upon fixed percentage of liabilities, premiums and losses for each policy covered on a pro rata basis.
Rates	Amounts charged per unit of insurance.
Redundancy	With regard to reserves for a given liability, a redundancy exists when it is estimated or determined that the reserves are greater than what will be needed to pay the ultimate settlement value of the related liabilities. Where the redundancy is the result of an estimate, the estimated amount of redundancy (or even the finding of whether or not a redundancy exists) may change as new information becomes available.
Reinstatement premiums	Additional premiums payable to reinsurers to restore coverage limits that have been exhausted as a result of reinsured losses under certain excess-of-loss reinsurance treaties.
Reinsurance	The practice whereby one insurer, called the reinsurer, in consideration of a premium paid to that insurer, agrees to indemnify another insurer, called the ceding company, for part or all of the liability of the ceding company under one or more policies or contracts of insurance which it has issued.
Reinsurance agreement	A contract specifying the terms of a reinsurance transaction.
Renewal premium change	The estimated change in average premium on policies that renew, including rate and exposure changes. Such statistics are subject to change based on a number of factors, including changes in estimates.

Renewal rate change	The estimated change in average premium on policies that renew, excluding exposure changes. Such statistics are subject to change based on a number of factors, including changes in estimates.
Residual market (involuntary business)	Insurance market which provides coverage for risks for those unable to purchase insurance in the voluntary market. Possible reasons for this inability include the risks being too great or the profit potential too small under the required insurance rate structure. Residual markets are frequently created by state legislation either because of lack of available coverage such as: property coverage in a windstorm prone area or protection of the accident victim as in the case of workers' compensation. The costs of the residual market are usually charged back to the direct insurance carriers in proportion to the carriers' voluntary market shares for the type of coverage involved.
Retention	The amount of exposure a policyholder company retains on any one risk or group of risks. The term may apply to an insurance policy, where the policyholder is an individual, family or business, or a reinsurance policy, where the policyholder is an insurance company.
Retention rate	The percentage of prior period premiums (excluding renewal premium changes), accounts or policies available for renewal in the current period that were renewed. Such statistics are subject to change based on a number of factors, including changes in estimates.
Retrospective premiums	Premiums related to retrospectively rated policies.
Retrospective rating	A plan or method which permits adjustment of the final premium or commission on the basis of actual loss experience, subject to certain minimum and maximum limits.
Return on equity	The ratio of net income (loss) less preferred dividends to average shareholders' equity.
Risk-based capital (RBC)	A measure adopted by the NAIC and enacted by states for determining the minimum statutory policyholders' surplus requirements of insurers. Insurers having total adjusted capital less than that required by the RBC calculation will be subject to varying degrees of regulatory action depending on the level of capital inadequacy.
Risk retention group	An alternative form of insurance in which members of a similar profession or business band together to self insure their risks.
Runoff business	An operation which has been determined to be nonstrategic; includes non-renewals of in-force policies and a cessation of writing new business, where allowed by law.
Salvage	The amount of money an insurer recovers through the sale of property transferred to the insurer as a result of a loss payment.
Second-injury fund	The employer of an injured, impaired worker is responsible only for the workers' compensation benefit for the most recent injury; the second-injury fund would cover the cost of any additional benefits for aggravation of a prior condition. The cost is shared by the insurance industry and self-insureds, funded through assessments to insurance companies and self-insureds based on either premiums or losses.

Segment income (loss)	Determined in the same manner as core income (loss) on a segment basis. Management uses segment income (loss) to analyze each segment's performance and as a tool in making business decisions. Financial statement users also consider segment income when analyzing the results and trends of insurance companies.
Self-insured retentions	That portion of the risk retained by an insured for its own account.
Servicing carrier	An insurance company that provides, for a fee, various services including policy issuance, claims adjusting and customer service for insureds in a reinsurance pool.
Statutory accounting practices (SAP)	The practices and procedures prescribed or permitted by domiciliary state insurance regulatory authorities in the United States for recording transactions and preparing financial statements. SAP generally reflect a modified going concern basis of accounting.
Statutory capital and surplus	The excess of an insurance company's admitted assets over its liabilities, including loss reserves, as determined in accordance with SAP. Admitted assets are assets of an insurer prescribed or permitted by a state to be recognized on the statutory balance sheet. Statutory capital and surplus is also referred to as "statutory surplus" or "policyholders' surplus."
Statutory net income	As determined under SAP, total revenues less total expenses and income taxes.
Structured settlement	Periodic payments to an injured person or survivor for a determined number of years or for life, typically in settlement of a claim under a liability policy, usually funded through the purchase of an annuity.
Subrogation	A principle of law incorporated in insurance policies, which enables an insurance company, after paying a claim under a policy, to recover the amount of the loss from another person or entity who is legally liable for it.
Tenure impact	As new business volume increases and accounts for a greater percentage of earned premiums, the loss and LAE ratio generally worsens initially, as the loss and LAE ratio for new business is generally higher than the ratio for business that has been retained for longer periods. As poorer performing business leaves and pricing segmentation improves on renewal of the business that is retained, the loss and LAE ratio is expected to improve in future years.
Third-party liability	A liability owed to a claimant (third party) who is not one of the two parties to the insurance contract. Insured liability claims are referred to as third-party claims.
Total capitalization	The sum of total shareholders' equity and debt.
Treaty reinsurance	The reinsurance of a specified type or category of risks defined in a reinsurance agreement (a "treaty") between a primary insurer or other reinsured and a reinsurer. Typically, in treaty reinsurance, the primary insurer or reinsured is obligated to offer and the reinsurer is obligated to accept a specified portion of all that type or category of risks originally written by the primary insurer or reinsured.
Umbrella coverage	A form of insurance protection against losses in excess of amounts covered by other liability insurance policies or amounts not covered by the usual liability policies.

Unassigned surplus	The undistributed and unappropriated amount of statutory capital and surplus.
Underlying combined ratio	The underlying combined ratio is the sum of the underlying loss and LAE ratio and the underlying underwriting expense ratio. The underlying combined ratio is an indicator of the Company's underwriting discipline and underwriting profitability for the current accident year.
Underlying loss and LAE ratio	The underlying loss and LAE ratio is the loss and LAE ratio, adjusted to exclude the impact of catastrophes and prior year reserve development. The underlying loss and LAE ratio is an indicator of the Company's underwriting discipline and underwriting profitability for the current accident year.
Underlying underwriting expense ratio	The underlying underwriting expense ratio is the underwriting expense ratio adjusted to exclude the impact of catastrophes.
Underlying underwriting margin	Net earned premiums and fee income less claims and claim adjustment expenses (excluding catastrophe losses and prior year reserve development) and insurance-related expenses.
Underwriter	An employee of an insurance company who examines, accepts or rejects risks and classifies accepted risks in order to charge an appropriate premium for each accepted risk. The underwriter is expected to select business that will produce an average risk of loss no greater than that anticipated for the class of business.
Underwriting	The insurer's or reinsurer's process of reviewing applications for insurance coverage, and the decision as to whether to accept all or part of the coverage and determination of the applicable premiums; also refers to the acceptance of that coverage.
Underwriting expense ratio	For SAP, the underwriting expense ratio is the ratio of underwriting expenses incurred (including commissions paid), less certain administrative services fee income and billing and policy fees, to net <i>written</i> premiums as defined in the statutory financial statements required by insurance regulators. The underwriting expense ratio as used in this report is the ratio of underwriting expenses (including the amortization of deferred acquisition costs), less certain administrative services fee income, billing and policy fees and other, to net <i>earned</i> premiums.
	The underwriting expense ratio is an indicator of the Company's efficiency in acquiring and servicing its business.
	Other companies' method of computing a similarly titled measure may not be comparable to the Company's method of computing this ratio.
Underwriting gain or loss	Net earned premiums and fee income less claims and claim adjustment expenses and insurance-related expenses.
Unearned premium	The portion of premiums written that is allocable to the unexpired portion of the policy term.
Voluntary market	The market in which a person seeking insurance obtains coverage without the assistance of residual market mechanisms.
Wholesale broker	An independent or exclusive agent that represents both admitted and non-admitted insurers in market areas, which include standard, non-standard, specialty and excess and surplus lines of insurance. The wholesaler does not deal directly with the insurance consumer. The wholesaler deals with the retail agent or broker.

Workers' compensation	A system (established under state and federal laws) under which employers
•	provide insurance for benefit payments to their employees for work-related
	injuries, deaths and diseases, regardless of fault.

Item 1A. RISK FACTORS

You should carefully consider the following risks and all of the other information set forth in this report, including without limitation our consolidated financial statements and the notes thereto and "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates."

High levels of catastrophe losses, including as a result of factors such as increased concentrations of insured exposures in catastrophe-prone areas, could materially and adversely affect our results of operations, our financial position and/or liquidity, and could adversely impact our ratings, our ability to raise capital and the availability and cost of reinsurance. Our property and casualty insurance operations expose us to claims arising out of catastrophes. Catastrophes can be caused by various natural events, including, among others, hurricanes, tornadoes and other windstorms, earthquakes, hail, wildfires, severe winter weather, floods, tsunamis, volcanic eruptions, solar flares and other naturally-occurring events. Catastrophes can also be man-made, such as terrorist attacks and other intentionally destructive acts including those involving nuclear, biological, chemical and radiological events, cyber events, explosions and destruction of infrastructure. The geographic distribution of our business subjects us to catastrophe exposures in the United States and Canada, which include, but are not limited to: hurricanes from Maine through Texas; severe wind and hail storms, including tornadoes, throughout the Central, Mid-Atlantic, Southcentral and Southeastern regions of the United States; winter storms, particularly in the Northern and Central regions of the United States and in Canada; earthquakes in California, the New Madrid region and the Pacific Northwest region of North America; wildfires, particularly in western states and Canada; and terrorism in major cities in the United States. In addition to our operations in the United States and Canada, our international operations subject us to catastrophe exposures in the United Kingdom and the Republic of Ireland as well as to a variety of worldwide catastrophe exposures through our Lloyd's operations.

The incidence and severity of catastrophes are inherently unpredictable, and it is possible that both the frequency and severity of natural and man-made catastrophic events could increase. Severe weather events over the last two decades have underscored the unpredictability of future climate trends, and changing climate conditions could add to the frequency and severity of natural disasters and create additional uncertainty as to future trends and exposures. The insurance industry experienced increased catastrophe losses due to a number of potential causal factors, including, in addition to weather/climate variability, more people living in high-risk areas, population growth in areas with weaker enforcement of building codes, urban expansion and an increase in the average size of a house. For example, hurricane activity has impacted areas further inland than previously experienced by us, and demographic changes have resulted in larger populations in coastal areas which historically have been subject to severe storms and related storm surge, thus expanding our potential for losses from hurricanes. Additionally, both the frequency and severity of tornado and hail storms in the United States have been more volatile during the last decade. The frequency and severity of wildfire losses have been elevated in more recent years, due in part to record droughts in California that some climate studies suggest are likely to increase over time. Demographic changes in areas prone to wildfires have also expanded our potential for losses from wildfires.

All of the catastrophe modeling tools that we use, or that we rely on from outside parties, to evaluate certain of our catastrophe exposures are based on assumptions and judgments that are subject to error and mis-estimation. As a result, these models may produce estimates that are materially different than actual results. In addition, compared to models for hurricanes, models for earthquakes are less reliable due to there being a more limited number of significant historical events to analyze, while models for tornadoes and hail storms are newer and may be less reliable due to the highly random geographic nature and size of these events. Accordingly, these models may have greater difficulty predicting risks and estimating losses. Further, changes in climate conditions could cause our underlying modeling data to be less predictive, thus limiting our ability to effectively evaluate and manage catastrophe risk. As compared to natural catastrophes, modeling for man-made catastrophes, such as terrorism and cyber events, is even more difficult and less reliable, and for some events (both natural and man-made), models are either in early stages of development and, therefore, not widely adopted, or are not available. See "We may be adversely affected if our pricing and capital models provide materially different indications than actual results" below as well as "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Catastrophe Modeling" and "—Changing Climate Conditions."

The extent of losses from a catastrophe is a function of the total amount of insured exposure affected by the event, the severity of the event and the coverage provided, which can be both property and casualty coverages. Increases in the value and geographic concentration of insured property, the number of policyholders exposed to certain events and the effects of inflation could increase the severity of claims resulting from a catastrophe. For example, the specific geographic location impacted by tornadoes is

inherently random and unpredictable and the specific location impacted by a tornado may or may not be highly populated and may or may not have a high concentration of our insured exposures. Similarly, the potential for losses from a cyber event can be magnified to the extent that the event impacts platforms, systems or vulnerabilities shared by a large number of policyholders.

States have from time to time passed legislation, and regulators have taken action, that have the effect of limiting the ability of insurers to manage catastrophe risk, such as legislation restricting insurers from reducing exposures or withdrawing from catastrophe-prone areas or mandating that insurers participate in residual markets. Participation in residual market mechanisms has resulted in, and may in the future result in, significant losses or assessments to insurers, including us, and, in certain states, those losses or assessments may not be commensurate with our direct catastrophe exposure in those states. If our competitors leave those states having residual market mechanisms, remaining insurers, including us, may be subject to significant increases in losses or assessments following a catastrophe. In addition, following catastrophes, there are sometimes legislative and administrative initiatives and court decisions that seek to expand insurance coverage for catastrophe claims beyond the original intent of the policies, seek to prevent the application of deductibles included in the policies or seek to limit the exercise of certain rights available to insurers under the policies. Also, our ability to adjust terms, including deductible levels, or to increase pricing to the extent necessary to offset rising costs related to catastrophes, particularly in the Personal Insurance segment, requires approval of regulatory authorities of certain states. Our ability or our willingness to manage our catastrophe exposure by raising prices, modifying underwriting terms or reducing exposure to certain geographies may be limited due to considerations of public policy, the evolving political environment and/or changes in the general economic climate. Furthermore, reduction or elimination of the National Flood Insurance Program could result in an increase in our exposure to flood risk. We also may choose to write business in catastrophe-prone areas that we might not otherwise write for strategic purposes, such as improving our access to other underwriting opportunities.

There are also factors that impact the estimation of ultimate costs for catastrophes. For example, the estimation of claims and claim adjustment expense reserves related to hurricanes can be affected by the inability to access portions of the impacted areas, the complexity of factors contributing to the losses, the limited availability of the necessary labor and supplies, the legal and regulatory uncertainties and the nature of the information available to establish the claims and claim adjustment expense reserves. Complex factors include, but are not limited to: determining whether damage was caused by flooding versus wind; evaluating general liability and pollution exposures; estimating additional living expenses; the impact of demand surge; infrastructure disruption; fraud; the effect of mold damage; business interruption costs; late reported claims; litigation; and reinsurance collectability. The timing of a catastrophe's occurrence, such as at or near the end of a reporting period, can also affect the information available to us in estimating claims and claim adjustment expense reserves for that reporting period. The estimates related to catastrophes are adjusted in subsequent periods as actual claims emerge and additional information becomes available.

Exposure to catastrophe losses or actual losses resulting from a catastrophe could adversely affect our financial strength and claims-paying ratings and could impair our ability to raise capital on acceptable terms or at all. Also, as a result of our exposure to catastrophe losses or actual losses following a catastrophe, rating agencies may further increase capital requirements, which may require us to raise capital to maintain our ratings. A ratings downgrade could hurt our ability to compete effectively or attract new business. In addition, catastrophic events could cause us to exhaust our available reinsurance limits and could adversely impact the cost and availability of reinsurance on a going-forward basis. Such events can also impact the credit of our reinsurers. For a discussion of our catastrophe reinsurance coverage, see "Item 1—Business—Reinsurance—Catastrophe Reinsurance." Catastrophic events could also adversely impact the credit of the issuers of securities, such as states or municipalities, in which we have invested.

In addition, coverage in our reinsurance program for terrorism is limited. Although the Terrorism Risk Insurance Program provides benefits in the event of certain acts of terrorism, those benefits are subject to a deductible and other limitations and the program is scheduled to expire on December 31, 2027. Under current provisions of this program, once our losses exceed 20% of our commercial property and casualty insurance premium for the preceding calendar year, the federal government will reimburse us for 80% of our losses attributable to certain acts of terrorism which exceed this deductible up to a total industry program cap of \$100 billion. Our estimated deductible under the program is \$2.61 billion for 2020. In addition, because the interpretation of this law is untested, there is substantial uncertainty as to how it will be applied to specific circumstances. For example, application of the law to a specific event will depend upon whether the government has designated such event as a covered event. It is also possible that future legislation could change or eliminate the program, which could adversely affect our business by increasing our exposure to terrorism losses, or by lowering our business volume through efforts to avoid that exposure. For a further description of the Terrorism Risk Insurance Program, see note 5 of notes to the consolidated financial statements.

Because of the risks set forth above, catastrophes could materially and adversely affect our results of operations, financial position and/or liquidity. Further, we may not have sufficient resources to respond to claims arising from a high frequency of high-severity natural catastrophes and/or of man-made catastrophic events involving conventional means. In addition, while we seek to manage our exposure to man-made catastrophic events involving conventional means, we may not have sufficient resources to respond

to claims arising out of one or more man-made catastrophic events involving "unconventional" means, such as nuclear, biological, chemical or radiological events.

If actual claims exceed our claims and claim adjustment expense reserves, or if changes in the estimated level of claims and claim adjustment expense reserves are necessary, including as a result of, among other things, changes in the legal/tort, regulatory and economic environments in which the Company operates, our financial results could be materially and adversely affected. Claims and claim adjustment expense reserves represent management estimates of what the ultimate settlement and administration of claims will cost, generally utilizing actuarial expertise and projection techniques, at a given accounting date.

The process of estimating claims and claim adjustment expense reserves involves a high degree of judgment and is subject to a number of variables. These variables can be affected by both internal and external events, such as: changes in claims handling procedures; adverse changes in loss cost trends, including inflationary pressures, technology or other changes that may impact medical, auto and home repair costs (e.g., more costly technology in vehicles resulting in increased severity of claims); economic conditions, including general and wage inflation; legal trends, including adverse changes in the tort environment (e.g., increased and more aggressive attorney involvement in insurance claims, increased litigation, expanded theories of liability, higher jury awards, lawsuit abuse and third-party litigation finance, among others); and legislative changes, among others. The impact of many of these items on ultimate costs for claims and claim adjustment expenses is difficult to estimate and could be material. Claims and claim adjustment expense reserve estimation difficulties also differ significantly by product line due to differences in claim complexity, the volume of claims, the potential severity of individual claims, the determination of occurrence date for a claim and reporting lags (the time between the occurrence of the policyholder event and when it is actually reported to the insurer). See also "The effects of emerging claim and coverage issues on our business are uncertain, and court decisions or legislative changes which take place after we issue our policies can result in unexpected liabilities" below.

It is possible that, among other things, past or future steps taken by the federal government and the Federal Reserve to stimulate the U.S. economy, including actions to manage interest rates, tax reform, the imposition of increased or additional tariffs and other changes in international trade regulation, could lead to higher inflation than we had anticipated, which could in turn lead to an increase in our loss costs. The impact of inflation on loss costs could be more pronounced for those lines of business that are considered "long tail," such as general liability, as they require a relatively long period of time to finalize and settle claims for a given accident year. In addition, a significant portion of claims costs, including those in "long tail" lines of business, consists of medical costs. Changes in healthcare legislation could significantly impact the availability, cost and allocation of payments for medical services, and it is possible that, as a result, inflationary pressures in medical costs may increase or claim frequency and/or severity may otherwise be adversely impacted. The estimation of claims and claim adjustment expense reserves may also be more difficult during times of adverse or uncertain economic conditions due to unexpected changes in behavior of claimants and policyholders, including an increase in fraudulent reporting of exposures and/or losses, reduced maintenance of insured properties, increased frequency of small claims or delays in the reporting of claims.

We refine our claims and claim adjustment expense reserve estimates in a regular, ongoing process as historical loss experience develops, additional claims are reported and settled, and the legal, regulatory and economic environment evolves. Business judgment is applied throughout the process, including the application of various individual experiences and expertise to multiple sets of data and analyses. Different experts may choose different assumptions when faced with material uncertainty, based on their individual backgrounds, professional experiences and areas of focus. As a result, such experts may at times produce estimates materially different from each other. This risk may be exacerbated in the context of an acquisition. Experts providing input to the various estimates and underlying assumptions include actuaries, underwriters, claim personnel and lawyers, as well as other members of management. Therefore, management may have to consider varying individual viewpoints as part of its estimation of claims and claim adjustment expense reserves.

We attempt to consider all significant facts and circumstances known at the time claims and claim adjustment expense reserves are established or reviewed. Due to the inherent uncertainty underlying claims and claim adjustment expense reserve estimates, the final resolution of the estimated liability for claims and claim adjustment expenses will likely be higher or lower than the related claims and claim adjustment expense reserves at the reporting date. Therefore, actual paid losses in the future may yield a materially different amount than is currently reserved.

Because of the uncertainties set forth above, additional liabilities resulting from one insured event, or an accumulation of insured events, may exceed the current related reserves. In addition, our estimate of claims and claim adjustment expenses may change. These additional liabilities or increases in estimates, or a range of either, could vary significantly from period to period, cannot now be reasonably estimated and could materially and adversely affect our results of operations and/or our financial position.

For a discussion of claims and claim adjustment expense reserves by product line, including examples of common factors that can affect required reserves, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates—Claims and Claim Adjustment Expense Reserves."

During or following a period of financial market disruption or an economic downturn, our business could be materially and adversely affected. Worldwide financial markets and economic conditions have, from time to time, experienced significant disruption or deterioration and likely will experience periods of disruption or deterioration in the future. If financial markets experience significant disruption or if economic conditions deteriorate, our results of operations, financial position and/or liquidity likely would be adversely impacted. For example, financial market disruptions and economic downturns in the past have resulted in, among other things, reduced business volume, as well as heightened credit risk and reduced valuations for certain of our investments.

Financial market disruption or an economic downturn could be exacerbated by actual or potential economic and geopolitical instability in many regions of the world. This can impact our business even if we do not conduct business in the region subject to the instability. For example, due to globalization, instability in one region can spread to other regions where we do business or a pandemic can disrupt the global supply chain. In addition, the United Kingdom's withdrawal from the European Union could have a negative impact on economic conditions in the United Kingdom and could result in unintended consequences in other countries as well. In the United States, actions or inactions of the United States government may also impact economic conditions. For example, actions that may be taken with respect to monetary policy, a government shutdown, the debt ceiling, the Federal budget, international trade and tariffs, interest rates, health care legislation, tax laws and regulation generally, among other things, may contribute, positively or negatively, to economic conditions generally and create economic and fiscal uncertainty.

Several of the risk factors discussed above and below identify risks that could result from, or be exacerbated by, financial market disruption, an economic slowdown or economic uncertainty. These include risks discussed above related to our estimates of claims and claim adjustment expense reserves, and those discussed below related to our investment portfolio, the competitive environment, emerging claim and coverage issues, reinsurance arrangements, other credit exposures, regulatory developments and the impact of rating agency actions. You should also refer to "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations," particularly the "Outlook" section, for additional information about these risks and the potential impact on our business.

Our investment portfolio is subject to credit and interest rate risk, and may suffer reduced or low returns or material realized or unrealized losses. Investment returns are an important part of our overall profitability. Fixed maturity and shortterm investments comprised approximately 94% of the carrying value of our investment portfolio as of December 31, 2019. Changes in interest rates caused by inflation or other factors (inclusive of credit spreads) affect the carrying value of our fixed maturity investments and returns on our fixed maturity and short-term investments. A decline in interest rates reduces the returns available on short-term investments and new fixed maturity investments (including those purchased to re-invest maturities from the existing portfolio), thereby negatively impacting our net investment income, while rising interest rates reduce the market value of existing fixed maturity investments, thereby negatively impacting our book value. The net pre-tax unrealized gain in our fixed income portfolio was \$2.85 billion at December 31, 2019, compared to a net pre-tax unrealized loss of \$137 million at December 31, 2018, due to a decline in interest rates during 2019. Any future increases in interest rates (inclusive of credit spreads) would result in a decrease in that unrealized gain position, thereby adversely impacting our book value. Interest rates continue to remain at very low levels relative to historical experience, and it is possible that rates will remain at low levels for a prolonged period. The value of our fixed maturity and short-term investments is also subject to the risk that certain investments may default or become impaired due to a deterioration in the financial condition of one or more issuers of the securities held in our portfolio, or due to a deterioration in the financial condition of an insurer that guarantees an issuer's payments of such investments. Such defaults and impairments could reduce our net investment income and result in realized investment losses. During an economic downturn, fixed maturity and short-term investments could be subject to a higher risk of default, and our non-fixed income investments could be negatively impacted as well. Rapid changes in commodity prices, such as a significant decline in oil prices, could also subject certain of our investments to a higher risk of default.

Our fixed maturity investment portfolio is invested, in substantial part, in obligations of states, municipalities and political subdivisions (collectively referred to as the municipal bond portfolio). Notwithstanding the relatively low historical rates of default on many of these obligations and notwithstanding that we typically seek to invest in high-credit-quality securities (including those with structural protections such as being secured by dedicated or pledged sources of revenue), our municipal bond portfolio could be subject to default or impairment. In particular:

• In recent years, many state and local governments have been operating under deficits or projected deficits. The severity and duration of these deficits could have an adverse impact on the collectability and valuation of our municipal bond portfolio. These deficits may be exacerbated by the impact of unfunded pension plan obligations and other

postretirement obligations or by declining municipal tax bases and revenues in times of financial stress. The recent tax reform also could lead state and local governments to decrease taxes, which could result in a deterioration of the credit quality of these state and local governments.

- Some municipal bond issuers may be unwilling to increase tax rates, or to reduce spending, to fund interest or principal
 payments on their municipal bonds, or may be unable to access the municipal bond market to fund such payments.
 The risk of widespread defaults may increase if some issuers voluntarily choose to default, instead of implementing
 difficult fiscal measures, and the actual or perceived consequences (such as reduced access to capital markets) are less
 severe than expected.
- The risk of widespread defaults may also increase if there are changes in legislation that permit states, municipalities and political subdivisions to file for bankruptcy protection where they were not permitted before. In addition, the collectability and valuation of municipal bonds may be adversely affected if there are judicial interpretations in a bankruptcy or other proceeding that lessen the value of structural protections. For example, debtors may challenge the effectiveness of structural protections thought to be provided by municipal securities backed by a dedicated source of revenue. The collectability and valuation may also be adversely affected if there are judicial interpretations in a bankruptcy or other proceeding that question the payment priority of municipal bonds.

Approximately 27% of the fixed maturity portfolio is expected to mature over the next three years (this includes the early redemption of bonds, assuming interest rates (including credit spreads) do not rise significantly by applicable call dates). As a result, even if our investment strategy does not significantly change over the next few years, the overall yield on and composition of our portfolio could be meaningfully impacted by the types of investments available for reinvestment with the proceeds of matured bonds. For example, if yields decrease when we reinvest such proceeds, our future net investment income would be adversely affected. In addition, depending on the specific bonds available for purchase at the time of re-investment, the mix of specific issuers in our fixed-income and municipal bond portfolio will change.

Our portfolio has benefited from tax exemptions (such as those related to interest from municipal bonds) and certain other tax laws, including, but not limited to, those governing dividends-received deductions and tax credits. Changes in these laws could adversely impact the value of our investment portfolio. See "Changes in U.S. tax laws or in the tax laws of other jurisdictions in which we operate could adversely impact us" below.

Our investment portfolio includes: residential mortgage-backed securities; collateralized mortgage obligations; pass-through securities and asset-backed securities collateralized by sub-prime mortgages; commercial mortgage-backed securities; and whollyowned real estate and real estate partnerships, all of which could be adversely impacted by declines in real estate valuations and/or financial market disruption.

We also invest a portion of our assets in equity securities, private equity limited partnerships, hedge funds and real estate partnerships. From time to time, we may also invest in other types of non-fixed maturity investments, including investments with exposure to commodity price risk, such as oil. All of these asset classes are subject to greater volatility in their investment returns than fixed maturity investments. General economic conditions, changes in applicable tax laws and many other factors beyond our control can adversely affect the value of our non-fixed maturity investments and the realization of net investment income, and/or result in realized investment losses. As a result of these factors, we may realize reduced returns on these investments, incur losses on sales of these investments and be required to write down the value of these investments, which could reduce our net investment income and result in realized investment losses. From time to time, the Company enters into short positions in U.S. Treasury futures contracts to manage the duration of its fixed maturity portfolio, which can result in realized investment losses.

Our investment portfolio is also subject to increased valuation uncertainties when investment markets are illiquid. The valuation of investments is more subjective when markets are illiquid, thereby increasing the risk that the estimated fair value (i.e., the carrying amount) of the portion of the investment portfolio that is carried at fair value as reflected in our financial statements is not reflective of prices at which actual transactions could occur.

We may, depending on circumstances in the future, including as a result of changes in economic and market conditions, make changes to the mix of investments in our investment portfolio as part of our ongoing efforts to seek appropriate risk-adjusted returns. These changes may impact the duration, volatility and risk of our investment portfolio. For example, the percentage of our investment portfolio consisting of tax-exempt municipal bonds has decreased from 42% at December 31, 2017 to 38% at December 31, 2019 due, in part, to the impact of the Tax Cuts and Jobs Act of 2017 on the municipal bond market.

Because of the risks set forth above, the value of our investment portfolio could decrease, we could experience reduced net investment income and we could experience realized and/or unrealized investment losses, which could materially and adversely affect our results of operations, financial position and/or liquidity.

The intense competition that we face, and the impact of innovation, technological change and changing customer preferences on the insurance industry and the markets in which we operate, could harm our ability to maintain or increase our business volumes and our profitability. The property and casualty insurance industry is highly competitive, and we believe that it will remain highly competitive for the foreseeable future. We compete with both domestic and foreign insurers, including an increasing number of start-ups, which may offer products at prices and on terms that are not consistent with our economic standards in an effort to maintain or increase their business. The competitive environment in which we operate could also be impacted by current general economic conditions, which could reduce the volume of business available to us as well as to our competitors. In recent years, pension and hedge funds and other entities with substantial available capital and potentially lower return objectives have increasingly sought to participate in the property and casualty insurance and reinsurance businesses. Wellcapitalized new entrants to the property and casualty insurance and reinsurance industries and existing competitors that receive substantial infusions of capital may conduct business in ways that adversely impact our business volumes and profitability. Further, an expanded supply of reinsurance capital may lower costs for insurers that rely significantly on reinsurance and, as a consequence, those insurers may be able to price their products more competitively. In addition, the competitive environment could be impacted by changes in customer preferences, including customer demand for direct distribution channels and/or greater choice, not only in personal lines (where we currently and may increasingly compete against direct writers), but also in commercial lines (where direct writers may become a more significant source of competition in the future, particularly in the small commercial market). Similarly, customer behavior could evolve in the future towards buying insurance in point-of-sale or other non-traditional distribution channels where we do not currently have a meaningful presence or which are designed to sell products that we currently do not provide. Consolidation within the insurance industry also could alter the competitive environment in which we operate, which may impact our business volumes and/or the rates or terms of our products.

In Personal Insurance, the use of comparative rating technologies has impacted, and may continue to impact, our business as well as the industry as a whole. A substantial amount of the Company's Personal Insurance new business is written after an agent compares quotes using comparative rating technologies, a cost-efficient means of obtaining quotes from multiple companies. Because the use of this technology, whether by agents or directly by customers, facilitates the process of generating multiple quotes, the technology has increased price comparison on new business and, increasingly, on renewal business. It also has resulted in an increase in the level of quote activity and a lower percentage of quotes that result in new business from customers, and these trends may continue or accelerate. If we are not able to operate with a competitive cost structure or accurately estimate and price for claims and claim adjustment expenses, our business volume and underwriting margins could be adversely affected over time. Additionally, similar technology is starting to be used to access comparative rates for small commercial business and that trend is likely to continue and may accelerate. In recent years, there have been new entrants into the small commercial insurance business and this trend may continue.

Technology companies or other third parties have created, and may in the future create, digitally-enabled business models, platforms or alternate distribution channels for personal or commercial business that may adversely impact our competitive position. These technology companies or other third parties may compete with us directly by providing, or arranging to provide, insurance coverage themselves. See also "Disruptions to our relationships with our independent agents and brokers could adversely affect us" below.

Other technological changes also present competitive risks. For example, our competitive position could be impacted if we are unable to deploy, in a cost effective and competitive manner, technology such as artificial intelligence and machine learning that collects and analyzes a wide variety of data points (so-called "big data" analysis) to make underwriting or other decisions, or if our competitors collect and use data which we do not have the ability to access or use. In addition, innovations, such as telematics and other usage-based methods of determining premiums, can impact product design and pricing and may become an increasingly important competitive factor. See also "Our business success and profitability depend, in part, on effective information technology systems and on continuing to develop and implement improvements in technology, particularly as our business processes become more digital" below.

Competitive dynamics may impact the success of efforts to improve our underwriting margins on our insurance products. These efforts could include seeking improved rates, as well as improved terms and conditions, and could also include other initiatives, such as reducing operating expenses and acquisition costs. These efforts may not be successful and/or may result in lower retention and new business levels and therefore lower business volumes. In addition, if our underwriting is not effective, further efforts to increase rates could also lead to "adverse selection", whereby accounts retained have higher losses, and are less profitable, than accounts lost. For more detail, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Outlook."

Similar to other industries, the insurance industry is undergoing rapid and significant technological and other change. Traditional insurance industry participants, technology companies, "InsurTech" start-up companies, the number of which has increased significantly in recent years and some of which are supported by traditional insurance industry participants, and others are focused on using technology and innovation to simplify and improve the customer experience, increase efficiencies, redesign products, alter business models and effect other potentially disruptive changes in the insurance industry. If we do not anticipate, keep pace with and adapt to technological and other changes impacting the insurance industry, it will harm our ability to compete, decrease the value of our products to customers, and materially and adversely affect our business. Furthermore, innovation, technological change and changing customer preferences in the markets in which we operate also pose risks to our business. For example, technologies such as driverless vehicles, assisted-driving or accident prevention technologies, technologies that facilitate ride or home sharing, smart homes or automation could reduce the number of vehicles in use and/or the demand for, or profitability of, certain of our products, create coverage issues or impact the frequency or severity of losses, and we may not be able to respond effectively. While there is substantial uncertainty as to the timing of any impact, in the case of driverless vehicles in particular, new legal frameworks or business practices could be adopted that reduce the size of the auto insurance market.

Overall, our competitive position in our various businesses is based on many factors, including but not limited to our:

- ability to profitably price our business, retain existing customers and obtain new business;
- premiums charged, contract terms and conditions, products and services offered (including the ability to design customized programs);
- agent, broker and policyholder relationships;
- ability to keep pace relative to our competitors with changes in technology, information systems, data and analytics;
- effectiveness of our claims process, including the speed of payment;
- ability to avoid and mitigate fraudulent claims;
- ability to provide our products and services in a cost effective manner;
- ability to provide new products and services to meet changing customer needs;
- ability to adapt to changes in business models, technology, customer preferences or regulation impacting the markets in which we operate;
- ability to provide access to the distribution channels preferred by customers and prospective customers;
- perceived overall financial strength and corresponding ratings assigned by independent rating agencies;
- reputation, experience and qualifications of employees;
- geographic scope of business; and
- local presence.

We may have difficulty in continuing to compete successfully on any of these bases in the future. If competition or technological or other changes to the markets in which we operate limit our ability to retain existing business or write new business at adequate rates or on appropriate terms, our results of operations could be materially and adversely affected. See "Competition" sections of the discussion on business segments in "Item 1—Business."

Our business could be harmed because of our potential exposure to asbestos and environmental claims and related litigation. With regard to asbestos claims, we have received and continue to receive a significant number of asbestos claims. Factors underlying these claim filings include continued intensive advertising by lawyers seeking asbestos claimants and the continued focus by plaintiffs on defendants, such as manufacturers of talcum powder, who were not traditionally primary targets of asbestos litigation. The focus on these defendants is primarily the result of the number of traditional asbestos defendants who have sought bankruptcy protection in previous years. The bankruptcy of many traditional defendants has also caused increased settlement demands against those policyholders who are not in bankruptcy but remain in the tort system. Currently, in many jurisdictions, those who allege very serious injury and who can present credible medical evidence of their injuries are receiving priority trial settings in the courts, while those who have not shown any credible disease manifestation are having their hearing dates delayed or placed on an inactive docket. This trend of prioritizing claims involving credible evidence of injuries, along with the focus on defendants who were not traditionally primary targets of asbestos litigation, has contributed to the claims and claim adjustment expense payments we experienced.

We also continue to be involved in coverage litigation concerning a number of policyholders, some of whom have filed for bankruptcy, who in some instances have asserted that all or a portion of their asbestos-related claims are not subject to aggregate limits on coverage. In these instances, policyholders also may assert that each individual bodily injury claim should be treated as a separate occurrence under the policy. It is difficult to predict whether these policyholders will be successful on both issues. To the extent both issues are resolved in a policyholder's favor and our other defenses are not successful, our coverage obligations under the policies at issue would be materially increased and bounded only by the applicable per-occurrence limits and the number

of asbestos bodily injury claims against the policyholders. Although we have seen a moderation in the overall risk associated with these lawsuits, it remains difficult to predict the ultimate cost of these claims.

Further, in addition to claims against policyholders, proceedings have been launched directly against insurers, including us, by individuals challenging insurers' conduct with respect to the handling of past asbestos claims and by individuals seeking damages arising from alleged asbestos-related bodily injuries. It is possible that the filing of other direct actions against insurers, including us, could be made in the future. It is difficult to predict the outcome of these proceedings, including whether the plaintiffs will be able to sustain these actions against insurers based on novel legal theories of liability.

With regard to environmental claims, we have received and continue to receive claims from policyholders who allege that they are liable for injury or damage arising out of their alleged disposition of toxic substances. Mostly, these claims arise under various legislative as well as regulatory efforts aimed at environmental remediation. For instance, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), enacted in 1980 and later modified, enables private parties as well as federal and state governments to take action with respect to releases and threatened releases of hazardous substances. This federal statute permits the recovery of response costs from some liable parties and may require liable parties to undertake their own remedial action. Liability under CERCLA and similar state laws may be imposed on certain parties even if they did not cause the release or threatened release of hazardous substances and may be joint and several with other responsible parties.

The Company has been, and continues to be, involved in litigation involving insurance coverage issues pertaining to asbestos and environmental claims. The Company believes that some court decisions have interpreted the insurance coverage to be broader than the original intent of the insurers and policyholders. These decisions continue to be inconsistent and vary from jurisdiction to jurisdiction.

Uncertainties surrounding the final resolution of these asbestos and environmental claims continue, and it is difficult to estimate our ultimate liability for such claims and related litigation. As a result, these reserves are subject to revision as new information becomes available and as claims develop. The continuing uncertainties include, without limitation:

- the risks and lack of predictability inherent in complex litigation;
- a further increase in the cost to resolve, and/or the number of, asbestos and environmental claims beyond that which is anticipated;
- the emergence of a greater number of asbestos claims than anticipated as a result of extended life expectancies resulting from medical advances and lifestyle improvements;
- the role of any umbrella or excess policies we have issued;
- the resolution or adjudication of disputes concerning coverage for asbestos and environmental claims in a manner inconsistent with our previous assessment of these disputes;
- the number and outcome of direct actions against us;
- future developments pertaining to our ability to recover reinsurance for asbestos and environmental claims;
- any impact on asbestos defendants we insure due to the bankruptcy of other asbestos defendants;
- the unavailability of other insurance sources potentially available to policyholders, whether through exhaustion of policy limits or through the insolvency of other participating insurers; and
- uncertainties arising from the insolvency or bankruptcy of policyholders.

It is also not possible to predict changes in the legal, regulatory and legislative environment and their impact on the future development of asbestos and environmental claims. This environment could be affected by changes in applicable legislation and future court and regulatory decisions and interpretations, including the outcome of legal challenges to legislative and/or judicial reforms establishing medical criteria for the pursuit of asbestos claims. It is also difficult to predict the ultimate outcome of complex coverage disputes until settlement negotiations near completion and significant legal questions are resolved or, failing settlement, until the dispute is adjudicated. This is particularly the case with policyholders in bankruptcy where negotiations often involve a large number of claimants and other parties and require court approval to be effective.

While the ongoing evaluation of asbestos and environmental claims and associated liabilities considers the inconsistencies of court decisions as to coverage, plaintiffs' expanded theories of liability and the risks inherent in complex litigation and other uncertainties, it is possible that the outcome of the continued uncertainties regarding these claims could result in liability in future periods that differs from current reserves by an amount that could materially and adversely affect our results of operations. See the "Asbestos Claims and Litigation" and "Environmental Claims and Litigation" sections of "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations." Also see "Item 3—Legal Proceedings."

Disruptions to our relationships with our independent agents and brokers or our inability to manage effectively a changing distribution landscape could adversely affect us. We market our insurance products primarily through independent agents and brokers. An important part of our business is written through less than a dozen such intermediaries, as well as agency affiliates of other insurance carriers, such as GEICO, with whom we have had a distribution arrangement for homeowners' business since 1995. Further, there has been a trend of increased consolidation by agents and brokers, which could impact our relationships with, and fees paid to, some agents and brokers, and/or otherwise negatively impact the pricing or distribution of our products. Agents and brokers may increasingly compete with us to the extent that markets increasingly provide them with direct access to providers of capital seeking exposure to insurance risk or if they become affiliated with carriers that compete with us. See also "The intense competition that we face could harm our ability to maintain or increase our business volumes and our profitability." In all of the foregoing situations, loss of all or a substantial portion of the business provided through such agents and brokers could materially and adversely affect our future business volume and results of operations.

We may also seek to develop new products or distribution channels, which could disrupt our relationships with our agents and brokers. In addition, agents and brokers may create alternate distribution channels for commercial business that may adversely impact product differentiation and pricing. Access to greater levels of data and increased utilization of technology by agents and brokers may also impact our relationship with them and our competitive position. Our efforts or their efforts with respect to new products or alternate distribution channels, as well as changes in the way agents and brokers utilize data and technology, including in ways that may be in direct competition with us, could adversely impact our business relationship with independent agents and brokers who currently market our products, resulting in a lower volume and/or profitability of business generated from these sources.

In certain markets, brokers increasingly have been packaging portfolios of risks together and offering them to fewer carriers as well as, in some cases, requesting a commitment to participate in such portfolios in advance. In these and other situations, agents and brokers have an increased influence over policy language and compensation structure which, if we participate on that basis, could adversely impact our ability to profitably manage underwriting risk. It could also lead to commoditization of products, which could increase the focus on price and cost management and decrease our ability to differentiate our products in the marketplace with customers based on other factors.

We rely on internet applications for the marketing and sale of certain of our products, and we may increasingly rely on internet applications and toll-free numbers for distribution. In some instances, our agents and brokers are required to access separate business platforms to execute the sale of our personal insurance or commercial insurance products. Should internet disruptions occur, or frustration with our business platforms or distribution initiatives develop among our independent agents and brokers, any resulting loss of business could materially and adversely affect our future business volume and results of operations. See "If we experience difficulties with technology, data and network security (including as a result of cyber attacks), outsourcing relationships or cloud-based technology, our ability to conduct our business could be negatively impacted" below.

Customers in the past have brought claims against us for the actions of our agents. Even with proper controls in place, actual or alleged errors or inaccuracies by our agents could result in our involvement in disputes, litigation or regulatory actions related to actions taken or not taken by our agents.

We are exposed to, and may face adverse developments involving, mass tort claims such as those relating to exposure to potentially harmful products or substances. In addition to asbestos and environmental claims, we face potential exposure to other types of mass tort claims, including claims related to exposure to potentially harmful products or substances, such as lead paint, silica, talc and opioids. Establishing claims and claim adjustment expense reserves for mass tort claims is subject to uncertainties because of many factors, including adverse changes to the tort environment (e.g., increased and more aggressive attorney involvement in insurance claims, increased litigation, expanded theories of liability, higher jury awards, lawsuit abuse and third-party litigation finance, among others), disputes concerning medical causation with respect to certain diseases, geographical concentration of the lawsuits asserting the claims and the potential for a large rise in the total number of claims without underlying epidemiological developments suggesting an increase in disease rates. Moreover, evolving judicial interpretations regarding the application of various tort theories and defenses, including application of various theories of joint and several liabilities, as well as the application of insurance coverage to these claims, make it difficult to estimate our ultimate liability for such claims.

Because of the uncertainties set forth above, additional liabilities may arise for amounts in excess of the current related reserves. In addition, our estimate of claims and claim adjustment expenses may change, and such change could be material. These additional liabilities or increases in estimates, or a range of either, cannot now be reasonably estimated and could materially and adversely affect our results of operations.

The effects of emerging claim and coverage issues on our business are uncertain, and court decisions or legislative changes that take place after we issue our policies can result in an unexpected increase in the number of claims and have a material adverse impact on our results of operations. As industry practices and legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to claim and coverage may emerge. These issues may adversely affect our business, including by extending coverage beyond our underwriting intent, by increasing the number, size or types of claims or by mandating changes to our underwriting practices. Examples of such claims and coverage issues include, but are not limited to:

- judicial expansion of policy coverage and the impact of new or expanded theories of liability;
- plaintiffs targeting property and casualty insurers, including us, in purported class action litigation relating to claims handling and other practices;
- claims relating to construction defects, which often present complex coverage and damage valuation questions;
- claims under directors' & officers' and/or errors and omissions insurance policies relating to losses from involvement
 in financial market activities; failed financial institutions; fraud; improper sales practices; anti-trust allegations; possible
 accounting irregularities; and corporate governance issues;
- claims related to data and network security breaches, information system failures or cyber events, including cases where coverage was not intended to be provided;
- the assertion of "public nuisance" or similar theories of liability, pursuant to which plaintiffs, including governmental entities, seek to recover monies spent to administer public health care programs, abate hazards to public health and safety and/or recover damages purportedly attributable to a "public nuisance," such as litigation against lead paint manufacturers or manufacturers or distributors of opioids;
- claims related to liability or workers' compensation arising out of the spread of infectious disease or pandemic;
- claims relating to abuse by an employee or a volunteer of an insured;
- claims that link health issues to particular causes (for example, cumulative traumatic head injury from sports or other causes), resulting in liability or workers' compensation claims;
- claims alleging that one or more of our underwriting criteria have a disparate impact on persons belonging to a protected class in violation of the law, including the Fair Housing Act;
- claims arising out of modern techniques and practices used in connection with the extraction of natural resources, such as hydraulic fracturing or wastewater injection;
- claims arising out of the use of personal cars, homes or other property in commercial transactions, such as ride or home sharing;
- claims relating to unanticipated consequences of current or new technologies or business models or processes, including
 as a result of related behavioral changes; and
- claims relating to changing climate conditions, including claims alleging that our policyholders cause or contribute to changing climate conditions.

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

In addition, the passage of new legislation designed to expand the right to sue, to remove limitations on recovery, to deem by statute the existence of a covered occurrence, to extend or eliminate the statutes of limitations or otherwise to repeal or weaken tort reforms could have an adverse effect on our results of operations. For example, a number of states have enacted legislation allowing victims of sexual molestation to file or proceed with claims that otherwise would have been time-barred and additional states are considering similar legislative changes.

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

We may not be able to collect all amounts due to us from reinsurers, reinsurance coverage may not be available to us in the future at commercially reasonable rates or at all and we are exposed to credit risk related to our structured settlements. Although the reinsurer is liable to us to the extent of the ceded reinsurance, we remain liable as the direct insurer on all risks reinsured. As a result, ceded reinsurance arrangements do not eliminate our obligation to pay claims. Accordingly, we are subject to credit risk with respect to our ability to recover amounts due from reinsurers.

In the past, certain reinsurers have ceased writing business and entered into runoff. Some of our reinsurance claims may be disputed by the reinsurers, and we may ultimately receive partial or no payment. This is a particular risk in the case of claims that relate to insurance policies written many years ago, including those relating to asbestos and environmental claims. In addition, in a number of jurisdictions, particularly the European Union and the United Kingdom as well as a small number of U.S. states,

a reinsurer is permitted to transfer a reinsurance arrangement to another reinsurer, which may be less creditworthy, without a counterparty's consent, provided that the transfer has been approved by the applicable regulatory and/or court authority.

Included in reinsurance recoverables are amounts related to certain structured settlements. Structured settlements are annuities purchased from various life insurance companies to settle certain personal physical injury claims, of which workers' compensation claims comprise a significant portion. In cases where we did not receive a release from the claimant, the structured settlement is included in reinsurance recoverables and the related claim cost is included in the liability for claims and claim adjustment expense reserves, as we retain the contingent liability to the claimant. Some of the life insurance companies from which we have purchased structured settlements have been downgraded to below investment grade credit ratings subsequent to the time of the purchase. If it is expected that the life insurance company is not able to pay, we would recognize an impairment of the related reinsurance recoverable if, and to the extent, the purchased annuities are not covered by state guaranty associations. In the event that the life insurance company fails to make the required annuity payments, we would be required to make such payments. For a discussion of our top reinsurance groups by reinsurance recoverable and the top five groups by amount of structured settlements provided, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Reinsurance Recoverables."

The availability and cost of reinsurance are subject to prevailing market conditions, both in terms of price and available capacity. The availability of reinsurance capacity can be impacted by general economic conditions and conditions in the reinsurance market, such as the occurrence of significant reinsured events or unexpected adverse trends. The availability and cost of reinsurance could affect our business volume and profitability. In addition, the Covered Agreements between the U.S. and each of the EU and U.K. eliminate the requirement for European and U.K. reinsurers operating in the U.S. to provide collateral in connection with reinsurance agreements, which could make it more difficult for U.S. companies, including us, to obtain sufficient collateral, if any, in such reinsurance arrangements.

Because of the risks set forth above, we may not be able to collect all amounts due to us from reinsurers, and reinsurance coverage may not be available to us in the future at commercially reasonable rates or at all, and/or life insurance companies may fail to make required annuity payments, and thus our results of operations could be materially and adversely affected.

We are exposed to credit risk in certain of our insurance operations and with respect to certain guarantee or indemnification arrangements that we have with third parties. In addition to exposure to credit risk related to our investment portfolio and reinsurance recoverables (discussed above), we are exposed to credit risk in several other areas of our business operations, including credit risk relating to policyholders, independent agents and brokers.

We are exposed to credit risk in our surety insurance operations, where we guarantee to a third party that our customer will satisfy certain performance obligations (e.g., a construction contract) or certain financial obligations, including exposure to large customers who may have obligations to multiple third parties. If our customer defaults, we may suffer losses and not be reimbursed by that customer, even though we are entitled to indemnification from such customer. In addition, it is customary practice in the surety business for multiple insurers to participate as co-sureties on large surety bonds. Under these arrangements, the co-surety obligations are typically joint and several, in which case we are also exposed to credit risk with respect to our co-sureties.

In addition, a portion of our business is written with large deductible insurance policies. Under casualty insurance contracts with deductible features, we are obligated to pay the claimant the full amount of the settled claim. We are subsequently reimbursed by the contractholder for the deductible amount, and, as a result, we are exposed to credit risk to the policyholder. Moreover, certain policyholders purchase retrospectively rated workers' compensation and/or general liability policies (i.e., policies in which premiums are adjusted after the policy period based on the actual loss experience of the policyholder during the policy period). Retrospectively rated policies expose us to additional credit risk to the extent that the adjusted premium is greater than the original premium.

Our efforts to mitigate the credit risk that we have to our insureds may not be successful. To reduce such credit risk, we require certain insureds to post collateral for some or all of these obligations, often in the form of pledged securities such as money market funds or letters of credit provided by banks, surety bonds or cash. In cases where we receive pledged securities and the insureds are unable to honor their obligations, we may be exposed to credit risk on the securities pledged and/or the risk that our access to that collateral may be stayed during an insured's bankruptcy. In cases where we receive letters of credit from banks and the insureds are unable to honor their obligations, we are exposed to the credit risk of the banks that issued the letters of credit.

In accordance with industry practice, when policyholders purchase insurance policies from us through independent agents and brokers, the premiums relating to those policies are often paid to the agents and brokers for payment to us. In most jurisdictions,

the premiums will be deemed to have been paid to us whether or not they are actually received by us. Consequently, we assume a degree of credit risk associated with amounts due from independent agents and brokers.

To a large degree, the credit risk we face is a function of the economy; accordingly, we face an increased credit risk in an economic downturn. While we attempt to manage the risks discussed above through underwriting guidelines, collateral requirements and other oversight mechanisms, our efforts may not be successful. For example, collateral obtained may subsequently have little or no value. Further, the amount of collateral protection we have been able to obtain on the business we write in certain markets has decreased, and may continue to decrease, as a result of competition. We are also exposed to credit risk related to certain guarantee or indemnification arrangements that we have with third parties. See note 16 of notes to the consolidated financial statements. As a result, our exposure to the above credit risks could materially and adversely affect our results of operations.

Within the United States, our businesses are heavily regulated by the states in which we conduct business, including licensing, market conduct and financial supervision, and changes in regulation may reduce our profitability and limit our growth. These regulatory systems are generally designed to protect the interests of policyholders, and not necessarily the interests of insurers, their shareholders and other investors. For example, to protect policyholders whose insurance company becomes financially insolvent, guaranty funds have been established in all 50 states to pay the covered claims of policyholders in the event of an insolvency of an insurer, subject to applicable state limits. The funding of guaranty funds is provided through assessments levied against remaining insurers in the marketplace. As a result, the insolvency of one or more insurance companies or an increase in amounts paid by guaranty funds could result in additional assessments levied against us.

These regulatory systems also address authorization for lines of business, statutory capital and surplus requirements, limitations on the types and amounts of certain investments, underwriting limitations, transactions with affiliates, dividend limitations, changes in control, premium rates and a variety of other financial and non-financial components of an insurer's business including, recently, cyber-security. In addition, many states restrict the timing and/or the ability of an insurer to discontinue writing a line of business or to cancel or non-renew certain policies.

The state insurance regulatory framework has been under continuing scrutiny, and some state legislatures have considered or enacted laws that may alter or increase state authority to regulate insurance companies and insurance holding companies. Further, the NAIC and state insurance regulators continually re-examine existing laws and regulations, specifically focusing on modifications to holding company regulations, interpretations of existing laws and the development of new laws and regulations.

As part of these changes, insurance holding company regulations were amended to require insurers who are part of a holding company system to file an enterprise risk report to provide the lead insurance regulator with a summary of the company's Enterprise Risk Management (ERM) framework, including the material risks within the insurance holding company system that could pose risk to the insurance entities within the holding company system. Insurers having premium volume above certain thresholds, including the Company, are also required to perform at least annually a self-assessment of their current and future risks, including their likely future solvency position (known as an own risk and solvency assessment or ORSA) and file a confidential report with the insurer's lead insurance regulator. The requirement for an insurer to conduct an ORSA is intended to foster an effective level of ERM for all insurers within a holding company system, and to provide a group-wide perspective on risk and capital as a supplement to the legal entity view. ORSA is now included in the International Association of Insurance Supervisors (IAIS) standards and is in various stages of implementation in the United States, Europe, Canada, and other jurisdictions. It is possible that, as a result of ORSA and the manner in which it may be used by insurance regulators, our states of domicile or other regulatory bodies may require changes in our ERM process (e.g., prescribe the use of specific models or the application of certain assumptions or scenarios in the Company's models) that have the effect of limiting our ability to write certain risks, limit our risk appetite to write additional business or reduce our capital management flexibility. See "Item 1—Business—Enterprise Risk Management" for further discussion of the Company's ERM.

The NAIC and state insurance regulators, as well as the Federal Reserve and Federal Insurance Office, are currently working with the IAIS to complete a global common framework (ComFrame) for the supervision of internationally active insurance groups (IAIGs). If adopted in the jurisdictions in which the Company conducts business, ComFrame would require the designation of a group-wide supervisor (regulator) for each IAIG and would impose a group capital requirement that would be applied to an IAIG in addition to the current legal entity capital requirements imposed by state insurance laws and regulations. In response to ComFrame, the NAIC developed a model law that allows state insurance regulators in the U.S. to be designated as group-wide supervisors for U.S.-based IAIGs. Additionally, the NAIC is developing a group capital analytical tool that would be applied to U.S.-based insurance groups in addition to the risk-based capital (RBC) requirement that is applied on a legal entity basis. These regulatory developments could increase the amount of capital that the Company is required to have and could result in the Company being subject to increased regulatory requirements. See "Regulatory changes outside of the United States, including in Canada, the U.K., the Republic of Ireland and the European Union, could adversely impact our results of operations and limit our growth"

for further discussion of these changes and how these changes could be impacted by the Covered Agreements between the U.S. and the EU and the U.K.

States may choose to adopt more restrictive insurance laws and regulations that could, among other things, restrict the ability of insurance subsidiaries to distribute funds to their parent companies or they could reject rate increases due to the economic environment. The state insurance regulators may also increase the statutory capital and surplus requirements for our insurance subsidiaries. In addition, state tax laws that specifically impact the insurance industry, such as premium taxes or other taxes, could be enacted or changed by states to raise revenues.

Other state legislative actions could impact our business as well. For example, changes to state law regarding workers' compensation insurance could impact the demand for our products, and the legalization of cannabis in certain states could potentially increase loss costs. State laws or regulations that are adopted or amended may be more restrictive than current laws or regulations and may result in lower revenues and/or higher costs of compliance and, as a result, could materially and adversely affect our results of operations.

A downgrade in our claims-paying and financial strength ratings could adversely impact our business volumes, adversely impact our ability to access the capital markets and increase our borrowing costs. Claims-paying and financial strength ratings are important to an insurer's competitive position. Rating agencies periodically review insurers' ratings and change their ratings criteria; therefore, our current ratings may not be maintained in the future. A downgrade in one or more of our ratings could negatively impact our business volumes because demand for certain of our products may be reduced, particularly because many customers may require that we maintain minimum ratings to enter into, maintain or renew business with us. Additionally, we may find it more difficult to access the capital markets and we may incur higher borrowing costs. If significant losses, including, but not limited to, those resulting from one or more major catastrophes, or significant reserve additions or significant investment losses were to cause our capital position to deteriorate significantly, or if one or more rating agencies substantially increase their capital requirements, we may need to raise equity capital in the future (which we may not be able to do at a reasonable cost or at all, especially at a time of financial market disruption) in order to maintain our ratings or limit the extent of a downgrade. A continued trend of more frequent and severe weather-related or other catastrophes or a prolonged financial market disruption or economic downturn may lead rating agencies to substantially increase their capital requirements. See also "During or following a period of financial market disruption or economic downturn, our business could be materially and adversely affected." For further discussion about our ratings, see "Item 1—Business—Ratings."

The inability of our insurance subsidiaries to pay dividends to our holding company in sufficient amounts would harm our ability to meet our obligations, pay future shareholder dividends and/or make future share repurchases. Our holding company relies on dividends from our U.S. insurance subsidiaries to meet our obligations for payment of interest and principal on outstanding debt, to pay dividends to shareholders, to make contributions to our qualified domestic pension plan, to pay other corporate expenses and to make share repurchases. The ability of our insurance subsidiaries to pay dividends to our holding company in the future will depend on their statutory capital and surplus, earnings and regulatory restrictions.

We are subject to state insurance regulation as an insurance holding company system. Our U.S. insurance subsidiaries are subject to various regulatory restrictions that limit the maximum amount of dividends available to be paid to their parent without prior approval of insurance regulatory authorities. In a time of prolonged economic downturn or otherwise, insurance regulators may choose to further restrict the ability of insurance subsidiaries to make payments to their parent companies. The ability of our insurance subsidiaries to pay dividends to our holding company is also restricted by regulations that set standards of solvency that must be met and maintained.

The inability of our insurance subsidiaries to pay dividends to our holding company in an amount sufficient to meet our debt service obligations and other cash requirements could harm our ability to meet our obligations, to pay future shareholder dividends and to make share repurchases.

Our efforts to develop new products, expand in targeted markets or improve business processes and workflows may not be successful and may create enhanced risks. From time to time, to protect and grow market share and/or improve our efficiency, we invest in strategic initiatives to:

- Improve business processes and workflow to increase efficiencies and productivity and to enhance the experience of our customers and distributors;
- Change our underwriting processes;
- Develop products that insure risks we have not previously insured, contain new coverages or change coverage terms;
- Expand distribution channels;

- Change commission terms; and
- Enter geographic markets within or outside of the United States where we have had relatively little or no market share.

We may not be successful in these efforts, and even if we are successful, they may create the following risks, among others:

- Changes to our business processes or workflow, including the use of new technologies, may give rise to execution risk;
- Models underlying automated underwriting and pricing decisions may not be effective;
- Demand for new products or expansion into new markets may not meet our expectations;
- New products and expansion into new markets may change our risk exposures, and the data and models we use to manage such exposures may not be as effective as those we use in existing markets or with existing products;
- Efforts to develop new products or markets and to change commission terms may create or increase distribution channel
 conflict, such as described above under "—Disruptions to our relationships with our independent agents and brokers
 could adversely affect us;" and
- In connection with the conversion of existing policyholders to a new product, some policyholders' pricing may increase
 while the pricing for other policyholders may decrease, the net impact of which could negatively impact retention and
 profit margins.

These efforts may require us to make substantial expenditures, which may negatively impact results in the near term, and if not successful, could materially and adversely affect our results of operations.

We may be adversely affected if our pricing and capital models provide materially different indications than actual results.

The profitability of our property and casualty business substantially depends on the extent to which our actual claims experience is consistent with the assumptions we use in pricing our policies. We utilize proprietary and third party models to help us price business in a manner that is intended to be consistent, over time, with actual results and return objectives. We incorporate the Company's historical loss experience, external industry and other data, and economic indices into our modeling processes, and we use various methods, including predictive modeling, forecasting and sophisticated simulation modeling techniques, to analyze loss trends and the risks associated with our assets and liabilities. We also use these modeling processes, analyses and methods in making underwriting, pricing and reinsurance decisions as part of managing our exposure to catastrophes and other extreme adverse events. These modeling processes incorporate numerous assumptions and forecasts about the future level and variability of the frequency and severity of losses, inflation, interest rates and capital requirements, among others, that are difficult to make and may differ materially from actual results.

Whether we use a proprietary or third-party model, future experience may be materially different from past and current experience incorporated in a model's forecasts or simulations. This includes the likelihood of events occurring or continuing or the correlation among events. Third-party models may provide substantially different indications than what our proprietary modeling processes provide. As a result, third-party model estimates of losses can be, and often have been, materially different for similar events in comparison to our proprietary estimates. The differences between third-party model estimates and our proprietary estimates are driven by the use of different data sets as well as different assumptions and forecasts regarding the frequency and severity of events and claims arising from the events. In addition, as the number of third-party models increases, it becomes more difficult to validate and manage such models as they evolve over time, and the risk associated with assimilating the output from such models into our decisions increases.

If we fail to appropriately price the risks we insure or fail to change our pricing models to appropriately reflect our experience, or if our claims experience is more frequent or severe than our underlying risk assumptions, for example due to changing climate conditions, regulatory changes or changes in behavior such as distracted driving or a more aggressive tort environment, our profit margins may be negatively affected. If we underestimate the frequency and/or severity of extreme adverse events occurring, our financial condition may be adversely affected. If we overestimate the risks we are exposed to, we may overprice our products, and new business growth and retention of our existing business may be adversely affected. See "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Catastrophe Modeling."

Our business success and profitability depend, in part, on effective information technology systems and on continuing to develop and implement improvements in technology, particularly as our business processes become more digital. We depend in large part on our technology systems for conducting business and processing claims, as well as for providing the data and analytics we utilize to manage our business. As a result, our business success is dependent on maintaining the effectiveness of existing technology systems and on continuing to develop and enhance technology systems that support our business processes and strategic initiatives in a cost and resource efficient manner, particularly as our business processes become more digital. Some system development projects are long-term in nature, may negatively impact our expense ratios as we invest in the projects and may cost more than we expect to complete. In addition, system development projects may not deliver the benefits or perform as

expected, or may be replaced or become obsolete more quickly than expected, which could result in operational difficulties, additional costs or accelerated recognition of expenses. If we do not effectively and efficiently manage and upgrade our technology portfolio, or if the costs of doing so are higher than we expect, our ability to provide competitive services to, and conduct business with, new and existing customers in a cost effective manner and our ability to implement our strategic initiatives could be adversely impacted.

If we experience difficulties with technology, data and network security (including as a result of cyber attacks), outsourcing relationships or cloud-based technology, our ability to conduct our business could be negatively impacted. While technology can streamline many business processes and ultimately reduce the cost of operations, technology initiatives present significant risks. Our business is highly dependent upon our employees' ability to perform, in an efficient and uninterrupted fashion, necessary business functions. A shut-down of, or inability to access, one or more of our facilities (including our primary data processing facility); a power outage; or a failure of one or more of our information technology, telecommunications or other systems could significantly impair our ability to perform such functions on a timely basis, particularly if such an interruption lasts for an extended period of time. In the event of a computer virus or disaster such as a natural catastrophe, terrorist or other attack or industrial accident, our systems could be inaccessible for an extended period of time. In addition, because our information technology and telecommunications systems increasingly interface with and depend on third-party systems, including cloud-based, we could experience service denials or failures of controls if demand for our service exceeds capacity or a third-party system fails or experiences an interruption. Business interruptions and failures of controls could also result if our internal systems do not interface with each other as intended or if changes to such systems or our other business processes, such as new payment technologies, are not effectively implemented. Business continuity can also be disrupted by an event, such as a pandemic, that renders large numbers of a workforce unable to work as needed, particularly at critical locations; for example, our largest location employs about 19% of our employees. If our business continuity plans did not sufficiently address a business interruption, system failure or service denial, this could result in a deterioration of our ability to write and process new and renewal business, provide customer service, pay claims in a timely manner or perform other necessary business functions.

Our operations rely on the reliable and secure processing, storage and transmission of confidential and other information in our computer systems and networks. Computer viruses, hackers (including individuals, organizations or rogue states) and employee or vendor misconduct, and other external hazards, could expose our data systems to security breaches, cyber-attacks or other disruptions. Increased use of data supplied by third parties in our business increases our exposure to this risk. In addition, we routinely transmit and receive personal, confidential and proprietary information by e-mail and other electronic means. While we attempt to develop secure transmission capabilities with third-party vendors and others with whom we do business, we may be unable to put in place secure capabilities with all of such vendors and third parties and, in addition, these third parties may not have appropriate controls in place to protect the confidentiality of the information.

Like other global companies, our computer systems are regularly subject to and will continue to be the target of computer viruses, malware or other malicious codes (including ransomware), unauthorized access, cyber-attacks or other computer-related penetrations. While we have experienced threats to our data and systems, to date, we are not aware that we have experienced a material cyber-security breach. However, over time, the sophistication of these threats continues to increase. Our administrative and technical controls as well as other preventative actions we take to reduce the risk of cyber incidents and protect our information may be insufficient to detect or prevent unauthorized access, other physical and electronic break-ins, cyber-attacks or other security breaches to our computer systems or those of third parties with whom we do business. In addition, new technology that could result in greater operational efficiency may further expose our computer systems to the risk of cyber-attacks. Our increased use of open source software, cloud technology and software as a service can make it more difficult to identify and remedy such situations due to the disparate location of code utilized in our operations.

We have outsourced certain technology and business process functions to third parties and may increasingly do so in the future. If we do not effectively develop, implement and monitor our outsourcing relationships, if third party providers do not perform as anticipated, if we experience technological or other problems with a transition, or if outsourcing relationships relevant to our business process functions are terminated, we may not realize expected productivity improvements or cost efficiencies and may experience operational difficulties, increased costs and a loss of business. Our outsourcing of certain technology and business process functions to third parties may expose us to increased risk related to data security, service disruptions or the effectiveness of our control system, which could result in monetary and reputational damages or harm to our competitive position. These risks could increase as vendors increasingly offer cloud-based software services rather than software services which can be run within our data centers or as we choose to move additional functions to the cloud. See also "We could be adversely affected if our controls designed to ensure compliance with guidelines, policies and legal and regulatory standards are not effective." In addition to risks caused by third party providers, our ability to receive services from third-party providers outside of the United States might be impacted by cultural differences, political instability, unanticipated regulatory requirements or public policy inside or outside of the United States.

The increased risks identified above could expose us to data loss or manipulation, disruption of service, monetary and reputational damages, competitive disadvantage and significant increases in compliance costs and costs to improve the security and resiliency of our computer systems. The compromise of personal, confidential or proprietary information could also subject us to legal liability or regulatory action under evolving cyber-security, data protection and privacy laws and regulations enacted by the U.S. federal and state governments, Canada, the European Union or other jurisdictions or by various regulatory organizations or exchanges. As an example, the European General Data Protection Regulation became applicable in all European Union member states beginning May 25, 2018. This regulation adds a broad array of requirements for handling personal data and could impose a fine of up to 4% of global annual revenue for violations. It and similar regulations, including the California Consumer Privacy Act which became effective on January 1, 2020, could result in increased compliance costs and potential fines for non-compliance being imposed on us or our insureds. As a result, our ability to conduct our business and our results of operations might be materially and adversely affected.

We are also subject to a number of additional risks associated with our business outside the United States. We conduct business outside the United States primarily in Canada, the United Kingdom and the Republic of Ireland. In addition, we conduct business in Brazil, primarily through a joint venture, and we have an indirect interest in a joint venture in Colombia. We may also explore opportunities in other countries.

In conducting business outside of the United States, we are also subject to a number of additional risks, particularly in emerging economies. 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 our reputation. A portion of our premiums from outside of the United States is generated in Canada, a substantial portion of which consists of automobile premiums from the province of Ontario, which is a highly regulated market that can result in rate inadequacy. Our business activities outside the United States may also subject us to currency risk and, in some markets, it may be difficult to effectively hedge that risk, or we may choose not to hedge that risk. In addition, in some markets, we may invest as part of a joint venture with a local counterparty. Because our governance rights may be limited, we may not have control over the ability of the joint venture to make certain decisions and/or mitigate risks it faces, and significant disagreements with a joint venture counterparty may adversely impact our investment and/or reputation. Our business activities outside the United States could subject us to increased volatility in earnings resulting from the need to recognize and subsequently revise a valuation allowance associated with income taxes if we became unable to fully utilize any deferred tax assets, including loss carry-forwards from those foreign operations. Also, political instability, particularly in emerging economies, and changing market conditions around the globe, could result in financial market disruption or an economic downturn in such regions. The U.K.'s withdrawal from the European Union, for example, could have economic impacts such as inflation and decreased GDP in the U.K. and in regions that trade with the U.K. For certain specialty business, we give managing general agents binding authority, which exposes us to additional risks.

Our business activities outside the United States also subject us to additional domestic and foreign laws and regulations, including the Foreign Corrupt Practices Act and similar laws in other countries that prohibit the making of improper payments to foreign officials. Although we have policies and controls in place that are designed to ensure compliance with these laws, if those controls are ineffective and/or an employee or intermediary fails to comply with applicable laws and regulations, we could suffer civil and criminal penalties and our business and our reputation could be adversely affected. Some countries, particularly emerging economies, 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. In some jurisdictions, including Brazil, parties to a joint venture may, in some circumstances, have liability for some obligations of the venture, and that liability may extend beyond the capital invested. 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.

In addition, competition for skilled employees in developing markets and other non-U.S. locations may be intense. If we are not able to hire, integrate, motivate and retain a sufficient number of employees with the knowledge and background necessary for our global businesses, those businesses and our results of operations may be adversely affected.

Regulatory changes outside of the United States, including in Canada, the U.K., the Republic of Ireland and the European Union, could adversely impact our results of operations and limit our growth. Insurance laws or regulations that are adopted or amended in jurisdictions outside the U.S. may be more restrictive than current laws or regulations and may result in lower revenues and/or higher costs of compliance and thus could materially and adversely affect our results of operations and limit our growth.

In particular, the European Union's executive body, the European Commission, implemented new capital adequacy and risk management regulations called Solvency II on January 1,2016 that apply to the Company's businesses across the European Union. Under Solvency II, it is possible that the U.S. parent of a European Union subsidiary could be subject to certain Solvency II requirements if the regulator determines that the subsidiary's capital position is dependent on the parent company and the U.S. parent is not already subject to regulations deemed "equivalent" to Solvency II. In addition, regulators in countries where the Company has operations are working with the International Association of Insurance Supervisors (IAIS) (and with the NAIC, the Federal Reserve and FIO in the U.S.) to consider changes to insurance company supervision, including group supervision and group capital requirements.

The IAIS has developed a methodology for identifying "global systemically important insurers" (G-SIIs) and high level policy measures that will apply to the G-SIIs. The methodology and measures were endorsed by the Financial Stability Board (FSB) created by the G-20. Using the IAIS methodology, the FSB, working with national authorities and the IAIS, identified nine insurers in November 2016 that they designated as G-SIIs. The IAIS is working on the policy measures which include higher capital requirements and enhanced supervision. The Company has not been designated as a G-SII by the FSB; however, it is possible that the methodologies could be amended or interpreted differently in the future and the Company could be named as a G-SII.

The IAIS is also in the process of completing the Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame). As the current draft of ComFrame is completed, it likely will lead to similar policy measures as those being developed for G-SIIs being made applicable to internationally active insurance groups (or "IAIGs"), including group supervision, group capital requirements, and resolution planning, i.e., a written plan developed by a financial group detailing how it would be wound down in the event of an insolvency. While the Company would not be considered an Internationally Active Insurance Group under the current Consultation Draft, it is possible that the Consultation Draft could be changed. If the Company is designated as an IAIG or the NAIC and individual states adopt the proposed or similar provisions for large insurers, the Company could be subject to enhanced supervision and higher capital standards.

The U.S. Department of the Treasury and the Office of the U.S. Trade Representative have signed covered agreements (the Covered Agreements) regarding prudential (solvency) insurance and reinsurance measures with each of the EU and the U.K. The Covered Agreements include three areas of prudential insurance supervision: reinsurance contracts, group supervision, and the exchange of information between U.S. and U.K. regulators and between U.S. and EU regulators on insurers and reinsurers that operate in the U.S., U.K. and EU markets. The Covered Agreement with the EU went into effect in April 2018, while the Covered Agreement with the U.K. took full effect upon the U.K.'s exit from the EU on January 31, 2020. The Covered Agreements are intended to promote cooperation between U.S. insurance regulators and EU and U.K. insurance regulators and to limit the ability of the EU and the U.K. to apply solvency and group capital requirements to the worldwide operations of any U.S. insurer operating in the EU or U.K. It is possible that individual members of the EU could differ in how they adopt or implement the Covered Agreement, resulting in greater regulation and higher capital standards as well as inconsistent regulatory requirements among the jurisdictions that the Company does business.

While it is not yet known how or if these actions will impact us, such regulation could result in increased costs of compliance, increased disclosure and less flexibility in our capital management, and could adversely impact our results of operations and limit our growth.

Loss of or significant restrictions on the use of particular types of underwriting criteria, such as credit scoring, or other data or methodologies, in the pricing and underwriting of our products could reduce our future profitability. Our underwriting profitability depends in large part on our ability to competitively price our products at a level that will adequately compensate us for the risks assumed. As a result, risk selection and pricing through the application of actuarially sound and segmented underwriting criteria is critical. However, laws or regulations, or judicial or administrative findings, could significantly curtail the use of particular types of underwriting criteria. For example, we may use credit scoring as a factor in pricing decisions where allowed by state law. Some consumer groups and/or regulators have alleged that the use of credit scoring violates the law by discriminating against persons belonging to a protected class and are calling for the prohibition or restrictions on the use of credit scoring in underwriting and pricing. A variety of other underwriting criteria and other data or methodologies used in personal and commercial insurance have been and continue to be criticized by regulators, government agencies, consumer groups or individuals on similar or other grounds, such as the impact of external data sources, algorithms and predictive models on protected classes of customers. Resulting regulatory actions or litigation could result in negative publicity and/or generate adverse rules or findings, such as curtailing the use of important underwriting criteria, or other data or methodologies, each of which could adversely affect our future profitability.

Acquisitions and integration of acquired businesses may result in operating difficulties and other unintended consequences.

From time to time we may pursue acquisition opportunities if we believe that such opportunities are consistent with our long-term objectives and that the potential rewards of an acquisition justify the risks. The process of integrating an acquired company or business can be complex and costly, however, and may create unforeseen operating difficulties and expenditures. For example, acquisitions may present significant risks, including:

- the potential disruption of our ongoing business;
- the ineffective integration of, or other difficulties with, underwriting, risk management, claims handling, information technology and actuarial practices;
- uncertainties related to an acquiree's reserve estimates and its design and operation of internal controls over financial reporting;
- the diversion of management time and resources to acquisition integration challenges;
- the loss of key employees;
- unforeseen liabilities;
- difficulties in achieving the strategic objectives of an acquisition, including the business, financial, technological or distribution objectives;
- the cultural challenges associated with integrating employees; and
- the impact on our financial position and/or credit ratings.

The expected benefits of acquired businesses may not be realized, any cost savings and other synergies anticipated from the acquisition may not be achieved and costs associated with the integration may be greater than anticipated. Acquired businesses may not be successfully integrated, resulting in substantial costs or delays and adversely affecting our ability to compete. Accordingly, our results of operations might be materially and adversely affected.

We could be adversely affected if our controls designed to ensure compliance with guidelines, policies and legal and regulatory standards are not effective. Our business is highly dependent on our ability to engage on a daily basis in a large number of insurance underwriting, claim processing and investment activities, many of which are highly complex. These activities often are subject to internal guidelines and policies, as well as legal and regulatory standards. A control system, no matter how well designed and operated, can provide only reasonable assurance that the control system's objectives will be met. If our controls are not effective, it could lead to financial loss, unanticipated risk exposure (including underwriting, credit and investment risk), errors in financial reporting or damage to our reputation. See also "If we experience difficulties with technology, data and network security (including as a result of cyber attacks), outsourcing relationships, or cloud-based technology, our ability to conduct our business could be negatively impacted."

In addition, ineffective controls, including with respect to any joint ventures or recently acquired businesses, could lead to litigation or regulatory action. The volume of claims and amount of damages and penalties claimed in litigation and regulatory proceedings against various types of financial institutions have increased over time. Substantial legal liability or significant regulatory action against us could have a material adverse financial impact. See note 16 of notes to our consolidated financial statements for a discussion of certain legal proceedings in which we are involved.

Our businesses may be adversely affected if we are unable to hire and retain qualified employees. There is significant competition from within the property and casualty insurance industry and from businesses outside the industry for qualified employees, especially those in key positions and those possessing highly specialized knowledge in areas such as underwriting, data and analytics, technology and e-commerce. Our performance is largely dependent on the talents, efforts and proper conduct of highly skilled individuals, including our senior executives (many of whom have decades of experience in the insurance industry), and the Board of Directors regularly engages in succession discussions. See "Item 10—Directors, Executive Officers and Corporate Governance" for more information relating to our executive officers, including our senior leaders. For many of our senior positions, we compete for talent not just with insurance or financial service companies, but with other large companies and other businesses. Our continued ability to compete effectively in our businesses and to expand into new business areas depends on our ability to attract new employees and to retain and motivate our existing employees. If we are not able to successfully attract, retain and motivate our employees, our business, financial results and reputation could be materially and adversely affected.

Intellectual property is important to our business, and we may be unable to protect and enforce our own intellectual property or we may be subject to claims for infringing the intellectual property of others. Our success depends in part upon our ability to protect our proprietary trademarks, technology and other intellectual property. See "Item 1—Business—Other Information—Intellectual Property." We may not, however, be able to protect our intellectual property from unauthorized use and disclosure by others. Further, the intellectual property laws may not prevent our competitors from independently developing trademarks, products and services that are similar to ours. Moreover, the agreements we execute to protect our intellectual property

rights may be breached, and we may not have adequate remedies in response. Our attempts to patent or register our intellectual property rights in the U.S. and worldwide may not succeed initially or may later be challenged by third parties. Further, the laws of certain countries outside the United States may not adequately protect our intellectual property rights. We may incur significant costs in our efforts to protect and enforce our intellectual property, including the initiation of expensive and protracted litigation, and we may not prevail. Any inability to enforce our intellectual property rights could have a material adverse effect on our business and our ability to compete.

We may be subject to claims by third parties from time to time that our products, services and technologies infringe on their intellectual property rights. In recent years, certain entities have acquired patents in order to allege claims of infringement against companies, including in some cases, us. Any intellectual property infringement claims brought against us could cause us to spend significant time and money to defend ourselves, regardless of the merits of the claims. If we are found to infringe any third-party intellectual property rights, it could result in reputational harm, payment of significant monetary damages, payment of license fees (if licenses are even available to us, on reasonable terms or otherwise) and/or substantial time and expense to redesign our products, services or technologies to avoid the infringement. In addition, we use third party software in some of our products, services and technologies. If any of our software vendors or licensors are faced with infringement claims, we may lose our ability to use such software until the dispute is resolved. If we cannot successfully redesign an infringing product, service or technology (or procure a substitute version), this could have a material adverse effect on our business and our ability to compete.

Changes in federal regulation could impose significant burdens on us, and otherwise adversely impact our results. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the Dodd-Frank Act) established a Federal Insurance Office (FIO) within the U.S. Department of the Treasury. The FIO has limited regulatory authority and is empowered to gather data and information regarding the insurance industry and insurers, but it has in the past recommended an expanded federal role in some circumstances. The Dodd-Frank Act also gives the Federal Reserve supervisory authority over a number of non-bank financial services holding companies, including insurance companies, if they are designated by a two-thirds vote of a Financial Stability Oversight Council (the FSOC) as "systemically important financial institutions" (SIFI) or own a bank or thrift. The Company, based upon the FSOC's rules and interpretive guidance, has not been designated as a SIFI and is not subject to regulation by the Federal Reserve. Nonetheless, it is possible that FSOC may change its rules or interpretations in the future and conclude that we are a SIFI. If we were designated as a SIFI, the Federal Reserve's supervisory authority could include the ability to impose heightened financial regulation and could impact requirements regarding our capital, liquidity and leverage as well as our business and investment conduct. The Dodd-Frank Act also authorizes assessments to pay for the resolution of SIFIs that have become insolvent. We (as a financial company with more than \$50 billion in assets) could be assessed, and although any such assessment is required to be risk weighted (i.e., riskier firms pay more), such costs could be material to us and are not currently estimable. As a result of the foregoing, the Dodd-Frank Act, including any changes thereto as a result of its current re-evaluation or otherwise, or other additional federal regulation that is adopted in the future, could impose additional burdens on us, including impacting the ways in which we conduct our business, increasing compliance costs and duplicating state regulation, and could result in a competitive disadvantage, particularly relative to other competitors that may not be subject to the same level of regulation.

Other potential changes in U.S. federal legislation, regulation and/or administrative policies, including the potential repeal of the McCarran-Ferguson Act (which exempts insurance from most federal regulation) or a change to the health care system that eliminates or reduces the need for the medical coverage component of workers' compensation insurance, could also significantly harm the insurance industry, including us.

Changes in U.S. tax laws or in the tax laws of other jurisdictions in which we operate could adversely impact us. Tax laws may change in ways that adversely impact us, including increasing the statutory U.S. federal corporate income tax rate. Additional uncertainties exist with respect to potential technical corrections, final regulations and other clarifications to the Tax Cuts and Jobs Act of 2017.

Our investment portfolio has benefited from certain tax exemptions and certain other tax laws and regulations, including, but not limited to, those governing dividends-received deductions and tax credits. Federal and/or state tax legislation could be enacted in connection with deficit reduction or various types of fundamental tax reform that would lessen or eliminate some or all of the tax advantages currently benefiting us and therefore could materially and adversely impact our results of operations. In addition, such legislation could adversely affect the value of our investment portfolio, particularly changes to the taxation of interest from municipal bonds (which comprise 38% of our investment portfolio as of December 31,2019), which could materially and adversely impact the value of those bonds.

Other tax law changes could materially and adversely impact our results of operations. For example, budget constraints faced by many states and localities increase the likelihood that state and local governments will raise revenue by enacting legislation increasing the taxes paid by individuals and corporations.

Item 1B. UNRESOLVED STAFF COMMENTS

NONE.

Item 2. PROPERTIES

The Company leases its principal executive offices in New York, New York, as well as approximately 171 field and claim offices throughout the United States under leases or subleases with third parties. The Company also leases offices outside the United States, including in Canada, the United Kingdom and the Republic of Ireland. The Company owns six buildings in Hartford, Connecticut. The Company also owns buildings located in other areas of Connecticut; Norcross, Georgia; St. Paul, Minnesota; and Omaha, Nebraska. The Company owns a building in London, England, which houses a portion of Business Insurance's operations in the United Kingdom.

In the opinion of the Company's management, the Company's properties are adequate and suitable for its business as presently conducted and are adequately maintained.

Item 3. LEGAL PROCEEDINGS

The information required with respect to this item can be found under "Contingencies" in note 16 of notes to the consolidated financial statements in this annual report and is incorporated by reference into this Item 3.

Item 4. MINE SAFETY DISCLOSURES

NONE.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Information about the Company's executive officers is incorporated by reference from Part III—Item 10 of this annual report.

PART II

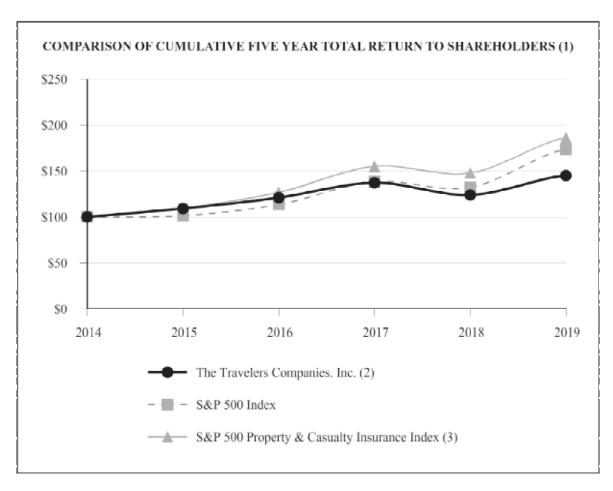
Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company's common stock is traded on the New York Stock Exchange under the symbol "TRV." The number of holders of record of the Company's common stock was 38,014 as of February 7, 2020. This is not the actual number of beneficial owners of the Company's common stock as some shares are held in "street name" by brokers and others on behalf of individual owners.

For information regarding dividends paid to shareholders in 2019, 2018 and 2017, and the declaration and payment of future dividends, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Financing Activities—Dividends."

SHAREHOLDER RETURN PERFORMANCE GRAPH

The following graph shows a five-year comparison of the cumulative total return to shareholders for the Company's common stock and the common stock of companies included in the S&P 500 Index and the S&P 500 Property & Casualty Insurance Index, which the Company believes is the most appropriate comparative index.



	As of December 31,										
	2014	2015	2016	2017	2018	2019					
The Travelers Companies, Inc.	\$ 100.00	\$ 109.09	\$ 121.04	\$ 137.23	\$ 123.99	\$ 145.08					
S&P 500 Index	100.00	101.38	113.51	138.29	132.23	173.86					
S&P 500 Property & Casualty Insurance Index	100.00	109.53	126.73	155.10	147.83	186.07					

- (1) The cumulative total return to shareholders is a concept used to compare the performance of a company's stock over time. Cumulative total return to shareholders is calculated as the net stock price change for the specified time period plus the cumulative amount of dividends (assuming dividend reinvestment on the respective dividend payment dates) divided by the stock price at the beginning of the time period.
- (2) Assumes \$100 invested in common shares of The Travelers Companies, Inc. on December 31, 2014.
- (3) Companies in the S&P 500 Property & Casualty Insurance Index as of December 31, 2019 were the following: The Travelers Companies, Inc., Chubb Limited, Cincinnati Financial Corporation, The Progressive Corporation, The Allstate Corporation, Loews Corporation (CNA) and WR Berkley Corporation. Returns of each of the companies included in this index have been weighted according to their respective market capitalizations.

A long-term perspective is particularly important in the property and casualty insurance industry, where the periodic occurrences of significant catastrophes have historically produced results that can vary significantly year-to-year. Accordingly, the Company manages with a long-term perspective. From January 1, 2007, the year prior to the financial crisis, through December 31, 2019, the Company's cumulative return to shareholders was 251% as compared to 200% for the S&P 500 Index and 165% for the S&P 500 Property & Casualty Insurance Index.

ISSUER PURCHASES OF EQUITY SECURITIES

The table below sets forth information regarding repurchases by the Company of its common stock during the periods indicated.

Period Beginning	Period Ending	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	do sha yet	pproximate Illar value of Ires that may be purchased under the plans or programs in millions)
Oct. 1, 2019	Oct. 31, 2019	228,316	\$ 130.64	226,015	\$	2,132
Nov. 1, 2019	Nov. 30, 2019	1,351,821	\$ 133.77	1,350,490	\$	1,951
Dec. 1, 2019	Dec. 31, 2019	1,219,658	\$ 135.67	1,215,288	\$	1,786
Total		2,799,795	\$ 134.34	2,791,793	\$	1,786

The Company's Board of Directors has approved common share repurchase authorizations under which repurchases may be made from time to time in the open market, pursuant to pre-set trading plans meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, in private transactions or otherwise. The authorizations do not have a stated expiration date. The most recent authorization was approved by the Board of Directors in April 2017 and added \$5.0 billion of repurchase capacity to the \$709 million capacity remaining at that date. The timing and actual number of shares to be repurchased in the future will depend on a variety of factors, including the Company's financial position, earnings, share price, catastrophe losses, maintaining capital levels commensurate with the Company's desired ratings from independent rating agencies, changes in levels of written premiums, funding of the Company's qualified pension plan, capital requirements of the Company's operating subsidiaries, legal requirements, regulatory constraints, other investment opportunities (including mergers and acquisitions and related financings), market conditions and other factors.

The Company acquired 8,002 shares for a total cost of approximately \$1.1 million during the three months ended December 31, 2019 that were not part of the publicly announced share repurchase authorization. These shares consisted of shares retained to cover payroll withholding taxes in connection with the vesting of restricted stock unit awards and performance share awards, and shares used by employees to cover the price of certain stock options that were exercised.

For additional information regarding the Company's share repurchases, see "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources."

Information relating to compensation plans under which the Company's equity securities are authorized for issuance is set forth in "Part III—Item 12" of this Report.

Item 6. SELECTED FINANCIAL DATA

	At and for the year ended December 31,									
(in millions, except per share amounts)		2019		2018		2017		2016		2015
Total revenues	\$	31,581	\$	30,282	\$	28,902	\$	27,625	\$	26,815
Net income	\$	2,622	\$	2,523	\$	2,056	\$	3,014	\$	3,439
Total investments	\$	77,884	\$	72,278	\$	72,502	\$	70,488	\$	70,470
Total assets		110,122		104,233		103,483		100,245		100,184
Claims and claim adjustment expense reserves		51,849		50,668		49,650		47,949		48,295
Total long-term debt		5,958		5,964		5,971		5,887		5,844
Total liabilities		84,179		81,339		79,752		77,024		76,586
Total shareholders' equity		25,943		22,894		23,731		23,221		23,598
Net income per share										
Basic	\$	10.01	\$	9.37	\$	7.39	\$	10.39	\$	10.99
Diluted	\$	9.92	\$	9.28	\$	7.33	\$	10.28	\$	10.88
Year-end common shares outstanding		255.5		263.6		271.4	_	279.6		295.9
Per common share amounts										
Cash dividends	\$	3.23	\$	3.03	\$	2.83	\$	2.62	\$	2.38
Book value	\$	101.55	\$	86.84	\$	87.46	\$	83.05	\$	79.75

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

The following is a discussion and analysis of the Company's financial condition and results of operations for the years ended December 31, 2019 and 2018, including year-to-year comparisons between 2019 and 2018. Year-to-year comparisons between 2018 and 2017 have been omitted from this Form 10-K, but may be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

FINANCIAL HIGHLIGHTS

2019 Consolidated Results of Operations

- Net income of \$2.62 billion, or \$10.01 per share basic and \$9.92 per share diluted
- Net earned premiums of \$28.27 billion
- Catastrophe losses of \$886 million (\$699 million after-tax)
- Net unfavorable prior year reserve development of \$60 million (\$47 million after-tax)
- Combined ratio of 96.5%
- Net investment income of \$2.47 billion (\$2.10 billion after-tax)
- Operating cash flows of \$5.21 billion

2019 Consolidated Financial Condition

- Total investments of \$77.88 billion; fixed maturities and short-term securities comprise 94% of total investments
- Total assets of \$110.12 billion
- Total debt of \$6.56 billion, resulting in a debt-to-total capital ratio of 20.2% (21.7% excluding net unrealized investment gains, net of tax, included in shareholders' equity)
- Repurchased 11.2 million common shares for total cost of \$1.55 billion and paid \$844 million of dividends to shareholders
- Shareholders' equity of \$25.94 billion
- Net unrealized investment gains of \$2.85 billion (\$2.25 billion after-tax)
- Book value per common share of \$101.55
- Holding company liquidity of \$1.43 billion

CONSOLIDATED OVERVIEW

Consolidated Results of Operations

(for the year ended December 31, in millions except per share amounts)	2019		2018		2017
Revenues					
Premiums	\$	28,272	\$	27,059	\$ 25,683
Net investment income		2,468		2,474	2,397
Fee income		459		432	447
Net realized investment gains		113		114	216
Other revenues		269		203	159
Total revenues		31,581		30,282	28,902
Claims and expenses					
Claims and claim adjustment expenses		19,133		18,291	17,467
Amortization of deferred acquisition costs		4,601		4,381	4,166
General and administrative expenses		4,365		4,297	4,170
Interest expense		344		352	369
Total claims and expenses		28,443		27,321	26,172
Income before income taxes		3,138		2,961	2,730
Income tax expense ⁽¹⁾		516		438	674
Net income	\$	2,622	\$	2,523	\$ 2,056
Net income per share					
Basic	\$	10.01	\$	9.37	\$ 7.39
Diluted	\$	9.92	\$	9.28	\$ 7.33
Combined ratio					
Loss and loss adjustment expense ratio		66.9%		66.8%	67.2%
Underwriting expense ratio		29.6		30.1	30.7
Combined ratio		96.5%		96.9%	97.9%

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act of 2017 (TCJA) which, among other changes, reduced the U.S. Federal tax rate from 35% to 21% beginning on January 1, 2018 and imposed a tax on undistributed and previously untaxed post-1986 foreign earnings and profits (accumulated foreign earnings). Total income tax expense for 2017 included a net charge of \$129 million to reflect the estimated impact of the changes in tax law and tax rates included in TCJA at the date of enactment, primarily reflecting the revaluation of the Company's deferred tax assets and liabilities at the new statutory federal tax rate of 21%, and the recognition of tax imposed on the accumulated foreign earnings.

The following discussions of the Company's net income and segment income are presented on an after-tax basis. Discussions of the components of net income and segment income are presented on a pre-tax basis, unless otherwise noted. Discussions of earnings per common share are presented on a diluted basis.

Overview

Diluted net income per share of \$9.92 in 2019 increased by 7% over diluted net income per share of \$9.28 in 2018. Net income of \$2.62 billion in 2019 increased by 4% over net income of \$2.52 billion in 2018. The higher rate of increase in diluted net income per share reflected the impact of share repurchases in recent periods. The increase in income before income taxes primarily reflected the pre-tax impacts of (i) significantly lower catastrophe losses, partially offset by (ii) net unfavorable prior year reserve development in 2019 compared to net favorable prior year reserve development in 2018 and (iii) lower underwriting margins excluding catastrophe losses and prior year reserve development ("underlying underwriting margins"). Catastrophe losses in 2019 and 2018 were \$886 million and \$1.72 billion, respectively. Net unfavorable prior year reserve development in 2019 was \$60 million, compared to net favorable prior year reserve development of \$517 million in 2018. Underlying underwriting margins in each of the Company's business segments were lower than in 2018. Income tax expense in 2019 was higher than in 2018, primarily

reflecting the impacts of (i) the increase in income before income taxes and (ii) the reduction in income tax expense in 2018 resulting from the Company's \$200 million voluntary contribution to its qualified domestic pension plan, which provided a 35% tax benefit rather than a 21% tax benefit.

The Company has insurance operations in Canada, the United Kingdom, the Republic of Ireland and throughout other parts of the world as a corporate member of Lloyd's, as well as in Brazil and Colombia, primarily through joint ventures. Because these operations are conducted in local currencies other than the U.S. dollar, the Company is subject to changes in foreign currency exchange rates. For the years ended December 31, 2019 and 2018, changes in foreign currency exchange rates impacted reported line items in the statement of income by insignificant amounts. The impact of these changes was not material to the Company's net income or segment income for the periods reported.

Revenues

Earned Premiums

Earned premiums in 2019 were \$28.27 billion, \$1.21 billion or 4% higher than in 2018. In Business Insurance, earned premiums in 2019 increased by 4% over 2018. In Bond & Specialty Insurance, earned premiums in 2019 increased by 6% over 2018. In Personal Insurance, earned premiums in 2019 increased by 5% over 2018. Factors contributing to the increases in earned premiums in each segment in 2019 as compared with 2018 are discussed in more detail in the segment discussions that follow.

Net Investment Income

The following table sets forth information regarding the Company's investments.

(for the year ended December 31, in millions)		2019		2018	2017
Average investments ⁽¹⁾	\$	74,866	\$	73,031	\$ 71,867
Pre-tax net investment income		2,468		2,474	2,397
After-tax net investment income		2,097	\$	2,102	1,872
Average pre-tax yield ⁽²⁾		3.3%	ı	3.4%	3.3%
Average after-tax yield ⁽²⁾		2.8%	,	2.9%	2.6%

(2) Excludes net realized and net unrealized investment gains and losses.

Net investment income in 2019 was \$2.47 billion, comparable with 2018. Net investment income from fixed maturity investments in 2019 was \$2.07 billion, \$90 million higher than in 2018, primarily resulting from a higher average level of fixed maturity investments and higher long-term interest rates. Net investment income from short-term securities in 2019 was \$105 million, \$13 million higher than in 2018, primarily resulting from higher short-term interest rates. Net investment income generated by the Company's remaining investment portfolios in 2019 was \$333 million, \$108 million lower than in 2018, primarily reflecting lower returns from private equity limited partnerships and real estate partnerships.

Fee Income

The National Accounts market in Business Insurance is the primary source of the Company's fee-based business. Fee income is described in more detail in the Business Insurance discussion that follows.

⁽¹⁾ Excludes net unrealized investment gains and losses and reflects cash, receivables for investment sales, payables on investment purchases and accrued investment income.

Net Realized Investment Gains

The following table sets forth information regarding the Company's net pre-tax realized investment gains.

(for the year ended December 31, in millions)	2019	2018	2017
Other-than-temporary impairment losses	\$ (4)	\$ (1)	\$ (14)
Net realized investment gains (losses) on equity securities still held	61	(29)	_
Other net realized investment gains, including from sales	56	144	230
Total	\$ 113	\$ 114	\$ 216

Other Net Realized Investment Gains

Other net realized investment gains in 2019 included \$59 million of net realized investment gains related to fixed maturity investments, \$12 million of net realized investment gains related to equity securities sold and \$15 million of net realized investment losses related to foreign currency translation and other investments.

Other net realized investment gains in 2018 included \$92 million of net realized investment gains related to other investments, primarily resulting from the sale of a private equity limited partnership, \$33 million of net realized gains related to fixed maturity investments, \$23 million of net realized investment gains from real estate sales and \$4 million of net realized investment losses related to equity securities sold.

Other Revenues

Other revenues in all years presented included installment premium charges. Other revenues in all years also included revenues from Simply Business, which was acquired in August 2017. Other revenues in 2017 also included a gain related to the settlement of a reinsurance dispute.

Claims and Expenses

Claims and Claim Adjustment Expenses

Claims and claim adjustment expenses in 2019 were \$19.13 billion, \$842 million or 5% higher than in 2018, primarily reflecting the impacts of (i) net unfavorable prior year reserve development compared to net favorable prior year reserve development in 2018, (ii) loss cost trends, (iii) higher loss estimates in the general liability line for primary and excess coverages and in the commercial automobile product line, (iv) higher business volumes and (v) higher non-catastrophe weather-related losses, partially offset by (vi) significantly lower catastrophe losses and (vii) lower loss estimates in the workers' compensation product line. Catastrophes in 2019 primarily resulted from Hurricane Dorian and several winter, wind and hail storms throughout the United States. Catastrophes in 2018 primarily resulted from wildfires in California, Hurricanes Florence and Michael, wind and hail storms in several regions of the United States and winter storms in the eastern United States.

Factors contributing to net prior year reserve development during the years ended December 31, 2019, 2018 and 2017 are discussed in more detail in note 7 of notes to the consolidated financial statements.

Significant Catastrophe Losses

The Company defines a "catastrophe" as an event:

- that is designated a catastrophe by internationally recognized organizations that track and report on insured losses
 resulting from catastrophic events, such as Property Claim Services (PCS) for events in the United States and Canada;
 and
- for which the Company's estimates of its ultimate losses before reinsurance and taxes exceed a pre-established dollar threshold.

The Company's threshold for disclosing catastrophes is primarily determined at the reportable segment level. If a threshold for one segment or a combination thereof is exceeded and the other segments have losses from the same event, losses from the event are identified as catastrophe losses in the segment results and for the consolidated results of the Company. Additionally, an

aggregate threshold is applied for International business across all reportable segments. The threshold for 2019 ranged from approximately \$19 million to \$30 million of losses before reinsurance and taxes.

The following table presents the amount of losses recorded by the Company for significant catastrophes that occurred in 2019, 2018 and 2017, the amount of net unfavorable (favorable) prior year reserve development recognized in 2019 and 2018 for catastrophes that occurred in 2018 and 2017, and the estimate of ultimate losses for those catastrophes at December 31, 2019, 2018 and 2017. For purposes of the table, a significant catastrophe is an event for which the Company estimates its ultimate losses will be \$100 million or more after reinsurance and before taxes.

	Losses Incurred / Unfavorable (Favorable) Prior Year Reserve Development for the Year Ended December 31,					Estima	Ultimate Lo cember 31,	osses	at	
(in millions, pre-tax and net of reinsurance) $^{\left(1\right)}$	2019	1		2018		2017	2019	2018		2017
2017										
PCS Serial Number:										
22 — Severe wind and hail storms	\$	(2)	\$	(2)	\$	111	\$ 107	\$ 109	\$	111
32 — Severe wind and hail storms		6		19		210	235	229		210
43 — Hurricane Harvey		(14)		(24)		254	216	230		254
44 — Hurricane Irma		(12)		(28)		187	147	159		187
48 — California wildfire—Tubbs fire		(5)		1		507	503	508		507
2018										
PCS Serial Number:										
15 — Winter storm		(4)		144		n/a	140	144		n/a
17 — Severe wind and hail storms		(6)		111		n/a	105	111		n/a
33 — Severe wind and hail storms		2		117		n/a	119	117		n/a
52 — Hurricane Florence		(18)		106		n/a	88	106		n/a
57 — Hurricane Michael		2		158		n/a	160	158		n/a
59 — California wildfire—Camp fire		2		334		n/a	336	334		n/a
60 — California wildfire—Woolsey fire		10		119		n/a	129	119		n/a
2019										
PCS Serial Number:										
33 — Severe wind storms	,	250		n/a		n/a	250	n/a		n/a
61 — Severe wind storms and tornadoes		109		n/a		n/a	109	n/a		n/a

⁽¹⁾ Amounts are reported pre-tax and net of recoveries under all applicable reinsurance treaties, except for the *Underlying Property Aggregate Catastrophe Excess-of-Loss Treaty*, the terms of which are described in "Part I—Item 1—Business." That treaty covers the accumulation of certain property losses arising from one or multiple occurrences (both catastrophe and non-catastrophe events) for the period January 1, 2019 through and including December 31, 2019. As a result, the benefit from that treaty is not included in the table above as the allocation of the treaty's benefit to each identified catastrophe changes each time there are additional events or changes in estimated losses from any covered event.

n/a: not applicable.

Amortization of Deferred Acquisition Costs

Amortization of deferred acquisition costs in 2019 was \$4.60 billion, \$220 million or 5% higher than in 2018. Amortization of deferred acquisition costs is discussed in more detail in the segment discussions that follow.

General and Administrative Expenses

General and administrative expenses in 2019 were \$4.37 billion, \$68 million or 2% higher than in 2018, primarily reflecting the impact of costs associated with higher business volumes. General and administrative expenses are discussed in more detail in the segment discussions that follow.

Interest Expense

Interest expense in 2019 and 2018 was \$344 million and \$352 million, respectively.

Income Tax Expense

Income tax expense in 2019 was \$516 million, \$78 million or 18% higher than in 2018, primarily reflecting the impacts of (i) the \$177 million increase in income before income taxes in 2019 and (ii) the reduction in income tax in 2018 resulting from the Company's \$200 million voluntary contribution to its qualified domestic pension plan, which provided a 35% tax benefit rather than a 21% tax benefit.

The Company's effective tax rate was 16%, 15% and 25% in 2019, 2018 and 2017, respectively. The effective tax rates in all years were lower than the respective statutory rate of 21% in both 2019 and 2018 and 35% in 2017, primarily due to the impact of tax-exempt investment income on the calculation of the Company's income tax provision. The effective tax rate in 2018 also included the impact of the reduction in income tax expense resulting from the Company's \$200 million voluntary contribution to its qualified domestic pension plan in 2018, which provided a 35% tax benefit rather than a 21% tax benefit. The effective tax rate in 2017 reflected the net charge related to TCJA and the impact of the resolution of prior year tax matters.

Combined Ratio

The combined ratio of 96.5% in 2019 was 0.4 points lower than the combined ratio of 96.9% in 2018. The loss and loss adjustment expense ratio of 66.9% in 2019 was 0.1 points higher than the loss and loss adjustment expense ratio of 66.8% in 2018. The underwriting expense ratio of 29.6% in 2019 was 0.5 points lower than the underwriting expense ratio of 30.1% in 2018.

Catastrophe losses in 2019 and 2018 accounted for 3.1 points and 6.3 points, respectively, of the combined ratio. Net unfavorable prior year reserve development in 2019 accounted for 0.2 points of the combined ratio. Net favorable prior year reserve development in 2018 provided 1.9 points of benefit to the combined ratio. The combined ratio excluding prior year reserve development and catastrophe losses ("underlying combined ratio") in 2019 was 0.7 points higher than the 2018 ratio on the same basis, primarily reflecting the impacts of (i) higher loss estimates in the general liability product line for primary and excess coverages and in the commercial automobile product line, (ii) the impact on earned premiums related to the Company's new catastrophe reinsurance treaty and (iii) higher non-catastrophe weather-related losses, partially offset by (iv) lower loss estimates in the workers' compensation product line.

In recent periods, both prior year reserve development and the underlying combined ratio have been impacted by adverse developments in the tort environment, including more aggressive attorney involvement in insurance claims.

Written Premiums

Consolidated gross and net written premiums were as follows:

		Gı	Vritten Premiu	ums				
(for the year ended December 31, in millions)	2019			2018		2017		
Business Insurance	\$	17,151	\$	16,255	\$	15,473		
Bond & Specialty Insurance		2,931		2,665		2,480		
Personal Insurance		10,981		10,332		9,695		
Total	\$	31,063	\$	29,252	\$	27,648		

Net Written Premiums							
2019	2018		2017				
15,629	\$ 14,956	\$	14,270				
2,739	2,528		2,359				
10,783	10,224		9,590				
29,151	\$ 27,708	\$	26,219				
	15,629 2,739 10,783	15,629 \$ 14,956 2,739 2,528 10,783 10,224	15,629 \$ 14,956 \$ 2,739 2,528 10,783 10,224				

Gross and net written premiums in 2019 increased by 6% and 5%, respectively, over 2018. Net written premium growth in 2019 was impacted by ceded written premiums related to the new catastrophe reinsurance treaty entered into in the first quarter of 2019.

Factors contributing to the changes in gross and net written premiums in each segment in 2019 as compared with 2018 are discussed in more detail in the segment discussions that follow.

RESULTS OF OPERATIONS BY SEGMENT

Business Insurance

Results of Business Insurance were as follows:

(for the year ended December 31, in millions)		2019	2018	2017		
Revenues						
Earned premiums	\$	15,300	\$ 14,722	\$	14,146	
Net investment income		1,816	1,833		1,786	
Fee income		437	412		430	
Other revenues		155	112		69	
Total revenues		17,708	17,079		16,431	
Total claims and expenses		16,093	15,182		14,370	
Segment income before income taxes		1,615	1,897		2,061	
Income tax expense (1)		223	259		448	
Segment income	\$	1,392	\$ 1,638	\$	1,613	
Loss and loss adjustment expense ratio		70.3%	67.8%		65.9%	
Underwriting expense ratio		30.6	31.3		31.9	
Combined ratio		100.9%	99.1%		97.8%	

⁽¹⁾ On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act of 2017 (TCJA) which, among other changes, reduced the U.S. Federal tax rate from 35% to 21% beginning on January 1, 2018 and imposed a tax on undistributed and previously untaxed post-1986 foreign earnings and profits (accumulated foreign earnings).

Overview

Segment income in 2019 was \$1.39 billion, \$246 million or 15% lower than segment income of \$1.64 billion in 2018. The decrease in segment income before income taxes primarily reflected the pre-tax impacts of (i) net unfavorable prior year reserve development in 2019 compared to net favorable prior year reserve development in 2018 and (ii) lower underlying underwriting margins, partially offset by (iii) lower catastrophe losses. Net unfavorable prior year reserve development in 2019 was \$258 million. Net favorable prior year reserve development in 2018 was \$142 million. Catastrophe losses in 2019 and 2018 were \$470 million and \$639 million, respectively. The lower underlying underwriting margins primarily reflected the impacts of (i) higher loss estimates in the general liability product line for primary and excess coverages and in the commercial automobile product line and (ii) the impact on earned premiums related to the Company's new catastrophe reinsurance treaty, partially offset by (iii) higher business volumes and (iv) lower loss estimates in the workers' compensation product line. Income tax expense in 2019 was lower than in 2018, primarily reflecting the impacts of (i) the decrease in segment income before income taxes, partially offset by (ii) the reduction in income tax expense in 2018 resulting from the Company's voluntary contribution to its qualified domestic pension plan.

Revenues

Earned Premiums

Earned premiums of \$15.30 billion in 2019 were \$578 million or 4% higher than in 2018, primarily reflecting an increase in net written premiums over the preceding twelve months, partially offset by the earned impact of the new catastrophe reinsurance treaty.

Net Investment Income

Net investment income in 2019 was \$1.82 billion, \$17 million or 1% lower than in 2018. Refer to the "Net Investment Income" section of the "Consolidated Results of Operations" discussion for a description of the factors contributing to the Company's consolidated net investment income in 2019 compared with 2018. In addition, refer to note 2 of notes to the consolidated financial statements for a discussion of the Company's net investment income allocation methodology.

Fee Income

National Accounts is the primary source of fee income due to revenue from its large deductible policies and service businesses, which include risk management, claims administration, loss control and risk management information services provided to third parties, as well as claims and policy management services to workers' compensation residual market pools. Fee income in 2019 was \$437 million, \$25 million or 6% higher than in 2018, primarily reflecting higher claim volume under administration associated with its service businesses.

Other Revenues

Other revenues in all years presented included installment premium charges and other policyholder service charges, as well as revenues from Simply Business, which was acquired in August 2017.

Claims and Expenses

Claims and Claim Adjustment Expenses

Claims and claim adjustment expenses in 2019 were \$10.96 billion, \$792 million or 8% higher than in 2018, primarily reflecting the impacts of (i) net unfavorable prior year reserve development in 2019 compared to net favorable prior year reserve development in 2018, (ii) loss cost trends, (iii) higher loss estimates in the general liability product line for primary and excess coverages and the commercial automobile product line and (iv) higher business volumes, partially offset by (v) lower catastrophe losses and (vi) lower loss estimates in the workers' compensation product line.

Factors contributing to net prior year reserve development during the years ended December 31, 2019, 2018 and 2017 are discussed in more detail in note 7 of notes to the consolidated financial statements.

Amortization of Deferred Acquisition Costs

Amortization of deferred acquisition costs in 2019 was \$2.50 billion, \$115 million or 5% higher than in 2018, generally consistent with the increase in earned premiums.

General and Administrative Expenses

General and administrative expenses in 2019 were \$2.63 billion, comparable with 2018.

Income Tax Expense

Income tax expense in 2019 was \$223 million, \$36 million or 14% lower than in 2018, primarily reflecting the impacts of (i) the \$282 million decrease in income before income taxes in 2019, partially offset by (ii) the reduction in income tax expense in 2018 resulting from the Company's voluntary contribution to its qualified domestic pension plan in 2018.

Combined Ratio

The combined ratio of 100.9% in 2019 was 1.8 points higher than the combined ratio of 99.1% in 2018. The loss and loss adjustment expense ratio of 70.3% in 2019 was 2.5 points higher than the loss and loss adjustment expense ratio of 67.8% in 2018. The underwriting expense ratio of 30.6% in 2019 was 0.7 points lower than the underwriting expense ratio of 31.3% in 2018.

Catastrophe losses in 2019 and 2018 accounted for 3.0 points and 4.4 points, respectively, of the combined ratio. Net unfavorable prior year reserve development in 2019 accounted for 1.7 points of the combined ratio. Net favorable prior year reserve development in 2018 provided 1.0 points of benefit to the combined ratio. The underlying combined ratio in 2019 was 0.5 points higher than the 2018 ratio on the same basis, primarily reflecting the impacts of (i) higher loss estimates in the general liability product line for primary and excess coverages and the commercial automobile product line and (ii) the impact on earned premiums related to

the Company's new catastrophe reinsurance treaty, partially offset by (iii) lower loss estimates in the workers' compensation product line and (iv) a lower underwriting expense ratio.

Written Premiums

Business Insurance's gross and net written premiums by market were as follows:

	Gross Written Premiums										
(for the year ended December 31, in millions)		2019		2018		2017					
Domestic:											
Select Accounts	\$	2,945	\$	2,841	\$	2,817					
Middle Market		9,073		8,537		8,051					
National Accounts		1,603		1,601		1,556					
National Property and Other		2,279		2,036		1,902					
Total Domestic		15,900		15,015		14,326					
International		1,251		1,240		1,147					
Total Business Insurance	\$	17,151	\$	16,255	\$	15,473					

	Net Written Premiums							
(for the year ended December 31, in millions)		2019		2018		2017		
Domestic:								
Select Accounts	\$	2,911	\$	2,828	\$	2,800		
Middle Market		8,630		8,214		7,756		
National Accounts		1,051		1,025		1,010		
National Property and Other		1,965		1,805		1,691		
Total Domestic		14,557		13,872		13,257		
International		1,072		1,084		1,013		
Total Business Insurance	\$	15,629	\$	14,956	\$	14,270		

Gross written premiums in 2019 increased by 6% over 2018. Net written premiums in 2019 increased by 4% over 2018. Net written premium growth in 2019 was impacted by the Company's new catastrophe reinsurance treaty entered into in the first quarter of 2019.

Select Accounts. Net written premiums of \$2.91 billion in 2019 increased by 3% over 2018. Net written premiums in 2019 were reduced by the new catastrophe reinsurance treaty. Business retention rates remained strong in 2019. Renewal premium changes in 2019 remained positive and were higher than in 2018. New business premiums in 2019 increased over 2018.

Middle Market. Net written premiums of \$8.63 billion in 2019 increased by 5% over 2018. Net written premiums in 2019 were reduced by the new catastrophe reinsurance treaty. Business retention rates remained strong in 2019. Renewal premium changes in 2019 remained positive and were higher than in 2018. New business premiums in 2019 were lower than in 2018.

National Accounts. Net written premiums of \$1.05 billion in 2019 increased by 3% over 2018. Net written premiums in 2019 included a benefit related to a transaction to close out prior year liabilities with a former customer. Business retention rates remained strong in 2019. Renewal premium changes in 2019 were slightly positive but lower than in 2018. New business premiums in 2019 increased over 2018.

National Property and Other. Net written premiums of \$1.97 billion in 2019 increased by 9% over 2018. Net written premiums in 2019 were reduced by the new catastrophe reinsurance treaty. Business retention rates remained strong in 2019. Renewal premium changes in 2019 remained positive and were higher than in 2018. New business premiums in 2019 increased over 2018.

International. Net written premiums of \$1.07 billion in 2019 decreased by 1% from 2018, primarily driven by the impact of changes in foreign currency exchange rates, as well as decreases in the Company's operations at Lloyd's.

Bond & Specialty Insurance

Results of Bond & Specialty Insurance were as follows:

(for the year ended December 31, in millions)	2019		2018		2017	
Revenues						
Earned premiums	\$	2,565	\$	2,420	\$ 2,307	
Net investment income		233		233	228	
Other revenues		26		23	24	
Total revenues		2,824		2,676	2,559	
Total claims and expenses		2,055		1,685	1,795	
Segment income before income taxes		769		991	764	
Income tax expense (1)		151		198	208	
Segment income	\$	618	\$	793	\$ 556	
Loss and loss adjustment expense ratio		42.2%		31.5%	38.6%	
Underwriting expense ratio		37.3		37.5	38.8	
Combined ratio		79.5%		69.0%	77.4%	

⁽¹⁾ On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act of 2017 (TCJA) which, among other changes, reduced the U.S. Federal tax rate from 35% to 21% beginning on January 1, 2018 and imposed a tax on undistributed and previously untaxed post-1986 foreign earnings and profits (accumulated foreign earnings).

Overview

Segment income in 2019 was \$618 million, \$175 million or 22% lower than segment income of \$793 million in 2018. The decrease in segment income before income taxes primarily reflected the pre-tax impacts of (i) lower net favorable prior year reserve development and (ii) lower underlying underwriting margins. Net favorable prior year reserve development in 2019 and 2018 was \$65 million and \$266 million, respectively. Catastrophe losses in 2019 and 2018 were \$5 million and \$16 million, respectively. The lower underlying underwriting margins primarily reflected modestly higher loss estimates in the domestic general liability product line for management liability coverages. Income tax expense in 2019 was lower than in 2018, primarily reflecting the impact of the decrease in segment income before income taxes.

Revenues

Earned Premiums

Earned premiums in 2019 were \$2.57 billion, \$145 million or 6% higher than in 2018, primarily reflecting an increase in net written premiums over the preceding twelve months.

Net Investment Income

Net investment income in 2019 was \$233 million, level with 2018. Included in Bond & Specialty Insurance are certain legal entities whose invested assets and related net investment income are reported exclusively in this segment and not allocated among all business segments. As a result, reported net investment income in Bond & Specialty Insurance reflects a significantly smaller proportion of allocated net investment income, including net investment income from the Company's non-fixed maturity investments that experienced a decrease in investment income in 2019. Refer to the "Net Investment Income" section of the "Consolidated Results of Operations" discussion for a description of the factors contributing to the Company's consolidated net investment income in 2019 as compared with the 2018. In addition, refer to note 2 of notes to the consolidated financial statements for a discussion of the Company's net investment income allocation methodology.

Claims and Expenses

Claims and Claim Adjustment Expenses

Claims and claim adjustment expenses in 2019 were \$1.09 billion, \$322 million or 42% higher than in 2018, primarily reflecting the impacts of (i) lower net favorable prior year reserve development, (ii) higher business volumes and (iii) modestly higher loss estimates in the domestic general liability product line for management liability coverages.

Factors contributing to net favorable prior year reserve development during the years ended December 31, 2019, 2018 and 2017 are discussed in more detail in note 7 of notes to the consolidated financial statements.

Amortization of Deferred Acquisition Costs

Amortization of deferred acquisition costs in 2019 was \$478 million, \$24 million or 5% higher than in 2018, generally consistent with the increase in earned premiums.

General and Administrative Expenses

General and administrative expenses in 2019 were \$483 million, \$24 million or 5% higher than in 2018, primarily reflecting the impact of costs associated with higher business volumes.

Income Tax Expense

Income tax expense in 2019 was \$151 million, \$47 million or 24% lower than in 2018, primarily reflecting the impact of the \$222 million decrease in income before income taxes in 2019.

Combined Ratio

The combined ratio of 79.5% in 2019 was 10.5 points higher than the combined ratio of 69.0% in 2018. The loss and loss adjustment expense ratio of 42.2% in 2019 was 10.7 points higher than the loss and loss adjustment expense ratio of 31.5% in 2018. The underwriting expense ratio of 37.3% in 2019 was 0.2 points lower than the underwriting expense ratio of 37.5% in 2018.

Net favorable prior year reserve development in 2019 and 2018 provided 2.5 points and 11.0 points of benefit, respectively, to the combined ratio. Catastrophe losses in 2019 and 2018 accounted for 0.2 points and 0.6 points, respectively, of the combined ratio. The underlying combined ratio in 2019 was 2.4 points higher than the 2018 ratio on the same basis, primarily reflecting the impacts of modestly higher loss estimates in the domestic general liability product line for management liability coverages.

Written Premiums

Bond & Specialty Insurance's gross and net written premiums were as follows:

	Gross Written Premiums						
(for the year ended December 31, in millions)		2019	2018			2017	
Domestic:							
Management Liability	\$	1,720	\$	1,523	\$	1,422	
Surety		926		887		844	
Total Domestic		2,646		2,410		2,266	
International		285		255		214	
Total Bond & Specialty Insurance	\$	2,931	\$	2,665	\$	2,480	

	Net Written Premiums							
(for the year ended December 31, in millions)		2019		2018		2017		
Domestic:								
Management Liability	\$	1,605	\$	1,455	\$	1,367		
Surety		866		835		793		
Total Domestic		2,471		2,290		2,160		
International		268		238		199		
Total Bond & Specialty Insurance	\$	2,739	\$	2,528	\$	2,359		

Not Whitton Duominum

Gross written premiums in 2019 increased by 10% over 2018. Net written premiums in 2019 increased by 8% over 2018. Net written premium growth in 2019 was impacted by higher ceded written premiums for several reinsurance treaties, including those related to the new catastrophe reinsurance treaty entered into in the first quarter of 2019.

Domestic. Net written premiums in 2019 were \$2.47 billion, \$181 million or 8% higher than in 2018. Excluding the surety line of business, for which the following are not relevant measures, business retention rates remained strong in 2019. Renewal premium changes in 2019 remained positive and were higher than in 2018. New business premiums in 2019 increased over 2018.

International. Net written premiums in 2019 were \$268 million, \$30 million or 13% higher than in 2018, primarily driven by increases in the United Kingdom and Canada, partially offset by the impact of changes in foreign currency exchange rates.

Personal Insurance

Results of Personal Insurance were as follows:

(for the year ended December 31, in millions)	2019	2018		2017	
Revenues					
Earned premiums	\$ 10,407	\$	9,917	\$ 9,230	
Net investment income	419		408	383	
Fee income	22		20	17	
Other revenues	87		66	60	
Total revenues	10,935		10,411	9,690	
Total claims and expenses	9,916		10,072	9,606	
Segment income before income taxes	1,019		339	84	
Income tax expense (benefit) (1)	195		42	(44)	
Segment income	\$ 824	\$	297	\$ 128	
Loss and loss adjustment expense ratio	68.0%		74.1%	76.3%	
Underwriting expense ratio	26.2		26.5	26.8	
Combined ratio	94.2%		100.6%	103.1%	

⁽¹⁾ On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act of 2017 (TCJA) which, among other changes, reduced the U.S. Federal tax rate from 35% to 21% beginning on January 1, 2018 and imposed a tax on undistributed and previously untaxed post-1986 foreign earnings and profits (accumulated foreign earnings).

Overview

Segment income in 2019 was \$824 million, \$527 million or 177% higher than segment income of \$297 million in 2018. The increase in segment income before income taxes primarily reflected the pre-tax impacts of (i) significantly lower catastrophe losses and (ii) higher net favorable prior year reserve development, partially offset by (iii) lower underlying underwriting margins. Catastrophe losses in 2019 and 2018 were \$411 million and \$1.06 billion, respectively. Net favorable prior year reserve development in 2019 and 2018 was \$133 million and \$109 million, respectively. The lower underlying underwriting margins primarily reflected

(i) higher non-catastrophe weather-related losses in Agency Homeowners and Other and (ii) the impact on earned premiums related to the Company's new catastrophe reinsurance treaty, mostly impacting Agency Homeowners and Other, partially offset by (iii) earned pricing that exceeded loss cost trends in Agency Automobile and (iv) higher business volumes. Income tax expense in 2019 was higher than in 2018, primarily reflecting the impacts of (i) the increase in segment income before income taxes and (ii) the reduction in income tax expense in 2018 resulting from the Company's voluntary contribution to its qualified domestic pension plan.

Revenues

Earned Premiums

Earned premiums in 2019 were \$10.41 billion, \$490 million or 5% higher than in 2018, primarily reflecting an increase in net written premiums over the preceding twelve months. The increase in earned premiums in 2019 was reduced by the earned impact of the new catastrophe reinsurance treaty.

Net Investment Income

Net investment income in 2019 was \$419 million, \$11 million or 3% higher than in 2018. Refer to the "Net Investment Income" section of the "Consolidated Results of Operations" discussion for a description of the factors contributing to the Company's consolidated net investment income in 2019 as compared with the 2018. In addition, refer to note 2 of notes to the consolidated financial statements for a discussion of the Company's net investment income allocation methodology.

Other Revenues

Other revenues in all years presented included installment premium charges.

Claims and Expenses

Claims and Claim Adjustment Expenses

Claims and claim adjustment expenses in 2019 were \$7.08 billion, \$272 million or 4% lower than in 2018, primarily reflecting the impacts of (i) significantly lower catastrophe losses and (ii) higher net favorable prior year reserve development, partially offset by (iii) higher non-catastrophe weather-related losses in Agency Homeowners and Other, (iv) higher business volumes and (v) loss cost trends.

Factors contributing to net favorable prior year reserve development during the years ended December 31, 2019 and 2018 are discussed in more detail in note 7 of notes to the consolidated financial statements. Net prior year reserve development in 2017 was not significant.

Amortization of Deferred Acquisition Costs

Amortization of deferred acquisition costs in 2019 was \$1.62 billion, \$81 million or 5% higher than in 2018, generally consistent with the increase in earned premiums.

General and Administrative Expenses

General and administrative expenses in 2019 were \$1.22 billion, \$35 million or 3% higher than in 2018, primarily reflecting the impact of costs associated with higher business volumes.

Income Tax Expense

Income tax expense in 2019 was \$195 million, \$153 million or 364% higher than in 2018, primarily reflecting the impacts of (i) the \$680 million increase in income before income taxes in 2019 and (ii) the reduction in income tax expense in 2018 resulting from the Company's voluntary contribution to its qualified domestic pension plan. The level of income tax expense in both years reflected the impact of tax-exempt investment income on the calculation of the Company's tax provision.

Combined Ratio

The combined ratio of 94.2% in 2019 was 6.4 points lower than the combined ratio of 100.6% in 2018. The loss and loss adjustment expense ratio of 68.0% in 2019 was 6.1 points lower than the loss and loss adjustment expense ratio of 74.1% in 2018. The underwriting expense ratio of 26.2% in 2019 was 0.3 points lower than the underwriting expense ratio of 26.5% in 2018.

Catastrophe losses accounted for 4.0 points and 10.7 points of the combined ratio in 2019 and 2018, respectively. Net favorable prior year reserve development in 2019 and 2018 provided 1.3 and 1.1 points of benefit, respectively, to the combined ratio. The underlying combined ratio in 2019 was 0.5 points higher than the 2018 ratio on the same basis, primarily reflecting the impacts of (i) higher non-catastrophe weather-related losses in Agency Homeowners and Other and (ii) the impact on earned premiums related to the Company's new catastrophe reinsurance treaty, mostly impacting Agency Homeowners and Other, partially offset by (iii) earned pricing that exceeded loss cost trends in Agency Automobile and (iv) a lower underwriting expense ratio.

Written Premiums

Personal Insurance's gross and net written premiums were as follows:

International.....

Total Personal Insurance

		G	Gross Written Premiums					
(for the year ended December 31, in millions)		2019		2018		2017		
Domestic:								
Agency:								
Automobile	\$	5,154	\$	4,998	\$	4,671		
Homeowners and Other		4,685		4,213		4,000		
Total Agency		9,839		9,211		8,671		
Direct-to-Consumer		418		398		362		
Total Domestic		10,257		9,609		9,033		
International		724		723		662		
Total Personal Insurance	\$	10,981	\$	10,332	\$	9,695		
		N	Net W	ritten Premiun	ıs			
(for the year ended December 31, in millions)		2019		2018		2017		
Domestic:								
Agency:								
Automobile	\$	5,124	\$	4,972	\$	4,646		
Homeowners and Other		4,540		4,148		3,933		
Total Agency		9,664		9,120		8,579		
Direct-to-Consumer		412		396		361		
Total Domestic		10,076		9,516		8,940		

Domestic Agency Written Premiums

Personal Insurance's domestic Agency business comprises business written through agents, brokers and other intermediaries.

707

10,783

708

10,224

650

9,590

Domestic Agency gross written premiums in 2019 increased by 7% over 2018. Net written premiums in 2019 increased by 6% over 2018. Net written premium growth in 2019 was impacted by the Company's new catastrophe reinsurance treaty entered into in the first quarter of 2019.

Domestic Agency Automobile net written premiums of \$5.12 billion in 2019 were 3% higher than in 2018. Net written premiums in 2019 were reduced by the new catastrophe reinsurance treaty. Business retention rates remained strong in 2019. Renewal premium changes in 2019 remained positive but were lower than in 2018. New business premiums in 2019 increased over 2018.

Domestic Agency Homeowners and Other net written premiums of \$4.54 billion in 2019 were 9% higher than in 2018. Net written premiums in 2019 were reduced by the new catastrophe reinsurance treaty. Business retention rates remained strong in 2019. Renewal premium changes in 2019 remained positive and were higher than in 2018. New business premiums in 2019 increased over 2018.

For its domestic Agency business, Personal Insurance had approximately 7.5 million and 7.2 million active policies at December 31, 2019 and 2018, respectively.

Direct-to-Consumer and International Written Premiums

Direct-to-Consumer net written premiums in 2019 were 4% higher than in 2018, primarily driven by growth in homeowners and other. Net written premiums in 2019 were reduced by the new catastrophe reinsurance treaty.

International net written premiums in 2019 were comparable with 2018.

For its International and Direct-to-Consumer business, Personal Insurance had approximately 869,000 and 900,000 active policies at December 31, 2019 and 2018, respectively.

Interest Expense and Other

(for the year ended December 31, in millions)	2019			2018	 2017	
Income (loss)	\$	(297)	\$	(298)	\$ (254)	

The Income (loss) for Interest Expense and Other in 2019 was \$1 million lower than in 2018. Pre-tax interest expense in 2019 and 2018 was \$344 million and \$352 million, respectively. After-tax interest expense in 2019 and 2018 was \$272 million and \$278 million, respectively.

ASBESTOS CLAIMS AND LITIGATION

The Company believes that the property and casualty insurance industry has suffered from court decisions and other trends that have expanded insurance coverage for asbestos claims far beyond the original intent of insurers and policyholders. The Company has received and continues to receive a significant number of asbestos claims. Factors underlying these claim filings include continued intensive advertising by lawyers seeking asbestos claimants and the focus by plaintiffs on defendants who were not traditionally primary targets of asbestos litigation. The focus on these defendants is primarily the result of the number of traditional asbestos defendants who have sought bankruptcy protection in previous years. The bankruptcy of many traditional defendants has also caused increased settlement demands against those policyholders who are not in bankruptcy but remain in the tort system. Currently, in many jurisdictions, those who allege very serious injury and who can present credible medical evidence of their injuries are receiving priority trial settings in the courts, while those who have not shown any credible disease manifestation are having their hearing dates delayed or placed on an inactive docket. Prioritizing claims involving credible evidence of injuries, along with the focus on defendants who were not traditionally primary targets of asbestos litigation, contributes to the claims and claim adjustment expense payment patterns experienced by the Company. The Company's asbestos-related claims and claim adjustment expense experience also has been impacted by the unavailability of other insurance sources potentially available to policyholders, whether through exhaustion of policy limits or through the insolvency of other participating insurers.

The Company continues to be involved in disputes, including litigation, with a number of policyholders, some of whom are in bankruptcy over coverage for asbestos-related claims. Many coverage disputes with policyholders are only resolved through settlement agreements. Because many policyholders make exaggerated demands, it is difficult to predict the outcome of settlement negotiations. Settlements involving bankrupt policyholders may include extensive releases which are favorable to the Company, but which could result in settlements for larger amounts than originally anticipated. Although the Company has seen a reduction in the overall risk associated with these disputes, it remains difficult to predict the ultimate cost of these claims. As in the past, the Company will continue to pursue settlement opportunities.

In addition to claims against policyholders, proceedings have been launched directly against insurers, including the Company, by individuals challenging insurers' conduct with respect to the handling of past asbestos claims and by individuals seeking damages arising from alleged asbestos-related bodily injuries. It is possible that the filing of other direct actions against insurers, including the Company, could be made in the future. It is difficult to predict the outcome of these proceedings, including whether the

plaintiffs would be able to sustain these actions against insurers based on novel legal theories of liability. The Company believes it has meritorious defenses to any such claims and has received favorable rulings in certain jurisdictions.

Because each policyholder presents different liability and coverage issues, the Company generally reviews the exposure presented by each policyholder at least annually. Among the factors which the Company may consider in the course of this review are: available insurance coverage, including the role of any umbrella or excess insurance the Company has issued to the policyholder; limits and deductibles; an analysis of the policyholder's potential liability; the jurisdictions involved; past and anticipated future claim activity and loss development on pending claims; past settlement values of similar claims; allocated claim adjustment expense; the potential role of other insurance; the role, if any, of non-asbestos claims or potential non-asbestos claims in any resolution process; and applicable coverage defenses or determinations, if any, including the determination as to whether or not an asbestos claim is a products/completed operation claim subject to an aggregate limit and the available coverage, if any, for that claim.

The Company categorizes its asbestos reserves as follows:

	Numb Policyh						Net Asbestos Reserves				
(at and for the year ended December 31, \$ in millions)	2019	2018		2019		2019 2018 2019		2019			2018
Policyholders with settlement agreements	12	11	\$	10	\$	20	\$	45	\$	53	
Home office and field office policyholders	1,439	1,466		200		188		1,093		1,089	
Assumed reinsurance and other	_	_		14		17		141		139	
Total	1,451	1,477	\$	224	\$	225	\$	1,279	\$	1,281	

The policyholders with settlement agreements category includes certain policyholders with whom the Company has entered into permanent settlement agreements. Reserves in this category are based on the expected payout for each policyholder under the applicable agreement. The home office and field office category relates to all other policyholders and also includes IBNR reserves and reserves for the costs of defending asbestos-related coverage litigation. IBNR reserves in this category include amounts for new claims and adverse development on existing policyholders in this category, as well as reserves for claims from policyholders reporting asbestos claims for the first time and for policyholders for which there is, or may be, litigation. Policyholders are identified for the annual home office review based upon, among other factors: a combination of past payments and current case reserves in excess of a specified threshold (currently \$100,000), perceived level of exposure, number of reported claims, products/completed operations and potential "non-product" exposures, size of policyholder and geographic distribution of products or services sold by the policyholder. The assumed reinsurance and other category primarily consists of reinsurance of excess coverage, including various pool participations.

In the third quarter of 2019, the Company completed its annual in-depth asbestos claim review, including a review of active policyholders and litigation cases for potential product and "non-product" liability, and noted the continuation of the following trends:

- a high level of litigation activity in certain jurisdictions involving individuals alleging serious asbestos-related illness, primarily involving mesothelioma claims;
- while overall payment patterns have been generally stable, there has been an increase in severity for certain policyholders due to the high level of litigation activity; and
- a moderate level of asbestos-related bankruptcy activity.

In the home office and field office category, which accounts for the vast majority of policyholders with active asbestos-related claims, the number of policyholders with open asbestos claims and net asbestos-related payments were comparable with 2018. Payments on behalf of policyholders in this category continue to be influenced by a high level of litigation activity in a limited number of jurisdictions where individuals alleging serious asbestos-related injury, primarily mesothelioma, continue to target defendants who were not traditionally primary targets of asbestos litigation.

The Company's quarterly asbestos reserve reviews include an analysis of exposure and claim payment patterns by policyholder category, as well as recent settlements, policyholder bankruptcies, judicial rulings and legislative actions. The Company also analyzes developing payment patterns among policyholders in the home office and field office category and the assumed reinsurance and other category as well as projected reinsurance billings and recoveries. In addition, the Company reviews its historical gross and net loss and expense paid experience, year-by-year, to assess any emerging trends, fluctuations or characteristics suggested by the aggregate paid activity. Conventional actuarial methods are not utilized to establish asbestos reserves, and the Company's evaluations have not resulted in a reliable method to determine a meaningful average asbestos defense or indemnity payment.

The completion of these reviews and analyses in 2019, 2018 and 2017 resulted in \$220 million, \$225 million and \$225 million increases, respectively, to the Company's net asbestos reserves. In each year, the reserve increases were primarily driven by increases in the Company's estimate of projected settlement and defense costs related to a broad number of policyholders in the home office and field office category. The increase in the estimate of projected settlement and defense costs resulted from payment trends that continue to be higher than previously anticipated due to the impact of the current litigation environment surrounding mesothelioma claims discussed above. Over the past decade, the property and casualty insurance industry, including the Company, has experienced net unfavorable prior year reserve development with regard to asbestos reserves, but the Company believes that over that period there has been a reduction in the volatility associated with the Company's overall asbestos exposure as the overall asbestos environment has evolved from one dominated by exposure to significant litigation risks, particularly coverage disputes relating to policyholders in bankruptcy who were asserting that their claims were not subject to the aggregate limits contained in their policies, to an environment primarily driven by a frequency of litigation related to individuals with mesothelioma. The Company's overall view of the current underlying asbestos environment is essentially unchanged from recent periods, and there remains a high degree of uncertainty with respect to future exposure to asbestos claims.

Net asbestos paid loss and loss expenses in 2019, 2018 and 2017 were \$224 million, \$225 million and \$271 million, respectively. Approximately 4%, 9% and 4% of total net paid losses in 2019, 2018 and 2017, respectively, related to policyholders with whom the Company had entered into settlement agreements limiting the Company's liability.

The following table displays activity for asbestos losses and loss expenses and reserves:

(at and for the year ended December 31, in millions)	2019		2018		2017	
Beginning reserves:						
Gross	\$	1,608	\$	1,538	\$ 1,512	
Ceded		(327)		(257)	(186)	
Net		1,281		1,281	1,326	
Incurred losses and loss expenses:						
Gross		268		343	340	
Ceded		(48)		(118)	(115)	
Net		220		225	225	
Paid loss and loss expenses:						
Gross		277		273	315	
Ceded		(53)		(48)	(44)	
Net		224		225	271	
Foreign exchange and other:						
Gross		2		_	1	
Ceded		_		_	_	
Net		2			1	
Ending reserves:						
Gross		1,601		1,608	1,538	
Ceded		(322)		(327)	(257)	
Net	\$	1,279	\$	1,281	\$ 1,281	

See "-Uncertainty Regarding Adequacy of Asbestos and Environmental Reserves."

ENVIRONMENTAL CLAIMS AND LITIGATION

The Company has received and continues to receive claims from policyholders who allege that they are liable for injury or damage arising out of their alleged disposition of toxic substances. These claims are mainly brought pursuant to various state or federal statutes that require a liable party to undertake or pay for environmental remediation. Liability under these statutes may be joint and several with other responsible parties.

The Company has also been, and continues to be, involved in litigation involving insurance coverage issues pertaining to environmental claims. The Company believes that some court decisions have interpreted the insurance coverage to be broader than the original intent of the insurers and policyholders. These decisions often pertain to insurance policies that were issued by the Company prior to the mid-1980s. These decisions continue to be inconsistent and vary from jurisdiction to jurisdiction. Environmental claims, when submitted, rarely indicate the monetary amount being sought by the claimant from the policyholder, and the Company does not keep track of the monetary amount being sought in those few claims which indicate a monetary amount.

The resolution of environmental exposures by the Company generally occurs through settlements with policyholders as opposed to claimants. Generally, the Company strives to extinguish any obligations it may have under any policy issued to the policyholder for past, present and future environmental liabilities and extinguish any pending coverage litigation dispute with the policyholder. This form of settlement is commonly referred to as a "buy-back" of policies for future environmental liability. In addition, many of the agreements have also extinguished any insurance obligation which the Company may have for other claims, including, but not limited to, asbestos and other cumulative injury claims. The Company and its policyholders may also agree to settlements which only extinguish any liability arising from known specified sites or claims. In many instances, these agreements also include indemnities and hold harmless provisions to protect the Company. The Company's general purpose in executing these agreements is to reduce the Company's potential environmental exposure and eliminate the risks presented by coverage litigation with the policyholder and related costs.

In establishing environmental reserves, the Company evaluates the exposure presented by each policyholder and the anticipated cost of resolution, if any. In the course of this analysis, the Company generally considers the probable liability, available coverage and relevant judicial interpretations. In addition, the Company considers the many variables presented, such as: the nature of the alleged activities of the policyholder at each site; the number of sites; the total number of potentially responsible parties at each site; the nature of the alleged environmental harm and the corresponding remedy at each site; the nature of government enforcement activities at each site; the ownership and general use of each site; the overall nature of the insurance relationship between the Company and the policyholder, including the role of any umbrella or excess insurance the Company has issued to the policyholder; the involvement of other insurers; the potential for other available coverage, including the number of years of coverage; the role, if any, of non-environmental claims or potential non-environmental claims in any resolution process; and the applicable law in each jurisdiction. Conventional actuarial methods are not used to estimate these reserves.

The Company continues to receive notices from policyholders tendering claims for the first time, frequently under policies issued prior to the mid-1980s. These policyholders continue to present smaller exposures, have fewer sites and are lower-tier defendants. Further, in many instances, clean-up costs have been reduced because regulatory agencies are willing to accept risk-based site analyses and more efficient clean-up technologies. Over the past several years, the Company has experienced generally favorable trends in the number of new policyholders tendering environmental claims for the first time and in the number of pending declaratory judgment actions relating to environmental matters. However, the degree to which those favorable trends have continued has been less than anticipated. In addition, reserve development on existing environmental claims as well as the costs associated with coverage litigation on environmental matters have been greater than anticipated, driven by claims and legal developments in a limited number of jurisdictions. As a result of these factors, in 2019, 2018 and 2017, the Company increased its net environmental reserves by \$76 million, \$55 million and \$65 million, respectively.

At December 31, 2019, approximately 92% of the net environmental reserve (approximately \$296 million) was carried in a bulk reserve and included unresolved environmental claims, incurred but not reported environmental claims and the anticipated cost of coverage litigation disputes relating to these claims. The bulk reserve the Company carries is established and adjusted based upon the aggregate volume of in-process environmental claims and the Company's experience in resolving those claims. The balance, approximately 8% of the net environmental reserve (approximately \$25 million), consists of case reserves.

The following table displays activity for environmental losses and loss expenses and reserves:

(at and for the year ended December 31, in millions)	2019	2018	2017	
Beginning reserves:				
Gross	\$ 358	\$ 373	\$ 395	
Ceded	(24)	(13)	(13)	
Net	334	360	382	
Incurred losses and loss expenses:				
Gross	84	71	74	
Ceded	(8)	(16)	(9)	
Net	76	55	65	
Paid loss and loss expenses:				
Gross	92	86	97	
Ceded	(2)	(6)	(9)	
Net	90	80	88	
Foreign exchange and other:				
Gross	_	_	1	
Ceded	1	(1)	_	
Net	1	(1)	1	
Ending reserves:				
Gross	350	358	373	
Ceded	(29)	(24)	(13)	
Net	\$ 321	\$ 334	\$ 360	
		•		

UNCERTAINTY REGARDING ADEQUACY OF ASBESTOS AND ENVIRONMENTAL RESERVES

As a result of the processes and procedures discussed above, management believes that the reserves carried for asbestos and environmental claims are appropriately established based upon known facts, current law and management's judgment. However, the uncertainties surrounding the final resolution of these claims continue, and it is difficult to determine the ultimate exposure for asbestos and environmental claims and related litigation. As a result, these reserves are subject to revision as new information becomes available and as claims develop. Changes in the legal, regulatory and legislative environment may impact the future resolution of asbestos and environmental claims and result in adverse loss reserve development. The emergence of a greater number of asbestos or environmental claims beyond that which is anticipated may result in adverse loss reserve development. Changes in applicable legislation and future court and regulatory decisions and interpretations, including the outcome of legal challenges to legislative and/or judicial reforms establishing medical criteria for the pursuit of asbestos claims, could affect the settlement of asbestos and environmental claims. It is also difficult to predict the ultimate outcome of complex coverage disputes until settlement negotiations near completion and significant legal questions are resolved or, failing settlement, until the dispute is adjudicated. This is particularly the case with policyholders in bankruptcy where negotiations often involve a large number of claimants and other parties and require court approval to be effective. As part of its continuing analysis of asbestos and environmental reserves, the Company continues to study the implications of these and other developments.

Because of the uncertainties set forth above, additional liabilities may arise for amounts in excess of the Company's current reserves. In addition, the Company's estimate of claims and claim adjustment expenses may change. These additional liabilities or increases in estimates, or a range of either, cannot now be reasonably estimated and could result in income statement charges that could be material to the Company's operating results in future periods.

INVESTMENT PORTFOLIO

The Company's invested assets at December 31, 2019 were \$77.88 billion, of which 94% was invested in fixed maturity and short-term investments, 1% in equity securities, 1% in real estate investments and 4% in other investments. Because the primary purpose of the investment portfolio is to fund future claims payments, the Company employs a thoughtful investment philosophy that focuses on appropriate risk-adjusted returns. A significant majority of funds available for investment are deployed in a widely diversified portfolio of high quality, liquid, taxable U.S. government, tax-exempt U.S. municipal and taxable corporate and U.S. agency mortgage-backed bonds.

The carrying value of the Company's fixed maturity portfolio at December 31, 2019 was \$68.13 billion. The Company closely monitors the duration of its fixed maturity investments, and investment purchases and sales are executed with the objective of having adequate funds available to satisfy the Company's insurance and debt obligations. The weighted average credit quality of the Company's fixed maturity portfolio, both including and excluding U.S. Treasury securities, was "Aa2" at both December 31, 2019 and 2018. Below investment grade securities represented 2.1% and 2.3% of the total fixed maturity investment portfolio at December 31, 2019 and 2018, respectively. The weighted average effective duration of fixed maturities and short-term securities was 4.0 (4.3 excluding short-term securities) at December 31, 2019 and 4.5 (4.7 excluding short-term securities) at December 31, 2018. The decrease in duration compared with December 31, 2018 primarily reflected the decrease in market interest rates during 2019.

The carrying values of investments in fixed maturities classified as available for sale at December 31, 2019 and 2018 were as follows:

		20:	19	20	2018			
(at December 31, in millions)		ying Value	Weighted Average Credit Quality (1)	Carrying Value	Weighted Average Credit Quality (1)			
U.S. Treasury securities and obligations of U.S. government and government agencies and authorities	\$	2,095	Aaa/Aa1	\$ 2,064	Aaa/Aa1			
Obligations of states, municipalities and political subdivisions:								
Local general obligation		16,315	Aaa/Aa1	14,572	Aaa/Aa1			
Revenue		10,315	Aaa/Aa1	9,853	Aaa/Aa1			
State general obligation		1,231	Aaa/Aa1	1,334	Aaa/Aa1			
Pre-refunded		2,056	Aaa/Aa1	2,852	Aaa/Aa1			
Total obligations of states, municipalities and political subdivisions		29,917		28,611				
Debt securities issued by foreign governments		1,173	Aaa/Aa1	1,257	Aaa/Aa1			
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities		3,280	Aaa/Aa1	2,573	Aaa/Aa1			
All other corporate bonds and redeemable preferred stock:								
Financial:								
Bank		3,841	A1	3,641	A1			
Insurance		1,183	Aa3	1,006	A1			
Finance/leasing		42	Ba3	39	Ba2			
Brokerage and asset management		103	A1	80	A1			
Total financial		5,169		4,766				
Industrial		18,128	A3	16,957	A3			
Public utility		3,953	A3	3,222	A2			
Canadian municipal securities		1,416	Aa2	1,165	Aa2			
Sovereign corporate securities (2)		582	Aaa	629	Aaa			
Commercial mortgage-backed securities and project loans (3)		1,509	Aaa	1,217	Aaa			
Asset-backed and other		912	Aa1	1,003	Aa1			
Total all other corporate bonds and redeemable preferred stock		31,669		28,959				
Total fixed maturities	\$	68,134	Aa2	\$ 63,464	Aa2			

⁽¹⁾ Rated using external rating agencies or by the Company when a public rating does not exist.

- (2) Sovereign corporate securities include corporate securities that are backed by a government and include sovereign banks and securities issued under the Federal Ship Financing Programs.
- (3) Included in commercial mortgage-backed securities and project loans at December 31, 2019 and 2018 were \$557 million and \$456 million of securities guaranteed by the U.S. government, respectively, and \$2 million of securities guaranteed by government-sponsored enterprises at both December 31, 2019 and 2018.

The following table sets forth the Company's fixed maturity investment portfolio rated using external ratings agencies or by the Company when a public rating does not exist:

t December 31, 2019, in millions)		Carrying Value	Percent of Total Carrying Value	
Quality Rating:				
Aaa	\$	29,164	42.9%	
Aa		15,819	23.2	
A		12,148	17.8	
Baa		9,541	14.0	
Total investment grade		66,672	97.9	
Below investment grade		1,462	2.1	
Total fixed maturities	\$	68,134	100.0%	

Obligations of States, Municipalities and Political Subdivisions

The Company's fixed maturity investment portfolio at December 31, 2019 and 2018 included \$29.92 billion and \$28.61 billion, respectively, of securities which are obligations of states, municipalities and political subdivisions (collectively referred to as the municipal bond portfolio). The municipal bond portfolio is diversified across the United States, the District of Columbia and Puerto Rico and includes general obligation and revenue bonds issued by states, cities, counties, school districts and similar issuers. Included in the municipal bond portfolio at December 31, 2019 and 2018 were \$2.06 billion and \$2.85 billion, respectively, of pre-refunded bonds, which are bonds for which states or municipalities have established irrevocable trusts, almost exclusively comprised of U.S. Treasury securities and obligations of U.S. government and government agencies and authorities. These trusts were created to fund the payment of principal and interest due under the bonds. The irrevocable trusts are verified as to their sufficiency by an independent verification agent of the underwriter, issuer or trustee. All of the Company's holdings of securities issued by Puerto Rico and related entities have been pre-refunded and therefore are defeased by U.S. Treasury securities.

The following table shows the geographic distribution of the \$27.86 billion of municipal bonds at December 31, 2019 that were not pre-refunded:

(at December 31, 2019, in millions)	State General Obligation	Local General Obligation	Revenue	Total Carrying Value	Weighted Average Credit Quality(1)
State:					
Texas	\$ 14	\$ 2,803	\$ 1,143	\$ 3,960	Aaa
Washington	110	1,389	483	1,982	Aaa/Aa1
Virginia	8	913	826	1,747	Aaa/Aa1
California	_	1,086	454	1,540	Aaa/Aa1
Minnesota	73	1,089	246	1,408	Aaa/Aa1
North Carolina	97	794	438	1,329	Aaa/Aa1
Massachusetts	_	123	1,089	1,212	Aaa/Aa1
Colorado	_	711	282	993	Aa1
Maryland	33	726	166	925	Aaa/Aa1
Georgia	158	596	160	914	Aaa/Aa1
Wisconsin	143	496	182	821	Aa1
Tennessee	63	623	88	774	Aa1
Florida	46	77	624	747	Aa1
South Carolina	53	557	118	728	Aa1
All others (2)	433	4,332	4,016	8,781	Aaa/Aa1
Total	\$ 1,231	\$ 16,315	\$ 10,315	\$ 27,861	Aaa/Aa1

⁽¹⁾ Rated using external rating agencies or by the Company when a public rating does not exist. Ratings shown are the higher of the rating of the underlying issuer or the insurer in the case of securities enhanced by third-party insurance for the payment of principal and interest in the event of issuer default.

⁽²⁾ No other single state accounted for 2.5% or more of the total non-pre-refunded municipal bonds.

The following table displays the funding sources for the \$10.32 billion of municipal bonds identified as revenue bonds in the foregoing table at December 31, 2019:

(at December 31, 2019, in millions)	Carrying Value		Weighted Average Credit Quality(1)	
Source:				
Water and sewer	\$	4,016	Aaa/Aa1	
Higher education		2,626	Aaa/Aa1	
Power utilities		785	Aa1	
Transportation		727	Aa1	
Special tax		578	Aa1	
Health care		94	Aa2	
Housing		35	Aaa/Aa1	
Lease		34	Aaa/Aa1	
Industrial		14	A2	
Property tax		12	Aa2	
Other revenue sources		1,394	Aaa/Aa1	
Total	\$	10,315	Aaa/Aa1	

⁽¹⁾ Rated using external rating agencies or by the Company when a public rating does not exist. Ratings shown are the higher of the rating of the underlying issuer or the insurer in the case of securities enhanced by third-party insurance for the payment of principal and interest in the event of issuer default.

The Company bases its investment decision on the underlying credit characteristics of the municipal security. The weighted average credit rating of the municipal bond portfolio was "Aaa/Aa1" at December 31, 2019.

Debt Securities Issued by Foreign Governments

The following table shows the geographic distribution of the Company's long-term fixed maturity investments in debt securities issued by foreign governments at December 31, 2019:

(at December 31, 2019, in millions)	Carrying Value	Weighted Average Credit Quality (1)
Foreign Government:		
Canada	\$ 790	Aaa
United Kingdom	355	Aa2
All Others (2)	28	Baa2
Total	\$ 1,173	Aaa/Aa1

⁽¹⁾ Rated using external rating agencies or by the Company when a public rating does not exist.

The following table shows the Company's Eurozone exposure at December 31, 2019 to all debt securities issued by foreign governments, financial companies, sovereign corporations (including sovereign banks) whose securities are backed by the respective country's government and all other corporate securities (comprised of industrial corporations and utility companies) which could be affected if economic conditions deteriorated due to a prolonged recession:

⁽²⁾ No other country accounted for 2.5% or more of total debt securities issued by foreign governments.

					Corporat	c Securities		
		rities Issued Governments	Fina	ancial	Sovereign	Corporates	All	Other
(at December 31, 2019, in millions)	Carrying Value	Weighted Average Credit Quality (1)						
Eurozone Periphery								
Spain	\$ —	_	\$ 78	A2	\$ —	_	\$ 19	Baa2
Ireland	_	_	_	_	_	_	138	Baa2
Greece	_	_	_	_	_	_	_	_
Italy	_	_	_	_	_	_	_	_
Portugal	_	_	_	_	_	_	_	_
Subtotal			78				157	
Eurozone Non-Periphery								
Germany	_	_	5	Baa3	353	Aaa/Aa1	535	A3
France	_	_	4	A1	_	_	632	A2
Netherlands	_	_	150	A1	218	Aaa/Aa1	337	A2
Austria	_	_	_	_	124	Aa2	_	_
Finland	_	_	26	Aa3	_	_	_	_
Belgium	_	_	_	_	_	_	74	Baa1
Luxembourg	_	_	_	_	_	_	14	Aa3
Subtotal	_		185		695		1,592	
Total	<u>\$</u>		\$ 263		\$ 695		\$ 1,749	

Corporate Securities

In addition to fixed maturities noted in the foregoing table, the Company has exposure totaling \$131 million to private equity limited partnerships and real estate partnerships (both of which are included in other investments in the Company's consolidated balance sheet) whose primary investing focus is across Europe. The Company has unfunded commitments totaling \$134 million to these partnerships. The Company has no non-redeemable preferred stock issued by companies in the Eurozone.

Mortgage-Backed Securities, Collateralized Mortgage Obligations and Pass-Through Securities

The Company's fixed maturity investment portfolio at December 31, 2019 and 2018 included \$3.28 billion and \$2.57 billion, respectively, of residential mortgage-backed securities, including pass-through-securities and collateralized mortgage obligations (CMOs), all of which are subject to prepayment risk (either shortening or lengthening of duration). While prepayment risk for securities and its effect on income cannot be fully controlled, particularly when interest rates move dramatically, the Company's investment strategy generally favors securities that reduce this risk within expected interest rate ranges. The Company makes investments in residential CMOs that are either guaranteed by GNMA, FNMA or FHLMC, or if not guaranteed, are senior or super-senior positions within their respective securitizations. Both guaranteed and non-guaranteed residential CMOs allocate the distribution of payments from the underlying mortgages among different classes of bondholders. In addition, non-guaranteed residential CMOs provide structures that allocate the impact of credit losses to different classes of bondholders. Senior and supersenior CMOs are protected, to varying degrees, from credit losses as those losses are initially allocated to subordinated bondholders. The Company's investment strategy is to purchase CMO tranches that are expected to offer the most favorable return given the Company's assessment of associated risks. The Company does not purchase residual interests in CMOs. For more information regarding the Company's investments in residential mortgage-backed securities, see note 3 of notes to the consolidated financial statements.

⁽¹⁾ Rated using external rating agencies or by the Company when a public rating does not exist. The table includes \$619 million of short-term securities which have high ratings issued by external rating agencies for short-term issuances. For purposes of this table, the short-term securities, which are rated "A-1+" and/or "P-1," are included as "Aaa" rated securities.

Commercial Mortgage-Backed Securities and Project Loans

At December 31, 2019 and 2018, the Company held commercial mortgage-backed securities (including FHA project loans) of \$1.51 billion and \$1.22 billion, respectively. For more information regarding the Company's investments in commercial mortgage-backed securities, see note 3 of notes to the consolidated financial statements.

Equity Securities, Real Estate and Short-Term Investments

See note 1 of notes to the consolidated financial statements for further information about these invested asset classes.

Other Investments

The Company also invests in private equity limited partnerships, hedge funds and real estate partnerships. Also included in other investments are non-public common and preferred equities and derivatives. These asset classes have historically provided a higher return than fixed maturities but are subject to more volatility. At December 31,2019 and 2018, the carrying value of the Company's other investments was \$3.42 billion and \$3.56 billion, respectively. The Company has unfunded commitments to private equity limited partnerships and real estate partnerships in which it invests. These commitments totaled \$1.66 billion and \$1.60 billion at December 31, 2019 and 2018, respectively. It is the opinion of the Company's management that the Company has adequate liquidity to meet these commitments.

Securities Lending

The Company has, from time to time, engaged in securities lending activities from which it generates net investment income by lending certain of its investments to other institutions for short periods of time. At December 31, 2019 and 2018, the Company had \$404 million and \$367 million of securities on loan, respectively, as part of a tri-party lending agreement. The average monthly balance of securities on loan during 2019 and 2018 was \$368 million and \$319 million, respectively. Borrowers of these securities provide collateral equal to at least 102% of the market value of the loaned securities plus accrued interest. The Company did not incur any investment losses in its securities lending program for the years ended December 31, 2019 and 2018.

Lloyd's Trust Deposits

The Company meets its capital requirements to support its underwriting at Lloyd's using a combination of the share capital and retained earnings of the Company's subsidiaries participating in Lloyd's, trust deposits and uncollateralized letters of credit. Securities with a fair value of approximately \$173 million and \$115 million held by a wholly-owned subsidiary at December 31, 2019 and 2018, respectively, and \$34 million and \$33 million held by TRV at December 31, 2019 and 2018, respectively, were pledged into Lloyd's trust accounts to provide a portion of the Lloyd's capital requirements. For more information regarding the Company's utilization of uncollateralized letters of credit, see "Liquidity and Capital Resources" herein.

Net Unrealized Investment Gains (Losses)

The net unrealized investment gains (losses) that were included in shareholders' equity were as follows:

(at December 31, in millions)	2019		2018		2017	
Fixed maturities	\$ 2,853	\$	(137)	\$	1,378	
Equity securities	_		_		13	
Other investments	_		_		23	
Unrealized investment gains (losses) before tax	2,853		(137)		1,414	
Tax expense (benefit)	607		(24)		460	
Net unrealized investment gains (losses) included in accumulated other comprehensive income at year end	 2,246		(113)		954	
Tax effect of TCJA	_		_		158	
Net unrealized investment gains (losses) included in shareholders' equity at end of year	\$ 2,246	\$	(113)	\$	1,112	

The Company reported net unrealized investment gains included in shareholders' equity at December 31, 2019 as compared to net unrealized losses at December 31, 2018. This change is due to a decline in interest rates during 2019. Equity securities, which

include public common and non-redeemable preferred stocks, are reported at fair value with changes in fair value recognized in net income. Prior to January 1, 2018, equity securities were classified as available for sale, and changes in their fair value were charged or credited directly to other comprehensive income.

At December 31, 2019, the Company had no fixed maturity investments reported at fair value for which fair value was less than 80% of amortized cost.

For fixed maturity investments where fair value is less than the carrying value and the Company did not reach a decision to impair, the Company continues to have the intent and ability to hold such investments to a projected recovery in value, which may not be until maturity.

At December 31, 2019 and 2018, below investment grade securities comprised 2.1% and 2.3%, respectively, of the fair value of the Company's fixed maturity investment portfolio. Included in below investment grade securities at December 31, 2019 were securities in an unrealized loss position that, in the aggregate, had an amortized cost of \$152 million and a fair value of \$146 million, resulting in a net pre-tax unrealized investment loss of \$6 million. These securities in an unrealized loss position represented less than 1% of both the amortized cost and fair value of the fixed maturity portfolio at December 31, 2019 and accounted for approximately 21% of the total gross pre-tax unrealized investment loss in the fixed maturity portfolio at December 31, 2019.

Impairment Charges

Impairment charges included in net realized investment gains in the consolidated statement of income were \$4 million and \$1 million for the years ended December 31, 2019 and 2018, respectively. See note 3 of notes to the consolidated financial statements for further information.

Purchases and Sales of Investment Securities

Purchases and sales of investments are based on cash requirements, the characteristics of the insurance liabilities and current market conditions. The Company identifies investments to be sold to achieve its primary investment goals of assuring the Company's ability to meet policyholder obligations as well as to optimize investment returns, given these obligations.

During the year ended December 31,2019, the Company incurred pre-tax realized losses of \$8 million on the sale of fixed maturity investments having a fair value of \$317 million.

CATASTROPHE MODELING

The Company uses various analyses and methods, including proprietary and third-party computer modeling processes, to make underwriting and reinsurance decisions designed to manage its exposure to catastrophic events. There are no industry-standard methodologies or assumptions for projecting catastrophe exposure. Accordingly, catastrophe estimates provided by different insurers may not be comparable.

The Company actively monitors and evaluates changes in third-party models and, when necessary, calibrates the catastrophe risk model estimates delivered via its own proprietary modeling processes. The Company considers historical loss experience, recent events, underwriting practices, market share analyses, external scientific analysis and various other factors, including non-modeled losses, to refine its proprietary view of catastrophe risk. These proprietary models are updated regularly as new information and techniques emerge.

The tables below set forth the probabilities that estimated losses, comprising claims and allocated claim adjustment expenses (but excluding unallocated claim adjustment expenses), from a single event occurring in a one-year timeframe will equal or exceed the indicated loss amounts (expressed in dollars, net of tax, and as a percentage of the Company's common equity), based on the proprietary and third-party computer models utilized by the Company at December 31, 2019. For example, on the basis described below the tables, the Company estimates that there is a one percent chance that the Company's loss from a single U.S. and Canadian hurricane in a one-year timeframe would equal or exceed \$1.6 billion, or 7% of the Company's common equity at December 31, 2019.

	Donars (m.			Difficilis)	
Likelihood of Exceedance (1)		Single U.S. and Canadian Hurricane		Single U.S. and Canadian Earthquake	
2.0% (1-in-50)	\$	1.3	\$	0.5	
1.0% (1-in-100)	\$	1.6	\$	0.7	
0.4% (1-in-250)	\$	2.2	\$	1.2	
0.1% (1-in-1,000)	\$	4.9	\$	1.9	

Dollars (in billions)

	Percentage of Common Equity (2)		
Likelihood of Exceedance	Single U.S. and Canadian Hurricane	Single U.S. and Canadian Earthquake	
2.0% (1-in-50)	5%	2%	
1.0% (1-in-100)	7%	3%	
0.4% (1-in-250)	9%	5%	
0.1% (1-in-1,000)	21%	8%	

- (1) An event that has, for example, a 2% likelihood of exceedance is sometimes described as a "1-in-50 year event." As noted above, however, the probabilities in the table represent the likelihood of losses from a single event equaling or exceeding the indicated threshold loss amount in a one-year timeframe, not over a multi-year timeframe. Also, because the probabilities relate to a single event, the probabilities do not address the likelihood of more than one event occurring in a particular period, and, therefore, the amounts do not address potential aggregate catastrophe losses occurring in a one-year timeframe.
- The percentage of common equity is calculated by dividing (a) indicated loss amounts in dollars by (b) total common equity excluding net unrealized investment gains and losses, net of taxes, included in shareholders' equity. Net unrealized investment gains and losses can be significantly impacted by both discretionary and other economic factors and are not necessarily indicative of operating trends. Accordingly, the Company's management uses the percentage of common equity calculated on this basis as a metric to evaluate the potential impact of a single hurricane or single earthquake on the Company's financial position for purposes of making underwriting and reinsurance decisions.

The threshold loss amounts in the tables above, which are based on the Company's in-force portfolio at December 31, 2019 and catastrophe reinsurance program at January 1, 2020, are net of reinsurance, after-tax and exclude unallocated claim adjustment expenses, which historically have been less than 10% of loss estimates. For further information regarding the Company's reinsurance, see "Item 1-Business-Reinsurance." The amounts for hurricanes reflect U.S. and Canadian exposures and include property exposures, property residual market exposures and an adjustment for certain non-property exposures. The hurricane loss amounts are based on the Company's catastrophe risk model estimates and include losses from the hurricane hazards of wind and storm surge. The amounts for earthquakes reflect U.S. and Canadian property and workers' compensation exposures. The Company does not believe that the inclusion of hurricane or earthquake losses arising from other geographical areas or other exposures would materially change the estimated threshold loss amounts.

Catastrophe modeling relies upon inputs based on experience, science, engineering and history. These inputs reflect a significant amount of judgment and are subject to changes which may result in volatility in the modeled output. Catastrophe modeling output may also fail to account for risks that are outside the range of normal probability or are otherwise unforeseeable. Catastrophe modeling assumptions include, among others, the portion of purchased reinsurance that is collectible after a catastrophic event, which may prove to be materially incorrect. Consequently, catastrophe modeling estimates are subject to significant uncertainty. In the tables above, the uncertainty associated with the estimated threshold loss amounts increases significantly as the likelihood of exceedance decreases. In other words, in the case of a relatively more remote event (e.g., 1-in-1,000), the estimated threshold loss amount is relatively less reliable. Actual losses from an event could materially exceed the indicated threshold loss amount. In addition, more than one such event could occur in any period.

Moreover, the Company is exposed to the risk of material losses from other than property and workers' compensation coverages arising out of hurricanes and earthquakes, and it is exposed to catastrophe losses from perils other than hurricanes and earthquakes, such as tornadoes and other windstorms, hail, wildfires, severe winter weather, floods, tsunamis, volcanic eruptions, solar flares and other naturally-occurring events, as well as acts of terrorism and cyber events.

For more information about the Company's exposure to catastrophe losses, see "Item 1A-Risk Factors-High levels of catastrophe losses, including as a result of factors such as increased concentrations of insured exposures in catastrophe-prone areas, could materially and adversely affect our results of operations, our financial position and/or liquidity, and could adversely impact our ratings, our ability to raise capital and the availability and cost of reinsurance" and "Item 1A-Risk Factors- We may be adversely affected if our pricing and capital models provide materially different indications than actual results."

CHANGING CLIMATE CONDITIONS

Severe weather events over the last two decades have underscored the unpredictability of future climate trends and created uncertainty regarding insurers' exposures to financial loss as a result of catastrophes and other weather-related events. The insurance industry experienced increased catastrophe losses due to a number of potential causal factors, including, in addition to weather/climate variability, more people living in high-risk areas, population growth in areas with weaker enforcement of building codes, urban expansion and an increase in the average size of a house. For example, hurricane and storm surge activity have impacted areas further inland than previously experienced, and demographic changes have resulted in larger populations in coastal areas which historically have been subject to severe storms, thus expanding the Company's potential for losses from hurricanes. Additionally, both the frequency and severity of tornado and hail storms in the United States have been more volatile during the last decade. The frequency and severity of wildfire losses have been elevated in more recent years, due in part to record droughts in California that some climate studies suggest are likely to increase over time. Demographic changes in areas prone to wildfires have expanded the Company's potential for losses from wildfires. Moreover, the Company's catastrophe models may be less reliable due to the increased unpredictability in frequency and severity of severe weather events, emerging trends in climate conditions, inadequate reflection of regulatory changes and the other factors mentioned above. Accordingly, the Company may be subject to increased losses from catastrophes and other weather-related events.

The Company discusses how changing climate conditions may present other issues for its business under "Item 1A - Risk Factors" and "Outlook." For example, among other things:

- Increasingly unpredictable and severe weather conditions could result in increased frequency and severity of claims under policies issued by the Company. See "Item 1A—Risk Factors—High levels of catastrophe losses, including as a result of factors such as increased concentrations of insured exposures in catastrophe-prone areas, could materially and adversely affect our results of operations, our financial position and/or liquidity, and could adversely impact our ratings, our ability to raise capital and the availability and cost of reinsurance" and "-Outlook-Underwriting Gain/Loss."
- Changing climate conditions could also impact the creditworthiness of issuers of securities in which the Company invests. For example, water supply adequacy could impact the creditworthiness of bond issuers with significant assets or business activities in the Southwestern United States, and more frequent and/or severe hurricanes could impact the creditworthiness of issuers with significant assets or business activities in the Southeastern United States, among other areas. See "Item 1A—Risk Factors—Our investment portfolio is subject to credit and interest rate risk, and may suffer reduced or low returns or material realized or unrealized losses."
- Increased regulation adopted in response to potential changes in climate conditions may impact the Company and its customers, including state insurance regulations that could impact the Company's ability to manage property exposures in areas vulnerable to significant climate driven losses. For example, a state recently passed legislation that restricts a carrier's ability to cancel or non-renew policies within or adjacent to declared state emergency zip codes. If the Company is unable to implement risk-based pricing, modify policy terms or reduce exposures to the extent necessary to address rising losses related to catastrophes and smaller scale weather events (should those increased losses occur), its business may be adversely affected. See "Item 1A—Risk Factors—High levels of catastrophe losses, including as a result of factors such as increased concentrations of insured exposures in catastrophe-prone areas, could materially and adversely affect our results of operations, our financial position and/or liquidity, and could adversely impact our ratings, our ability to raise capital and the availability and cost of reinsurance." In addition, climate change regulation could increase the Company's customers' costs of doing business. For example, insureds faced with carbon management regulatory requirements may have less available capital for investment in loss prevention and safety features which may, over time, increase loss exposures. Increased regulation may also result in reduced economic activity, which would decrease the amount of insurable assets and businesses.
- The full range of potential liability exposures related to changing climate conditions continues to evolve. For example, from time to time third parties sue our policyholders alleging that they caused or contributed to changing climate conditions. Through the Company's Emerging Issues Committee and its Committee on Climate, Energy and the Environment, the Company works with its business units and corporate groups, as appropriate, to identify and try to assess climate change-related liability issues, which are continually evolving and often hard to fully evaluate. The Company regularly reviews

emerging issues, including changing climate conditions, to consider potential changes to its modeling and the use of such modeling, as well as to help determine the need for new underwriting strategies, coverage modifications or new products. See "Item 1A—Risk Factors—The effects of emerging claim and coverage issues on our business are uncertain, and court decisions or legislative changes that take place after we issue our policies can result in an unexpected increase in the number of claims and have a material adverse impact on our results of operations."

REINSURANCE RECOVERABLES

The Company reinsures a portion of the risks it underwrites in order to control its exposure to losses. For additional discussion regarding the Company's reinsurance coverage, see "Part I—Item 1—Business—Reinsurance."

The following table summarizes the composition of the Company's reinsurance recoverables:

(at December 31, in millions)	2019	2018
Gross reinsurance recoverables on paid and unpaid claims and claim adjustment expenses.	\$ 3,476	\$ 3,485
Allowance for uncollectible reinsurance	(92)	(110)
Net reinsurance recoverables	3,384	3,375
Mandatory pools and associations	1,886	2,005
Structured settlements	2,965	2,990
Total reinsurance recoverables	\$ 8,235	\$ 8,370

Net reinsurance recoverables at December 31, 2019 were comparable to recoverables at December 31, 2018.

The following table presents the Company's top five reinsurer groups by reinsurance recoverable at December 31, 2019 (in millions). Also included is the A.M. Best rating of the Company's predominant reinsurer from each such reinsurer group at February 13, 2020:

Reinsurer Group	Reinsurance Recoverable		A.M. Best Rating of Group's Predominant Reinsurer
Swiss Re Group	\$ 457	A+	second highest of 16 ratings
Berkshire Hathaway	347	A++	highest of 16 ratings
Munich Re Group	289	A+	second highest of 16 ratings
AXA Group	170	A+	second highest of 16 ratings
Alleghany Group	141	A+	second highest of 16 ratings

At December 31, 2019, the Company held \$823 million of collateral in the form of letters of credit, funds and trust agreements held to fully or partially collateralize certain reinsurance recoverables.

Included in total reinsurance recoverables are amounts related to structured settlements, which are annuities purchased from various life insurance companies to settle certain personal physical injury claims, of which workers' compensation claims comprise a significant portion. In cases where the Company did not receive a release from the claimant, the amount due from the life insurance company related to the structured settlement is included in the Company's consolidated balance sheet as a reinsurance recoverable and the related claim cost is included in the liability for claims and claim adjustment expense reserves, as the Company retains the contingent liability to the claimant. If it is expected that the life insurance company is not able to pay, the Company would recognize an impairment of the related reinsurance recoverable if, and to the extent, the purchased annuities are not covered by state guaranty associations. In the event that the life insurance company fails to make the required annuity payments, the Company would be required to make such payments. The following table presents the Company's top five groups by structured settlements at December 31, 2019 (in millions). Also included is the A.M. Best rating of the Company's predominant insurer from each such insurer group at February 13, 2020:

Group	ictured ements		A.M. Best Rating of Group's Predominant Insurer
Fidelity & Guaranty Life Group ⁽¹⁾	\$ 777	A-	fourth highest of 16 ratings
Genworth Financial Group (2)	338	В	seventh highest of 16 ratings
John Hancock Group	272	A+	second highest of 16 ratings
Brighthouse Financial, Inc.	248	A	third highest of 16 ratings
Symetra Financial Corporation	241	A	third highest of 16 ratings

- (1) On February 7, 2020, Fidelity National Financial, Inc. announced that it had signed a merger agreement to acquire FGL Holdings (Fidelity & Guaranty Life Group). The transaction is expected to close in the second or third quarter of 2020, and is subject to the approval of FGL Holdings stockholders and federal and state regulators, as well as the satisfaction of other customary closing conditions.
- (2) On October 23, 2016, Genworth Financial (Genworth) announced that they entered into a definitive agreement under which China Oceanwide Holdings Group Co., Ltd. (China Oceanwide) agreed to acquire all of the outstanding shares of Genworth. China Oceanwide is a privately held, family-owned international financial holding group headquartered in Beijing, China. On March 7, 2017, Genworth stockholders adopted the merger agreement, and the acquisition is pending the receipt of required regulatory approvals. On December 23, 2019, the parties agreed to extend the closing deadline for the transaction until March 31, 2020.

The Company considers the ratings and related outlook assigned to reinsurance companies and life insurance companies by various independent ratings agencies in assessing the adequacy of its allowance for uncollectible amounts.

OUTLOOK

The following discussion provides outlook information for certain key drivers of the Company's results of operations and capital position.

Premiums. The Company's earned premiums are a function of net written premium volume. Net written premiums comprise both renewal business and new business and are recognized as earned premium over the life of the underlying policies. When business renews, the amount of net written premiums associated with that business may increase or decrease (renewal premium change) as a result of increases or decreases in rate and/or insured exposures, which the Company considers as a measure of units of exposure (such as the number and value of vehicles or properties insured). Net written premiums from both renewal and new business, and therefore earned premiums, are impacted by competitive market conditions as well as general economic conditions, which, particularly in the case of Business Insurance, affect audit premium adjustments, policy endorsements and mid-term cancellations. Property and casualty insurance market conditions are expected to remain competitive. Net written premiums may also be impacted by the structure of reinsurance programs and related costs, as well as changes in foreign currency exchange rates.

Overall, the Company expects retention levels (the amount of expiring premium that renews, before the impact of renewal premium changes) will remain strong by historical standards during 2020. In Business Insurance, the Company expects that domestic renewal premium changes for 2020 will remain positive and will be higher than the level attained in 2019. In Bond & Specialty Insurance, the Company expects that renewal premium changes with respect to domestic management liability business for 2020 will remain positive and will be higher than the level attained in 2019. In Personal Insurance, the Company expects that domestic Agency Automobile renewal premium changes for 2020 will remain positive but will be lower than the level attained in 2019. The Company expects that domestic Agency Homeowners and Other renewal premium changes for 2020 will remain positive and will be higher than the level attained in 2019. The need for state regulatory approval for changes to personal and many commercial property and casualty insurance prices, as well as competitive market conditions, may impact the timing and extent of renewal premium changes. Given the relatively smaller amount of premium that the Company generates from outside the United States and the transactional nature of some of those markets, particularly Lloyd's, international renewal premium changes during 2020 could be somewhat higher, broadly consistent with or somewhat lower than the levels attained in 2019; however, the Company expects that international renewal premium changes for the first half of 2020 will remain positive and will be higher than the level attained in the same period of 2019.

Property and casualty insurance market conditions are expected to remain competitive during 2020 for new business. In each of the Company's business segments, new business generally has less of an impact on underwriting profitability than renewal business, given the volume of new business relative to renewal business. However, in periods of meaningful increases in new business, despite its positive impact on underwriting gains over time, the impact of higher new business levels may negatively impact the combined ratio for a period of time.

Economic conditions in the United States and elsewhere could change due to a variety of factors, including the political and regulatory environment, changes to monetary policy, inflation or deflation (including the impact of rapid changes in wages and/ or commodity prices), changes in tariffs or other international trade regulations, fluctuations in interest rates and foreign currency exchange rates, high levels of global debt after an extended period of low interest rates, the United Kingdom's withdrawal from the European Union, a shutdown of the U.S. government, the failure by the U.S. government to raise the debt ceiling, changes to the U.S. Federal budget and further potential changes in tax laws or health care legislation in the United States. The resulting changes in levels of economic activity could positively or negatively impact exposure changes at renewal and the Company's ability to write business at acceptable rates. Additionally, changes in levels of economic activity could positively or negatively impact audit premium adjustments, policy endorsements and mid-term cancellations after policies are written. All of the foregoing, in turn, could positively or negatively impact net written premiums during 2020, and because earned premiums are a function of net written premiums, earned premiums could be impacted on a lagging basis.

Underwriting Gain/Loss. The Company's underwriting gain/loss can be significantly impacted by catastrophe losses and net favorable or unfavorable prior year reserve development, as well as underlying underwriting margins. Underlying underwriting margins can be impacted by a number of factors, including variability in non-catastrophe weather, large loss and other loss activity; changes in current period loss estimates resulting from prior period loss development; changes in loss trend; changes in business mix; changes in reinsurance coverages and/or costs; premium adjustments; and variability in expenses and assessments.

Catastrophe losses and non-catastrophe weather-related losses are inherently unpredictable from period to period. The Company's results of operations could be adversely impacted if significant catastrophe and/or non-catastrophe weather-related losses were to occur

On average over the last ten years, the Company has experienced approximately 40% of its annual catastrophe losses during the second quarter, primarily arising out of severe wind and hail storms, including tornadoes. Hurricanes, wildfires and winter storms tend to happen at other times of the year and can also have a material impact on the Company's results of operations. Catastrophe losses incurred in a particular quarter in any given year may differ materially from historical experience. In addition, most of the Company's reinsurance programs renew on January 1 or July 1 of each year, and, therefore, any changes to the cost or coverage terms of such programs will be effective after such dates.

Over the past decade, the Company's results have included significant amounts of net favorable prior year reserve development driven by better than expected loss experience. However, given the inherent uncertainty in estimating claims and claim adjustment expense reserves, loss experience could develop such that the Company recognizes in future periods higher or lower levels of favorable prior year reserve development, no favorable prior year reserve development or, as was the case in 2019, unfavorable prior year reserve development. In addition, the ongoing review of prior year claims and claim adjustment expense reserves, or other changes in current period circumstances, may result in the Company revising current year loss estimates upward or downward in future periods of the current year.

It is possible that changes in economic conditions could lead to higher or lower inflation than the Company had anticipated, which could in turn lead to an increase or decrease in the Company's loss costs and the need to strengthen or reduce claims and claim adjustment expense reserves. These impacts of inflation on loss costs and claims and claim adjustment expense reserves could be more pronounced for those lines of business that require a relatively longer period of time to finalize and settle claims for a given accident year and, accordingly, are relatively more inflation sensitive. For a further discussion, see "Part I—Item 1A—Risk Factors—If actual claims exceed our claims and claim adjustment expense reserves, or if changes in the estimated level of claims and claim adjustment expense reserves are necessary, including as a result of, among other things, changes in the legal/tort, regulatory and economic environments in which the Company operates, our financial results could be materially and adversely affected."

In Business Insurance, the Company expects that for 2020 in the aggregate, the underlying underwriting margin will be higher, and the underlying combined ratio will be lower, than in 2019, assuming the anticipated impacts of earned pricing in excess of loss cost trends and improved results in the Company's international business. The improvements are expected in the second through fourth quarters of the year as a result of the timing impact of higher loss estimates recognized in the same periods of 2019 in the general liability product line for primary and excess coverages and in the commercial automobile product line.

In Bond & Specialty Insurance, the Company expects that for 2020 in the aggregate, the underlying underwriting margin will be broadly consistent with 2019 and the underlying combined ratio will be slightly higher than in 2019.

In Personal Insurance, the Company expects that for 2020 in the aggregate, the underlying underwriting margin will be higher, and the underlying combined ratio will be lower, than in 2019. The improvements are expected in the second through fourth quarters of the year assuming lower levels of non-catastrophe weather-related losses. In Agency Automobile, the Company expects

that for 2020 in the aggregate, the underlying underwriting margin and the underlying combined ratio will be broadly consistent with 2019. In Agency Homeowners and Other, the Company expects that for 2020 in the aggregate, the underlying underwriting margin will be higher, and the underlying combined ratio will be lower, than in 2019. The improvements are expected in the second through fourth quarters of the year assuming lower levels of non-catastrophe weather-related losses.

Investment Portfolio. The Company expects to continue to focus its investment strategy on maintaining a high-quality investment portfolio and a relatively short average effective duration. The weighted average effective duration of fixed maturities and short-term securities was 4.0 (4.3 excluding short-term securities) at December 31, 2019. From time to time, the Company enters into short positions in U.S. Treasury futures contracts to manage the duration of its fixed maturity portfolio. At December 31, 2019, the Company had no open U.S. Treasury futures contracts. The Company continually evaluates its investment alternatives and mix. Currently, the majority of the Company's investments are comprised of a widely diversified portfolio of high-quality, liquid, taxable U.S. government, tax-exempt U.S. municipal and taxable corporate and U.S. agency mortgage-backed bonds.

The Company also invests much smaller amounts in equity securities, real estate, private equity limited partnerships, hedge funds, and real estate partnerships and joint ventures. These investment classes have the potential for higher returns but also the potential for higher degrees of risk, including less stable rates of return and less liquidity.

Net investment income is a material contributor to the Company's results of operations. Based on the impact of expected lower reinvestment yields on fixed income investments, partially offset by slightly higher levels of fixed income investments, the Company expects that for 2020, after-tax net investment income from that portfolio will be approximately \$5 million to \$10 million lower on a quarterly basis as compared to the corresponding quarters of 2019. The impact of future market conditions on net investment income from the Company's non-fixed income investment portfolios for 2020 is hard to predict. If general economic conditions and/or investment market conditions change, the Company could experience an increase or decrease in net investment income and/or significant realized investment gains or losses (including impairments) compared with 2019.

The Company had a net pre-tax unrealized investment gain of \$2.85 billion (\$2.25 billion after-tax) in its fixed maturity investment portfolio at December 31, 2019. While the Company does not attempt to predict future interest rate movements, a rising interest rate environment would reduce the market value of fixed maturity investments and, therefore, reduce shareholders' equity, and a declining interest rate environment would have the opposite effects. The Company's investment portfolio has benefited from certain tax exemptions (primarily those related to interest from municipal bonds) and certain other tax laws, including, but not limited to, those governing dividends-received deductions and tax credits (such as foreign tax credits). Changes in these laws could adversely impact the value of the Company's investment portfolio. See "Changes in U.S. tax laws or in the tax laws of other jurisdictions in which we operate could adversely impact us" included in "Part I—Item 1A—Risk Factors."

For further discussion of the Company's investment portfolio, see "Investment Portfolio." For a discussion of the risks to the Company's business during or following a financial market disruption and risks to the Company's investment portfolio, see the risk factors entitled "During or following a period of financial market disruption or an economic downturn, our business could be materially and adversely affected" and "Our investment portfolio is subject to credit and interest rate risk, and may suffer reduced or low returns or material realized or unrealized losses" included in "Part I—Item 1A—Risk Factors." For a discussion of the risks to the Company's investments from foreign currency exchange rate fluctuations, see the risk factor entitled "We are also subject to a number of additional risks associated with our business outside the United States" included in "Part I—Item 1A—Risk Factors" and see "Part II—Item 7A—Quantitative and Qualitative Disclosures About Market Risk—Foreign Currency Exchange Rate Risk."

Capital Position. The Company believes it has a strong capital position and, as part of its ongoing efforts to create shareholder value, expects to continue to return capital not needed to support its business operations to its shareholders. The Company expects that, generally over time, the combination of dividends to common shareholders and common share repurchases will likely not exceed net income. The Company also expects that to the extent that it continues to grow premium volumes, the amount of capital returned to shareholders relative to earnings would be somewhat less than it otherwise would have been in the absence of such growth. The timing and actual number of shares to be repurchased in the future will depend on a variety of factors, including the Company's financial position, earnings, share price, catastrophe losses, maintaining capital levels commensurate with the Company's desired ratings from independent rating agencies, changes in levels of written premiums, funding of the Company's qualified pension plan, capital requirements of the Company's operating subsidiaries, legal requirements, regulatory constraints, other investment opportunities (including mergers and acquisitions and related financings), market conditions and other factors. For information regarding the Company's common share repurchases in 2019, see "Liquidity and Capital Resources."

As a result of the Company's business outside of the United States, primarily in Canada, the United Kingdom (including Lloyd's), the Republic of Ireland and in Brazil through a joint venture, the Company's capital is also subject to the effects of changes in foreign currency exchange rates. For example, strengthening of the U.S. dollar in comparison to other currencies could result in

a reduction of shareholders' equity. For additional discussion of the Company's foreign exchange market risk exposure, see "Part II—Item 7A—Quantitative and Qualitative Disclosures About Market Risk."

Many of the statements in this "Outlook" section are forward-looking statements, which are subject to risks and uncertainties that are often difficult to predict and beyond the Company's control. Actual results could differ materially from those expressed or implied by such forward-looking statements. Further, such forward-looking statements speak only as of the date of this report and the Company undertakes no obligation to update them. See "—Forward Looking Statements." For a discussion of potential risks and uncertainties that could impact the Company's results of operations or financial position, see "Part I—Item 1A—Risk Factors" and "Critical Accounting Estimates."

LIQUIDITY AND CAPITAL RESOURCES

Liquidity is a measure of a company's ability to generate sufficient cash flows to meet the cash requirements of its business operations and to satisfy general corporate purposes when needed.

Operating Company Liquidity. The liquidity requirements of the Company's insurance subsidiaries are met primarily by funds generated from premiums, fees, income received on investments and investment maturities. Cash provided from these sources is used primarily for claims and claim adjustment expense payments and operating expenses. The insurance subsidiaries' liquidity requirements can be impacted by, among other factors, the timing and amount of catastrophe claims, which are inherently unpredictable, as well as the timing and amount of reinsurance recoveries, which may be affected by reinsurer solvency and reinsurance coverage disputes. Additionally, the variability of asbestos-related claim payments, as well as the volatility of potential judgments and settlements arising out of litigation, may also result in increased liquidity requirements. It is the opinion of the Company's management that the insurance subsidiaries' future liquidity needs will be adequately met from all of the sources described above. Subject to restrictions imposed by states in which the Company's insurance subsidiaries are domiciled, the Company's principal insurance subsidiaries pay dividends to their respective parent companies, which, in turn, pay dividends to the corporate holding (parent) company (TRV). For further information regarding restrictions on dividends paid by the Company's insurance subsidiaries, see "Part I—Item 1—Business—Regulation."

Holding Company Liquidity. TRV's liquidity requirements primarily include shareholder dividends, debt servicing, common share repurchases and, from time to time, contributions to its qualified domestic pension plan. At December 31, 2019, TRV held total cash and short-term invested assets in the United States aggregating \$1.43 billion and having a weighted average maturity of 53 days. TRV has established a holding company liquidity target equal to its estimated annual pre-tax interest expense and common shareholder dividends (currently approximately \$1.20 billion). TRV's holding company liquidity of \$1.43 billion at December 31, 2019 exceeded this target, and it is the opinion of the Company's management that these assets are sufficient to meet TRV's current liquidity requirements.

TRV is not dependent on dividends or other forms of repatriation from its foreign operations to support its liquidity needs. The undistributed earnings of the Company's foreign operations are intended to be permanently reinvested in those operations, and such earnings were not material to the Company's financial position or liquidity at December 31, 2019.

TRV has a shelf registration statement filed with the Securities and Exchange Commission that expires on June 10, 2022 which permits it to issue securities from time to time. TRV also has a \$1.0 billion line of credit facility with a syndicate of financial institutions that expires on June 4, 2023. At December 31, 2019, the Company had \$100 million of commercial paper outstanding. TRV is not reliant on its commercial paper program to meet its operating cash flow needs.

The Company utilized uncollateralized letters of credit issued by major banks with an aggregate limit of approximately \$317 million to provide a portion of the capital needed to support its obligations at Lloyd's at December 31, 2019. If uncollateralized letters of credit are not available at a reasonable price or at all in the future, the Company can collateralize these letters of credit or may have to seek alternative means of supporting its obligations at Lloyd's, which could include utilizing holding company funds on hand.

Operating Activities

Net cash flows provided by operating activities were \$5.21 billion and \$4.38 billion in 2019 and 2018, respectively. The increase in cash flows in 2019 primarily reflected higher levels of cash received for (i) premiums and (ii) net investment income, and (iii) a lower level of payments for general and administrative expenses, partially offset by the impacts of higher levels of payments for (iv) claims and claim adjustment expenses and (v) commission expenses. The higher level of payments for claims and claim adjustment expenses in 2019 included the impact of increased business volumes, partially offset by a lower level of payments related to catastrophe losses. The lower level of payments for general and administrative expenses reflected no voluntary

contribution to the Company's qualified domestic pension plan in 2019, compared to a voluntary contribution of \$200 million in 2018. The qualified domestic pension plan was 108% and 109% funded at December 31, 2019 and 2018, respectively.

Investing Activities

Net cash used in investing activities was \$2.90 billion and \$2.33 billion in 2019 and 2018, respectively. The Company's consolidated total investments at December 31,2019 increased by \$5.61 billion, or 8% over December 31,2018, primarily reflecting the impacts of (i) net unrealized gains on investments at December 31, 2019 as compared with net unrealized losses on investments at December 31, 2018 due to a decline in interest rates during 2019 and (ii) net cash flows provided by operating activities, partially offset by (iii) common share repurchases and (iv) dividends paid to shareholders.

The Company's investment portfolio is managed to support its insurance operations; accordingly, the portfolio is positioned to meet obligations to policyholders. As such, the primary goals of the Company's asset-liability management process are to satisfy the insurance liabilities and maintain sufficient liquidity to cover fluctuations in projected liability cash flows. Generally, the expected principal and interest payments produced by the Company's fixed maturity portfolio adequately fund the estimated runoff of the Company's insurance reserves. Although this is not an exact cash flow match in each period, the substantial amount by which the market value of the fixed maturity portfolio exceeds the value of the net insurance liabilities, as well as the positive cash flow from newly sold policies and the large amount of high quality liquid bonds, contributes to the Company's ability to fund claim payments without having to sell illiquid assets or access credit facilities.

Financing Activities

Net cash flows used in financing activities were \$2.19 billion and \$2.01 billion in 2019 and 2018, respectively. The totals in both years primarily reflected common share repurchases, dividends paid to shareholders and the payment of debt, partially offset by the issuance of debt and proceeds from employee stock option exercises. Common share repurchases in 2019 and 2018 were \$1.55 billion and \$1.32 billion, respectively.

Debt Transactions.

2019. On March 4, 2019, the Company issued \$500 million aggregate principal amount of 4.10% senior notes that will mature on March 4, 2049. The net proceeds of the issuance, after the deduction of the underwriting discount and expenses payable by the Company, totaled approximately \$492 million. Interest on the senior notes is payable semi-annually in arrears on March 4 and September 4. Prior to September 4, 2048, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to the greater of (a) 100% of the principal amount of any senior notes to be redeemed or (b) the sum of the present values of the remaining scheduled payments of principal and interest to but excluding September 4, 2048 on any senior notes to be redeemed (exclusive of interest accrued to the date of redemption) discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the then current Treasury rate (as defined in the senior notes), plus 20 basis points. On or after September 4, 2048, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to 100% of the principal amount of any senior notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

On June 2, 2019, the Company's \$500 million, 5.90% senior notes matured and were fully paid.

2018. On March 7, 2018, the Company issued \$500 million aggregate principal amount of 4.05% senior notes that will mature on March 7, 2048. The net proceeds of the issuance, after the deduction of the underwriting discount and expenses payable by the Company, totaled approximately \$491 million. Interest on the senior notes is payable semi-annually in arrears on March 7 and September 7. Prior to September 7, 2047, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to the greater of (a) 100% of the principal amount of any senior notes to be redeemed or (b) the sum of the present values of the remaining scheduled payments of principal and interest to but excluding September 7, 2047 on any senior notes to be redeemed (exclusive of interest accrued to the date of redemption) discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the then current Treasury rate (as defined in the senior notes), plus 15 basis points. On or after September 7, 2047, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to 100% of the principal amount of any senior notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

On May 15, 2018, the Company's \$500 million, 5.80% senior notes matured and were fully paid.

Dividends. Dividends paid to shareholders were \$844 million and \$814 million in 2019 and 2018, respectively. The declaration and payment of future dividends to holders of the Company's common stock will be at the discretion of the Company's Board of

Directors and will depend upon many factors, including the Company's financial position, earnings, capital requirements of the Company's operating subsidiaries, legal requirements, regulatory constraints and other factors as the Board of Directors deems relevant. Dividends will be paid by the Company only if declared by its Board of Directors out of funds legally available, subject to any other restrictions that may be applicable to the Company. On January 23, 2020, the Company announced that its Board of Directors declared a regular quarterly dividend of \$0.82 per share, payable March 31, 2020 to shareholders of record on March 10, 2020.

Share Repurchases. The Company's Board of Directors has approved common share repurchase authorizations under which repurchases may be made from time to time in the open market, pursuant to pre-set trading plans meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, in private transactions or otherwise. The authorizations do not have a stated expiration date. The most recent authorization was approved by the Board of Directors in April 2017 and added \$5.0 billion of repurchase capacity to the \$709 million capacity remaining at that date. The Company expects that, generally over time, the combination of dividends to common shareholders and common share repurchases will likely not exceed net income. The Company also expects that to the extent that it continues to grow premium volumes, the amount of capital returned to shareholders relative to earnings would be somewhat less than it otherwise would have been. The timing and actual number of shares to be repurchased in the future will depend on a variety of factors, including the Company's financial position, earnings, share price, catastrophe losses, maintaining capital levels commensurate with the Company's desired ratings from independent rating agencies, changes in levels of written premiums, funding of the Company's qualified pension plan, capital requirements of the Company's operating subsidiaries, legal requirements, regulatory constraints, other investment opportunities (including mergers and acquisitions and related financings), market conditions and other factors. The following table summarizes repurchase activity in 2019 and the remaining repurchase capacity at December 31, 2019:

(in millions, except per share amounts) Quarterly Period Ending	Number of shares repurchased		Cost of shares repurchased	Average price paid per share	Remaining capacity under share repurchase authorization				
March 31, 2019	2.9	\$	375	\$ 129.42	\$	2,911			
June 30, 2019	2.6		375	\$ 145.87	\$	2,536			
September 30, 2019	2.5		375	\$ 147.23	\$	2,161			
December 31, 2019	2.8		375	\$ 134.33	\$	1,786			
Total	10.8	\$	1,500	\$ 138.80	\$	1,786			

From the inception of the first authorization on May 2, 2006 through December 31, 2019, the Company has repurchased a cumulative total of 508.1 million shares for a total cost of \$34.21 billion, or an average of \$67.34 per share.

In both 2019 and 2018, the Company acquired 0.4 million shares of common stock from employees as treasury stock primarily to cover payroll withholding taxes in connection with the vesting of restricted stock unit awards and performance share awards, and shares used by employees to cover the price of certain stock options that were exercised.

Capital Resources

Capital resources reflect the overall financial strength of the Company and its ability to borrow funds at competitive rates and raise new capital to meet its needs. The following table summarizes the components of the Company's capital structure at December 31, 2019 and 2018:

(at December 31, in millions)	2019		2018
Debt:			
Short-term	\$	600	\$ 600
Long-term		6,004	6,004
Net unamortized fair value adjustments and debt issuance costs		(46)	(40)
Total debt		6,558	6,564
Shareholders' equity:			
Common stock and retained earnings, less treasury stock		25,303	24,753
Accumulated other comprehensive income (loss)		640	(1,859)
Total shareholders' equity		25,943	22,894
Total capitalization	\$	32,501	\$ 29,458

Total capitalization at December 31, 2019 was \$32.50 billion, \$3.04 billion higher than at December 31, 2018, primarily reflecting the impacts of (i) accumulated other comprehensive income of \$640 million at December 31, 2019 as compared with an accumulated other comprehensive loss of \$1.86 billion at December 31, 2018, primarily reflecting the change in unrealized appreciation on investments due to a decline in interest rates during 2019, (ii) net income of \$2.62 billion and (iii) proceeds from the exercise of employee share options of \$213 million, partially offset by (iv) common share repurchases totaling \$1.50 billion under the Company's share repurchase authorization and (v) shareholder dividends of \$848 million.

The following table provides a reconciliation of total capitalization presented in the foregoing table to total capitalization excluding net unrealized gains (losses) on investments, net of taxes, included in shareholders' equity:

(at December 31, dollars in millions)	2019	2018		
Total capitalization	\$ 32,501	\$	29,458	
Less: net unrealized gains (losses) on investments, net of taxes, included in shareholders' equity	2,246		(113)	
Total capitalization excluding net unrealized gains (losses) on investments, net of taxes, included in shareholders' equity	\$ 30,255	\$	29,571	
Debt-to-total capital ratio	20.2%		22.3%	
Debt-to-total capital ratio excluding net unrealized gains (losses) on investments, net of taxes, included in shareholders' equity	21.7%		22.2%	

The debt-to-total capital ratio excluding net unrealized gains (losses) on investments, net of taxes, included in shareholders' equity, is calculated by dividing (a) debt by (b) total capitalization excluding net unrealized gains and losses on investments, net of taxes, included in shareholders' equity. Net unrealized gains and losses on investments can be significantly impacted by both interest rate movements and other economic factors. Accordingly, in the opinion of the Company's management, the debt-to-total capital ratio calculated on this basis provides another useful metric for investors to understand the Company's financial leverage position. The Company's ratio of debt-to-total capital excluding after-tax net unrealized investment gains included in shareholders' equity of 21.7% at December 31, 2019 was within the Company's target range of 15% to 25%.

Credit Agreement. The Company is a party to a five-year, \$1.0 billion revolving credit agreement with a syndicate of financial institutions that expires on June 4, 2023. Terms of the credit agreement are discussed in more detail in note 8 of notes to the consolidated financial statements.

Shelf Registration. The Company has filed a universal shelf registration statement with the Securities and Exchange Commission that expires on June 10, 2022 for the potential offering and sale of securities. The Company may offer these securities from time to time at prices and on other terms to be determined at the time of offering.

Share Repurchase Authorization. At December 31, 2019, the Company had \$1.79 billion of capacity remaining under its share repurchase authorization approved by the Board of Directors.

Contractual Obligations

The following table summarizes, as of December 31, 2019, the Company's future payments under contractual obligations and estimated claims and claim-related payments. The table excludes short-term obligations and includes only liabilities at December 31, 2019 that are expected to be settled in cash.

The table below includes the amount and estimated future timing of claims and claim-related payments. The amounts do not represent the exact liability, but instead represent estimates, generally utilizing actuarial projection techniques, at a given accounting date. These estimates include expectations of what the ultimate settlement and administration of claims will cost based on the Company's assessment of facts and circumstances known, review of historical settlement patterns, estimates of trends in claims severity, frequency, legal theories of liability and other factors. Variables in the reserve estimation process can be affected by both internal and external events, such as changes in claims handling procedures, economic inflation or deflation, legal trends and legislative changes. Many of these items are not directly quantifiable, particularly on a prospective basis. Additionally, there may be significant reporting lags between the occurrence of the policyholder event and the time it is actually reported to the insurer. The future cash flows related to the items contained in the table below required estimation of both amount (including severity considerations) and timing. Amount and timing are frequently estimated separately. An estimation of both amount and timing of future cash flows related to claims and claim-related payments has unavoidable estimation uncertainty. The contractual obligations at December 31, 2019 were as follows:

Payments Due by Period (in millions)	Total	Less than 1 Year	1-3 Years		3-5 Years	After 5 Years
Debt						
Senior notes	\$ 6,250	\$ 500	\$ _	\$	_	\$ 5,750
Junior subordinated debentures	254	_	_		_	254
Total debt principal	6,504	500	_			6,004
Interest	6,526	332	625		625	4,944
Total long-term debt obligations (1)	13,030	832	625		625	10,948
Real estate and other operating leases (2)	441	120	175		89	57
Purchase obligations						
Information systems administration and maintenance commitments (3)	165	92	68		5	_
Other purchase commitments (4)	231	77	95		46	13
Total purchase obligations	396	169	163	_	51	13
Long-term unfunded investment commitments (5)	1,666	359	522		553	232
Estimated claims and claim-related payments						
Claims and claim adjustment expenses (6)	50,039	11,256	12,551		5,854	20,378
Claims from large deductible policies (7)	_	_	_		_	_
Loss-based assessments (8)	124	23	35		14	52
Reinsurance contracts accounted for as deposits (9)	1	_	1		_	_
Payout from ceded funds withheld (10)	67	8	12		14	33
Total estimated claims and claim-related payments	50,231	11,287	12,599		5,882	20,463
Liabilities related to unrecognized tax benefits (11)	50	_	46		4	_
Total	\$ 65,814	\$ 12,767	\$ 14,130	\$	7,204	\$ 31,713

⁽¹⁾ See note 8 of notes to the consolidated financial statements for a further discussion of outstanding indebtedness. Because the amounts reported in the foregoing table include principal and interest, the total long-term debt obligations will not agree with the amounts reported in note 8.

⁽²⁾ Represents agreements entered into in the ordinary course of business to lease office space, equipment and furniture.

⁽³⁾ Includes agreements with vendors to purchase system software administration and maintenance services.

- (4) Includes commitments to vendors entered into in the ordinary course of business for goods and services including property, plant and equipment, office supplies, archival services, etc.
- (5) Represents estimated timing for fulfilling unfunded commitments for private equity limited partnerships and real estate partnerships, as well as a put/call option entered into by the Company in connection with a business acquisition.
- (6) The amounts in "Claims and claim adjustment expenses" in the table above represent the estimated timing of future payments for both reported and unreported claims incurred and related claim adjustment expenses, gross of reinsurance recoverables, excluding structured settlements expected to be paid by annuity companies.

The Company has entered into reinsurance agreements to manage its exposure to losses and protect its capital as described in note 5 of notes to the consolidated financial statements.

In order to qualify for reinsurance accounting, a reinsurance agreement must indemnify the insurer from insurance risk, i.e., the agreement must transfer amount and timing risk. Since the timing and amount of cash inflows from such reinsurance agreements are directly related to the underlying payment of claims and claim adjustment expenses by the insurer, reinsurance recoverables are recognized in a manner consistent with the liabilities (the estimated liability for claims and claim adjustment expenses) relating to the underlying reinsured contracts. The presence of any feature that can delay timely reimbursement of claims by a reinsurer results in the reinsurance contract being accounted for as a deposit rather than reinsurance. The assumptions used in estimating the amount and timing of the related liabilities.

The estimated future cash inflows from the Company's reinsurance contracts that qualify for reinsurance accounting are as follows:

			I	ess than 1		1-3		3-5	After 5			
(in millions)	Total		Year		Years		Years		Years			
Reinsurance recoverables	\$	5,150	\$	890	\$	948	\$	528	\$	2,784		

The Company manages its business and evaluates its liabilities for claims and claim adjustment expenses on a net of reinsurance basis. The estimated cash flows on a net of reinsurance basis are as follows:

(in millions)	Total	Less than 1 Year	1-3 Years	3-5 Years	After 5 Years		
Claims and claim adjustment expenses, net	\$ 44,889	\$ 10,366	\$ 11.603	\$ 5,326	\$ 17,594		

For business underwritten by non-U.S. operations, future cash flows related to reported and unreported claims incurred and related claim adjustment expenses were translated at the spot rate on December 31, 2019.

The amounts reported in the table above and in the table of reinsurance recoverables above are presented on a nominal basis and have not been adjusted to reflect the time value of money. Accordingly, the amounts above will differ from the Company's balance sheet to the extent that the liability for claims and claim adjustment expenses and the related reinsurance recoverables have been discounted in the balance sheet. See note 1 of notes to the consolidated financial statements.

Workers' compensation large deductible policies provide third-party coverage in which the Company typically is responsible for paying the entire loss under such policies and then seeks reimbursement from the insured for the deductible amount. "Claims from large deductible policies" represent the estimated future payment for claims and claim related expenses below the deductible amount, net of the estimated recovery of the deductible. The liability and the related deductible receivable for unpaid claims are presented in the consolidated balance sheet as "contractholder payables" and "contractholder receivables," respectively. Most deductibles for such policies are paid directly from the policyholder's escrow, which is periodically replenished by the policyholder. The payment of the loss amounts above the deductible are reported within "Claims and claim adjustment expenses" in the above table. Because the timing of the collection of the deductible (contractholder receivables) occurs shortly after the payment of the deductible to a claimant (contractholder payables), these cash flows offset each other in the table.

The estimated timing of the payment of the contractholder payables and the collection of contractholder receivables for workers' compensation policies is presented below:

		Less than 1	1-3	3-5	After 5		
(in millions)	Total	Year	Years	Years	Years		
Contractholder payables/receivables	\$ 4,619	\$ 1,261	\$ 1,316	\$ 676	\$ 1,366		

- (8) The amounts in "Loss-based assessments" relate to estimated future payments of second-injury fund assessments which would result from payment of current claim liabilities. Second injury funds cover the cost of any additional benefits for aggravation of a pre-existing condition. For loss-based assessments, the cost is shared by the insurance industry and self-insureds, funded through assessments to insurance companies and self-insureds based on losses. Amounts relating to second-injury fund assessments are included in "other liabilities" in the consolidated balance sheet.
- (9) The amounts in "Reinsurance contracts accounted for as deposits" represent estimated future nominal payments for reinsurance agreements that are accounted for as deposits. Amounts payable under deposit agreements are included in "other liabilities" in the consolidated balance sheet.
- (10) The amounts in "Payout from ceded funds withheld" represent estimated payments for losses and return of funds held related to certain reinsurance arrangements whereby the Company holds a portion of the premium due to the reinsurer and is allowed to pay claims from the amounts held.
- (11) The Company's current liabilities related to unrecognized tax benefits from uncertain tax positions are \$50 million. Offsetting these liabilities are deferred tax assets of \$5 million associated with the temporary differences that would exist if these positions become realized.

The above table does not include an analysis of liabilities reported for structured settlements for which the Company has purchased annuities and remains contingently liable in the event of default by the company issuing the annuity. The Company is not reasonably likely to incur material future payment obligations under such agreements. In addition, the Company is not currently subject to any minimum funding requirements for its qualified pension plan. Accordingly, future contributions are not included in the foregoing table.

Dividend Availability

The Company's principal insurance subsidiaries are domiciled in the State of Connecticut. The insurance holding company laws of Connecticut applicable to the Company's subsidiaries requires notice to, and approval by, the state insurance commissioner for the declaration or payment of any dividend that, together with other distributions made within the preceding twelve months, exceeds the greater of 10% of the insurer's statutory capital and surplus as of the preceding December 31, or the insurer's net income for the twelve-month period ending the preceding December 31, in each case determined in accordance with statutory accounting practices and by state regulation. This declaration or payment is further limited by adjusted unassigned surplus, as determined in accordance with statutory accounting practices. The insurance holding company laws of other states in which the Company's subsidiaries are domiciled generally contain similar, although in some instances somewhat more restrictive, limitations on the payment of dividends. A maximum of \$2.79 billion is available by the end of 2020 for such dividends to the holding company, TRV, without prior approval of the Connecticut Insurance Department. The Company may choose to accelerate the timing within 2020 and/or increase the amount of dividends from its insurance subsidiaries in 2020, which could result in certain dividends being subject to approval by the Connecticut Insurance Department.

In addition to the regulatory restrictions on the availability of dividends that can be paid by the Company's U.S. insurance subsidiaries, the maximum amount of dividends that may be paid to the Company's shareholders is limited, to a lesser degree, by certain covenants contained in its line of credit agreement with a syndicate of financial institutions that require the Company to maintain a minimum consolidated net worth as described in note 8 of notes to the consolidated financial statements.

TRV is not dependent on dividends or other forms of repatriation from its foreign operations to support its liquidity needs. The undistributed earnings of the Company's foreign operations are intended to be permanently reinvested in those operations, and such earnings were not material to the Company's financial position or liquidity at December 31, 2019.

TRV and its two non-insurance holding company subsidiaries received dividends of \$2.50 billion and \$2.30 billion from their U.S. insurance subsidiaries in 2019 and 2018, respectively.

Pension and Other Postretirement Benefit Plans

The Company sponsors a qualified non-contributory defined benefit pension plan (the Qualified Plan), which covers substantially all U.S. domestic employees and provides benefits primarily under a cash balance formula. In addition, the Company sponsors a nonqualified defined benefit pension plan which covers certain highly-compensated employees, pension plans for employees of its foreign subsidiaries, and a postretirement health and life insurance benefit plan for employees satisfying certain age and service requirements and for certain retirees.

The Qualified Plan is subject to regulations under the Employee Retirement Income Security Act of 1974 as amended (ERISA), which requires plans to meet minimum standards of funding and requires such plans to subscribe to plan termination insurance through the Pension Benefit Guaranty Corporation (PBGC). The Company does not have a minimum funding requirement for the Qualified Plan for 2020 and does not anticipate having a minimum funding requirement in 2021. The Company has significant discretion in making contributions above those necessary to satisfy the minimum funding requirements. In 2019, 2018 and 2017, there was no minimum funding requirement for the Qualified Plan. In 2019, the Company made no voluntary contributions to the Qualified Plan. In 2018 and 2017, the Company voluntarily made contributions totaling \$200 million and \$300 million, respectively, to the Qualified Plan. Based on its funded status at December 31, 2019, the Company does not currently anticipate making a voluntary contribution to the Qualified Plan in 2020. In determining future contributions, the Company will consider the performance of the plan's investment portfolio, the effects of interest rates on the projected benefit obligation of the plan and the Company's other capital requirements.

The Qualified Plan assets are managed to maximize long-term total return while maintaining an appropriate level of risk. The Company's overall strategy is to achieve a mix of approximately 85% to 90% of investments for long-term growth and 10% to 15% for near-term benefit payments with a diversification of asset types, fund strategies and fund managers. The current target allocations for plan assets are 55% to 65% equity securities and 20% to 40% fixed income securities, with the remainder allocated to short-term securities. For 2020, the Company plans to apply an expected long-term rate of return on plan assets of 6.75%, compared with 7.00% in 2019. The expected rate of return reflects the Company's current expectations with regard to long-term returns in the capital markets, taking into account the pension plan's asset allocation targets, the historical performance and current valuation of U.S. and international equities, and the level of long term interest rate and inflation expectations. The decrease in the expected long-term rate of return on plan assets to 6.75% for 2020 primarily reflects the Company's current expectations with regard to long-term interest rates in the future.

For further discussion of the pension and other postretirement benefit plans, see note 14 of notes to the consolidated financial statements.

Risk-Based Capital

The NAIC has an RBC requirement for most property and casualty insurance companies, which determines minimum capital requirements and is intended to raise the level of protection for policyholder obligations. The Company's U.S. insurance subsidiaries are subject to these NAIC RBC requirements based on laws that have been adopted by individual states. These requirements subject insurers having policyholders' surplus less than that required by the RBC calculation to varying degrees of regulatory action, depending on the level of capital inadequacy. Each of the Company's U.S. insurance subsidiaries had policyholders' surplus at December 31,2019 significantly above the level at which any RBC regulatory action would occur. Regulators in the jurisdictions in which the Company's foreign insurance subsidiaries are located require insurance companies to maintain certain levels of capital depending on, among other things, the type and amount of insurance policies written. Each of the Company's foreign insurance subsidiaries had capital significantly above their respective regulatory requirements at December 31, 2019.

Off-Balance Sheet Arrangements

The Company has entered into certain contingent obligations for guarantees related to selling businesses to third parties, certain investments, certain insurance policy obligations of former insurance subsidiaries and various other indemnifications. See note 16 of notes to the consolidated financial statements. The Company does not expect these arrangements will have a material effect on the Company's financial position, changes in financial position, revenues and expenses, results of operations, liquidity, capital expenditures or capital resources.

CRITICAL ACCOUNTING ESTIMATES

The Company considers its most significant accounting estimates to be those applied to claims and claim adjustment expense reserves and related reinsurance recoverables, investment valuation and impairments, and goodwill and other intangible assets impairments.

Claims and Claim Adjustment Expense Reserves

Gross claims and claim adjustment expense reserves by product line were as follows:

	D	ecen	nber 31, 201	19		December 31, 2018						
(in millions)	Case		IBNR		Total		Case		IBNR		Total	
General liability	\$ 4,898	\$	7,451	\$	12,349	\$	4,780	\$	7,092	\$	11,872	
Commercial property	1,035		312		1,347		1,157		297		1,454	
Commercial multi-peril	2,148		2,065		4,213		2,089		1,886		3,975	
Commercial automobile	2,533		1,872		4,405		2,339		1,661		4,000	
Workers' compensation	10,233		9,279		19,512		10,299		9,216		19,515	
Fidelity and surety	261		259		520		280		288		568	
Personal automobile	2,019		1,509		3,528		2,038		1,400		3,438	
Homeowners and personal — other	838		871		1,709		942		884		1,826	
International and other	2,620		1,633		4,253		2,574		1,431		4,005	
Property-casualty	26,585		25,251		51,836		26,498		24,155		50,653	
Accident and health	13		_		13		15		_		15	
Claims and claim adjustment expense reserves	\$ 26,598	\$	25,251	\$	51,849	\$	26,513	\$	24,155	\$	50,668	

The \$1.18 billion increase in gross claims and claim adjustment expense reserves since December 31, 2018 primarily reflected the impacts of higher volumes of insured exposures and loss cost trends for the current accident year.

Asbestos and environmental reserves are included in the General liability, Commercial multi-peril and International and other lines in the foregoing summary table. Asbestos and environmental reserves are discussed separately; see "Asbestos Claims and Litigation", "Environmental Claims and Litigation" and "Uncertainty Regarding Adequacy of Asbestos and Environmental Reserves."

Claims and claim adjustment expense reserves represent management's estimate of the ultimate liability for unpaid losses and loss adjustment expenses for claims that have been reported and claims that have been incurred but not yet reported (IBNR) as of the balance sheet date. Claims and claim adjustment expense reserves do not represent an exact calculation of liability, but instead represent management estimates, primarily utilizing actuarial expertise and projection methods. These estimates are expectations of what the ultimate settlement and administration of claims will cost upon final resolution in the future, based on the Company's assessment of facts and circumstances then known, review of historical settlement patterns, estimates of trends in claims severity and frequency, expected interpretations of legal theories of liability and other factors. In establishing gross claims and claim adjustment expense reserves, the Company also considers salvage and subrogation. Estimated recoveries from reinsurance are included in "Reinsurance Recoverables" as an asset on the Company's consolidated balance sheet. The claims and claim adjustment expense reserves are reviewed regularly by qualified actuaries employed by the Company.

The process of estimating claims and claim adjustment expense reserves involves a high degree of judgment and is subject to a number of variables. These variables can be affected by both internal and external events, such as changes in claims handling procedures, changes in individuals involved in the reserve estimation process, economic inflation, changes in the tort environment, legal trends and legislative changes, among others. The impact of many of these items on ultimate costs for claims and claim adjustment expenses is difficult to estimate. Estimation difficulties also differ significantly by product line due to differences in claim complexity, the volume of claims, the potential severity of individual claims, the determination of occurrence date for a claim and reporting lags (the time between the occurrence of the policyholder event and when it is actually reported to the insurer). Informed judgment is applied throughout the process, including the application of various individual experiences and expertise to multiple sets of data and analyses. The Company continually refines its estimates in a regular ongoing process as historical loss experience develops and additional claims are reported and settled. The Company rigorously attempts to consider all significant facts and circumstances known at the time claims and claim adjustment expense reserves are established. Due to the inherent uncertainty underlying these estimates including, but not limited to, the future settlement environment, final resolution of the estimated liability for claims and claim adjustment expenses may be higher or lower than the related claims and claim adjustment expense reserves at the reporting date. Therefore, actual paid losses, as claims are settled in the future, may be materially different than the amount currently recorded-favorable or unfavorable.

Because establishment of claims and claim adjustment expense reserves is an inherently uncertain process involving estimates and the application of judgment, currently established claims and claim adjustment expense reserves may change. The Company reflects adjustments to the reserves in the results of operations in the period the estimates are changed.

There are also additional risks which impact the estimation of ultimate costs for catastrophes. For example, the estimation of reserves related to hurricanes, tornadoes, wildfires and other catastrophic events can be affected by the inability of the Company and its insureds to access portions of the impacted areas, the complexity of factors contributing to the losses, the legal and regulatory uncertainties, including the interpretation of policy terms and conditions, and the nature of the information available to establish the reserves. Complex factors include, but are not limited to: determining whether damage was caused by flooding versus wind; evaluating general liability and pollution exposures; estimating additional living expenses; estimating the impact of demand surge, infrastructure disruption, fraud, the effect of mold damage and business interruption costs; and reinsurance collectibility. The timing of a catastrophe, such as at or near the end of a reporting period, can also affect the information available to the Company in estimating reserves for that reporting period. The estimates related to catastrophes are adjusted as actual claims emerge.

A portion of the Company's gross claims and claim adjustment expense reserves (totaling \$1.95 billion at December 31, 2019) are for asbestos and environmental claims and related litigation. While the ongoing review of asbestos and environmental claims and associated liabilities considers the inconsistencies of court decisions as to coverage, plaintiffs' expanded theories of liability and the risks inherent in complex litigation and other uncertainties, in the opinion of the Company's management, it is possible that the outcome of the continued uncertainties regarding these claims could result in liability in future periods that differs from current insurance reserves by an amount that could be material to the Company's future operating results. See the preceding discussion of "Asbestos Claims and Litigation" and "Environmental Claims and Litigation."

General Discussion

The process for estimating the liabilities for claims and claim adjustment expenses begins with the collection and analysis of claim data. Data on individual reported claims, both current and historical, including paid amounts and individual claim adjuster estimates, are grouped by common characteristics (components) and evaluated by actuaries in their analyses of ultimate claim liabilities. Such data is occasionally supplemented with external data as available and when appropriate. The process of analyzing reserves for a component is undertaken on a regular basis, generally quarterly, in light of continually updated information.

Multiple estimation methods are available for the analysis of ultimate claim liabilities. Each estimation method has its own set of assumption variables and its own advantages and disadvantages, with no single estimation method being better than the others in all situations and no one set of assumption variables being meaningful for all product line components. The relative strengths and weaknesses of the particular estimation methods when applied to a particular group of claims can also change over time. Therefore, the actual choice of estimation method(s) can change with each evaluation. The estimation method(s) chosen are those that are believed to produce the most reliable indication at that particular evaluation date for the claim liabilities being evaluated.

In most cases, multiple estimation methods will be valid for the particular facts and circumstances of the claim liabilities being evaluated. This will result in a range of reasonable estimates for any particular claim liability. The Company uses such range analyses to back test whether previously established estimates for reserves by reporting segments are reasonable, given available information. Reported values found to be closer to the endpoints of a range of reasonable estimates are subject to further detailed reviews. These reviews may substantiate the validity of management's recorded estimate or lead to a change in the reported estimate.

The exact boundary points of these ranges are more qualitative than quantitative in nature, as no clear line of demarcation exists to determine when the set of underlying assumptions for an estimation method switches from being reasonable to unreasonable. As a result, the Company does not believe that the endpoints of these ranges are or would be comparable across companies. In addition, potential interactions among the different estimation assumptions for different product lines make the aggregation of individual ranges a highly judgmental and inexact process.

Property-casualty insurance policies are either written on a "claims-made" or on an "occurrence" basis. Claims-made policies generally cover, subject to requirements in individual policies, claims reported during the policy period. Policies that are written on an occurrence basis require that the insured demonstrate that a loss occurred in the policy period, even if the insured reports the loss many years later.

Most general liability policies are written on an occurrence basis. These policies are subject to substantial loss development over time as facts and circumstances change in the years following the policy issuance. The occurrence form, which accounts for much of the reserve development in asbestos and environmental exposures, is also used to provide coverage for construction general

liability, including construction defect. Occurrence-based forms of insurance for general liability exposures require substantial projection of loss trends, which can be influenced by a number of factors, including future inflation, judicial interpretations and societal litigation trends (e.g., size of jury awards and propensity of individuals to pursue litigation), among others.

A basic premise in most actuarial analyses is that past patterns demonstrated in the data will repeat themselves in the future, absent a material change in the associated risk factors discussed below. To the extent a material change affecting the ultimate claim liability is known, such change is estimated to the extent possible through an analysis of internal company data and, if available and when appropriate, external data. Such a measurement is specific to the facts and circumstances of the particular claim portfolio and the known change being evaluated. Significant structural changes to the available data, product mix or organization can materially impact the reserve estimation process. In addition, the introduction of new products creates a unique risk as historical company data would typically not be available.

Informed judgment is applied throughout the reserving process. This includes the application of various individual experiences and expertise to multiple sets of data and analyses. In addition to actuaries, experts involved with the reserving process also include underwriting and claims personnel and lawyers, as well as other company management. Therefore, management may have to consider varying individual viewpoints as part of its estimation of claims and claim adjustment expense reserves. It is also likely that during periods of significant change, such as a merger, consistent application of informed judgment becomes even more complicated and difficult.

The variables discussed above in this general discussion have different impacts on reserve estimation uncertainty for a given product line, depending on the length of the claim tail, the reporting lag, the impact of individual claims and the complexity of the claim process for a given product line.

Product lines are generally classifiable as either long tail or short tail, based on the average length of time between the event triggering claims under a policy and the final resolution of those claims. Short tail claims are reported and settled quickly, resulting in less estimation variability. The longer the time to final claim resolution, the greater the exposure to estimation risks and hence the greater the estimation uncertainty.

A major component of the claim tail is the reporting lag. The reporting lag, which is the time between the event triggering a claim and the reporting of the claim to the insurer, makes estimating IBNR inherently more uncertain. In addition, the greater the reporting lag, the greater the proportion of IBNR to the total claim liability for the product line. Writing new products with material reporting lags can result in adding several years' worth of IBNR claim exposure before the reporting lag exposure becomes clearly observable, thereby increasing the risk associated with estimating the liabilities for claims and claim adjustment expenses for such products. The most extreme example of claim liabilities with long reporting lags are asbestos claims.

For some lines, the impact of large individual claims can be material to the analysis. These lines are generally referred to as being "low frequency/high severity," while lines without this "large claim" sensitivity are referred to as "high frequency/low severity." Estimates of claim liabilities for low frequency/high severity lines can be sensitive to the impact of a small number of potentially large claims. As a result, the role of judgment is much greater for these reserve estimates. In contrast, for high frequency/low severity lines the impact of individual claims is relatively minor and the range of reasonable reserve estimates is likely narrower and more stable.

Claim complexity can also greatly affect the estimation process by impacting the number of assumptions needed to produce the estimate, the potential stability of the underlying data and claim process, and the ability to gain an understanding of the data. Product lines with greater claim complexity, such as for certain surety and construction exposures, have inherently greater estimation uncertainty.

Actuaries have to exercise a considerable degree of judgment in the evaluation of all these factors in their analysis of reserves. The human element in the application of actuarial judgment is unavoidable when faced with material uncertainty. Different actuaries may choose different assumptions when faced with such uncertainty, based on their individual backgrounds, professional experiences and areas of focus. Hence, the estimates selected by the various actuaries may differ materially from each other.

Lastly, significant structural changes to the available data, product mix or organization can also materially impact the reserve estimation process. Events such as mergers increase the inherent uncertainty of reserve estimates for a period of time, until stable trends re-establish themselves within the new organization.

Risk Factors

The major causes of material uncertainty ("risk factors") generally will vary for each product line, as well as for each separately analyzed component of the product line. In a few cases, such risk factors are explicit assumptions of the estimation method, but in most cases, they are implicit. For example, a method may explicitly assume that a certain percentage of claims will close each year, but will implicitly assume that the legal interpretation of existing contract language will remain unchanged. Actual results will likely vary from expectations for each of these assumptions, causing actual paid losses, as claims are settled in the future, to be different in amount than the reserves being estimated currently.

Some risk factors will affect more than one product line. Examples include changes in claim department practices, changes in the tort environment, changes in settlement patterns, regulatory and legislative actions, court actions, timeliness of claim reporting, state mix of claimants and degree of claimant fraud. The extent of the impact of a risk factor will also vary by components within a product line. Individual risk factors are also subject to interactions with other risk factors within product line components.

The effect of a particular risk factor on estimates of claim liabilities cannot be isolated in most cases. For example, estimates of potential claim settlements may be impacted by the risk associated with potential court rulings, but the final settlement agreement typically does not delineate how much of the settled amount is due to this and other factors.

The evaluation of data is also subject to distortion from extreme events or structural shifts, sometimes in unanticipated ways. For example, the timing of claims payments in one geographic region may be impacted if claim adjusters are temporarily reassigned from that region to help settle catastrophe claims in another region.

While some changes in the claim environment are sudden in nature (such as a new court ruling affecting the interpretation of all contracts in that jurisdiction), others are more evolutionary. Evolutionary changes can occur when multiple factors affect final claim values, with the uncertainty surrounding each factor being resolved separately, in stepwise fashion. The final impact is not known until all steps have occurred.

Sudden changes generally cause a one-time shift in claim liability estimates, although there may be some lag in reliable quantification of their impact. Evolutionary changes generally cause a series of shifts in claim liability estimates, as each component of the evolutionary change becomes evident and estimable.

Actuarial Methods for Analyzing and Estimating Claims and Claim Adjustment Expense Reserves

The principal estimation and analysis methods utilized by the Company's actuaries to evaluate management's existing estimates for prior accident periods are the paid loss development method, the case incurred development method, the Bornhuetter-Ferguson (BF) method, and average value analysis combined with the reported claim development method. The BF method is usually utilized for more recent accident periods, with a transition to other methods as the underlying claim data becomes more voluminous and therefore more credible. These estimation and analysis methods are typically referred to as conventional actuarial methods. (See note 7 of notes to the consolidated financial statements for an explanation of these methods).

While the Company utilizes these conventional actuarial methods to estimate the claims liability for its various businesses, Company actuaries evaluating a particular component for a product line may select from the full range of methods developed within the casualty actuarial profession. The Company's actuaries are also continually monitoring developments within the profession for advances in existing techniques or the creation of new techniques that might improve current and future estimates.

Some components of a product line may be susceptible to infrequent large claims or not be subject to conventional methods. In such cases, the Company's actuarial analysis will isolate such components for review. The reserves excluding such large claims are generally analyzed using the conventional methods described above. The reserves associated with large claims are then analyzed utilizing various methods, such as:

- Estimating the number of large claims and their average values based on historical trends from prior accident periods, adjusted for the current environment and supplemented with actual data for the accident year analyzed to the extent available.
- Utilizing individual claim adjuster estimates of the large claims, combined with continual monitoring of the aggregate
 accuracy of such claim adjuster estimates. (This monitoring may lead to supplemental adjustments to the aggregate of
 such claim estimates).
- Utilizing historic longer-term average ratios of large claims to small claims, and applying such ratios to the estimated ultimate small claims from conventional analysis.
- Ground-up analysis of the underlying exposure (typically used for asbestos and environmental).

The results of such methodologies are subjected to various reasonability and diagnostic tests, including implied incurred-loss-to-earned-premium ratios, non-zero claim severity trends and paid-to-incurred loss ratios. An actual versus expected analysis is also performed comparing actual loss development to expected development embedded within management's estimate. Additional analyses may be performed based on the results of these diagnostics, including the investigation of other actuarial methods.

The methods described above are generally utilized to evaluate management's estimate for prior accident periods. For the initial estimate of the current accident year, however, the available claim data is typically insufficient to produce a reliable indication. As a result, the initial estimate for an accident year is generally based on an exposure-based method using either the loss ratio projection method or the expected loss method. The loss ratio projection method, which is typically used for guaranteed-cost business, develops an initial estimate for an accident year by multiplying earned premiums for the accident year by a projected loss ratio. The projected loss ratio is determined by analyzing prior period experience, and adjusting for loss cost trends, rate level differences, mix of business changes and other known or observed factors influencing the current accident year relative to prior accident years. The exact number of prior accident years utilized varies by product line component, based on the stability and consistency of the individual accident year estimates. The expected loss method, which is typically used for loss sensitive business, develops an initial estimate of ultimate claims and claim adjustment expenses for an accident year by analyzing exposures by account.

Management's Estimates

At least once per quarter, certain members of Company management meet with the Company's actuaries to review the latest claims and claim adjustment expense reserve analyses. Based on these analyses, management determines whether its ultimate claim liability estimates should be changed from the prior period. In doing so, it must evaluate whether the new data provided represents credible actionable information or an anomaly that will have no effect on estimated ultimate claim liability. For example, as described above, payments may have decreased in one geographic region due to fewer claim adjusters being available to process claims. The resulting claim payment patterns would be analyzed to determine whether or not the change in payment pattern represents a change in ultimate claim liability.

Such an assessment requires considerable judgment. It is frequently not possible to determine whether a change in the data is an anomaly until sometime after the event. Even if a change is determined to be permanent, it is not always possible to reliably determine the extent of the change until sometime later. The overall detailed analyses supporting such an effort can take several months to perform as the underlying causes of the trends observed need to be evaluated, which may require the gathering or assembling of data not previously available. It may also include interviews with experts involved with the underlying processes. As a result, there can be a time lag between the emergence of a change and a determination that the change should be reflected in the Company's estimated claim liabilities. The final estimate selected by management in a reporting period is based on these various detailed analyses of past data, adjusted to reflect any new actionable information.

The Audit Committee of the Board of Directors reviews the process by which the Company establishes reserves for the purpose of the Company's financial statements.

Discussion of Product Lines

The following section details reserving considerations and common risk factors by product line. There are many additional risk factors that may impact ultimate claim costs. Each risk factor presented will have a different impact on required reserves. Also, risk factors can have offsetting or compounding effects on required reserves. For example, in workers' compensation, the use of expensive medical procedures that result in medical cost inflation may enable workers to return to work faster, thereby lowering indemnity costs. Thus, in almost all cases, it is impossible to discretely measure the effect of a single risk factor and construct a meaningful sensitivity expectation.

In order to provide information on reasonably possible reserving changes by product line, the historical changes in year-end claims and claim adjustment expense reserves over a one-year period are provided for the U.S. product lines. This information is provided for both the Company and the industry for the nine most recent years, and is based on the most recent publicly available data for the reported line(s) that most closely match the individual product line being discussed. These changes were calculated, net of reinsurance, from statutory annual statement data found in Schedule P of those statements, and represent the reported reserve development on the beginning-of-the-year claim liabilities divided by the beginning claim liabilities, all accident years combined, excluding non-defense related claim adjustment expense. Data presented for the Company includes history for the entire Travelers group (U.S. companies only), as required by the statutory reporting instructions promulgated by state regulatory authorities for Schedule P. Comparable data for non-U.S. companies is not available.

General Liability

General liability is generally considered a long tail line, as it takes a relatively long period of time to finalize and settle claims from a given accident year. The speed of claim reporting and claim settlement is a function of the characteristics of claims, including specific coverage provided, the jurisdiction and specific policy provisions such as self-insured retentions, among others. There are numerous components underlying the general liability product line. Some of these have relatively moderate payment patterns (with most of the claims for a given accident year closed within five to seven years), while others can have extreme lags in both reporting and payment of claims (e.g., a reporting lag of a decade or more for "construction defect" claims).

While the majority of general liability coverages are written on an "occurrence" basis, certain general liability coverages (such as those covering management and professional liability, including cyber coverages) are typically insured on a "claims-made" basis.

General liability reserves are generally analyzed as two components: primary and excess/umbrella, with the primary component generally analyzed separately for bodily injury and property damage. Bodily injury liability payments reimburse the claimant for damages pertaining to physical injury as a result of the policyholder's legal obligation arising from non-intentional acts such as negligence, subject to the insurance policy provisions. In some cases the damages can include future wage loss (which is a function of future earnings power and wage inflation) and future medical treatment costs. Property damage liability payments result from damages to the claimant's private property arising from the policyholder's legal obligation for non-intentional acts. In most cases, property damage losses are a function of costs as of the loss date, or soon thereafter.

In addition, sizable or unique exposures are reviewed separately. These exposures include asbestos, environmental, other mass torts, construction defect and large unique accounts that would otherwise distort the analysis. These unique categories often require a very high degree of judgment and require reserve analyses that do not rely on conventional actuarial methods.

Defense costs are also a part of the insured costs covered by liability policies and can be significant, sometimes greater than the cost of the actual paid claims. For some products this risk is mitigated by policy language such that the insured portion of defense costs is included in the policy limit available to pay the claim. Such "defense within the limits" policies are most common for "claims-made" products. When defense costs are outside of the policy limits, the full amount of the policy limit is available to pay claims and the amounts paid for defense costs have no contractual limit.

This line is typically the largest source of reserve estimate uncertainty in the United States (excluding assumed reinsurance contracts covering the same risk). Major contributors to this reserve estimate uncertainty include the reporting lag (i.e., the length of time between the event triggering coverage and the actual reporting of the claim), the number of parties involved in the underlying tort action, whether the "event" triggering coverage is confined to only one time period or is spread over multiple time periods, the potential dollars involved (in the individual claim actions), whether such claims were reasonably foreseeable and intended to be covered at the time the contracts were written (i.e., coverage dispute potential), and the potential for mass claim actions. Claims with longer reporting lags result in greater estimation uncertainty. This is especially true for alleged claims with a latency feature, particularly where courts have ruled that coverage is spread over multiple policy years, hence involving multiple defendants (and their insurers and reinsurers) and multiple policies (thereby increasing the potential dollars involved and the underlying settlement complexity). Claims with long latencies also increase the potential recognition lag (i.e., the lag between writing a type of policy in a certain market and the recognition that such policies have potential mass tort and/or latent claim exposure).

The amount of reserve estimate uncertainty also varies significantly by component for the general liability product line. The components in this product line with the longest latency, longest reporting lags, largest potential dollars involved and greatest claim settlement complexity are asbestos and environmental. Components that include latency, reporting lag and/or complexity issues, but to a materially lesser extent than asbestos and environmental, include construction defect and other mass tort actions. Many components of general liability are not subject to material latency or claim complexity risks and hence have materially less uncertainty than the previously mentioned components. In general, components with shorter reporting lags, fewer parties involved in settlement negotiations, only one policy potentially triggered per claim, fewer potential settlement dollars, reasonably foreseeable (and stable) potential hazards/claims and no mass tort potential result in much less reserve estimate uncertainty than components without those characteristics.

In addition to the conventional actuarial methods mentioned in the general discussion section, the company utilizes various report year development methods for the construction defect components of this product line. The Construction Defect report year development analysis is supplemented with projected claim counts and average values for IBNR claim counts. For components with greater lags in claim reporting, such as excess and umbrella components of this product line, the Company relies more heavily on the BF method than on the paid and case incurred development methods.

Examples of common risk factors, or perceptions thereof, that could change and, thus, affect the required general liability reserves (beyond those included in the general discussion section) include:

General liability risk factors

- Changes in claim handling philosophies
- Changes in policy provisions or court interpretation of such provisions
- New or expanded theories of liability
- Trends in jury awards
- Changes in the propensity to sue, in general with specificity to particular issues
- Changes in the propensity to litigate rather than settle a claim
- Increases in attorney involvement in, or impact on, claims
- Changes in statutes of limitations
- Changes in the underlying court system
- Distortions from losses resulting from large single accounts or single issues
- Changes in tort law
- Shifts in lawsuit mix between federal and state courts
- Changes in claim adjuster processes or reporting which may cause distortions in the data being analyzed
- The potential impact of inflation on loss costs
- Changes in settlement patterns

General liability book of business risk factors

- Changes in policy provisions (e.g., deductibles, policy limits, endorsements)
- · Changes in underwriting standards
- Product mix (e.g., size of account, industries insured, jurisdiction mix)

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for general liability (excluding asbestos and environmental), a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.5% increase (decrease) in claims and claim adjustment expense reserves.

Historically, the one-year change in the reserve estimate for this product line, excluding estimated asbestos and environmental amounts, over the last nine years has varied from -8% to 6% (averaging -3%) for the Company, and from -4% to 0% (averaging -2%) for the industry overall. The Company's year-to-year changes are driven by, and are based on, observed events during the year. The Company believes that its range of historical outcomes is illustrative of reasonably possible one-year changes in reserve estimates for this product line. General liability reserves (excluding asbestos and environmental) represent approximately 21% of the Company's total claims and claim adjustment expense reserves.

The Company's change in reserve estimate for this product line, excluding the impacts of increases in asbestos and environmental reserves and the extension of the statute of limitations for childhood sexual molestation claims, was 6% for 2019, -1% for 2018 and -4% for 2017. The 2019 change primarily reflected higher than expected loss experience in Business Insurance for both primary and excess coverages for accident years 2013 through 2018, partially offset by better than expected loss experience for management liability coverages in Bond & Specialty Insurance for accident years 2013 through 2015. The 2018 change primarily reflected better than expected loss experience for management liability coverages in Bond & Specialty Insurance for accident years 2013 through 2015, partially offset by higher than expected loss experience for both primary and excess coverages in Business Insurance for accident years 2012 through 2017. The 2017 change primarily reflected better than expected loss experience for both primary and excess coverages for accident years 2009 through 2016.

Commercial Property

Commercial property is generally considered a short tail line with a simpler and faster claim reporting and adjustment process than liability coverages, and less uncertainty in the reserve setting process (except for more complex business interruption claims). It is generally viewed as a moderate frequency, low to moderate severity line, except for catastrophes and coverage related to large properties. The claim reporting and settlement process for property coverage claim reserves is generally restricted to the insured and the insurer. Overall, the claim liabilities for this line create a low estimation risk, except possibly for catastrophes and business interruption claims.

Commercial property reserves are typically analyzed in two components, one for catastrophic or other large single events, and another for all other events. Examples of common risk factors, or perceptions thereof, that could change and, thus, affect the required property reserves (beyond those included in the general discussion section) include:

Commercial property risk factors

- Physical concentration of policyholders
- Availability and cost of local contractors
- For the more severe catastrophic events, "demand surge" inflation, which refers to significant short-term increases in building material and labor costs due to a sharp increase in demand for those materials and services
- Local building codes
- Amount of time to return property to full usage (for business interruption claims)
- Frequency of claim re-openings on claims previously closed
- Court interpretation of policy provisions (such as occurrence definition, or wind versus flooding)
- Lags in reporting claims (e.g., winter damage to summer homes, hidden damage after an earthquake, hail damage to roofs and/or equipment on roofs)
- Court or legislative changes to the statute of limitations

Commercial property book of business risk factors

- Policy provisions mix (e.g., deductibles, policy limits, endorsements)
- Changes in underwriting standards

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for property, a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.1% increase (decrease) in claims and claim adjustment expense reserves.

Historically, the one-year change in the reserve estimate for this product line over the last nine years has varied from -22% to -5% (averaging -13%) for the Company, and from -14% to -5% (averaging -8%) for the industry overall. The Company's year-to-year changes are driven by, and are based on, observed events during the year. The Company believes that its range of historical outcomes is illustrative of reasonably possible one-year changes in reserve estimates for this product line. Commercial property reserves represent approximately 2% of the Company's total claims and claim adjustment expense reserves.

Since commercial property is considered a short tail coverage, the one year change for commercial property can be more volatile than that for the longer tail product lines. This is due to the fact that the majority of the reserve for commercial property relates to the most recent accident year, which is subject to the most uncertainty for all product lines. This recent accident year uncertainty is relevant to commercial property because weather-related events that occur in the second half of the year may not be completely resolved until the following year. Reserve estimates associated with major catastrophes may take even longer to resolve. The reserve estimates for this product line are also potentially subject to material changes due to uncertainty in measuring ultimate losses for significant catastrophes such as Storm Sandy and wildfires.

The Company's change in reserve estimate for this product line was -6% for 2019, -11% for 2018 and -9% for 2017. The 2019 change primarily reflected better than expected loss experience related to both catastrophe and non-catastrophe losses for accident years 2016 through 2018. The 2018 change primarily reflected better than expected loss experience related to both catastrophe and non-catastrophe losses for accident years 2015 through 2017. The 2017 change primarily reflected better than expected loss experience related to non-catastrophe losses for accident years 2015 and 2016.

Commercial Multi-Peril

Commercial multi-peril provides a combination of property and liability coverage typically for small businesses and, therefore, includes both short and long tail coverages. For property coverage, it generally takes a relatively short period of time to close claims, while for the other coverages, generally for the liability coverages, it takes a longer period of time to close claims.

The reserving risk for this line is dominated by the liability coverage portion of this product, except occasionally in the event of catastrophic or other large single loss events. The reserving risk for this line differs from that of the general liability product line and the property product line due to the nature of the customer. Commercial multi-peril is generally sold to small- to mid-sized accounts, while the customer profile for general liability and commercial property includes larger customers.

See "Commercial property risk factors" and "General liability risk factors," discussed above, with regard to reserving risk for commercial multi-peril.

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for commercial multi-peril (excluding asbestos and environmental), a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.2% increase (decrease) in claims and claim adjustment expense reserves.

Historically, the one-year change in the reserve estimate for this product line, excluding estimated asbestos and environmental amounts, over the last nine years has varied from -5% to 5% (averaging 1%) for the Company, and from -4% to 1% (averaging -2%) for the industry overall. The Company's year-to-year changes are driven by, and are based on, observed events during the year. The Company believes that its range of historical outcomes is illustrative of reasonably possible one-year changes in reserve estimates for this product line. Commercial multi-peril reserves (excluding asbestos and environmental reserves) represent approximately 8% of the Company's total claims and claim adjustment expense reserves.

As discussed above, this line combines general liability and commercial property coverages and it has been impacted in the past by many of the same events as those two lines.

The Company's change in reserve estimate for this product line was 4% for 2019, 1% for 2018 and -5% for 2017. The 2019 change primarily reflected higher than expected loss experience for liability coverages for accident years 2017 and 2018. The 2018 change primarily reflected higher than expected loss experience for liability coverages for accident year 2017. The 2017 change primarily reflected better than expected loss experience for liability coverages for accident years 2016 and prior.

Commercial Automobile

The commercial automobile product line is a mix of property and liability coverages and, therefore, includes both short and long tail coverages. The payments that are made quickly typically pertain to auto physical damage (property) claims and property damage (liability) claims. The payments that take longer to finalize and are more difficult to estimate relate to bodily injury claims. In general, claim reporting lags are generally short, claim complexity is not a major issue, and the line is viewed as high frequency, low to moderate severity. Overall, the claim liabilities for this line create a moderate estimation risk. Recently, the Company has seen more of an increase in the rate of attorney involvement than it had anticipated and a lengthening of the claim development pattern. As a consequence, the Company has experienced a higher level of bodily injury severity than it had anticipated.

Commercial automobile reserves are typically analyzed in four components: bodily injury liability; property damage liability; collision claims; and comprehensive claims. These last two components have minimum reserve risk and fast payouts and, accordingly, separate risk factors are not presented.

The Company utilizes the conventional actuarial methods mentioned in the general discussion above in estimating claim liabilities for this line. This is supplemented with detailed custom analyses where needed.

Examples of common risk factors, or perceptions thereof, that could change and, thus, affect the required commercial automobile reserves (beyond those included in the general discussion section) include:

Bodily injury and property damage liability risk factors

- Trends in jury awards
- Changes in the underlying court system
- Changes in case law
- Litigation trends
- Increases in attorney involvement in, or impact on, claims
- Frequency of claims with payment capped by policy limits
- Change in average severity of accidents, or proportion of severe accidents
- Changes in auto safety technology
- Subrogation opportunities
- Changes in claim handling philosophies
- Frequency of visits to health providers
- Number of medical procedures given during visits to health providers
- Types of health providers used

- Types of medical treatments received
- Changes in cost of medical treatments
- Degree of patient responsiveness to treatment

Commercial automobile book of business risk factors

- Changes in policy provisions (e.g., deductibles, policy limits, endorsements, etc.)
- Changes in mix of insured vehicles (e.g., long haul trucks versus local and smaller vehicles, fleet risks versus non-fleets)
- Changes in underwriting standards

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for commercial automobile, a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.3% increase (decrease) in claims and claim adjustment expense reserves.

Historically, the one-year change in the reserve estimate for this product line over the last nine years has varied from -2% to 11% (averaging 4%) for the Company, and from -3% to 7% (averaging 3%) for the industry overall. The Company's year-to-year changes are driven by, and are based on, observed events during the year. The Company believes that its range of historical outcomes is illustrative of reasonably possible one-year changes in reserve estimates for this product line. Commercial automobile reserves represent approximately 8% of the Company's total claims and claim adjustment expense reserves.

The Company's change in reserve estimate for this product line was 7% for 2019, 11% for 2018 and 4% for 2017. The 2019 change primarily reflected higher than expected loss experience for liability coverages for accident years 2015 through 2018. The 2018 change primarily reflected higher than expected loss experience for liability coverages for accident years 2014 through 2017. The 2017 change primarily reflected higher than expected loss experience for liability coverages for accident years 2013 through 2016.

Workers' Compensation

Workers' compensation is generally considered a long tail coverage, as it takes a relatively long period of time to finalize claims from a given accident year. While certain payments such as initial medical treatment or temporary wage replacement for the injured worker are made quickly, some other payments are made over the course of several years, such as awards for permanent partial injuries. In addition, some payments can run as long as the injured worker's life, such as permanent disability benefits and ongoing medical care. Despite the possibility of long payment tails, the reporting lags are generally short, payment obligations are generally not complex, and most of the liability can be considered high frequency with moderate severity. The largest reserve risk generally comes from the low frequency, high severity claims providing lifetime coverage for medical expense arising from a worker's injury, as such claims are subject to greater inflation risk. Overall, the claim liabilities for this line create a somewhat greater than moderate estimation risk.

Workers' compensation reserves are typically analyzed in three components: indemnity losses, medical losses and claim adjustment expenses.

Examples of common risk factors, or perceptions thereof, that could change and, thus, affect the required workers' compensation reserves (beyond those included in the general discussion section) include:

Indemnity risk factors

- Time required to recover from the injury
- Degree of available transitional jobs
- Degree of legal involvement
- Changes in the interpretations and processes of the administrative bodies that oversee workers' compensation claims
- Future wage inflation for states that index benefits
- Changes in the administrative policies of second injury funds

Medical risk factors

- Changes in the cost of medical treatments (including prescription drugs) and underlying fee schedules ("inflation")
- Frequency of visits to health providers
- Number of medical procedures given during visits to health providers
- Types of health providers used
- Type of medical treatments received
- Use of preferred provider networks and other medical cost containment practices

- Availability of new medical processes and equipment
- Changes in the use of pharmaceutical drugs, including drugs for pain management
- Degree of patient responsiveness to treatment

General workers' compensation risk factors

- Frequency of reopening claims previously closed
- Mortality trends of injured workers with lifetime benefits and medical treatment
- Changes in statutory benefits
- The impact, if any, of potential future changes to government health insurance legislation

Workers' compensation book of business risk factors

- Product mix
- Injury type mix
- Changes in underwriting standards

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for workers' compensation, a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.3% increase (decrease) in claims and claim adjustment expense reserves.

Historically, the one-year change in the reserve estimate for this product line over the last nine years has varied from -4% to 0% (averaging -2%) for the Company, and from -4% to 1% (averaging -2%) for the industry overall. The Company's year-to-year changes are driven by, and are based on, observed events during the year. The Company believes that its range of historical outcomes is illustrative of reasonably possible one-year changes in reserve estimates for this product line. Workers' compensation reserves represent approximately 38% of the Company's total claims and claim adjustment expense reserves.

The Company's change in reserve estimate for this product line was -4% for 2019, -4% for 2018 and -3% for 2017. The 2019 change primarily reflected better than expected loss experience for accident years 2018 and prior. The 2018 change primarily reflected better than expected loss experience for accident years 2017 and prior. The 2017 change primarily reflected better than expected loss experience for accident years 2016 and prior.

Fidelity and Surety

Fidelity is generally considered a short tail coverage. It takes a relatively short period of time to finalize and settle most fidelity claims. The volatility of fidelity reserves is generally related to the type of business of the insured, the size and complexity of the insured's business operations, amount of policy limit and attachment point of coverage. The uncertainty surrounding reserves for small, commercial insureds is typically less than the uncertainty for large commercial or financial institutions. The high frequency, low severity nature of small commercial fidelity losses provides for stability in loss estimates, whereas the low frequency, high severity nature of losses for large insureds results in a wider range of ultimate loss outcomes. Actuarial techniques that rely on a stable pattern of loss development are generally not applicable to low frequency, high severity claims.

Surety has certain components that are generally considered short tail coverages with short reporting lags, although large individual construction and commercial surety contracts can result in a long settlement tail, based on the length and complexity of the construction project(s) or commercial transaction being bonded. The frequency of losses in surety generally correlates with economic cycles as the primary cause of surety loss is the inability of an insured to fulfill its contractual obligations. The Company actively seeks to mitigate this exposure to loss through disciplined risk selection, adherence to underwriting standards and ongoing monitoring of contractor progress in significant construction projects. The volatility of surety losses is generally related to the type of business performed by the bonded party, the type of bonded obligation, the amount of limit exposed to loss and the amount of assets available to the surety company to mitigate losses, such as unbilled contract funds, collateral, first and third party indemnity, and other security positions of a bonded party's assets. Certain classes of surety claims are very high severity, low frequency in nature. These can include large construction contractors involved with one or multiple large, complex projects as well as certain large commercial surety exposures. Other claim factors affecting reserve variability of surety include litigation related to amounts owed by the bonded party and due to the surety company (e.g., salvage and subrogation efforts), the results of financial restructuring of a bonded party and the availability and cost of replacement contractors, labor and materials.

Examples of common risk factors, or perceptions thereof, that could change and, thus, affect the required fidelity and surety reserves (beyond those included in the general discussion section) include:

Fidelity risk factors

Type of business of insured

- Policy limit and attachment points
- Third-party claims
- Coverage litigation
- Complexity of claims
- Growth in insureds' operations

Surety risk factors

- Economic trends, including the general level of construction activity
- Concentration of reserves in a relatively few large claims
- Type of business bonded
- Type of obligation bonded
- Cumulative limits of liability for the bonded party
- Assets available to mitigate loss
- Defective workmanship/latent defects
- Financial strategy of the bonded party
- Changes in statutory obligations
- Geographic spread of business

Fidelity and Surety book of business risk factors

- Changes in policy provisions (e.g., deductibles, limits, endorsements)
- Changes in underwriting standards

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for fidelity and surety, a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.2% increase (decrease) in claims and claim adjustment expense reserves.

Historically, the one-year change in the reserve estimate for this product line over the last nine years has varied from -36% to -8% (averaging -19%) for the Company, and from -17% to -6% (averaging -11%) for the industry overall. The Company's year-to-year changes are driven by, and are based on, observed events during the year. The Company believes that its range of historical outcomes is illustrative of reasonably possible one-year changes in reserve estimates for this product line. Fidelity and surety reserves represent approximately 1% of the Company's total claims and claim adjustment expense reserves.

In general, developments on single large claims (both adverse and favorable) are a primary source of changes in reserve estimates for this product line.

The Company's change in reserve estimate for this product line was -11% for 2019, -10% for 2018 and -10% for 2017. The 2019 change primarily reflected better than expected loss experience in the fidelity and surety product line for accident year 2017. The 2018 change primarily reflected better than expected loss experience in the fidelity and surety product line for accident years 2015 and 2016. The 2017 change primarily reflected better than expected loss experience in the fidelity and surety product line for accident years 2014 and 2015.

Personal Automobile

Personal automobile includes both short and long tail coverages. The payments that are made quickly typically pertain to auto physical damage (property) claims and property damage (liability) claims. The payments that take longer to finalize and are more difficult to estimate relate to bodily injury claims. Reporting lags are relatively short and the claim settlement process for personal automobile liability generally is the least complex of the liability products. It is generally viewed as a high frequency, low to moderate severity product line. Overall, the claim liabilities for this line create a moderate estimation risk.

Personal automobile reserves are typically analyzed in five components: bodily injury liability, property damage liability, no-fault losses, collision claims and comprehensive claims. These last two components have minimum reserve risk and fast payouts and, accordingly, separate factors are not presented.

Examples of common risk factors, or perceptions thereof, that could change and, thus, affect the required personal automobile reserves (beyond those included in the general reserve discussion section) include:

Bodily injury, property damage liability and no-fault risk factors

- Trends in jury awards
- Changes in the underlying court system and its philosophy

- Changes in case law
- Litigation trends
- Increases in attorney involvement in, or impact on, claims
- Frequency of claims with payment capped by policy limits
- Change in average severity of accidents, or proportion of severe accidents
- Changes in auto safety technology
- Frequency and severity of claims involving distracted drivers and pedestrians
- Subrogation opportunities
- Frequency of visits to health providers
- Number of medical procedures given during visits to health providers
- Types of health providers used
- Types of medical treatments received
- Changes in cost of medical treatments
- Effectiveness of no-fault laws
- Degree of patient responsiveness to treatment
- Changes in claim handling philosophies

Personal automobile book of business risk factors

- Changes in policy provisions (e.g., deductibles, policy limits, endorsements, etc.)
- Changes in underwriting standards
- Changes in the use of permissible data for rating and underwriting

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for personal automobile, a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.1% increase (decrease) in claims and claim adjustment expense reserves.

Historically, the one-year change in the reserve estimate for this product line over the last nine years has varied from -4% to 3% (averaging 0%) for the Company, and from -3% to 2% (averaging -1%) for the industry overall. The Company's year-to-year changes are driven by, and are based on, observed events during the year. The Company believes that its range of historical outcomes is illustrative of reasonably possible one-year changes in reserve estimates for this product line. Personal automobile reserves represent approximately 7% of the Company's total claims and claim adjustment expense reserves.

The Company's change in reserve estimate for this product line was -2% for 2019, -2% for 2018 and 0% for 2017. The 2019 change primarily reflected better than expected loss experience for liability coverages in accident years 2016 through 2018. The 2018 change primarily reflected better than expected loss experience for liability coverages for accident years 2015 through 2017.

Homeowners and Personal Lines Other

Homeowners is generally considered a short tail coverage. Most payments are related to the property portion of the policy, where the claim reporting and settlement process is generally restricted to the insured and the insurer. Claims on property coverage are typically reported soon after the actual damage occurs, although delays of several months are not unusual. The resulting settlement process is typically fairly short term, although exceptions do exist.

The liability portion of the homeowners policy generates claims which take longer to pay due to the involvement of litigation and negotiation, but with generally small reporting lags. Personal Lines Other products include personal umbrella policies, among others. See "general liability reserving risk factors," discussed above, for reserving risk factors related to umbrella coverages.

Overall, the line is generally high frequency, low to moderate severity (except for catastrophes), with simple to moderate claim complexity.

Homeowners reserves are typically analyzed in two components: non-catastrophe related losses and catastrophe loss payments.

Examples of common risk factors, or perceptions thereof, that could change and, thus, affect the required homeowners reserves (beyond those included in the general discussion section) include:

Non-catastrophe risk factors

- Salvage opportunities
- Amount of time to return property to residential use
- Changes in weather patterns

- Local building codes
- Construction and building material costs
- Litigation trends
- Trends in jury awards
- Court interpretation of policy provisions (such as occurrence definition, or wind versus flooding)
- Lags in reporting claims (e.g., winter damage to summer homes, hidden damage after an earthquake, hail damage to roofs and/or equipment on roofs)
- Court or legislative changes to the statute of limitations

Catastrophe risk factors

- Physical concentration of policyholders
- Availability and cost of local contractors
- Local building codes
- Quality of construction of damaged homes
- Amount of time to return property to residential use
- For the more severe catastrophic events, "demand surge" inflation, which refers to significant short-term increases in building material and labor costs due to a sharp increase in demand for those materials and services

Homeowners book of business risk factors

- Policy provisions mix (e.g., deductibles, policy limits, endorsements, etc.)
- Degree of concentration of policyholders
- Changes in underwriting standards
- Changes in the use of permissible data for rating and underwriting

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for homeowners and personal lines other, a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.1% increase (decrease) in claims and claim adjustment expense reserves.

Historically, the one-year change in the reserve estimate for this product line (excluding the umbrella line of business, which for statutory reporting purposes is included with the general liability line of business) over the last nine years has varied from -17% to 3% (averaging -8%) for the Company, and from -7% to 1% (averaging -4%) for the industry overall. The Company's year-to-year changes are driven by, and are based on, observed events during the year. The Company believes that its range of historical outcomes is illustrative of reasonably possible one-year changes in reserve estimates for this product line. Homeowners and personal lines other reserves represent approximately 3% of the Company's total claims and claim adjustment expense reserves.

This line combines both liability and property coverages; however, the majority of the reserves relate to property. While property is considered a short tail coverage, the one year change for property can be more volatile than that for the longer tail product lines. This is due to the fact that the majority of the reserve for property relates to the most recent accident year, which is subject to the most uncertainty for all product lines. This recent accident year uncertainty is relevant to property because of weather related events which tend to be concentrated in the second half of the year, and generally are not completely resolved until the following year. Reserve estimates associated with major catastrophes, including California wildfires in recent years, may take even longer to resolve.

The Company's change in reserve estimate for this product line (excluding the umbrella line of business) was -3% for 2019, -2% for 2018 and 1% for 2017. The 2019 change primarily reflected better than expected loss experience for catastrophe and non-catastrophe losses for accident years 2015, 2016 and 2018. The 2018 change primarily reflected better than expected loss experience for liability coverages for accident years 2014 through 2016, largely offset by higher than expected loss experience for catastrophe losses for accident year 2017. The 2017 change primarily reflected modestly higher than expected loss experience for liability coverages for accident years 2014 and 2015.

International and Other

International and other includes products written by the Company's international operations, as well as all other products not explicitly discussed above. The principal component of "other" claim reserves is assumed reinsurance written on an excess-of-loss basis, which may include reinsurance of non-U.S. exposures, and is runoff business.

International and other claim liabilities result from a mix of coverages, currencies and jurisdictions/countries. The common characteristic is the need to customize the analysis to the individual component, and the inability to rely on data characterizations and reporting requirements in the U.S. statutory reporting framework.

Due to changes in the business mix for this product line over time, incurred claim liabilities for more recent years are generally shorter-tailed (due to both the products and the jurisdictions involved, e.g., Canada, the Republic of Ireland and the United Kingdom), compared to the older liabilities from runoff operations that are extremely long tail (e.g., U.S. excess liabilities reinsured through the London market, and several underwriting pools in runoff). The speed of claim reporting and claim settlement is a function of the specific coverage provided, the jurisdiction, the distribution system (e.g., underwriting pool versus direct) and the proximity of the insurance sale to the insured hazard (e.g., insured and insurer located in different countries). In particular, liabilities arising from the underwriting pools in runoff may result in significant reporting lags, settlement lags and claim complexity, due to the need to coordinate with other pool members or co-insurers through a broker or lead-insurer for claim settlement purposes.

International reserves are generally analyzed by country and general coverage category (e.g., General Liability in Canada, Commercial Property in the United Kingdom, etc.). The business is also generally split by direct versus assumed reinsurance for a given coverage. Where the underlying insured hazard is outside the United States, the underlying coverages are generally similar to those described under the Homeowners, Personal Automobile, Commercial Automobile, General Liability, Commercial Property and Surety discussions above, taking into account differences in the legal environment and differences in terms and conditions. However, statutory coverage differences exist amongst various jurisdictions. For example, in some jurisdictions there are no aggregate policy limits on certain liability coverages.

Other reserves, primarily assumed reinsurance in runoff, are generally analyzed by program/pool, treaty type, and general coverage category (e.g., General Liability — excess of loss reinsurance). Excess exposure requires the insured to "prove" not only claims under the policy, but also the prior payment of claims reaching up to the excess policy's attachment point.

Examples of common risk factors, or perceptions thereof, that could change and, thus, affect the required International and other reserves (beyond those included in the general discussion section, and in the Personal Automobile, Homeowners, General Liability, Commercial Property, Commercial Automobile and Surety discussions above) include:

International and other risk factors

- Changes in claim handling procedures, including those of the primary carriers
- Changes in policy provisions or court interpretation of such provision
- Economic trends
- New theories of liability
- Trends in jury awards
- Changes in the propensity to sue
- Changes in statutes of limitations
- Changes in the underlying court system
- Distortions from losses resulting from large single accounts or single issues
- Changes in tort law
- Changes in claim adjuster office structure (causing distortions in the data)
- Changes in foreign currency exchange rates

International and other book of business risk factors

- Changes in policy provisions (e.g., deductibles, policy limits, endorsements, "claims-made" language)
- Changes in underwriting standards
- Product mix (e.g., size of account, industries insured, jurisdiction mix)

Unanticipated changes in risk factors can affect reserves. As an indicator of the causal effect that a change in one or more risk factors could have on reserves for International and other (excluding asbestos and environmental), a 1% increase (decrease) in incremental paid loss development for each future calendar year could result in a 1.3% increase (decrease) in claims and claim adjustment expense reserves. International and other reserves (excluding asbestos and environmental) represent approximately 8% of the Company's total claims and claim adjustment expense reserves.

International and other represents a combination of different product lines, some of which are in runoff. Comparative historical information is not available for international product lines as insurers domiciled outside of the United States do not file U.S. statutory reports. Comparative historical information on runoff business is not indicative of reasonably possible one-year changes

in the reserve estimate for this mix of runoff business. Accordingly, the Company has not included comparative analyses for International and other.

Reinsurance Recoverables

Amounts recoverable from reinsurers are estimated in a manner consistent with the associated claim liability. The Company evaluates and monitors the financial condition of its reinsurers under voluntary reinsurance arrangements to minimize its exposure to significant losses from reinsurer insolvencies. In addition, in the ordinary course of business, the Company becomes involved in coverage disputes with its reinsurers. Some of these disputes could result in lawsuits and arbitrations brought by or against the reinsurers to determine the Company's rights and obligations under the various reinsurance agreements. The Company employs dedicated specialists and comprehensive strategies to manage reinsurance collections and disputes.

The Company has entered into a reinsurance contract in connection with catastrophe bonds issued by Long Point Re III. This contract meets the requirements to be accounted for as reinsurance in accordance with guidance for accounting for reinsurance contracts. The catastrophe bonds are described in more detail in "Item 1-Business-Catastrophe Reinsurance."

The Company reports its reinsurance recoverables net of an allowance for estimated uncollectible reinsurance recoverables. The allowance is based upon the Company's ongoing review of amounts outstanding, length of collection periods, changes in reinsurer credit standing, disputes, applicable coverage defenses and other relevant factors. Accordingly, the establishment of reinsurance recoverables and the related allowance for uncollectible reinsurance recoverables is also an inherently uncertain process involving estimates. From time to time, as a result of the long-tailed nature of the underlying liabilities, coverage complexities and potential for disputes, the Company considers the commutation of reinsurance contracts. Changes in estimated reinsurance recoverables and commutation activity could result in additional income statement charges.

Recoverables attributable to structured settlements relate primarily to personal injury claims, of which workers' compensation claims comprise a significant portion, for which the Company has purchased annuities and remains contingently liable in the event of a default by the companies issuing the annuities. Recoverables attributable to mandatory pools and associations relate primarily to workers' compensation service business. These recoverables are supported by the participating insurance companies' obligation to pay a pro rata share based on each company's voluntary market share of written premium in each state in which it is a pool participant. In the event a member of a mandatory pool or association defaults on its share of the pool's or association's obligations, the other members' share of such obligation increases proportionally.

Investment Valuation and Impairments

Valuation of Investments Reported at Fair Value in Financial Statements

The Company's estimates of fair value for financial assets and financial liabilities are based on the framework established in the fair value accounting guidance. The framework is based on the inputs used in valuation, gives the highest priority to quoted prices in active markets and requires that observable inputs be used in the valuations when available.

The fair value of a financial instrument is the estimated amount at which the instrument could be exchanged in an orderly transaction between knowledgeable, unrelated, willing parties, i.e., not in a forced transaction. The estimated fair value of a financial instrument may differ from the amount that could be realized if the security was sold in an immediate sale, e.g., a forced transaction. Additionally, the valuation of investments is more subjective when markets are less liquid due to the lack of market based inputs, which may increase the potential that the estimated fair value of an investment is not reflective of the price at which an actual transaction would occur.

See note 4 of notes to the consolidated financial statements for a further discussion of the determination of fair value of investments.

Investment Impairments

See note 1 of notes to the consolidated financial statements for a discussion of investment impairments.

Due to the subjective nature of the Company's analysis and estimates of future cash flows, along with the judgment that must be applied in the analysis, it is possible that the Company could reach a different conclusion whether or not to impair a security if it had access to additional information about the issuer. Additionally, it is possible that the issuer's actual ability to meet contractual obligations may be different than what the Company determined during its analysis, which may lead to a different impairment conclusion in future periods.

Goodwill and Other Intangible Assets Impairments

See note 1 of notes to the consolidated financial statements for a discussion of impairments of goodwill and other intangible assets.

OTHER UNCERTAINTIES

For a discussion of other risks and uncertainties that could impact the Company's results of operations or financial position, see note 16 of notes to the consolidated financial statements and "Item 1A—Risk Factors."

FORWARD-LOOKING STATEMENTS

This report contains, and management may make, certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, may be forward-looking statements. Words such as "may," "will," "should," "likely," "anticipates," "expects," "intends," "plans," "projects," "believes," "estimates" and similar expressions are used to identify these forward-looking statements. These statements include, among other things, the Company's statements about:

- the Company's outlook and its future results of operations and financial condition (including, among other things, anticipated premium volume, premium rates, renewal premium changes, underwriting margins and underlying underwriting margins, net and core income, investment income and performance, loss costs, return on equity, core return on equity and expected current returns, and combined ratios and underlying combined ratios);
- share repurchase plans;
- future pension plan contributions;
- the sufficiency of the Company's asbestos and other reserves;
- the impact of emerging claims issues as well as other insurance and non-insurance litigation;
- the potential benefit associated with the Company's ability to recover on its subrogation claims;
- the cost and availability of reinsurance coverage;
- catastrophe losses;
- the impact of investment (including changes in interest rates), economic (including inflation, changes in tax law, changes in commodity prices and fluctuations in foreign currency exchange rates) and underwriting market conditions;
- strategic and operational initiatives to improve profitability and competitiveness;
- the Company's competitive advantages;
- new product offerings;
- the impact of new or potential regulations imposed or to be imposed by the United States or other nations, including tariffs or other barriers to international trade; and
- the impact of developments in the tort environment, such as increased attorney involvement in insurance claims and legislation allowing victims of sexual abuse to file or proceed with claims that otherwise would have been time-barred.

The Company cautions investors that such statements are subject to risks and uncertainties, many of which are difficult to predict and generally beyond the Company's control, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

For a discussion of some of the factors that could cause actual results to differ, see "Item 1A-Risk Factors" and "Item 7-Management's Discussion and Analysis of Financial Condition and Results of Operations."

The Company's forward-looking statements speak only as of the date of this report or as of the date they are made, and the Company undertakes no obligation to update its forward-looking statements.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

MARKET RISK

Market risk is the risk of loss arising from adverse changes in market rates and prices, such as interest rates (inclusive of credit spreads), foreign currency exchange rates and other relevant market rate or price changes. Market risk is directly influenced by the volatility and liquidity in the markets in which the related underlying assets are traded. The following is a discussion of the Company's primary market risk exposures and how those exposures are managed as of December 31,2019. The Company's market risk sensitive instruments, including derivatives, are primarily entered into for purposes other than trading.

The carrying value of the Company's investment portfolio at December 31, 2019 and 2018 was \$77.88 billion and \$72.28 billion, respectively, of which 87% and 88% was invested in fixed maturity securities, respectively. At December 31, 2019 and 2018, approximately 6.6% and 6.7%, respectively, of the Company's invested assets were denominated in foreign currencies. The Company's exposure to equity price risk is not significant. The Company has no direct commodity risk and is not a party to any credit default swaps.

The primary market risks to the investment portfolio are interest rate risk and credit risk associated with investments in fixed maturity securities. The portfolio duration is primarily managed through cash market transactions and treasury futures transactions. For additional information regarding the Company's investments, see notes 3 and 4 of notes to the consolidated financial statements as well as the "Investment Portfolio" and "Outlook" sections of "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations."

The primary market risk for all of the Company's debt is interest rate risk at the time of refinancing. The Company monitors the interest rate environment and evaluates refinancing opportunities as maturity dates approach. For additional information regarding the Company's debt, see note 8 of notes to the consolidated financial statements as well as the "Liquidity and Capital Resources" section of "Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations."

The Company's foreign exchange market risk exposure is concentrated in the Company's invested assets, insurance reserves and shareholders' equity denominated in foreign currencies. Cash flows from the Company's foreign operations are the primary source of funds for the purchase of investments denominated in foreign currencies. The Company purchases these investments primarily to fund insurance reserves and other liabilities denominated in the same currency, effectively reducing its foreign currency exchange rate exposure. Invested assets denominated in the Canadian dollar comprised approximately 4.2% and 4.1% of the total invested assets at December 31, 2019 and 2018, respectively. Invested assets denominated in the British Pound Sterling comprised approximately 1.7% and 1.9% of total invested assets at December 31, 2019 and 2018, respectively. Invested assets denominated in other currencies at December 31, 2019 and 2018 were not material.

There were no other significant changes in the Company's primary market risk exposures or in how those exposures were managed for the year ended December 31,2018. The Company does not currently anticipate significant changes in its primary market risk exposures or in how those exposures are managed in future reporting periods based upon what is known or expected to be in effect in future reporting periods.

SENSITIVITY ANALYSIS

Sensitivity analysis is defined as the measurement of potential loss in future earnings, fair values or cash flows of market sensitive instruments resulting from one or more selected hypothetical changes in interest rates and other market rates or prices over a selected period of time. In the Company's sensitivity analysis model, a hypothetical change in market rates is selected that is expected to reflect reasonably possible near-term changes in those rates. "Near-term" means a period of time going forward up to one year from the date of the consolidated financial statements. Actual results may differ from the hypothetical change in market rates assumed in this disclosure, especially since this sensitivity analysis does not reflect the results of any actions that would be taken by the Company to mitigate such hypothetical losses in fair value.

Interest Rate Risk

In this sensitivity analysis model, the Company uses fair values to measure its potential loss. The sensitivity analysis model includes the following financial instruments entered into for purposes other than trading: fixed maturities, non-redeemable preferred stocks, mortgage loans, short-term securities and debt and derivative financial instruments. The primary market risk to the Company's market sensitive instruments is interest rate risk (inclusive of credit spreads). The sensitivity analysis model uses various basis point changes in interest rates to measure the hypothetical change in fair value of financial instruments included in the model.

For invested assets with primary exposure to interest rate risk, estimates of portfolio duration and convexity are used to model the loss of fair value that would be expected to result from a parallel increase in interest rates. Durations on invested assets are adjusted for call, put and interest rate reset features. Durations on tax-exempt securities are adjusted for the fact that the yields on such securities do not normally move in lockstep with changes in the U.S. Treasury curve. Fixed maturity portfolio durations are calculated on a market value-weighted basis, including accrued interest, using holdings as of December 31, 2019 and 2018.

For debt, the change in fair value is determined by calculating hypothetical December 31, 2019 and 2018 ending prices based on yields adjusted to reflect a 100 basis point change, comparing such hypothetical ending prices to actual ending prices, and multiplying the difference by the par or securities outstanding.

The sensitivity analysis model used by the Company produces a loss in fair value of market sensitive instruments of approximately \$2.07 billion and \$2.31 billion based on a 100 basis point increase in interest rates at December 31, 2019 and 2018, respectively.

The loss estimates do not take into account the impact of possible interventions that the Company might reasonably undertake in order to mitigate or avoid losses that would result from emerging interest rate trends. In addition, the loss value only reflects the impact of an interest rate increase on the fair value of the Company's financial instruments.

Foreign Currency Exchange Rate Risk

The Company uses fair values of investment securities to measure its potential loss from foreign denominated investments. A hypothetical 10% reduction in value of foreign denominated investments is used to estimate the impact on the market value of the foreign denominated holdings. The Company's analysis indicates that a hypothetical 10% reduction in the value of foreign denominated investments would be expected to produce a loss in fair value of approximately \$515 million and \$487 million at December 31, 2019 and 2018, respectively.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors The Travelers Companies, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of The Travelers Companies, Inc. and subsidiaries (the Company) as of December 31,2019 and 2018, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedules as listed in the accompanying index to consolidated financial statements and schedules (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 13, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgment. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of the estimate of claims and claim adjustment expense reserves

As discussed in Notes 1 and 7 to the consolidated financial statements, the Company's claims and claim adjustment expense reserves balance at December 31, 2019 was \$51.8 billion. The claims and claim adjustment expense reserves represent the Company's estimate of the ultimate liability for unpaid claims, which is comprised of claims that have been reported and claims that have been incurred but not reported.

We identified the evaluation of the estimate of claims and claim adjustment expense reserves as a critical audit matter. The process of evaluating the estimate of claims and claim adjustment expense reserves involves significant auditor judgment due to the inherent uncertainty in the ultimate amounts and timing of claim payments, which may be affected by a number of internal and external considerations, such as:

- Changes in claims handling procedures;
- Economic inflation and changes in the tort environment; and
- Legislative changes, among others.

Evaluating the impact of these considerations on the ultimate costs of claims and claim adjustment expenses requires specialized skills and knowledge.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's reserving process for claims and claim adjustment expense reserves, including controls related to the actuarial analyses and the determination of the Company's estimate of the claims and claim adjustment expense reserves. We involved actuarial professionals with specialized skills and knowledge who assisted in:

- Assessing the assumptions and methodologies underlying the Company's reserve estimate by participating in quarterly discussions with the Company's actuaries;
- Evaluating the Company's estimates by performing independent analyses of net and gross claims and claim adjustment expense reserves for certain lines of business;
- Assessing the Company's internally prepared actuarial analyses in comparison to the Company's internal experience and related industry trends for selected other lines of business; and
- Developing an overall range of reserve estimates and assessing the position of the Company's recorded reserve relative to the range.

/s/ KPMG LLP

KPMG LLP

We have served as the Company's auditor since 1994.

New York, New York February 13, 2020

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF INCOME

(in millions, except per share amounts)

For the year ended December 31,	2019		2018		2017	
Revenues						
Premiums	\$	28,272	\$	27,059	\$	25,683
Net investment income		2,468		2,474		2,397
Fee income		459		432		447
Net realized investment gains (1)		113		114		216
Other revenues		269		203		159
Total revenues		31,581		30,282		28,902
Claims and expenses						
Claims and claim adjustment expenses		19,133		18,291		17,467
Amortization of deferred acquisition costs		4,601		4,381		4,166
General and administrative expenses		4,365		4,297		4,170
Interest expense		344		352		369
Total claims and expenses		28,443		27,321		26,172
Income before income taxes		3,138		2,961		2,730
Income tax expense		516		438		674
Net income	\$	2,622	\$	2,523	\$	2,056
Net income per share						
Basic	\$	10.01	\$	9.37	\$	7.39
Diluted	\$	9.92	\$	9.28	\$	7.33
Weighted average number of common shares outstanding						
Basic		260.0		267.4		276.0
Diluted		262.3		269.8		278.6

⁽¹⁾ Total other-than-temporary impairment (OTTI) losses were \$(3) million, \$(1) million and \$(13) million for the years ended December 31, 2019, 2018 and 2017, respectively. Of total OTTI, credit losses of \$(4) million, \$(1) million and \$(14) million for the years ended December 31, 2019, 2018 and 2017, respectively, were recognized in net realized investment gains. In addition, unrealized gains (losses) from other changes in total OTTI of \$1 million, \$0 million and \$1 million for the years ended December 31, 2019, 2018 and 2017, respectively, were recognized in other comprehensive income (loss) as part of changes in net unrealized gains (losses) on investment securities having credit losses recognized in the consolidated statement of income.

The accompanying notes are an integral part of the consolidated financial statements.

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (in millions)

For the year ended December 31,	2019		2019 2018		2017	
Net income	\$	2,622	\$	2,523	\$	2,056
Other comprehensive income (loss):						
Changes in net unrealized gains (losses) on investment securities:						
Having no credit losses recognized in the consolidated statement of income		2,994		(1,489)		294
Having credit losses recognized in the consolidated statement of income.		(4)		(27)		8
Net changes in benefit plan assets and obligations		33		(56)		29
Net changes in unrealized foreign currency translation		117		(247)		191
Other comprehensive income (loss) before income taxes		3,140		(1,819)		522
Income tax expense (benefit)		641		(349)		110
Other comprehensive income (loss), net of taxes		2,499		(1,470)		412
Comprehensive income	\$	5,121	\$	1,053	\$	2,468

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEET

(in millions)

At December 31,	2019	2018
Assets		
Fixed maturities, available for sale, at fair value (amortized cost \$65,281 and \$63,601)	\$ 68,134	\$ 63,464
Equity securities, at fair value (cost \$376 and \$382)	425	368
Real estate investments	963	904
Short-term securities	4,943	3,985
Other investments	3,419	3,557
Total investments	77,884	72,278
Cash	494	373
Investment income accrued	618	624
Premiums receivable	7,909	7,506
Reinsurance recoverables	8,235	8,370
Ceded unearned premiums	689	578
Deferred acquisition costs	2,273	2,120
Deferred taxes	_	445
Contractholder receivables	4,619	4,785
Goodwill	3,961	3,937
Other intangible assets	330	345
Other assets	3,110	2,872
Total assets	\$ 110,122	\$ 104,233
Liabilities		
Claims and claim adjustment expense reserves	\$ 51,849	\$ 50,668
Unearned premium reserves	14,604	13,555
Contractholder payables	4,619	4,785
Payables for reinsurance premiums	363	289
Deferred taxes	137	_
Debt	6,558	6,564
Other liabilities	6,049	5,478
Total liabilities	84,179	81,339
Shareholders' equity		
Common stock (1,750.0 shares authorized; 255.5 and 263.7 shares issued, 255.5 and 263.6 shares outstanding)	23,469	23,144
Retained earnings	36,977	35,204
Accumulated other comprehensive income (loss)	640	(1,859)
Treasury stock, at cost (522.1 and 510.9 shares)	(35,143)	(33,595)
Total shareholders' equity	25,943	22,894
Total liabilities and shareholders' equity	\$ 110,122	\$ 104,233
	· ·	

The accompanying notes are an integral part of the consolidated financial statements.

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY (in millions)

For the year ended December 31,	2019	2018	2017
Common stock			
Balance, beginning of year	\$ 23,144	\$ 22,886	\$ 22,614
Employee share-based compensation	180	108	136
Compensation amortization under share-based plans and other changes	145	150	136
Balance, end of year	23,469	23,144	22,886
Retained earnings			
Balance, beginning of year	35,204	33,462	32,196
Cumulative effect of adoption of updated accounting guidance for equity financial instruments at January 1, 2018	_	22	_
Reclassification of certain tax effects from accumulated other comprehensive income at January 1, 2018	_	24	_
Net income	2,622	2,523	2,056
Dividends	(848)	(818)	(789)
Other	(1)	(9)	(1)
Balance, end of year	36,977	35,204	33,462
Accumulated other comprehensive income (loss), net of tax			
Balance, beginning of year	(1,859)	(343)	(755)
Cumulative effect of adoption of updated accounting guidance for equity financial instruments at January 1, 2018	_	(22)	_
Reclassification of certain tax effects from accumulated other comprehensive income at January 1, 2018	_	(24)	_
Other comprehensive income (loss)	2,499	(1,470)	412
Balance, end of year	640	(1,859)	(343)
Treasury stock, at cost			
Balance, beginning of year	(33,595)	(32,274)	(30,834)
Treasury stock acquired — share repurchase authorization	(1,500)	(1,270)	(1,378)
Net shares acquired related to employee share-based compensation plans	(48)	(51)	(62)
Balance, end of year	(35,143)	(33,595)	(32,274)
Total shareholders' equity	\$ 25,943	\$ 22,894	\$ 23,731
Common shares outstanding			
Balance, beginning of year	263.6	271.4	279.6
Treasury stock acquired — share repurchase authorization	(10.8)	(9.6)	(10.9)
Net shares issued under employee share-based compensation plans	2.7	1.8	2.7
Balance, end of year	255.5	263.6	271.4

The accompanying notes are an integral part of the consolidated financial statements.

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF CASH FLOWS (in millions)

For the year ended December 31,	2019	2018	2017
Cash flows from operating activities			
Net income	\$ 2,622	\$ 2,523	\$ 2,056
Adjustments to reconcile net income to net cash provided by operating activities:			
Net realized investment gains	(113)	(114)	(216)
Depreciation and amortization	763	803	813
Deferred federal income tax expense (benefit)	(33)	(13)	337
Amortization of deferred acquisition costs	4,601	4,381	4,166
Equity in income from other investments	(251)	(365)	(397)
Premiums receivable	(384)	(393)	(394)
Reinsurance recoverables	157	(100)	16
Deferred acquisition costs	(4,747)	(4,488)	(4,257)
Claims and claim adjustment expense reserves	1,047	1,246	1,460
Unearned premium reserves	1,008	710	521
Other	535	190	43
Net cash provided by operating activities	5,205	4,380	4,148
Cash flows from investing activities	•		
Proceeds from maturities of fixed maturities	6,845	7,086	8,750
Proceeds from sales of investments:			
Fixed maturities	2,187	3,546	1,854
Equity securities	140	178	765
Real estate investments	–	74	23
Other investments	459	511	468
Purchases of investments:			
Fixed maturities	(10,711)	(13,526)	(12,250)
Equity securities	(94)	(117)	(459)
Real estate investments	(107)	(74)	(59)
Other investments	(497)	(537)	(541)
Net sales (purchases) of short-term securities	(957)	908	(26)
Securities transactions in the course of settlement	158	(56)	(47)
Acquisitions, net of cash acquired	–	(4)	(439)
Other	(325)	(318)	(241)
Net cash used in investing activities	(2,902)	(2,329)	(2,202)
Cash flows from financing activities			
Treasury stock acquired — share repurchase authorization	(1,500)	(1,270)	(1,378)
Treasury stock acquired — net employee share-based compensation	(48)	(51)	(62)
Dividends paid to shareholders	(844)	(814)	(785)
Payment of debt	(500)	(600)	(657)
Issuance of debt	492	591	789
Issuance of common stock-employee share options	213	132	173
Net cash used in financing activities	(2,187)	(2,012)	(1,920)
Effect of exchange rate changes on cash	5	(10)	11
Net increase in cash	121	29	37
Cash at beginning of year	373	344	307
Cash at end of year	\$ 494	\$ 373	\$ 344
Supplemental disclosure of cash flow information			
Income taxes paid	\$ 428	\$ 408	\$ 514
Interest paid	\$ 338	\$ 347	\$ 367

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The consolidated financial statements include the accounts of The Travelers Companies, Inc. (together with its subsidiaries, the Company). The preparation of the consolidated financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and claims and expenses during the reporting period. Actual results could differ from those estimates. All material intercompany transactions and balances have been eliminated.

Adoption of Accounting Standards

Financial Instruments: Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, the Financial Accounting Standards Board (FASB) issued updated guidance to address the recognition, measurement, presentation and disclosure of certain financial instruments. The updated guidance requires equity investments, except those accounted for under the equity method of accounting, that have readily determinable fair value to be measured at fair value with any changes in fair value recognized in net income. Equity securities that do not have readily determinable fair values may be measured at estimated fair value or cost less impairment, if any, adjusted for subsequent observable price changes, with changes in the carrying value recognized in net income. The updated guidance was effective for the quarter ended March 31, 2018 and early application of certain of the provisions in the updated guidance was allowed. The Company adopted the updated guidance for the quarter ended March 31, 2018 and elected to report changes in the fair value of equity investments in net realized investment gains (losses). The adoption of this guidance resulted in the recognition of \$22 million of net after-tax unrealized gains on equity investments as a cumulative effect adjustment that increased retained earnings as of January 1, 2018 and decreased accumulated other comprehensive income (AOCI) by the same amount. At December 31, 2017, equity investments were classified as available-for-sale on the Company's balance sheet. However, upon adoption, the updated guidance eliminated the available-for-sale balance sheet classification for equity investments.

Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income

In February 2018, the FASB issued updated guidance that allows a reclassification from AOCI to retained earnings of the stranded tax effects that occurred due to the enactment of the Tax Cuts and Jobs Act of 2017 (TCJA). The updated guidance was effective for the quarter ended March 31, 2019, with early adoption allowed, and was required to be applied retrospectively to each period in which there are items impacted by the TCJA remaining in AOCI or at the beginning of the period of adoption. The Company adopted the updated guidance for the quarter ended March 31, 2019 and elected to reclassify the income tax effects of the TCJA from AOCI to retained earnings as of January 1, 2018. This reclassification resulted in an increase in retained earnings of \$24 million as of January 1, 2018 and a decrease in AOCI by the same amount.

Leases

In February 2016, the FASB issued updated guidance on the accounting for leases that requires lessees to recognize a right-to-use asset and a lease liability for leases with terms of more than 12 months and retains the two classifications of a lease as either an operating or finance lease (previously referred to as a capital lease).

The updated guidance was effective for reporting periods beginning after December 15, 2018 and required that the earliest comparative period presented include the measurement and recognition of existing leases with an adjustment to equity as if the updated guidance had always been applied. Alternatively, an entity may elect to recognize a cumulative effect adjustment to the the opening balance of retained earnings in the year of adoption. Early adoption was permitted.

The Company adopted the updated guidance for leases for the quarter ended March 31, 2019 and elected to utilize a cumulative-effect adjustment to the opening balance of retained earnings for the year of adoption. Accordingly, the Company's reporting for the comparative periods prior to adoption continue to be presented in the financial statements in accordance with previous lease accounting guidance. The Company also elected to apply all practical expedients applicable to the Company in the updated

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

guidance for transition for leases in effect at adoption, including using hindsight to determine the lease term of existing leases, the option to not reassess whether an existing contract is a lease or contains a lease and whether the lease is an operating or finance lease. The adoption of the updated guidance resulted in the Company recognizing a right-of-use asset of \$320 million as part of other assets and a lease liability of \$384 million as part of other liabilities in the consolidated balance sheet, as well as de-recognizing the liability for deferred rent that was required under the previous guidance, for its corporate real estate agreements at March 31, 2019. The cumulative effect adjustment to the opening balance of retained earnings at January 1, 2019 was zero. The adoption of the updated guidance did not have a material effect on the Company's results of operations or liquidity.

Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract

In August 2018, the FASB issued updated guidance on a customer's accounting for the implementation, set-up, and other upfront costs incurred in a cloud computing arrangement that is hosted by the vendor, i.e. a service contract. The updated guidance is effective for the quarter ending March 31, 2020, with early adoption permitted. The updated guidance requires an entity to determine the stage of a project that the implementation activity relates to and the nature of the associated costs in order to determine whether those costs should be expensed as incurred or capitalized. The updated guidance also requires the entity to amortize the capitalized implementation costs as an expense over the term of the hosting arrangement. The Company elected to adopt the guidance for the quarter ended March 31, 2019 and applied the guidance prospectively. The adoption of the updated guidance did not have a material effect on the Company's results of operations, financial position or liquidity.

Revenue from Contracts with Customers

In May 2014, the FASB issued updated guidance to clarify the principles for recognizing revenue. The updated guidance was effective for the quarter ended March 31, 2018 and required an entity to recognize revenue as performance obligations are met, in order to reflect the transfer of goods or services to customers in an amount that reflects the consideration the entity is entitled to receive for those goods or services. For the year ended December 31, 2018, approximately \$171 million, or less than 1% of the Company's total revenues, were within the scope of this updated guidance and were generated from the services described below.

While insurance contracts are not within the scope of this updated guidance, the Company's revenue related to certain services with no underlying insurance risk is subject to the updated guidance. These services include the following: (i) insurance-related services, such as risk management services, claims administration, loss control and risk management information services on behalf of non-insureds; (ii) servicing carrier fees for various residual market pools and associations; and (iii) administrative fees related to servicing third-party insurers' obligations to participate in the Workers' Compensation Residual Market Plans in certain states. The adoption of the updated guidance did not have a material impact on the Company's revenues. These revenues are earned as the Company completes its performance obligations, which primarily occurs on a pro rata basis over the contract service period and reported in fee income in the Company's consolidated statement of income.

Commissions earned from on-line insurance brokerage services are also subject to this updated guidance and there was not a material impact on these commissions from the adoption of the updated guidance. Commissions are generally earned upon collection of the gross premium in accordance with the contracts and an accrual is made to recognize policy cancellations, either at the policyholder's direction or for non-payment. Commissions are reported in other revenues in the Company's consolidated statement of income.

The Company does not capitalize the costs to obtain or fulfill the contracts for which revenues are reported in fee income and other revenues and has not recognized any material impairment losses on the receivables related to these contracts.

The Company adopted the updated guidance for the quarter ended March 31, 2018. The adoption did not have a material effect on the Company's results of operations, financial position or liquidity.

Other Accounting Standards Not Yet Adopted

Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued updated guidance for the accounting for credit losses for financial instruments. The updated guidance applies a new credit loss model (current expected credit losses or CECL) for determining credit-related impairments for financial

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

instruments measured at amortized cost (including reinsurance recoverables and structured settlements that are recorded as part of reinsurance recoverables) and requires an entity to estimate the credit losses expected over the life of an exposure or pool of exposures. The estimate of expected credit losses should consider historical information, current information, as well as reasonable and supportable forecasts, including estimates of prepayments. The expected credit losses, and subsequent adjustments to such losses, are recorded through an allowance account that is deducted from the amortized cost basis of the financial asset, with the net carrying value of the financial asset presented on the consolidated balance sheet at the amount expected to be collected.

The updated guidance also amends the current other-than-temporary impairment model for available-for-sale debt securities by requiring the recognition of impairments relating to credit losses through an allowance account and limits the amount of credit loss to the difference between a security's amortized cost basis and its fair value. In addition, the length of time a security has been in an unrealized loss position will no longer impact the determination of whether a credit loss exists.

The updated guidance is effective for the quarter ending March 31,2020. The Company expects to recognize an after-tax cumulative effect adjustment of approximately \$43 million to reflect the impact of recognizing expected credit losses, as compared to incurred credit losses recognized under the previous guidance. This adjustment is primarily associated with structured settlements that are recorded as part of reinsurance recoverables. The cumulative effect adjustment will decrease retained earnings as of January 1, 2020 and increase the allowance for uncollectible reinsurance.

Intangibles - Goodwill and Other

In January 2017, the FASB issued updated guidance that eliminates the requirement to calculate the implied fair value of goodwill (i.e., Step 2 of the current goodwill impairment test) to measure a goodwill impairment charge. Instead, entities will record an impairment charge by comparing a reporting unit's fair value with its carrying amount and recognizing an impairment charge for the excess of the carrying amount over estimated fair value (i.e., Step 1 of current guidance). The implied fair value of goodwill is currently determined in Step 2 by deducting the fair value of all assets and liabilities of the reporting unit (determined in the same manner as a business combination) from the reporting unit's fair value as determined in Step 1 (including any corporate-level assets or liabilities that were included in the determination of the carrying amount and fair value of the reporting unit in Step 1). The updated guidance requires an entity to perform its annual, or interim, impairment test by either: (1) an initial qualitative assessment of factors (such as changes in management, key personnel, strategy, key technology or customers) that may impact a reporting unit's fair value and lead to the determination that it is more likely than not that the reporting unit's fair value is less than its carrying value, including goodwill (consistent with current guidance), or (2) applying Step 1.

The updated guidance is effective for the quarter ending March 31, 2020 and is to be applied prospectively. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The adoption of this guidance is not expected to have a material effect on the Company's results of operations, financial position or liquidity.

Income Taxes - Simplifying the Accounting for Income Taxes

In December 2019, the FASB issued updated guidance for the accounting for income taxes. The updated guidance is intended to simplify the accounting for income taxes by removing several exceptions contained in existing guidance and amending other existing guidance to simplify several other income tax accounting matters. The updated guidance is effective for the quarter ending March 31, 2021. Early adoption is permitted. The adoption of this guidance is not expected to have a material effect on the Company's results of operations, financial position or liquidity.

Accounting Policies

Investments

Fixed Maturities

Fixed maturities include bonds, notes and redeemable preferred stocks. Fixed maturities, including instruments subject to securities lending agreements, are classified as available for sale and reported at fair value, with unrealized investment gains and losses, net of income taxes, charged or credited directly to other comprehensive income.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Equity Securities

Equity securities, which include public common and non-redeemable preferred stocks, are reported at fair value with changes in fair value recognized in net income. Prior to January 1, 2018, equity securities were classified as available for sale and changes in their fair value were charged or credited directly to other comprehensive income.

Real Estate Investments

The Company's real estate investments include warehouses, office buildings and other commercial land and properties that are directly owned. Real estate is recorded on the purchase date at the purchase price, which generally represents fair value, and is supported by internal analysis or external appraisals that use discounted cash flow analyses and other acceptable valuation techniques. Real estate held for investment purposes is subsequently carried at cost less accumulated depreciation.

Buildings are depreciated on a straight-line basis over the shorter of the expected useful life of the building or 39 years. Real estate held for sale is carried at lower of cost or fair value, less estimated costs to sell.

Short-term Securities

Short-term securities have an original maturity of less than one year and are carried at amortized cost, which approximates fair value.

Other Investments

Investments in Private Equity Limited Partnerships, Hedge Funds and Real Estate Partnerships

The Company uses the equity method of accounting for investments in private equity limited partnerships, hedge funds and real estate partnerships. The partnerships and the hedge funds generally report investments on their balance sheet at fair value. The financial statements prepared by the investee are received by the Company on a lag basis, with the lag period generally dependent upon the type of underlying investments. The private equity and real estate partnerships provide financial information quarterly which is generally available to investors, including the Company, within three months following the date of the reporting period. The hedge funds provide financial information monthly, which is generally available to investors within one month following the date of the reporting period. The Company regularly requests financial information from the partnerships prior to the receipt of the partnerships' financial statements and records any material information obtained from these requests in its consolidated financial statements.

Other

Also included in other investments are non-public common equities, preferred equities and derivatives. Non-public common equities and preferred equities are reported at fair value with changes in fair value recognized in net income. Prior to January 1, 2018, non-public common equities and preferred equities were reported at fair value with changes in fair value, net of taxes, charged or credited directly to other comprehensive income. The Company's derivative financial instruments are carried at fair value, with the changes in fair value reflected in the consolidated statement of income in net realized investment gains (losses). For a further discussion of the derivatives used by the Company, see note 3.

Net Investment Income

Investment income from fixed maturities is recognized based on the constant effective yield method which includes an adjustment for estimated principal pre-payments, if any. The effective yield used to determine amortization for fixed maturities subject to prepayment risk (e.g., asset-backed, loan-backed and structured securities) is recalculated and adjusted periodically based upon actual historical and/or projected future cash flows, which are obtained from a widely-accepted securities data provider. The adjustments to the yield for highly rated prepayable fixed maturities are accounted for using the retrospective method. The adjustments to the yield for non-highly rated prepayable fixed maturities are accounted for using the prospective method. Dividends on equity securities (including those with transfer restrictions) are recognized in income when declared. Rental income on real estate is recognized on a straight-line basis over the lease term. See the section titled: Real Estate in note 3 for further discussion. Investments in private equity limited partnerships, hedge funds, real estate partnerships and joint ventures are accounted for using

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

the equity method of accounting, whereby the Company's share of the investee's earnings or losses in the fund is reported in net investment income.

Accrual of income is suspended on non-securitized fixed maturities that are in default, or on which it is likely that future payments will not be made as scheduled. Interest income on investments in default is recognized only when payments are received. Investments included in the consolidated balance sheet that were not income-producing for the preceding 12 months were not material.

For fixed maturities where the Company records an other-than-temporary impairment, a determination is made as to the cause of the impairment and whether the Company expects a recovery in the value. For fixed maturities where the Company expects a recovery in value, not necessarily to par, the constant effective yield method is utilized, and the investment is amortized to the expected recovery amount.

Investment Gains and Losses

Net realized investment gains and losses are included as a component of pre-tax revenues based upon specific identification of the investments sold on the trade date. Included in net realized investment gains (losses) are other-than-temporary impairment losses on invested assets other than those investments accounted for using the equity method of accounting as described in the "Investment Impairments" section that follows.

Investment Impairments

The Company conducts a periodic review to identify and evaluate invested assets having other-than-temporary impairments.

Other-Than-Temporary Impairments of Fixed Maturities

Some of the factors considered in identifying other-than-temporary impairments of fixed maturities include: (1) the extent to which the fair value has been less than amortized cost; (2) the financial condition, near-term and long-term prospects for the issuer, including the relevant industry conditions and trends, and implications of rating agency actions and offering prices; (3) the likelihood of the recoverability of principal and interest; (4) whether it is more likely than not that the Company will be required to sell the investment prior to an anticipated recovery in value; and (5) the length of time and extent to which the fair value has been less than amortized cost.

For fixed maturity investments that the Company does not intend to sell or for which it is more likely than not that the Company would not be required to sell before an anticipated recovery in value, the Company separates the credit loss component of the impairment from the amount related to all other factors and reports the credit loss component in net realized investment gains (losses). The impairment related to all other factors is reported in other comprehensive income.

For fixed maturity investments the Company intends to sell or for which it is more likely than not that the Company will be required to sell before an anticipated recovery in value, the full amount of the impairment is included in net realized investment gains (losses).

Upon recognizing an other-than-temporary impairment, the new cost basis of the investment is the previous amortized cost basis less the other-than-temporary impairment recognized in net realized investment gains (losses). The new cost basis is not adjusted for any subsequent recoveries in fair value; however, for fixed maturity investments the difference between the new cost basis and the expected cash flows is accreted on a quarterly basis to net investment income over the remaining expected life of the investment.

Determination of Credit Loss — Fixed Maturities

The Company determines the credit loss component of fixed maturity investments by utilizing discounted cash flow modeling to determine the present value of the security and comparing the present value with the amortized cost of the security. If the amortized cost is greater than the present value of the expected cash flows, the difference is considered a credit loss and recognized in net realized investment gains (losses).

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

For non-structured fixed maturities (U.S. Treasury securities, obligations of U.S. government and government agencies and authorities, obligations of states, municipalities and political subdivisions, debt securities issued by foreign governments and certain corporate debt), the estimate of expected cash flows is determined by projecting a recovery value and a recovery time frame and assessing whether further principal and interest will be received. The determination of recovery value incorporates an issuer valuation assumption utilizing one or a combination of valuation methods as deemed appropriate by the Company. The Company determines the undiscounted recovery value by allocating the estimated value of the issuer to the Company's assessment of the priority of claims. The present value of the cash flows is determined by applying the effective yield of the security at the date of acquisition (or the most recent implied rate used to accrete the security if the implied rate has changed as a result of a previous impairment) and an estimated recovery time frame. Generally, that time frame for securities for which the issuer is in bankruptcy is 12 months. For securities for which the issuer is financially troubled but not in bankruptcy, that time frame is generally 24 months. Included in the present value calculation are expected principal and interest payments; however, for securities for which the issuer is classified as bankrupt or in default, the present value calculation assumes no interest payments and a single recovery amount.

In estimating the recovery value, significant judgment is involved in the development of assumptions relating to a myriad of factors related to the issuer including, but not limited to, revenue, margin and earnings projections, the likely market or liquidation values of assets, potential additional debt to be incurred pre- or post-bankruptcy/restructuring, the ability to shift existing or new debt to different priority layers, the amount of restructuring/bankruptcy expenses, the size and priority of unfunded pension obligations, litigation or other contingent claims, the treatment of intercompany claims and the likely outcome with respect to inter-creditor conflicts.

For structured fixed maturity securities (primarily residential and commercial mortgage-backed securities and asset-backed securities), the Company estimates the present value of the security by projecting future cash flows of the assets underlying the securitization, allocating the flows to the various tranches based on the structure of the securitization and determining the present value of the cash flows using the effective yield of the security at the date of acquisition (or the most recent implied rate used to accrete the security if the implied rate has changed as a result of a previous impairment or changes in expected cash flows). The Company incorporates levels of delinquencies, defaults and severities as well as credit attributes of the remaining assets in the securitization, along with other economic data, to arrive at its estimate of the parameters applied to the assets underlying the securitization.

Real Estate Investments

On at least an annual basis, the Company obtains independent appraisals for substantially all of its real estate investments. In addition, the carrying value of all real estate investments is reviewed for impairment on a quarterly basis or when events or changes in circumstances indicate that the carrying amount may not be recoverable. The review for impairment considers the valuation from the independent appraisal, when applicable, and incorporates an estimate of the undiscounted cash flows expected to result from the use and eventual disposition of the real estate property. An impairment loss is recognized if the expected future undiscounted cash flows are less than the carrying value of the real estate property. The impairment loss is the amount by which the carrying amount exceeds fair value.

Other Investments

The Company reviews its investments in private equity limited partnerships, hedge funds and real estate partnerships for impairment no less frequently than quarterly and monitors the performance throughout the year through discussions with the managers/general partners. If the Company becomes aware of an impairment of a partnership's investments at the balance sheet date prior to receiving the partnership's financial statements, it will recognize an impairment by recording a reduction in the carrying value of the partnership with a corresponding charge to net investment income.

Changes in Intent to Sell Temporarily Impaired Assets

The Company may, from time to time, sell invested assets subsequent to the balance sheet date that it did not intend to sell at the balance sheet date. Conversely, the Company may not sell invested assets that it asserted that it intended to sell at the balance sheet date. Such changes in intent are due to events occurring subsequent to the balance sheet date. The types of events that may result in a change in intent include, but are not limited to, significant changes in the economic facts and circumstances related to

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

the invested asset (e.g., a downgrade or upgrade from a rating agency), significant unforeseen changes in liquidity needs, or changes in tax laws or the regulatory environment.

Securities Lending

The Company has, from time to time, engaged in securities lending activities from which it generates net investment income by lending certain of its investments to other institutions for short periods of time. Borrowers of these securities provide collateral equal to at least 102% of the market value of the loaned securities plus accrued interest. This collateral is held by a third-party custodian, and the Company has the right to access the collateral only in the event that the institution borrowing the Company's securities is in default under the lending agreement (i.e., the Company is not permitted to re-pledge or sell any such collateral). Therefore, the Company does not recognize the receipt of the collateral held by the third-party custodian or the obligation to return the collateral. The loaned securities remain a recorded asset of the Company. The Company accepts only cash as collateral for securities on loan and restricts the manner in which that cash is invested.

Reinsurance Recoverables

Amounts recoverable from reinsurers are estimated in a manner consistent with the associated claim liability. The Company reports its reinsurance recoverables net of an allowance for estimated uncollectible reinsurance recoverables. The allowance is based upon the Company's ongoing review of amounts outstanding, length of collection periods, changes in reinsurer credit standing, disputes, applicable coverage defenses and other relevant factors. Amounts deemed to be uncollectible, including amounts due from known insolvent reinsurers, are written off against the allowance for estimated uncollectible reinsurance recoverables. Any subsequent collections of amounts previously written off are reported as part of claims and claim adjustment expenses. The Company evaluates and monitors the financial condition of its reinsurers under voluntary reinsurance arrangements to minimize its exposure to significant losses from reinsurer insolvencies.

Deferred Acquisition Costs

Incremental direct costs of acquired, new and renewal insurance contracts, consisting of commissions (other than contingent commissions) and premium-related taxes, are capitalized and charged to expense pro rata over the contract periods in which the related premiums are earned. Deferred acquisition costs are reviewed to determine if they are recoverable from future income and, if not, are charged to expense. Future investment income attributable to related premiums is taken into account in measuring the recoverability of the carrying value of this asset. All other acquisition expenses are charged to operations as incurred.

Contractholder Receivables and Payables

Under certain workers' compensation insurance contracts with deductible features, the Company is obligated to pay the claimant for the full amount of the claim. The Company is subsequently reimbursed by the policyholder for the deductible amount. These amounts are included on a gross basis in the consolidated balance sheet in contractholder payables and contractholder receivables, respectively.

Goodwill and Other Intangible Assets

The Company performs a review, on at least an annual basis, of goodwill held by the reporting units which are the Company's three operating and reportable segments: Business Insurance; Bond & Specialty Insurance; and Personal Insurance. The Company estimates the fair value of its reporting units and compares it to their carrying value, including goodwill. If the carrying values of the reporting units were to exceed their fair value, the amount of the impairment would be calculated and goodwill adjusted accordingly.

The Company uses a discounted cash flow model to estimate the fair value of its reporting units. The discounted cash flow model is an income approach to valuation that is based on a detailed cash flow analysis for deriving a current fair value of reporting units and is representative of the Company's reporting units' current and expected future financial performance. The discount rate assumptions reflect the Company's assessment of the risks inherent in the projected future cash flows and the Company's weighted-average cost of capital, and are compared against available market data for reasonableness.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Other indefinite-lived intangible assets held by the Company are also reviewed for impairment on at least an annual basis. The classification of the asset as indefinite-lived is reassessed and an impairment is recognized if the carrying amount of the asset exceeds its fair value.

Intangible assets that are deemed to have a finite useful life are amortized over their useful lives. The carrying amount of intangible assets with a finite useful life is regularly reviewed for indicators of impairment in value. Impairment is recognized only if the carrying amount of the intangible asset is not recoverable from its undiscounted cash flows and is measured as the difference between the carrying amount and the fair value of the asset.

As a result of the reviews performed for the years ended December 31, 2019, 2018 and 2017, the Company determined that the estimated fair value substantially exceeded the respective carrying value of its reporting units for those years and that goodwill was not impaired. The Company also determined during its reviews for each year that its other indefinite-lived intangible assets and finite-lived intangible assets were not impaired.

Claims and Claim Adjustment Expense Reserves

Claims and claim adjustment expense reserves represent management's estimate of the ultimate liability for unpaid losses and loss adjustment expenses for claims that have been reported and claims that have been incurred but not yet reported (IBNR) as of the balance sheet date. The reserves are adjusted regularly based upon experience. Included in the claims and claim adjustment expense reserves in the consolidated balance sheet are reserves for long-term disability and annuity claim payments, primarily arising from workers' compensation insurance and workers' compensation excess insurance policies, that are discounted to the present value of estimated future payments.

The Company performs a continuing review of its claims and claim adjustment expense reserves, including its reserving techniques and the impact of reinsurance. The reserves are also reviewed regularly by qualified actuaries employed by the Company. Since the reserves are based on estimates, the ultimate liability may be more or less than such reserves. The effects of changes in such estimated reserves are included in the results of operations in the period in which the estimates are changed. Such changes in estimates could occur in a future period and may be material to the Company's results of operations and financial position in such period.

Other Liabilities

Included in other liabilities in the consolidated balance sheet is the Company's estimate of its liability for guaranty fund and other insurance-related assessments. The liability for expected state guaranty fund and other premium-based assessments is recognized as the Company writes or becomes obligated to write or renew the premiums on which the assessments are expected to be based. The liability for loss-based assessments is recognized as the related losses are incurred. At December 31, 2019 and 2018, the Company had a liability of \$184 million and \$217 million, respectively, for guaranty fund and other insurance-related assessments and related recoverables of \$13 million and \$16 million, respectively. The liability for such assessments and the related recoverables are not discounted for the time value of money. The loss-based assessments are expected to be paid over a period ranging from one year to the life expectancy of certain workers' compensation claimants and the recoveries are expected to occur over the same period of time.

Also included in other liabilities is an accrual for policyholder dividends. Certain insurance contracts, primarily workers' compensation, are participating whereby dividends are paid to policyholders in accordance with contract provisions. Net written premiums for participating dividend policies were approximately 1% of total net written premiums for each of the years ended December 31,2019,2018 and 2017. Policyholder dividends are accrued against earnings using best available estimates of amounts to be paid. The liability accrued for policyholder dividends totaled \$71 million and \$72 million at December 31,2019 and 2018, respectively.

Treasury Stock

The cost of common stock repurchased by the Company is reported as treasury stock and represents authorized and unissued shares of the Company under the Minnesota Business Corporation Act.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Statutory Accounting Practices

The Company's U.S. insurance subsidiaries, domiciled principally in the State of Connecticut, are required to prepare statutory financial statements in accordance with the accounting practices prescribed or permitted by the insurance departments of the states of domicile. Prescribed statutory accounting practices are those practices that are incorporated directly or by reference in state laws, regulations, and general administrative rules applicable to all insurance enterprises domiciled in a particular state. The State of Connecticut requires insurers domiciled in Connecticut to prepare their statutory financial statements in accordance with National Association of Insurance Commissioners' (NAIC) statutory accounting practices.

Permitted statutory accounting practices are those practices that differ either from state-prescribed statutory accounting practices or NAIC statutory accounting practices.

The Company does not apply any statutory accounting practices that would be considered a prescribed or permitted statutory accounting practice that differs from NAIC statutory accounting practices.

The Company's non-U.S. insurance subsidiaries file financial statements prepared in accordance with the regulatory reporting requirements of their respective local jurisdiction.

Premiums and Unearned Premium Reserves

Premiums are recognized as revenues pro rata over the policy period. Unearned premium reserves represent the unexpired portion of policy premiums. Accrued retrospective premiums are included in premium balances receivable. Premium balances receivable are reported net of an allowance for estimated uncollectible premium amounts.

Ceded premiums are charged to income over the applicable term of the various reinsurance contracts with third party reinsurers. Prepaid reinsurance premiums represent the unexpired portion of premiums ceded to reinsurers and are reported as part of other assets.

Fee Income

Fee income includes servicing carrier fees and revenues from large deductible policies and service contracts and is recognized as the Company completes its performance obligations, which is primarily on a pro rata basis over the contract service period or the underlying policy periods.

Other Revenues

Other revenues include revenues from premium installment charges, which are recognized as collected, revenues of noninsurance subsidiaries other than fee income and gains and losses on dispositions of assets and redemption of debt, and other miscellaneous revenues, including gains recognized as a result of settlements of reinsurance disputes and claims-related legal matters.

Income Taxes

The Company recognizes deferred income tax assets and liabilities for the expected future tax effects attributable to temporary differences between the financial statement and tax return bases of assets and liabilities, based on enacted tax rates and other provisions of the tax law. The effect of a change in tax laws or rates on deferred tax assets and liabilities is recognized in income in the period in which such change is enacted. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that all or some portion of the deferred tax assets will not be realized.

Foreign Currency Translation

The Company assigns functional currencies to its foreign operations, which are generally the currencies of the local operating environment. Foreign currency amounts are remeasured to the functional currency, and the resulting foreign exchange gains or losses are reflected in earnings. Functional currency amounts are then translated into U.S. dollars. The foreign currency remeasurement and translation are calculated using current exchange rates for items reported in the balance sheets and average

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

exchange rates for items recorded in earnings. The change in unrealized foreign currency translation gain or loss during the year, net of tax, is a component of other comprehensive income.

Share-Based Compensation

The Company has an employee stock incentive compensation plan that permits grants of nonqualified stock options, incentive stock options, stock appreciation rights, restricted stock, deferred stock, stock units, performance awards and other share-based or share-denominated awards with respect to the Company's common stock.

Compensation cost is measured based on the grant-date fair value of an award, utilizing the assumptions discussed in note 13. Compensation cost is recognized for financial reporting purposes over the period in which the employee is required to provide service in exchange for the award (generally the vesting period). In connection with certain share-based awards, participants are entitled to receive dividends during the vesting period, either in cash or dividend equivalent shares, commensurate with the dividends paid to common shareholders. Dividends and dividend equivalent shares on awards that are expected to vest are recorded in retained earnings. Dividends paid on awards that are not expected to vest as part of the Company's forfeiture estimate are recorded as compensation expense.

Nature of Operations

Business Insurance

Business Insurance offers a broad array of property and casualty insurance and insurance-related services to its customers, primarily in the United States, as well as in Canada, the United Kingdom, the Republic of Ireland and throughout other parts of the world as a corporate member of Lloyd's. Business Insurance is organized as follows:

Domestic

- Select Accounts provides small businesses with property and casualty insurance products and services, including commercial multi-peril, workers' compensation, commercial automobile, general liability and commercial property.
- Middle Market provides mid-sized businesses with property and casualty insurance products and services, including workers' compensation, general liability, commercial multi-peril, commercial automobile and commercial property, as well as risk management, claims handling and other services. Middle Market generally provides these products to mid-sized businesses through Commercial Accounts, as well as to targeted industries through Construction, Technology, Public Sector Services and Oil & Gas, and additionally, provides mono-line umbrella and excess coverage insurance through Excess Casualty. Middle Market also provides insurance for goods in transit and movable objects, as well as builders' risk insurance, through Inland Marine; insurance for the marine transportation industry and related services, as well as other businesses involved in international trade, through Ocean Marine; and comprehensive breakdown for equipment, including property and business interruption, through Boiler & Machinery.
- National Accounts provides large companies with casualty insurance products and services, including workers' compensation, commercial automobile and general liability, generally utilizing loss-sensitive products, on both a bundled and unbundled basis, as well as risk management, claims handling and other services. National Accounts also includes the Company's commercial residual market business, which primarily offers workers' compensation claims, policy management and other administrative services related to the involuntary market.
- National Property and Other provides traditional and customized commercial property insurance programs to large and
 mid-sized customers through National Property. National Property and Other also provides insurance coverage for the
 commercial transportation industry through Northland Transportation, and serves small- to medium-sized agricultural
 businesses, including farms, ranches and other agricultural-related operations through Agribusiness. National Property
 and Other also includes commercial property and general liability policies for small, difficult to place specialty classes
 of commercial business primarily on an excess and surplus lines basis through Northfield, and also offers tailored property
 and casualty insurance programs on an admitted basis for customers with common risk characteristics or coverage
 requirements through National Programs.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

International

• International, through its operations in Canada, the United Kingdom and the Republic of Ireland, provides property and casualty insurance and risk management services to several customer groups, including, among others, those in the technology, manufacturing and public services industry sectors. International also provides insurance for both the foreign exposures of United States organizations and the United States exposures of foreign organizations through Global Services. At its Lloyd's syndicate (Syndicate 5000), for which the Company provides 100% of the capital, International underwrites six principal businesses — international marine, retail marine, global property, construction & special risks, energy and aviation.

Business Insurance also includes Simply Business, a leading provider of small business insurance policies primarily in the United Kingdom that was acquired in August 2017, as well as Business Insurance Other, which primarily comprises the Company's asbestos and environmental liabilities, and the assumed reinsurance and certain other runoff operations.

Bond & Specialty Insurance

Bond & Specialty Insurance provides surety, fidelity, management liability, professional liability, and other property and casualty coverages and related risk management services to its customers in the United States and certain specialty insurance products in Canada, the United Kingdom, the Republic of Ireland and Brazil (through a joint venture, as described below), utilizing various degrees of financially-based underwriting approaches. The range of coverages includes performance, payment and commercial surety bonds for construction and general commercial enterprises; fidelity insurance for private companies, not-for-profit organizations and financial institutions; management liability coverages including directors' and officers' liability, employment practices liability, fiduciary liability and cyber risk for public corporations, private companies, not-for-profit organizations and financial institutions; professional liability coverage for a variety of professionals including, among others, lawyers and design professionals; and in the United States only, property, workers' compensation, auto and general liability for financial institutions.

Bond & Specialty Insurance surety business in Brazil and Colombia is conducted through Junto Holding Brasil S.A. (Junto) and Junto Holding Latam S.A. in Brazil. The Company owns 49.5% of both Junto, a market leader in surety coverages in Brazil, and Junto Holding Latam S.A., which owns a majority interest in JMalucelli Travelers Seguros S.A., a Colombian surety provider. These joint venture investments are accounted for using the equity method and are included in "other investments" on the consolidated balance sheet.

Personal Insurance

Personal Insurance writes a broad range of property and casualty insurance covering individuals' personal risks, primarily in the United States, as well as in Canada. The primary products of automobile and homeowners insurance are complemented by a broad suite of related coverages.

Automobile policies provide coverage for liability to others for both bodily injury and property damage, uninsured motorist protection, and for physical damage to an insured's own vehicle from collision, fire, flood, hail and theft. In addition, many states require policies to provide first-party personal injury protection, frequently referred to as no-fault coverage.

Homeowners and Other policies provide protection against losses to dwellings and contents from a variety of perils (excluding flooding) as well as coverage for personal liability. The Company writes homeowners insurance for dwellings, condominiums and tenants, and rental properties. The Company also writes coverage for boats and yachts and valuable personal items such as jewelry, and also writes coverages for umbrella liability, identity fraud, and weddings and special events.

2. SEGMENT INFORMATION

The accounting policies used to prepare the segment reporting data for the Company's three reportable business segments are the same as those described in the Summary of Significant Accounting Policies in note 1.

Except as described below for certain legal entities, the Company allocates its invested assets and the related net investment income to its reportable business segments. Pre-tax net investment income is allocated based upon an investable funds concept, which takes into account liabilities (net of non-invested assets) and appropriate capital considerations for each segment. For investable

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SEGMENT INFORMATION (Continued)

funds, a benchmark investment yield is developed that reflects the estimated duration of the loss reserves' future cash flows, the interest rate environment at the time the losses were incurred and A+rated corporate debt instrument yields. For capital, a benchmark investment yield is developed that reflects the average yield on the total investment portfolio. The benchmark investment yields are applied to each segment's investable funds and capital, respectively, to produce a total notional investment income by segment. The Company's actual net investment income is allocated to each segment in proportion to the respective segment's notional investment income to total notional investment income. There are certain legal entities within the Company that are dedicated to specific reportable business segments. The invested assets and related net investment income from these legal entities are reported in the applicable business segment and are not allocated among the other business segments.

The cost of the Company's catastrophe treaty program is included in the Company's ceded premiums and is allocated among reportable business segments based on an estimate of actual market reinsurance pricing using expected losses calculated by the Company's catastrophe model, adjusted for any experience adjustments.

The following tables summarize the components of the Company's revenues, income, net written premiums and total assets by reportable business segments.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SEGMENT INFORMATION (Continued)

(for the year ended December 31, in millions)	Business nsurance	S_1	Bond & pecialty surance	Personal nsurance	Total teportable Segments
2019					
Premiums	\$ 15,300	\$	2,565	\$ 10,407	\$ 28,272
Net investment income	1,816		233	419	2,468
Fee income	437		_	22	459
Other revenues	155		26	 87	 268
Total segment revenues (1)	\$ 17,708	\$	2,824	\$ 10,935	\$ 31,467
Amortization and depreciation	\$ 3,037	\$	533	\$ 1,787	\$ 5,357
Income tax expense	223		151	195	569
Segment income (1)	1,392		618	824	2,834
2018					
Premiums	\$ 14,722	\$	2,420	\$ 9,917	\$ 27,059
Net investment income	1,833		233	408	2,474
Fee income	412		_	20	432
Other revenues	112		23	66	201
Total segment revenues (1)	\$ 17,079	\$	2,676	\$ 10,411	\$ 30,166
Amortization and depreciation	\$ 2,943	\$	515	\$ 1,719	\$ 5,177
Income tax expense	259		198	42	499
Segment income (1)	1,638		793	297	2,728
2017					
Premiums	\$ 14,146	\$	2,307	\$ 9,230	\$ 25,683
Net investment income	1,786		228	383	2,397
Fee income	430		_	17	447
Other revenues	69		24	60	153
Total segment revenues (1)	\$ 16,431	\$	2,559	\$ 9,690	\$ 28,680
Amortization and depreciation	\$ 2,852	\$	493	\$ 1,627	\$ 4,972
Income tax expense (benefit)	448		208	(44)	612
Segment income (1)	1,613		556	128	2,297

⁽¹⁾ Segment revenues for reportable business segments exclude net realized investment gains. Segment income for reportable business segments equals net income excluding the after-tax impact of net realized investment gains and, in 2017, the impact of the Tax Cuts and Jobs Act of 2017 at enactment.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SEGMENT INFORMATION (Continued)

Net written premiums by market were as follows:

(for the year ended December 31, in millions)	2019	2018	2017
Business Insurance:			
Domestic:			
Select Accounts	\$ 2,911	\$ 2,828	\$ 2,800
Middle Market	8,630	8,214	7,756
National Accounts	1,051	1,025	1,010
National Property and Other	1,965	1,805	1,691
Total Domestic	14,557	13,872	13,257
International	1,072	1,084	1,013
Total Business Insurance	15,629	14,956	14,270
Bond & Specialty Insurance:			
Domestic:			
Management Liability	1,605	1,455	1,367
Surety	866	835	793
Total Domestic	2,471	2,290	2,160
International	268	238	199
Total Bond & Specialty Insurance	2,739	2,528	2,359
Personal Insurance:			
Domestic:			
Agency:			
Automobile	5,124	4,972	4,646
Homeowners and Other	4,540	4,148	3,933
Total Agency	9,664	9,120	8,579
Direct-to-Consumer	412	396	361
Total Domestic	10,076	9,516	8,940
International	707	708	650
Total Personal Insurance	10,783	 10,224	9,590
Total consolidated net written premiums	\$ 29,151	\$ 27,708	\$ 26,219

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SEGMENT INFORMATION (Continued)

Business Segment Reconciliations

(for the year ended December 31, in millions)	2019		2018	2017
Revenue reconciliation				
Earned premiums				
Business Insurance:				
Domestic:				
Workers' compensation	\$ 3,829	\$	3,899	\$ 3,962
Commercial automobile	2,632		2,388	2,132
Commercial property	1,937		1,828	1,775
General liability	2,342		2,181	2,047
Commercial multi-peril	3,453	i	3,333	3,198
Other	40		28	29
Total Domestic	14,233		13,657	13,143
International	1,067		1,065	 1,003
Total Business Insurance	15,300		14,722	 14,146
Bond & Specialty Insurance:				
Domestic:				
Fidelity and surety	1,036		1,017	977
General liability	1,082		1,004	962
Other	216		195	 187
Total Domestic	2,334		2,216	2,126
International	231		204	181
Total Bond & Specialty Insurance	2,565		2,420	2,307
Personal Insurance:				
Domestic				
Automobile	5,311		5,097	4,655
Homeowners and Other	4,393	,	4,135	3,943
Total Domestic	9,704		9,232	8,598
International	703	,	685	632
Total Personal Insurance	10,407		9,917	9,230
Total earned premiums	28,272		27,059	25,683
Net investment income	2,468	;	2,474	2,397
Fee income	459)	432	447
Other revenues	268	;	201	153
Total segment revenues	31,467		30,166	28,680
Other revenues	1		2	6
Net realized investment gains	113	i	114	216
Total revenues	\$ 31,581	\$	30,282	\$ 28,902
Income reconciliation, net of tax				
Total segment income	\$ 2,834	\$	2,728	\$ 2,297
Interest Expense and Other (1)	(297)	(298)	(254)
Core income	2,537		2,430	2,043
Net realized investment gains	85		93	142
Impact of Tax Cuts and Jobs Act of 2017 at enactment	_		_	(129)
Net income	\$ 2,622	\$	2,523	\$ 2,056

⁽¹⁾ The primary component of Interest Expense and Other was after-tax interest expense of \$272 million, \$278 million and \$240 million in 2019, 2018 and 2017, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SEGMENT INFORMATION (Continued)

(at December 31, in millions)	2019	2018
Asset reconciliation:		
Business Insurance	\$ 83,896	\$ 78,965
Bond & Specialty Insurance	8,599	8,693
Personal Insurance	17,015	15,943
Total assets for reportable segments	109,510	103,601
Other assets (1)	612	632
Total consolidated assets	\$ 110,122	\$ 104,233

⁽¹⁾ The primary components of other assets at both December 31, 2019 and 2018, were accrued over-funded benefit plan assets related to the Company's qualified domestic pension plan and other intangible assets.

Enterprise-Wide Disclosures

The Company does not have revenue from transactions with a single customer amounting to 10 percent or more of its revenues.

The following table presents revenues of the Company's operations based on location:

(for the year ended December 31, in millions)	2019	2018	2017
U.S.	\$ 29,638	\$ 28,418	\$ 27,253
Non-U.S.:			
Canada	1,371	1,293	1,232
Other Non-U.S.	572	571	417
Total Non-U.S	1,943	1,864	1,649
Total revenues	\$ 31,581	\$ 30,282	\$ 28,902

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. INVESTMENTS

Fixed Maturities

The amortized cost and fair value of investments in fixed maturities classified as available for sale were as follows:

	A	mortized	Gross U	nrealized	l	Fair
(at December 31, 2019, in millions)		Cost	Gains	L	osses	Value
U.S. Treasury securities and obligations of U.S. government and government agencies and authorities	\$	2,076	\$ 19	\$	_	\$ 2,095
Obligations of states, municipalities and political subdivisions:						
Local general obligation		15,490	829		4	16,315
Revenue		9,731	586		2	10,315
State general obligation		1,167	64		_	1,231
Pre-refunded		1,968	88		_	2,056
Total obligations of states, municipalities and political subdivisions		28,356	1,567		6	29,917
Debt securities issued by foreign governments		1,167	8		2	1,173
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities		3,192	91		3	3,280
All other corporate bonds		30,442	1,195		18	31,619
Redeemable preferred stock		48	2		_	50
Total	\$	65,281	\$ 2,882	\$	29	\$ 68,134

	Amortized		Gross Un	realized	Fair
(at December 31, 2018, in millions)	Cost		Gains	Losses	Value
U.S. Treasury securities and obligations of U.S. government and government agencies and authorities	\$ 2,07	6 \$	4	\$ 16	\$ 2,064
Obligations of states, municipalities and political subdivisions:					
Local general obligation	14,47	3	219	120	14,572
Revenue	9,75	5	172	74	9,853
State general obligation	1,32	9	18	13	1,334
Pre-refunded	2,77	2	80	_	2,852
Total obligations of states, municipalities and political subdivisions	28,32	- -	489	207	28,611
Debt securities issued by foreign governments	1,25	5	7	5	1,257
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities	2,55	7	54	38	2,573
All other corporate bonds	29,30	7	156	583	28,880
Redeemable preferred stock	7	7	2	_	79
Total	\$ 63,60	1 \$	712	\$ 849	\$ 63,464

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. INVESTMENTS (Continued)

The amortized cost and fair value of fixed maturities by contractual maturity follow. Actual maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

(at December 31, 2019, in millions)	A	Amortized Cost				Fair Value
Due in one year or less	\$	3,738	\$	3,760		
Due after 1 year through 5 years		17,729		18,241		
Due after 5 years through 10 years		17,262		18,215		
Due after 10 years		23,360		24,638		
		62,089		64,854		
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities		3,192		3,280		
Total	\$	65,281	\$	68,134		

Pre-refunded bonds of \$2.06 billion and \$2.85 billion at December 31, 2019 and 2018, respectively, were bonds for which states or municipalities have established irrevocable trusts, almost exclusively comprised of U.S. Treasury securities and obligations of U.S. government and government agencies and authorities. These trusts were created to fund the payment of principal and interest due under the bonds.

The Company's fixed maturity investment portfolio at December 31, 2019 and 2018 included \$3.28 billion and \$2.57 billion, respectively, of residential mortgage-backed securities, which include pass-through securities and collateralized mortgage obligations (CMOs). Included in the totals at December 31, 2019 and 2018 were \$1.52 billion and \$859 million, respectively, of GNMA, FNMA, FHLMC (excluding FHA project loans) and Canadian government guaranteed residential mortgage-backed pass-through securities classified as available for sale. Also included in those totals were residential CMOs classified as available for sale with a fair value of \$1.76 billion and \$1.71 billion at December 31, 2019 and 2018, respectively. Approximately 54% and 52% of the Company's CMO holdings at December 31, 2019 and 2018, respectively, were guaranteed by or fully collateralized by securities issued by GNMA, FNMA or FHLMC. The weighted average credit rating of the \$816 million and \$828 million of non-guaranteed CMO holdings at December 31, 2019 and 2018, respectively, was "Aaa/Aa1" and "Aa1," respectively. The weighted average credit rating of all of the above securities was Aaa/Aa1" at both December 31, 2019 and 2018.

At December 31,2019 and 2018, the Company held commercial mortgage-backed securities (CMBS, including FHA project loans) of \$1.51 billion and \$1.22 billion, respectively, which are included in "All other corporate bonds" in the tables above. At December 31,2019 and 2018, approximately \$559 million and \$458 million of these securities, respectively, or the loans backing such securities, contained guarantees by the U.S. government or a government-sponsored enterprise. The weighted average credit rating of the \$950 million and \$759 million of non-guaranteed securities at December 31, 2019 and 2018, respectively, was "Aaa" at both dates. The CMBS portfolio is supported by loans that are diversified across economic sectors and geographical areas. The weighted average credit rating of the CMBS portfolio was "Aaa" at both December 31, 2019 and 2018.

At December 31, 2019 and 2018, the Company had \$404 million and \$367 million, respectively, of securities on loan as part of a tri-party lending agreement.

Proceeds from sales of fixed maturities classified as available for sale were \$2.19 billion, \$3.55 billion and \$1.85 billion in 2019, 2018 and 2017, respectively. Gross gains of \$67 million, \$51 million and \$42 million and gross losses of \$8 million, \$18 million and \$38 million were realized on those sales in 2019, 2018 and 2017, respectively.

At December 31,2019 and 2018, the Company's insurance subsidiaries had \$4.34 billion and \$4.23 billion, respectively, of securities on deposit at financial institutions in certain states pursuant to the respective states' insurance regulatory requirements. Funds deposited with third parties to be used as collateral to secure various liabilities on behalf of insureds, cedants and other creditors had a fair value of \$54 million and \$37 million at December 31, 2019 and 2018, respectively. Other investments pledged as collateral securing outstanding letters of credit had a fair value of \$1 million at both December 31, 2019 and 2018. In addition, the Company utilizes Lloyd's trust deposits, whereby owned securities with a fair value of approximately \$173 million and \$115 million held by a wholly-owned subsidiary at December 31, 2019 and 2018, respectively, and \$34 million and \$33 million held by TRV at December 31, 2019 and 2018, respectively, were pledged into Lloyd's trust accounts to provide a portion of the capital needed to support the Company's obligations at Lloyd's.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. INVESTMENTS (Continued)

Equity Securities

The cost and fair value of investments in equity securities were as follows:

(at December 31, 2019, in millions)	Cost	Gros	ss Gains	Gros	s Losses	F	Fair Value
Public common stock	\$ 341	\$	45	\$	3	\$	383
Non-redeemable preferred stock	35		7		_		42
Total	\$ 376	\$	52	\$	3	\$	425
(at December 31, 2018, in millions)	 Cost	Gros	ss Gains	Gros	s Losses	F	Fair Value
Public common stock	\$ 338	\$	2	\$	24	\$	316
Non-redeemable preferred stock	44		8		_		52
_							32

The Company recognized \$61 million and (\$29) million of net gains (losses) on equity securities still held as of December 31, 2019 and 2018, respectively.

Proceeds from sales of equity securities previously classified as available for sale were \$765 million in 2017. Gross gains of \$239 million and gross losses of \$3 million were realized on those sales in 2017.

Real Estate

The Company's real estate investments include warehouses, office buildings and other commercial land and properties that are directly owned. The Company negotiates commercial leases with individual tenants through unrelated, licensed real estate brokers. Negotiated terms and conditions include, among others, rental rates, length of lease period and improvements to the premises to be provided by the landlord.

There were no sales of real estate investments in 2019. Proceeds from the sale of real estate investments were \$74 million and \$23 million in 2018 and 2017, respectively. Gross gains of \$23 million and \$10 million were realized on those sales in 2018 and 2017, respectively, and there were no gross losses. Accumulated depreciation on real estate held for investment purposes was \$422 million and \$383 million at December 31, 2019 and 2018, respectively.

Future minimum rental income on operating leases relating to the Company's real estate properties is expected to be \$110 million, \$102 million, \$85 million, \$61 million and \$45 million for 2020, 2021, 2022, 2023 and 2024, respectively, and \$71 million for 2025 and thereafter.

Short-term Securities

The Company's short-term securities consist of Aaa-rated registered money market funds, U.S. Treasury securities, high-quality commercial paper (primarily A1/P1) and high-quality corporate securities purchased within a year to their maturity with a combined average of 54 days to maturity at December 31, 2019. The amortized cost of these securities, which totaled \$4.94 billion and \$3.99 billion at December 31, 2019 and 2018, respectively, approximated their fair value.

Variable Interest Entities

Entities which do not have sufficient equity at risk to allow the entity to finance its activities without additional financial support or in which the equity investors, as a group, do not have the characteristic of a controlling financial interest are referred to as variable interest entities (VIE). A VIE is consolidated by the variable interest holder that is determined to have the controlling financial interest (primary beneficiary) as a result of having both the power to direct the activities of a VIE that most significantly impact the VIE's economic performance and the obligation to absorb losses or right to receive benefits from the VIE that could potentially be significant to the VIE. The Company determines whether it is the primary beneficiary of an entity subject to consolidation based on a qualitative assessment of the VIE's capital structure, contractual terms, nature of the VIE's operations

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. INVESTMENTS (Continued)

and purpose and the Company's relative exposure to the related risks of the VIE on the date it becomes initially involved in the VIE. The Company reassesses its VIE determination with respect to an entity on an ongoing basis.

The Company is a passive investor in limited partner equity interests issued by third party VIEs. These include certain of the Company's investments in private equity limited partnerships, hedge funds and real estate partnerships where the Company is not related to the general partner. These investments are generally accounted for under the equity method and reported in the Company's consolidated balance sheet as other investments unless the Company is deemed the primary beneficiary. These equity interests generally cannot be redeemed. Distributions from these investments are received by the Company as a result of liquidation of the underlying investments of the funds and/or as income distribution. The Company's maximum exposure to loss with respect to these investments is limited to the investment carrying amounts reported in the Company's consolidated balance sheet and any unfunded commitment. The Company considers an investment in a VIE in which it has a 20% or greater equity interest as a significant VIE. Neither the Company's carrying amounts nor the unfunded commitments related to these significant VIE's are material individually or in the aggregate.

Unrealized Investment Losses

The following tables summarize, for all investments in an unrealized loss position at December 31, 2019 and 2018, the aggregate fair value and gross unrealized loss by length of time those securities have been continuously in an unrealized loss position. The fair value amounts reported in the tables are estimates that are prepared using the process described in note 4. The Company also relies upon estimates of several factors in its review and evaluation of individual investments, using the process described in note 1, in determining whether such investments are other-than-temporarily impaired.

		Less than	nonths	12 months or longer				Total			
(at December 31, 2019, in millions)	Gross Fair Unrealize Value Losses		Jnrealized	Fair Value		Gross Unrealized Losses		Fair Value	τ	Gross Inrealized Losses	
Fixed maturities											
U.S. Treasury securities and obligations of U.S. government and government agencies and authorities	\$	5	\$	_	\$ 193	\$	_	\$	198	\$	_
Obligations of states, municipalities and political subdivisions		668		6	12		_		680		6
Debt securities issued by foreign governments		257		1	147		1		404		2
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities		399		2	131		1		530		3
All other corporate bonds		1,571		10	662		8		2,233		18
Total fixed maturities	\$	2,900	\$	19	\$ 1,145	\$	10	\$	4,045	\$	29

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. INVESTMENTS (Continued)

	Less than 12 months					12 months or longer				Total			
(at December 31, 2018, in millions)		Fair Value		Gross Unrealized Losses		Fair Value	U	Gross Inrealized Losses	Fair Value		ī	Gross Unrealized Losses	
Fixed maturities													
U.S. Treasury securities and obligations of U.S. government and government agencies and authorities	\$	484	\$	5	\$	1,011	\$	11	\$	1,495	\$	16	
Obligations of states, municipalities and political subdivisions		5,241		82		3,298		125		8,539		207	
Debt securities issued by foreign governments		96		_		328		5		424		5	
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities		593		9		1,070		29		1,663		38	
All other corporate bonds		12,622		303		6,872		280		19,494		583	
Total fixed maturities	\$	19,036	\$	399	\$	12,579	\$	450	\$	31,615	\$	849	

At December 31, 2019, the Company had no fixed maturity investments reported at fair value for which fair value was less than 80% of amortized cost.

Impairment Charges

Impairment charges included in net realized investment gains in the consolidated statement of income were as follows:

(for the year ended December 31, in millions)	2019	2018		2017
Fixed maturities				
U.S. Treasury securities and obligations of U.S. government and government agencies and authorities	\$ _	\$	_	\$ _
Obligations of states, municipalities and political subdivisions	_		_	_
Debt securities issued by foreign governments	_		_	_
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities	_		_	_
All other corporate bonds	4		1	4
Redeemable preferred stock	_		_	_
Total fixed maturities	4		1	4
Equity securities				
Public common stock	_		_	9
Non-redeemable preferred stock	_		_	_
Total equity securities	_		_	9
Other investments	_			1
Total	\$ 4	\$	1	\$ 14

The following tables present the cumulative amount of, and the changes during the year in, credit losses on fixed maturities held at December 31, 2019 and 2018, that were recognized in the consolidated statement of income from other-than-temporary impairments (OTTI) and for which a portion of the OTTI was recognized in other comprehensive income (loss) in the consolidated balance sheet.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. INVESTMENTS (Continued)

Year ended December 31, 2019 (in millions)	OTTI Lo Recogn Secu Ho Begin	ulative Credit sses nized for crities eld, ning of riod	OTTI S Who Credi W Prev	Additions for OTTI Securities Where No Credit Losses Were Previously Recognized		Additions for OTTI Securities Where Credit Losses Have Been Previously Recognized		uctions ne to Defaults credit- paired urities	Adjustments to Book Value of Credit- Impaired Securities due to Changes in Cash Flows		OTTI Lo Recogn Securit Held,	ulative Credit sses nized for ties Still End of riod
Fixed maturities												
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities	\$	15	\$	_	\$	_	\$	(9)	\$	3	\$	9
All other corporate bonds		42		_		_		(49)		10		3
Total fixed maturities	\$	57	\$	_	\$	_	\$	(58)	\$	13	\$	12
Year ended December 31, 2018 (in millions)	OTTI Log Recogn Secu Ho Begin	Cumulative OTTI Credit Losses Recognized for Securities Held, Beginning of Period		Additions for OTTI Securities Where No Credit Losses Were Previously Recognized		ions for TTI urities e Credit es Have een iously gnized	Du Sales/I of C Imp	uctions ne to Defaults credit- paired urities	to Boo of C Imp Securi to Cha	tments k Value redit- aired ties due unges in Flows	OTTI Lo Recogn Securit Held,	ulative Credit sses nized for ties Still End of riod
Fixed maturities												
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities	\$	29	\$	_	\$	_	\$	(18)	\$	4	\$	15
All other corporate bonds		46		_		_		(12)		8		42
Total fixed maturities	φ.	75	\$		\$		\$	(30)	\$	12	\$	57

Concentrations and Credit Quality

Concentrations of credit risk arise from exposure to counterparties that are engaged in similar activities and have similar economic characteristics that could cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions. The Company seeks to mitigate credit risk by actively monitoring the creditworthiness of counterparties, obtaining collateral as deemed appropriate and applying controls that include credit approvals, limits of credit exposure and other monitoring procedures.

At December 31, 2019 and 2018, other than U.S. Treasury securities and obligations of U.S. government and government agencies and authorities, the Company was not exposed to any concentration of credit risk of a single issuer greater than 5% of the Company's shareholders' equity.

Included in fixed maturities are below investment grade securities totaling \$1.46 billion and \$1.48 billion at December 31, 2019 and 2018, respectively. The Company defines its below investment grade securities as those securities rated below investment grade by external rating agencies, or the equivalent by the Company when a public rating does not exist. Such securities include below investment grade bonds that are publicly traded and certain other privately issued bonds that are classified as below investment grade loans.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. INVESTMENTS (Continued)

Net Investment Income

(for the year ended December 31, in millions)	2019	2018	2017
Gross investment income			
Fixed maturities	\$ 2,070	\$ 1,980	\$ 1,895
Equity securities	15	16	28
Short-term securities	105	92	62
Real estate investments	55	48	44
Other investments	263	377	406
Gross investment income	2,508	2,513	2,435
Investment expenses	40	39	38
Net investment income	\$ 2,468	\$ 2,474	\$ 2,397

Changes in net unrealized gains (losses) on investment securities that are included as a separate component of other comprehensive income (loss) were as follows:

(at and for the year ended December 31, in millions)	2019	2018		2017	
Changes in net unrealized investment gains (losses)					
Fixed maturities	\$ 2,990	\$	(1,515)	\$	513
Equity securities	_		_		(215)
Other investments	_		(1)		4
Change in net pre-tax unrealized gains (losses) on investment securities	2,990		(1,516)		302
Related tax expense (benefit)	631		(319)		78
Change in net unrealized gains (losses) on investment securities	2,359		(1,197)		224
Cumulative effect of adoption of updated accounting guidance for equity financial instruments at January 1, 2018	_		(22)		_
Reclassification of certain tax effects from accumulated other comprehensive income at January 1, 2018	_		152		_
Balance, beginning of year	(113)		954		730
Balance, end of year	\$ 2,246	\$	(113)	\$	954

The total impact of net unrealized gains on investment securities was \$1.11 billion after-tax at December 31, 2017, which included the \$954 million reported in accumulated other comprehensive income shown above, as well as \$158 million included in retained earnings that was part of the impact of enactment of the Tax Cuts and Jobs Act of 2017 recorded in earnings.

Derivative Financial Instruments

From time to time, the Company enters into U.S. Treasury note futures contracts to modify the effective duration of specific assets within the investment portfolio. U.S. Treasury futures contracts require a daily mark-to-market and settlement with the broker. At December 31, 2019 and 2018, the Company had no open U.S. Treasury futures contracts. Net realized investment gains and losses related to U.S. Treasury futures contracts in 2019, 2018 and 2017 were not significant.

The Company has a put/call option that was entered into in connection with a business acquisition that allows the Company to acquire the remaining shares of the acquired company at a future date. Net realized investment gains and losses related to this put/call option in 2019 and 2018 were not significant.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. INVESTMENTS (Continued)

The Company also sells a small amount of U.S. equity index put option contracts that are settled for cash upon their expiration or when they are rolled over. Net realized investment losses related to these derivatives in 2019, 2018 and 2017 were not significant.

4. FAIR VALUE MEASUREMENTS

The Company's estimates of fair value for financial assets and financial liabilities are based on the framework established in the fair value accounting guidance. The framework is based on the inputs used in valuation, gives the highest priority to quoted prices in active markets and requires that observable inputs be used in the valuations when available. The disclosure of fair value estimates in the fair value accounting guidance hierarchy is based on whether the significant inputs into the valuation are observable. In determining the level of the hierarchy in which the estimate is disclosed, the highest priority is given to unadjusted quoted prices in active markets and the lowest priority to unobservable inputs that reflect the Company's significant market assumptions. The level in the fair value hierarchy within which the fair value measurement is reported is based on the lowest level input that is significant to the measurement in its entirety. The three levels of the hierarchy are as follows:

- Level 1 Unadjusted quoted market prices for identical assets or liabilities in active markets that the Company
 has the ability to access.
- Level 2 Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in inactive markets; or valuations based on models where the significant inputs are observable (e.g., interest rates, yield curves, prepayment speeds, default rates, loss severities, etc.) or can be corroborated by observable market data.
- Level 3 Valuations based on models where significant inputs are not observable. The unobservable inputs reflect the Company's own assumptions about the inputs that market participants would use.

Valuation of Investments Reported at Fair Value in Financial Statements

The fair value of a financial instrument is the estimated amount at which the instrument could be exchanged in an orderly transaction between knowledgeable, unrelated, willing parties, i.e., not in a forced transaction. The estimated fair value of a financial instrument may differ from the amount that could be realized if the security was sold in an immediate sale, e.g., a forced transaction. Additionally, the valuation of investments is more subjective when markets are less liquid due to the lack of market based inputs, which may increase the potential that the estimated fair value of an investment is not reflective of the price at which an actual transaction would occur.

For investments that have quoted market prices in active markets, the Company uses the unadjusted quoted market prices as fair value and includes these prices in the amounts disclosed in Level 1 of the hierarchy. The Company receives the quoted market prices from third party, nationally recognized pricing services. When quoted market prices are unavailable, the Company utilizes these pricing services to determine an estimate of fair value. The fair value estimates provided from these pricing services are included in the amount disclosed in Level 2 of the hierarchy. If quoted market prices and an estimate from a pricing service are unavailable, the Company produces an estimate of fair value based on internally developed valuation techniques, which, depending on the level of observable market inputs, will render the fair value estimate as Level 2 or Level 3. The Company bases all of its estimates of fair value for assets on the bid price as it represents what a third-party market participant would be willing to pay in an arm's length transaction.

Fixed Maturities

The Company utilized a pricing service to estimate fair value measurements for approximately 99% of its fixed maturities at both December 31, 2019 and 2018. The pricing service utilizes market quotations for fixed maturity securities that have quoted prices in active markets. Since fixed maturities other than U.S. Treasury securities generally do not trade on a daily basis, the pricing service prepares estimates of fair value measurements for these securities using its proprietary pricing applications, which include available relevant market information, benchmark curves, benchmarking of like securities, sector groupings and matrix pricing. Additionally, the pricing service uses an Option Adjusted Spread model to develop prepayment and interest rate scenarios.

The pricing service evaluates each asset class based on relevant market information, relevant credit information, perceived market movements and sector news. The market inputs utilized in the pricing evaluation, listed in the approximate order of priority,

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. FAIR VALUE MEASUREMENTS (Continued)

include: benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, reference data, and industry and economic events. The extent of the use of each market input depends on the asset class and the market conditions. Depending on the security, the priority of the use of inputs may change or some market inputs may not be relevant. For some securities, additional inputs may be necessary.

The pricing service utilized by the Company has indicated that it will only produce an estimate of fair value if there is objectively verifiable information to produce a valuation. If the pricing service discontinues pricing an investment, the Company would be required to produce an estimate of fair value using some of the same methodologies as the pricing service but would have to make assumptions for any market-based inputs that were unavailable due to market conditions. The Company reviews the estimates of fair value provided by the pricing service and compares the estimates to the Company's knowledge of the market to determine if the estimates obtained are representative of the prices in the market. In addition, the Company has periodic discussions with the pricing service to discuss and understand any changes in process and their responsiveness to changes occurring in the markets. The Company also monitors all monthly price changes and further evaluates any securities whose value changed more than 10% from the prior month. The Company has implemented various other processes including randomly selecting purchased or sold securities and comparing execution prices to the estimates from the pricing service as well as reviewing securities whose valuation did not change from their previous valuation (stale price review). The Company also uses a second independent pricing service to further test the primary pricing service's valuation of the Company's fixed maturity portfolio. These processes have not highlighted any significant issues with the fair value estimates received from the primary pricing service.

The fair value estimates of most fixed maturity investments are based on observable market information rather than market quotes. Accordingly, the estimates of fair value for such fixed maturities, other than U.S. Treasury securities, provided by the pricing service are included in the amount disclosed in Level 2 of the hierarchy. The estimated fair value of U.S. Treasury securities is included in the amount disclosed in Level 1 as the estimates are based on unadjusted market prices.

The Company also holds certain fixed maturity investments which are not priced by the pricing service and, accordingly, estimates the fair value of such fixed maturities using an internal matrix that is based on market information regarding interest rates, credit spreads and liquidity. The underlying source data for calculating the matrix of credit spreads relative to the U.S. Treasury curve are observable market-based indices that relate to corporate and high-yield fixed maturity investments. The Company includes the fair value estimates of these corporate bonds in Level 2, since all significant inputs are market observable.

While the vast majority of the Company's fixed maturities are included in Level 2, the Company holds a number of municipal bonds and corporate bonds which are not valued by the pricing service and also estimates the fair value of these bonds using another internal pricing matrix that includes some unobservable inputs that are significant to the valuation. Due to the limited amount of observable market information, the Company includes the fair value estimates for these particular bonds in Level 3. The fair value of the fixed maturities for which the Company used this internal pricing matrix was \$73 million and \$82 million at December 31, 2019 and 2018, respectively. Additionally, the Company holds a small amount of other fixed maturity investments that have characteristics that make them unsuitable for matrix pricing. For these fixed maturities, the Company obtains a quote from a broker (primarily the market maker). The fair value of the fixed maturities for which the Company received a broker quote was \$28 million and \$104 million at December 31, 2019 and 2018, respectively. Due to the disclaimers on the quotes that indicate that the price is indicative only, the Company includes these fair value estimates in Level 3.

Equity Securities — Public Common Stock and Non-Redeemable Preferred Stock

For public common stock and non-redeemable preferred stocks, the Company receives prices from pricing services that are based on observable market transactions and includes these estimates in the amount disclosed in Level 1. When current market quotes in active markets are unavailable for certain non-redeemable preferred stocks held by the Company, the Company receives an estimate of fair value from the pricing services. The services utilize similar methodologies to price the non-redeemable preferred stocks as they do for the fixed maturities. The Company includes the fair value estimate for these non-redeemable preferred stocks in the amount disclosed in Level 2.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. FAIR VALUE MEASUREMENTS (Continued)

Other Investments

The Company holds investments in various publicly-traded securities which are reported in other investments. These investments include mutual funds and other small holdings. The \$16 million fair value of these investments at both December 31, 2019 and 2018 was disclosed in Level 1. At December 31, 2019 and 2018, the Company held investments in non-public common and preferred equity securities, with fair value estimates of \$20 million and \$36 million, respectively, reported in other investments, where the fair value estimate is determined either internally or by an external fund manager based on recent filings, operating results, balance sheet stability, growth and other business and market sector fundamentals. Due to the significant unobservable inputs in these valuations, the Company includes the total fair value estimate for all of these investments at December 31, 2019 and 2018 in the amount disclosed in Level 3.

Other Liabilities

The Company has a put/call option that was entered into in connection with a business acquisition that allows the Company to acquire the remaining shares of the acquired company at a future date. The fair value of the put/call at December 31, 2019 and 2018 was \$8 million and \$10 million, respectively, and was determined using an internal model and is based on the acquired company's financial performance, adjusted for a risk margin and discounted to present value. The Company includes the fair value estimate of the put/call in Level 3.

Fair Value Hierarchy

The following tables present the level within the fair value hierarchy at which the Company's financial assets and financial liabilities are measured on a recurring basis.

(at December 31, 2019, in millions)	Total	Level 1	Level 2		Level 3
Invested assets:					
Fixed maturities					
U.S. Treasury securities and obligations of U.S. government and government agencies and authorities	\$ 2,095	\$ 2,095	\$	_	\$ _
Obligations of states, municipalities and political subdivisions	29,917	_		29,905	12
Debt securities issued by foreign governments	1,173	_		1,173	_
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities	3,280	_		3,280	_
All other corporate bonds	31,619	_		31,530	89
Redeemable preferred stock	50	_		50	_
Total fixed maturities	68,134	2,095		65,938	101
Equity securities					
Public common stock	383	383		_	_
Non-redeemable preferred stock	42	13		29	_
Total equity securities	425	396		29	_
Other investments	36	16		_	20
Total	\$ 68,595	\$ 2,507	\$	65,967	\$ 121
Other liabilities	\$ 8	\$ _	\$	_	\$ 8

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. FAIR VALUE MEASUREMENTS (Continued)

(at December 31, 2018, in millions)	Total	Level 1	Level 2		Level 3
Invested assets:					
Fixed maturities					
U.S. Treasury securities and obligations of U.S. government and government agencies and authorities	\$ 2,064	\$ 2,064	\$	_	\$ _
Obligations of states, municipalities and political subdivisions	28,611	_		28,599	12
Debt securities issued by foreign governments	1,257	_		1,257	_
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities	2,573	_		2,554	19
All other corporate bonds	28,880	_		28,725	155
Redeemable preferred stock	79	3		76	_
Total fixed maturities	63,464	2,067		61,211	186
Equity securities					
Public common stock	316	316		_	_
Non-redeemable preferred stock	52	30		22	_
Total equity securities	368	346		22	_
Other investments	52	16			36
Total	\$ 63,884	\$ 2,429	\$	61,233	\$ 222
Other liabilities	\$ 10	\$ 	\$		\$ 10

The following tables present the changes in the Level 3 fair value category for the years ended December 31, 2019 and 2018.

_		-			Total
\$	186	\$	36	\$	222
	_		3		3
	4		_		4
	38		6		44
	(1)		(25)		(26)
	(19)		_		(19)
	_		_		_
	(107)		_		(107)
\$	101	\$	20	\$	121
\$	_	\$		\$	
	Mat	38 (1) (19) — (107)	Maturities Inverse	Maturities Investments	Maturities Investments

⁽¹⁾ Includes impairments on investments held at the end of the period as well as amortization on fixed maturities.

The Company also includes in Level 3 the put/call option entered into in connection with a business acquisition that is reported in other liabilities and had a fair value of \$8 million at December 31, 2019.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. FAIR VALUE MEASUREMENTS (Continued)

(in millions)	Fixed Maturities	Other Investments	Total
Balance at December 31, 2017	\$ 204	\$ 38	\$ 242
Total realized and unrealized investment gains (losses):			
Reported in net realized investment gains (1)	2	7	9
Reported in increases in other comprehensive income (loss)	(4)	_	(4)
Purchases, sales and settlements/maturities:			
Purchases	146	3	149
Sales	(11)	(12)	(23)
Settlements/maturities	(71)	_	(71)
Gross transfers into Level 3	11	_	11
Gross transfers out of Level 3	(91)	_	(91)
Balance at December 31, 2018	\$ 186	\$ 36	\$ 222
Amount of total realized investment gains (losses) for the period included in the consolidated statement of income attributable to changes in the fair value of assets still held at the reporting date	\$ –	\$	\$

⁽¹⁾ Includes impairments on investments held at the end of the period as well as amortization on fixed maturities.

The Company also includes in Level 3 the put/call option entered into in connection with a business acquisition that is reported in other liabilities and had a fair value of \$10 million at December 31, 2018.

Financial Instruments Disclosed, But Not Carried, At Fair Value

The following tables present the carrying value and fair value of the Company's financial assets and financial liabilities disclosed, but not carried, at fair value, and the level within the fair value hierarchy at which such assets and liabilities are categorized.

(at December 31, 2019, in millions)	 Carrying Value	Fair Value	Level 1	Level 2	Level 3
Financial assets:					_
Short-term securities	\$ 4,943	\$ 4,943	\$ 685	\$ 4,204	\$ 54
Financial liabilities:					
Debt	\$ 6,458	\$ 8,049	\$ _	\$ 8,049	\$ _
Commercial paper	100	100	_	100	_

(at December 31, 2018, in millions)	Carrying Value		Fair Value		Level 1		Level 2		Level 3
Financial assets:									
Short-term securities	\$	3,985	\$ 3,985	\$	632	\$	3,316	\$	37
Financial liabilities:									
Debt	\$	6,464	\$ 7,128	\$	_	\$	7,128	\$	_
Commercial paper		100	100		_		100		_

The Company had no material assets or liabilities that were measured at fair value on a non-recurring basis during the years ended December 31, 2019 and 2018.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. REINSURANCE

The Company's consolidated financial statements reflect the effects of assumed and ceded reinsurance transactions. Assumed reinsurance refers to the acceptance of certain insurance risks that other insurance companies have underwritten. Ceded reinsurance involves transferring certain insurance risks (along with the related written and earned premiums) the Company has underwritten to other insurance companies who agree to share these risks. The primary purpose of ceded reinsurance is to protect the Company, at a cost, from losses in excess of the amount it is prepared to accept and to protect the Company's capital. Reinsurance is placed on both a quota-share and excess-of-loss basis. Ceded reinsurance arrangements do not discharge the Company as the primary insurer, except for instances where the primary policy or policies have been novated, such as in certain structured settlement agreements.

The Company utilizes a corporate catastrophe excess-of-loss reinsurance treaty with unaffiliated reinsurers to manage its exposure to losses resulting from catastrophes and to protect its capital. In addition to the coverage provided under this treaty, the Company also utilizes a reinsurance agreement entered into in connection with catastrophe bonds issued by Long Point Re III to protect against certain weather-related and earthquake losses in the Northeastern United States, a Northeast property catastrophe excess-of-loss reinsurance treaty to protect against losses resulting from weather-related and earthquake catastrophes in the Northeastern United States and an underlying property aggregate catastrophe excess-of-loss reinsurance treaty to protect against the accumulation of certain property losses in North America. The Company also utilizes excess-of-loss treaties to protect against earthquake losses up to a certain threshold in Business Insurance (for certain markets) and for Personal Insurance, and several reinsurance treaties specific to its international operations.

The Company monitors the financial condition of its reinsurers under voluntary reinsurance arrangements to evaluate the collectability of amounts due from reinsurers and as a basis for determining the reinsurers with which the Company conducts ongoing business. In addition, in the ordinary course of business, the Company may become involved in coverage disputes with its reinsurers. Some of these disputes could result in lawsuits and arbitrations brought by or against the reinsurers to determine the Company's rights and obligations under the various reinsurance agreements. The Company employs dedicated specialists and strategies to manage reinsurance collections and disputes.

Included in reinsurance recoverables are amounts related to involuntary reinsurance arrangements. The Company is required to participate in various involuntary reinsurance arrangements through assumed reinsurance, principally with regard to residual market mechanisms in workers' compensation and automobile insurance, as well as homeowners' insurance in certain coastal areas. In addition, the Company provides services for several of these involuntary arrangements (mandatory pools and associations) under which it writes such residual market business directly, then cedes 100% of this business to the mandatory pool. Such participations and servicing arrangements are arranged to mitigate credit risk to the Company, as any ceded balances are jointly backed by all the pool members.

Also included in reinsurance recoverables are amounts related to certain structured settlements. Structured settlements are annuities purchased from various life insurance companies to settle certain personal physical injury claims, of which workers' compensation claims comprise a significant portion. In cases where the Company did not receive a release from the claimant, the structured settlement is included in reinsurance recoverables and the related claim cost is included in the liability for claims and claim adjustment expense reserves, as the Company retains the contingent liability to the claimant. If it is expected that the life insurance company is not able to pay, the Company would recognize an impairment of the related reinsurance recoverable if, and to the extent, the purchased annuities are not covered by state guaranty associations. In the event that the life insurance company fails to make the required annuity payments, the Company would be required to make such payments.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. REINSURANCE (Continued)

The following is a summary of reinsurance financial data reflected in the consolidated statement of income:

(for the year ended December 31, in millions)	2019		2018		2017	
Written premiums						
Direct	\$	30,022	\$	28,210	\$	26,648
Assumed		1,041		1,042		1,000
Ceded		(1,912)		(1,544)		(1,429)
Total net written premiums	\$	29,151	\$	27,708	\$	26,219
Earned premiums						
Direct	\$	28,994	\$	27,536	\$	26,189
Assumed		1,076		1,024		965
Ceded		(1,798)		(1,501)		(1,471)
Total net earned premiums	\$	28,272	\$	27,059	\$	25,683
Percentage of assumed earned premiums to net earned premiums		3.8%		3.8%		3.8%
Ceded claims and claim adjustment expenses incurred	\$	1,089	\$	1,293	\$	1,225

Ceded premiums include the premiums paid for coverage provided by the Company's catastrophe bonds.

Reinsurance recoverables include amounts recoverable on both paid and unpaid claims and claim adjustment expenses and were as follows:

(at December 31, in millions)	2019	2018		
Gross reinsurance recoverables on paid and unpaid claims and claim adjustment expenses	\$ 3,476	\$	3,485	
Allowance for uncollectible reinsurance	(92)		(110)	
Net reinsurance recoverables	3,384		3,375	
Mandatory pools and associations	1,886		2,005	
Structured settlements	2,965		2,990	
Total reinsurance recoverables	\$ 8,235	\$	8,370	

Terrorism Risk Insurance Program

The Terrorism Risk Insurance Program is a Federal program administered by the Department of the Treasury authorized through December 31, 2027 that provides for a system of shared public and private compensation for certain insured losses resulting from certified acts of terrorism.

In order for a loss to be covered under the program (subject losses), the loss must meet certain aggregate industry loss minimums and must be the result of an event that is certified as an act of terrorism by the U.S. Secretary of the Treasury, in consultation with the Secretary of Homeland Security and the Attorney General of the United States. The annual aggregate industry loss minimum under the program is \$200 million. The program excludes from participation the following types of insurance: Federal crop insurance, private mortgage insurance, financial guaranty insurance, medical malpractice insurance, health or life insurance, flood insurance, reinsurance, commercial automobile, professional liability (other than directors' and officers'), surety, burglary and theft, and farm-owners multi-peril. In the case of a war declared by Congress, only workers' compensation losses are covered by the program. All commercial property and casualty insurers licensed in the United States are generally required to participate in the program. Under the program, a participating insurer, in exchange for making terrorism insurance available, is entitled to be reimbursed by the Federal Government for 80% of subject losses, after an insurer deductible, subject to an annual cap.

The deductible for any calendar year is equal to 20% of the insurer's direct earned premiums for covered lines for the preceding calendar year. The Company's estimated deductible under the program is \$2.61 billion for 2020. The annual cap limits the amount

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. REINSURANCE (Continued)

of aggregate subject losses for all participating insurers to \$100 billion. Once subject losses have reached the \$100 billion aggregate during a program year, participating insurers will not be liable under the program for additional covered terrorism losses for that program year. There have been no terrorism-related losses that have triggered program coverage since the program was established. Since the law is untested, there is substantial uncertainty as to how it will be applied if an act of terrorism is certified under the program. It is also possible that future legislative action could change or eliminate the program. Further, given the unpredictable frequency and severity of terrorism losses, as well as the limited terrorism coverage in the Company's own reinsurance program, future losses from acts of terrorism, particularly involving nuclear, biological, chemical or radiological events, could be material to the Company's operating results, financial position and/or liquidity in future periods. In addition, the Company may not have sufficient resources to respond to claims arising from a high frequency of high severity natural catastrophes and/or of man-made catastrophic events involving conventional means. While the Company seeks to manage its exposure to man-made catastrophic events involving conventional means, the Company may not have sufficient resources to respond to claims arising out of one or more man-made catastrophic events involving nuclear, biological, chemical or radiological means.

6. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill

The following table presents the carrying amount of the Company's goodwill by segment. Each reportable segment includes goodwill associated with the Company's international business which is subject to the impact of changes in foreign currency exchange rates.

(at December 31, in millions)	2019		2018	
Business Insurance	\$	2,601	\$ 2,585	
Bond & Specialty Insurance		550	550	
Personal Insurance		784	776	
Other		26	26	
Total	\$	3,961	\$ 3,937	

Other Intangible Assets

The following tables present a summary of the Company's other intangible assets by major asset class:

(at December 31, 2019, in millions)	Gross Carrying Amount		Accumulated Amortization		Net	
Subject to amortization						
Customer-related	\$	99	\$	21	\$	78
Contract-based (1)		205		179		26
Total subject to amortization		304		200		104
Not subject to amortization		226		_		226
Total	\$	530	\$	200	\$	330

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. GOODWILL AND OTHER INTANGIBLE ASSETS (Continued)

(at December 31, 2018, in millions)	Gross Carrying Amount	 accumulated amortization	Net		
Subject to amortization					
Customer-related	\$ 98	\$ 12	\$	86	
Contract-based (1)	208	175		33	
Total subject to amortization	306	187		119	
Not subject to amortization	226	_		226	
Total	\$ 532	\$ 187	\$	345	

⁽¹⁾ Contract-based intangible assets subject to amortization are comprised of fair value adjustments on claims and claim adjustment expense reserves, reinsurance recoverables and other contract-related intangible assets. Fair value adjustments recorded in connection with insurance acquisitions were based on management's estimate of nominal claims and claim adjustment expense reserves and reinsurance recoverables. The method used calculated a risk adjustment to a risk-free discounted reserve that would, if reserves ran off as expected, produce results that yielded the assumed cost-of-capital on the capital supporting the loss reserves. The fair value adjustments are reported as other intangible assets on the consolidated balance sheet, and the amounts measured in accordance with the acquirer's accounting policies for insurance contracts have been reported as part of the claims and claim adjustment expense reserves and reinsurance recoverables. The intangible assets are being recognized into income over the expected payment pattern. Because the time value of money and the risk adjustment (cost of capital) components of the intangible assets run off at different rates, the amount recognized in income may be a net benefit in some periods and a net expense in other periods.

Amortization expense of intangible assets was \$15 million, \$17 million and \$13 million for the years ended December 31, 2019, 2018 and 2017, respectively. Amortization expense for all intangible assets subject to amortization is estimated to be \$15 million in 2020, \$14 million in 2021, \$13 million in 2022, \$12 million in 2023 and \$12 million in 2024. Amortization expense for intangible assets arising from insurance contracts acquired in a business combination is estimated to be \$5 million in 2020, \$4 million in 2021, \$3 million in 2022, \$3 million in 2023 and \$2 million in 2024.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES

Claims and claim adjustment expense reserves were as follows:

(at December 31, in millions)		2019	2018		
Property-casualty	\$	51,836	\$	50,653	
Accident and health		13		15	
Total	\$	51,849	\$	50,668	

The following table presents a reconciliation of beginning and ending property casualty reserve balances for claims and claim adjustment expenses:

(at and for the year ended December 31, in millions)	2019		2018		2017
Claims and claim adjustment expense reserves at beginning of year	\$	50,653	\$ 49,633	\$	47,929
Less reinsurance recoverables on unpaid losses		8,182	8,123		7,981
Net reserves at beginning of year	-	42,471	41,510		39,948
Estimated claims and claim adjustment expenses for claims arising in the current year		18,854	 18,614		17,846
Estimated increase (decrease) in claims and claim adjustment expenses for claims arising in prior years		164	(406)		(458)
Total increases		19,018	18,208		17,388
Claims and claim adjustment expense payments for claims arising in:					
Current year		7,734	7,697		7,335
Prior years		10,060	9,363		8,708
Total payments		17,794	17,060		16,043
Unrealized foreign exchange loss (gain)		106	(187)		217
Net reserves at end of year		43,801	42,471		41,510
Plus reinsurance recoverables on unpaid losses		8,035	8,182		8,123
Claims and claim adjustment expense reserves at end of year	\$	51,836	\$ 50,653	\$	49,633

Gross claims and claim adjustment expense reserves at December 31, 2019 increased by \$1.18 billion over December 31, 2018, primarily reflecting the impacts of higher volumes of insured exposures and loss cost trends for the current accident year. Gross claims and claim adjustment expense reserves at December 31, 2018 increased by \$1.02 billion over December 31, 2017, primarily reflecting the impacts of (i) higher volumes of insured exposures and loss cost trends for the current accident year and (ii) catastrophe losses in 2018, partially offset by the impacts of (iii) payments related to catastrophe losses incurred in 2017 and (iv) net favorable prior year reserve development.

Reinsurance recoverables on unpaid losses at December 31, 2019 decreased by \$147 million from December 31, 2018, primarily reflecting a decrease in recoverables related to mandatory pools and associations. Reinsurance recoverables on unpaid losses at December 31, 2018 increased by \$59 million over December 31, 2017, primarily reflecting the 2018 impacts of catastrophe losses and the asbestos reserve increase, partially offset by cash collections.

The Company continues to evaluate the impact of recent developments on the estimated realizable value of its subrogation claims related to the 2017 and 2018 California wildfires. Recent developments include (i) the approval of Restructuring Support Agreements (RSAs) by the United States Bankruptcy Court reflecting the settlement of subrogation claims and individual wildfire victim claims against Pacific Gas & Electric Company (PG&E) and a settlement between bondholders and PG&E, and (ii) objections to PG&E's plan of reorganization raised by the Governor of California and others. The RSAs may be terminated if PG&E's plan

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

of reorganization is not confirmed by June 30, 2020. Due to the risks and uncertainties associated with the PG&E bankruptcy and other factors, the Company has not yet recognized a subrogation benefit related to these claims.

Included in the claims and claim adjustment expense reserves are reserves for long-term disability and annuity claim payments, primarily arising from workers' compensation insurance and workers' compensation excess insurance policies, that are discounted to the present value of the estimated future payments. The discount rates used were a range of 3.5% to 5.0% at December 31, 2019 and 5.0% at December 31, 2018. Total reserves net of the discount were \$2.48 billion and \$2.45 billion, and the related amount of discount was \$1.16 billion and \$1.16 billion, at December 31, 2019 and 2018, respectively. Accretion of the discount is reported as part of "claims and claim adjustment expenses" in the consolidated statement of income and was \$49 million, \$49 million and \$50 million in 2019, 2018 and 2017, respectively.

Prior Year Reserve Development

The following disclosures regarding reserve development are on a "net of reinsurance" basis.

2019

In 2019, estimated claims and claim adjustment expenses incurred included \$164 million of net unfavorable development for claims arising in prior years, including \$60 million of net unfavorable prior year reserve development and \$49 million of accretion of discount that impacted the Company's results of operations.

Business Insurance. Net unfavorable prior year reserve development in 2019 totaled \$258 million, primarily driven by the following:

- General liability (excluding asbestos and environmental) higher than expected loss experience in the segment's domestic operations for primary and excess coverages for multiple accident years, including the impact for accident years 2009 and prior related to the enactment of legislation by a number of states that extended the statute of limitations for childhood sexual molestation claims;
- *Commercial automobile* higher than expected loss experience in the segment's domestic operations for recent accident years;
- Asbestos reserves an increase of \$220 million, primarily in the segment's domestic general liability product line;
- Commercial multi-peril higher than expected loss experience in the segment's domestic operations for recent accident years; and
- Environmental reserves an increase of \$76 million, primarily in the segment's domestic general liability product line,

Partially offset by:

- Workers' compensation better than expected loss experience in the segment's domestic operations for multiple accident years; and
- Commercial property better than expected loss experience in the segment's domestic operations for recent accident years.

Bond & Specialty Insurance. Net favorable prior year reserve development in 2019 totaled \$65 million, primarily driven by better than expected loss experience in the segment's domestic operations in the general liability product line for management liability coverages and in the fidelity and surety product line for multiple accident years.

Personal Insurance. Net favorable prior year reserve development in 2019 totaled \$133 million, primarily driven by better than expected loss experience in the segment's domestic operations in the automobile and homeowners and other product lines for recent accident years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

2018

In 2018, estimated claims and claim adjustment expenses incurred included \$406 million of net favorable development for claims arising in prior years, including \$517 million of net favorable prior year reserve development and \$49 million of accretion of discount that impacted the Company's results of operations.

Business Insurance. Net favorable prior year reserve development in 2018 totaled \$142 million, primarily driven by the following:

- Workers' compensation better than expected loss experience in the segment's domestic operations for multiple accident years; and
- Commercial property better than expected loss experience in the segment's domestic operations for recent accident years,

Partially offset by:

- Commercial automobile higher than expected loss experience for recent accident years;
- Asbestos reserves an increase of \$225 million, primarily in the segment's domestic general liability product line;
- General liability (excluding asbestos and environmental) higher than expected loss experience in the segment's domestic
 operations for both primary and excess coverages for multiple accident years; and
- Environmental reserves an increase of \$55 million, primarily in the segment's domestic general liability product line.

Bond & Specialty Insurance. Net favorable prior year reserve development in 2018 totaled \$266 million, primarily driven by better than expected loss experience in the segment's domestic operations in the general liability product line for management liability coverages for multiple accident years.

Personal Insurance. Net favorable prior year reserve development in 2018 totaled \$109 million, primarily driven by better than expected loss experience in the segment's domestic operations in the automobile product line for recent accident years.

2017

In 2017, estimated claims and claim adjustment expenses incurred included \$458 million of net favorable development for claims arising in prior years, including \$592 million of net favorable prior year reserve development and \$50 million of accretion of discount that impacted the Company's results of operations.

Business Insurance. Net favorable prior year reserve development in 2017 totaled \$439 million, primarily driven by the following:

- Workers' compensation better than expected loss experience in the segment's domestic operations for multiple accident years;
- General liability (excluding an increase to asbestos and environmental reserves) better than expected loss experience in the segment's domestic operations for both primary and excess coverages for multiple accident years; and
- Commercial multi-peril better than expected loss experience for liability coverages for multiple accident years,

Partially offset by:

- Asbestos reserves an increase of \$225 million, primarily in the segment's domestic general liability product line;
- Commercial automobile higher than expected loss experience for recent accident years;

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

- Environmental reserves an increase of \$65 million, primarily in the segment's domestic general liability product line; and
- International and other higher than expected loss experience in Europe primarily due to the U.K. Ministry of Justice's "Ogden" discount rate adjustment applied to lump sum bodily injury payouts.

Bond & Specialty Insurance. Net favorable prior year reserve development in 2017 totaled \$140 million, primarily driven by better than expected loss experience in the segment's domestic operations in the general liability product line for management liability coverages for multiple accident years.

Personal Insurance. Net favorable prior year reserve development in 2017 was not significant and totaled \$13 million.

Claims Development

The following is a summary of claims and claim adjustment expense reserves, including certain components, for the Company's major product lines by reporting segment at December 31, 2019.

(at December 31, 2019, in millions)	Net Undiscounted Claims and Claim Adjustment Expense Reserves	Discount (Net of Reinsurance)	Subtotal: Net Claims and Claim Adjustment Expense Reserves	Reinsurance Recoverables on Unpaid Losses (4)	Claims and Claim Adjustment Expense Reserves
Business Insurance					
General liability	\$ 7,749	\$ (172)	\$ 7,577	\$ 842	\$ 8,419
Commercial property	887	_	887	389	1,276
Commercial multi-peril	3,784	_	3,784	175	3,959
Commercial automobile	3,237	_	3,237	259	3,496
Workers' compensation (1)	16,184	(911)	15,273	745	16,018
Bond & Specialty Insurance					
General liability	1,824	_	1,824	108	1,932
Fidelity and surety	399	_	399	4	403
Personal Insurance					
Automobile	2,862	_	2,862	486	3,348
Homeowners (excluding Other)	1,168	_	1,168	57	1,225
International - Canada	739	_	739	19	758
Subtotal — claims and allocated claim adjustment expenses for the products presented in the development tables below	38,833	(1,083)	37,750	3,084	40,834
Other insurance contracts (2)	3,895	(5)	3,890	1,968	5,858
Unallocated loss adjustment expense reserves	2,104	_	2,104	39	2,143
Structured settlements (3)	_	_	_	2,965	2,965
Other	57	_	57	(21)	36
Total property-casualty	44,889	(1,088)	43,801	8,035	51,836
Accident and health	_	_	_	13	13
Total	\$ 44,889	\$ (1,088)	\$ 43,801	\$ 8,048	\$ 51,849

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

- (1) Net discount amount includes discount of \$67 million on reinsurance recoverables for long-term disability and annuity claim payments.
- (2) Primarily includes residual market, international (other than operations in Canada within the Personal Insurance segment) and runoff assumed reinsurance business.
- (3) Includes structured settlements in cases where the Company did not receive a release from the claimant.
- (4) Total reinsurance recoverables (on paid and unpaid losses) at December 31, 2019 were \$8.24 billion.

The claim development tables that follow present, by accident year, incurred and cumulative paid claims and allocated claim adjustment expense on a historical basis. This claim development information is presented on an undiscounted, net of reinsurance basis for ten years, or the number of years for which claims incurred typically remain outstanding if less than ten years. The claim development tables also provide the historical average annual percentage payout of incurred claims by age, net of reinsurance, as supplementary information (identified as unaudited in the tables below). For Personal Insurance - International - Canada, the claim development information reflects the acquisition of The Dominion of Canada General Insurance Company (Dominion) in November 2013 on a retrospective basis (includes Dominion data for years prior to the Company's acquisition of Dominion).

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Business Insurance

General Liability

(dollars in millions)

2010

		For th	ne Years Er	ided Decen	nber 31,			
2011	2012	2013	2014	2015	2016	2017	2018	2019
Incurr	ed Claims	and Allocat	ed Claim A	dinstment	Expenses.	Net of Rei	nsurance	

		Incurr	ed Claims	and Alloca	ted Claim	Adjustment	Expenses,	Net of Rei	nsurance			
					Unaudited							
Accident Year											IBNR Reserves Dec 31, 2019	Cumulative Number of Reported Claims
2010	\$1,028	\$1,031	\$1,021	\$ 959	\$ 927	\$ 912	\$ 918	\$ 908	\$ 911	\$ 900	\$ 62	27,993
2011		1,004	1,074	1,065	998	972	935	913	908	922	69	27,557
2012			989	985	935	913	892	905	917	920	78	24,920
2013				965	975	958	940	927	933	975	104	22,625
2014					976	989	983	948	956	1,013	159	22,319
2015						998	956	923	967	1,057	165	21,360
2016							1,075	1,058	1,087	1,187	359	19,997
2017								1,133	1,143	1,196	530	18,014
2018									1,253	1,312	841	16,694
2019										1,447	1,231	12,167
									Total	\$10,929		

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance

									•	*							
Accident Year					Una	audited	ı .										
2010	\$ 35	\$ 139	\$ 324	\$ 487	\$	629	\$	702	\$ 756	\$ 781	\$	800	\$	814			
2011		47	187	355		539		660	725	762		799		819			
2012			32	150		295		489	589	699		754		811			
2013				35		175		363	498	639		745		816	Liability	for	Claims
2014						37		163	321	515		640		750	And Allo	cated	l Claim
2015								36	137	336		558		740	Adjustme	nt E	xpenses,
2016									35	191		421		649	Net of R	einsı	ırance
2017										40		180		378			
2018												42		202	2010 -]	Before
2019														51	2019		2010
											T	otal	\$6	,030	\$ 4,899	\$	2,850
													Tot	al net l	iability	\$	7,749

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

		Unaudited												
Years	1	2	3	4	5	6	7	8	9	10				
	3.6%	12.6%	18.0%	18 9%	14 0%	9.8%	5.8%	4 3%	2.1%	1.6%				

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Commercial Property

(dollars in millions)

			_	
For the	Years	Ended	Decem	ber 31.

	2	2015	2	2016		2017		2018		2019			
	Iı	icurred Cl	aims and	d Allocated	Claim	s Adjustmer	t Expe	enses, Net of	Reinst	ırance			
				Unau	dited								
Accident Year											Res Dec	BNR serves ember 2019	Cumulative Number of Reported Claims
2015	\$	786	\$	750	\$	741	\$	731	\$	737	\$	8	20,162
2016				896		863		820		809		11	22,313
2017						1,209		1,177		1,151		11	25,066
2018								1,093		1,079		10	24,785
2019										1,069		84	22,186
								Total	\$	4,845			

Cumulative Paid Claims and Allocated Claim

Adjustment Expenses, Net of Reinsurance

		Unau	dited							
								Liability 1	for Cla	ims
Accident Year							1	And Alloc	ated C	laim
2015	\$ 376	\$ 615	\$	681	\$ 699	\$ 717	A	djustmen	t Expe	nses,
2016		441		685	745	767		Net of Re	insura	nce
2017				618	1,003	1,073				
2018					561	928	2	2015 -	В	efore
2019						610	:	2019	2	2015
					Total	\$ 4,095	\$	750	\$	137
						 То	tal net	liability	\$	887

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

			Unaudited		
Years	1	2	3	4	5
	53.6%	32.6%	7.5%	2.5%	2.5%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Commercial Multi-Peril

(dollars in millions)

				For t	he Years E	nded Decer	nber 31,					
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
		Incurr	ed Claims	and Alloca	ted Claim	Adjustmen	t Expenses,	Net of Rei	nsurance			
					Unaudited	<u> </u>						
Accident Year											IBNR Reserves December 31, 2019	Cumulative Number of Reported Claims
2010	\$1,711	\$1,826	\$1,832	\$1,861	\$1,895	\$1,892	\$1,898	\$1,885	\$1,881	\$ 1,868	\$ 19	112,074
2011		2,235	2,244	2,269	2,286	2,296	2,287	2,283	2,279	2,272	25	125,867
2012			1,885	1,883	1,903	1,888	1,888	1,867	1,859	1,854	34	104,921
2013				1,615	1,623	1,620	1,609	1,591	1,600	1,599	38	83,818
2014					1,663	1,627	1,625	1,617	1,626	1,627	50	78,292
2015						1,568	1,625	1,593	1,597	1,606	92	71,635
2016							1,662	1,623	1,598	1,590	122	68,888
2017								1,872	1,928	1,956	266	71,220
2018									1,976	2,114	416	68,403
2019										2,017	715	70,798
									Total	\$18,503		

Accident Year					Unaudited			'				
2010	\$ 709	\$1,180	\$1,395	\$1,579	\$1,698	\$1,763	\$1,798	\$1,819	\$1,834	\$ 1,840		
2011		1,060	1,573	1,803	1,979	2,088	2,156	2,193	2,222	2,234		
2012			795	1,246	1,424	1,590	1,699	1,752	1,780	1,804		
2013				644	987	1,167	1,304	1,410	1,475	1,516	Liability	for Claims
2014					628	956	1,154	1,328	1,448	1,512	And Allo	cated Claim
2015						595	970	1,144	1,310	1,409	Adjustme	nt Expenses,
2016							585	950	1,133	1,278	Net of R	einsurance
2017								716	1,199	1,388		
2018									792	1,302	2010 -	Before
2019										707	2019	2010
									Total	\$14,990	\$ 3,513	\$ 271
										Total 1	net liability	\$ 3,784

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

					Unaud	lited				
Years	1	2	3	4	5	6	7	8	9	10
	38.9%	23.2%	10.8%	9.3%	6.2%	3.5%	1.9%	1.3%	0.7%	0.3%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Commercial Automobile

- (dollars	ın	million	C

(<u>uon</u>	iars in millio	<u>)118</u>)	For the	Years :	Ended Dece	mber	31,				
	2015		2016		2017		2018	2019			
		Incu	rred Claims	and A	Allocated Cl	aims A	Adjustment				
			Expe	ises, N	let of Reinst	ırance	e				
			Unau	dited							
									R De	IBNR eserves ecember 1, 2019	Cumulative Number of Reported Claims
- \$	1,188	\$	1,202	\$	1,234	\$	1,283	\$ 1,298	\$	48	173,545
			1,278		1,303		1,371	1,409		94	183,114
					1,386		1,501	1,524		219	191,166
							1,645	1,742		469	201,578
								1,835		838	167,863

Total \$

Cumulative Paid Claims and Allocated Claim

Adjustment Expenses, Net of Reinsurance

			Unau	ıdited	l						
									Liability	for C	laims
Accident Year	_								And Allo	cated	Claim
2015	\$	405	\$ 650	\$	885	\$ 1,058	\$ 1,181		Adjustme	nt Ex	penses,
2016			412		688	931	1,158		Net of R	einsu	rance
2017					456	746	1,027				
2018						515	848		2015 -		Before
2019							539		2019		2015
						Total	\$ 4,753	\$	3,055	\$	182
							To	tal n	et liability	\$	3,237

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

			Unaudited		
Years	1	2	3	4	5
	29.8%	19.2%	17.9%	14.7%	9.5%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Workers' Compensation

(dollars in millions)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
		Incurr	ed Claims	and Alloca	ted Claim A	Adjustment	Expenses,	Net of Rei	nsurance			
					Unaudited							
											IBNR Reserves	Cumulative Number of
Accident Year											December 31, 2019	Reported Claims
2010	\$1,886	\$2,042	\$2,035	\$2,056	\$2,049	\$2,052	\$2,055	\$2,021	\$2,003	\$ 1,984	\$ 248	117,466
2011		2,284	2,303	2,347	2,350	2,379	2,385	2,363	2,348	2,320	319	136,801
2012			2,447	2,456	2,457	2,456	2,445	2,453	2,416	2,387	367	138,034
2013				2,553	2,545	2,540	2,506	2,463	2,423	2,354	408	134,091
2014					2,554	2,553	2,547	2,476	2,430	2,393	486	129,293
2015						2,644	2,585	2,505	2,441	2,372	636	123,163
2016							2,768	2,690	2,569	2,473	702	122,944
2017								2,779	2,681	2,584	918	120,900
2018									2,744	2,687	1,180	121,460
2019										2,680	1,619	107,298
									Total	\$24.234		

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance

Accident Year					Unaudite	ed						
2010	\$ 341	\$ 750	\$ 978	\$1,133	\$1,246	\$1,321	\$1,385	\$1,430	\$1,465	\$ 1,490		
2011		420	911	1,185	1,365	1,487	1,583	1,652	1,696	1,732		
2012			443	940	1,217	1,394	1,536	1,629	1,689	1,735		
2013				458	954	1,237	1,413	1,525	1,604	1,659	Liability f	or Claims
2014					455	944	1,224	1,399	1,505	1,581	And Alloca	ated Claim
2015						430	893	1,154	1,310	1,411	Adjustmen	t Expenses,
2016							421	873	1,118	1,272	Net of Re	insurance
2017								433	890	1,154		
2018									440	919	2010 -	Before
2019										466	2019	2010
									Total	\$ 13,419	\$ 10,815	\$ 5,369
										Total ne	et liability	\$ 16,184

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

					Unaud	lited				
Years	1	2	3	4	5	6	7	8	9	10
	17.8%	19.7%	11.2%	7.2%	5.1%	3.7%	2.8%	2.0%	1.7%	1.3%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Bond & Specialty Insurance

General Liability

(dollars in millions)

	<u>, , , , , , , , , , , , , , , , , , , </u>		For t	he Years E	nded Decer	nber 31,					
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	-	
	Incuri	red Claims	and Alloca	ted Claim	Adjustmen	t Expenses	Net of Rei	insurance		_	
				Unaudited	L						
										IBNR Reserves December 31, 2019	Cumulative Number of Reported Claims
\$ 571	\$ 612	\$ 679	\$ 679	\$ 661	\$ 668	\$ 653	\$ 653	\$ 657	\$ 660	\$ 16	5,677
	565	596	639	632	601	545	520	508	506	2	5,213
		538	591	614	605	601	599	605	593	60	4,865
			510	565	606	630	654	607	586	42	4,456
				549	571	563	518	473	452	32	4,356
					528	524	486	437	395	38	4,195
						512	511	504	520	91	4,326
							534	517	526	174	4,455
								530	548	243	4,393
									588	432	3,400

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance

Accident Year					Ur	naudited	i										
2010	\$ 33	\$ 152	\$ 291	\$ 396	\$	482	\$	565	\$ 597	\$ 623	\$ 631	\$	635				
2011		33	143	249		324		414	447	476	490		496				
2012			38	160		255		342	383	419	436		453				
2013				34		154		252	352	400	434		451	I	iability f	or C	laims
2014						38		150	239	312	367		407	A	nd Alloca	ted	Claim
2015								38	141	234	310		338	338 Adjustment Expen		penses,	
2016									30	141	233		313	ľ	Net of Re	nsu	rance
2017										38	155		262				
2018											49		182	2	2010 -	В	Sefore
2019															2019		2010
											Total	\$	3,588	\$	1,786	\$	38
												Total net liability			\$	1,824	

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

					Unaud	dited				
Years	1	2	3	4	5	6	7	8	9	10
	7.2%	22.1%	19.5%	16.2%	10.9%	7.9%	4.1%	3.1%	1.2%	0.6%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Fidelity and Surety

(dollars in millions)

		For the Years Ended December 31,											
	2	2015	2	2016	2	2017		2018		2019			
		I	ncurre	ed Claims	and A	llocated C	laims	Adjustme	ent				
				Expen	ises, N	et of Rein	suran	ce				Reserves mber 31,	Cumulative Number of
Accident Year				Una	udited							2019	Reported Claims
2015	\$	217	\$	191	\$	179	\$	145	\$	137	\$	32	834
2016				226		239		205		208		9	886
2017						244		271		240		22	905
2018								220		235		22	849
2019										203		116	592
								Total	\$	1,023			

Cumulative Paid Claims and Allocated Claim

Adjustment Expenses, Net of Reinsurance Accident Year Unaudited **Liability for Claims And Allocated Claim** 2015 \$ 32 \$ \$ \$ 75 87 86 88 Adjustment Expenses, 2016 54 142 121 149 **Net of Reinsurance** 2017 70 166 194 2018 64 171 2015 -Before 2019 49 2019 2015 372 Total 651 \$ \$ 27 Total net liability \$ 399

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

		<u> </u>	Unaudited	-	
Years	1	2	3	4	5
	26.0%	37.3%	10.1%	1 3%	1 3%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Personal Insurance

<u>Automobile</u>

(dollars in millions)

2015

ror the i	ears Ended Dec	cember 51,	
2016	2017	2018	2019

]	s Adjustme	ent			NR Reserves	Cumulative				
Accident Year		Una	udite	d					D	ecember 31, 2019	Number of Reported Claims
2015	\$ 2,186	\$ 2,244	\$	2,236	\$	2,222	\$	2,219	\$	11	757,972
2016		2,779		2,791		2,772		2,752		44	922,014
2017				3,323		3,256		3,221		139	1,061,907
2018						3,281		3,269		347	1,048,084
2019								3,362		858	940,933
						Total	\$	14,823			

Cumulative Paid Claims and Allocated Claim

Adjustment Expenses, Net of Reinsurance

Accident Year		Una	udite			Liability 1	or Cl	laims			
									And Alloca	ated (Claim
2015	\$ 1,319	\$ 1,768	\$	1,985	\$ 2,109	\$	2,174		Adjustmen	t Exp	enses,
2016		1,610		2,203	2,466		2,616	Net of Reinsurance			
2017				1,912	2,575		2,887				
2018					1,889		2,582		2015 -		Before
2019							1,933		2019		2015
					Total	\$	12,192	\$	2,631	\$	231
							To	otal 1	net liability	\$	2,862

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

			Unaudited			
Years	1	2	3	4	5	
	58.5%	20.9%	9.7%	5.5%	2.9%	

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Homeowners (excluding Other)

(dollars in millions)

			For the	Years	Ended De						
	2015		2016		2017		2018		2019		
]	Incur	red Claims	and	Allocated (Claims	s Adjustme	nt			
			Exper	ises, I		Reserves ember 31.	Cumulative Number of				
Accident Year			Una	udite	i		2019	Reported Claims			
2015	\$ 1,438	\$	1,454	\$	1,461	\$	1,452	\$	1,443	\$ 1	145,136
2016			1,556		1,547		1,525		1,511	8	143,949
2017					2,312		2,340		2,343	49	169,085
2018							2,610		2,574	112	185,384
2019									2,297	447	158,328
							Total	\$	10,168		

Cumulative Paid Claims and Allocated Claim

Adjustment	Expenses.	Net of	Reinsurance
Autusument	Expenses.	INCL OF	Nemsurance

				J										
Accident Year				Una	udited	i						Liability f	or C	laims
									1			And Alloca	ated (Claim
2015	\$	994	\$	1,333	\$	1,395	\$	1,421	\$	1,429		Adjustmen	t Exp	enses,
2016				1,049		1,392		1,455		1,479		Net of Re	insur	ance
2017			1,471							2,197				
2018								1,657		2,298		2015 -		Before
2019										1,613		2019		2015
						Total	\$	9,016	\$	1,152	\$	16		
									To	tal 1	net liability	\$	1,168	

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

			Unaudited		
Years	1	2	3	4	5
	67.1%	24.1%	4.8%	1.7%	0.6%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

International - Canada

(dollars in millions)

		For the Years Ended December 31,																			Cumulative
	2010	2011		2012		2013	- 2	2014		2015	:	2016	- 2	2017	- 2	2018	-	2019	IB	NR	Number of
Accident		Incu	rred (Claims	and	Alloca	ted (Claim A	dju	stment	Exp	penses,	Net	of Reir	ısura	ance				erves ember	Reported
Year							Un	audited	1											2019	Claims
2010	\$ 487	\$ 488	3 \$	499	\$	514	\$	501	\$	493	\$	489	\$	482	\$	481	\$	477	\$	1	54,938
2011		459)	438		446		441		434		427		422		417		408		(5)	55,773
2012				435		413		414		398		397		380		374		362		(2)	51,208
2013						485		478		469		457		444		443		433		_	54,251
2014								429		444		445		433		426		423		(9)	52,268
2015										361		360		360		356		358		10	45,203
2016												361		409		409		419		19	45,759
2017														346		381		403		34	46,769
2018																440		462		64	50,302
2019																		445		110	44,796
																Total	\$	1,190			

Accident	Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance																				
Year							Uı	naudite	d												
2010	\$ 191	\$ 292	\$	329	\$	369	\$	400	\$	430	\$	447	\$	459	\$ 465	\$	468				
2011		176		249		280		314		349		371		389	397		401				
2012				165		231		262		288		316		333	342		347				
2013						194		272		304		336		369	387		405	Li	ability f	or Cl	aims
2014								189		265		302		331	362		384	An	d Alloca	ated (Claim
2015										162		226		253	282		307	Adj	ustmen	t Exp	enses,
2016												211		283	310		343	N	et of Re	insur	ance
2017														182	257		296				
2018															219		305	20	010 -	В	efore
2019																	216	2	019	2	2010
															Total	\$3	,472	\$	718	\$	21
																To	tal net	liab	ility	\$	739

		Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance														
					Unaud	lited										
Years	ars 1 2 3 4 5 6 7 8 9															
	45.5%	18.4%	8.0%	7.8%	7.4%	5.2%	3.6%	1.9%	1.1%	0.7%						

The incurred and paid amounts have been translated from the local currency to U.S. dollars using the December 31, 2019 spot rate for all years presented in the table above in order to isolate changes in foreign exchange rates from loss development.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Methodology for Estimating Incurred But Not Reported (IBNR) Reserves

Claims and claim adjustment expense reserves represent management's estimate of the ultimate liability for unpaid losses and loss adjustment expenses for claims that have been reported and claims that have been incurred but not yet reported (IBNR) as of the balance sheet date. Claims and claim adjustment expense reserves do not represent an exact calculation of the liability, but instead represent management estimates, primarily utilizing actuarial expertise and projection methods that develop estimates for the ultimate cost of claims and claim adjustment expenses. Because the establishment of claims and claims adjustment expense reserves is an inherently uncertain process involving estimates and judgment, currently estimated claims and claim adjustment expense reserves may change. The Company reflects changes to the reserves in the results of operations in the period the estimates are changed.

Cumulative amounts paid and case reserves held as of the balance sheet date are subtracted from the estimate of the ultimate cost of claims and claim adjustment expenses to derive incurred but not reported (IBNR) reserves. Accordingly, IBNR reserves include the cost of unreported claims, development on known claims and re-opened claims. This approach to estimating IBNR reserves has been in place for many years, with no material changes in methodology in the past year.

Detailed claim data is typically insufficient to produce a reliable indication of the initial estimate for ultimate claims and claim adjustment expenses for an accident year. As a result, the initial estimate for an accident year is generally based on an exposure-based method using either the loss ratio projection or the expected loss method. The loss ratio projection method, which is typically used for guaranteed-cost business, develops an initial estimate of ultimate claims and claim adjustment expenses for an accident year by multiplying earned premium for the accident year by a projected loss ratio. The projected loss ratio is determined by analyzing prior period experience, and adjusting for loss cost trends, rate level differences, mix of business changes and other known or observed factors influencing the accident year relative to prior accident years. The expected loss method, which is typically used for loss sensitive business, develops an initial estimate of ultimate claims and claim adjustment expenses for an accident year by analyzing exposures by account.

For prior accident years, the following estimation and analysis methods are principally used by the Company's actuaries to estimate the ultimate cost of claims and claim adjustment expenses. These estimation and analysis methods are typically referred to as conventional actuarial methods.

- The paid loss development method assumes that the future change (positive or negative) in cumulative paid losses for a given cohort of claims will occur in a stable, predictable pattern from year-to-year, consistent with the pattern observed in past cohorts.
- The case incurred development method is the same as the paid loss development method but is based on cumulative case-incurred losses rather than paid losses.
- The Bornhuetter-Ferguson method uses an initial estimate of ultimate losses for a given product line reserve component, typically expressed as a ratio to earned premium. The method assumes that the ratio of additional claim activity to earned premium for that component is relatively stable and predictable over time and that actual claim activity to date is not a credible predictor of further activity for that component. The method is used most often for more recent accident years where claim data is sparse and/or volatile, with a transition to other methods as the underlying claim data becomes more voluminous and therefore more credible.
- The average value analysis combined with the reported claim development method assumes that average claim values are stable and predictable over time for a particular cohort of claims. It is typically limited to analysis at more granular levels, such as coverage or hazard/peril, where a more homogeneous subset of claims produce a more stable and fairly predictable average value. The reported claim development method is the same as the paid loss development method but uses changes in cumulative claim counts to produce estimates of ultimate claim counts rather than ultimate dollars. The resulting estimate of ultimate claim counts by cohort is multiplied by an average value per claim from an average value analysis to obtain estimated ultimate claims and claim adjustment expenses.

While these are the principal methods utilized, the Company's actuaries have available to them the full range of actuarial methods developed by the casualty actuarial profession. The Company's actuaries are also continually monitoring developments within the profession for advances in existing techniques or the creation of new techniques that might improve current and future estimates. Most actuarial methods assume that past patterns demonstrated in the data will repeat themselves in the future. For certain reserve components where this assumption may not hold, such as asbestos and environmental reserves, conventional actuarial methods are not utilized by the Company.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

Methodology for Determining Cumulative Number of Reported Claims

A claim file is created when the Company is notified of an actual demand for payment, notified of an event that may lead to a demand for payment or when it is determined that a demand for payment could possibly lead to a future demand for payment on another coverage on the same policy or on another policy. Claim files are generally created for a policy at the claimant by coverage level, depending on the particular facts and circumstances of the underlying event.

For Business Insurance and for Personal Insurance, claim file information is summarized such that the Company generally recognizes one count for each policy claim event by internal regulatory line of business, regardless of the number of claimants or coverages involved. The claims counts are then accumulated and reported by product line. While the methodology is generally consistent within each segment for the product lines displayed, there are some minor differences between and within segments. For Bond & Specialty Insurance, the Company generally recognizes one count per coverage per policy claim event and one count per bond per surety claim event.

For purposes of the claims development tables above, claims reported for direct business are counted even if they eventually close with no loss payment, except in the case of (i) deductible business, where the claim is not counted until the case incurred claim estimate is above the deductible and (ii) International-Canada reported claim counts where claims closed with no loss payment are not counted. Note that claims with zero claim dollars may still generate some level of claim adjustment expenses. Claim counts for assumed business are included only to the extent such counts are available. The Company generally does not receive claim count information for which the underlying claim activity is handled by others, including pools and associations. The Company does not generate claim counts for ceded business. The methods used to summarize claim counts have not changed significantly over the time periods reported in the tables above.

The Company cautions against using the summarized claim count information provided in this disclosure in attempting to project ultimate loss payouts by product line. The Company generally finds claim count data to be useful only on a more granular basis than the aggregated basis disclosed in the claim development tables above, as the risks, average values and other dynamics of the claim process can vary materially by the cause of loss and coverage within product line. For example, in Personal Automobile, the introduction of roadside assistance coverage resulted in a significant increase in claim counts with a low average claim cost. For this reason the Company varies its approach to, and in many cases the level of aggregation for, counting claims for internal analysis purposes depending on the particular granular analysis performed.

Asbestos and Environmental Reserves

At December 31, 2019 and 2018, the Company's claims and claim adjustment expense reserves included \$1.60 billion and \$1.62 billion, respectively, for asbestos and environmental-related claims, net of reinsurance.

It is difficult to estimate the reserves for asbestos and environmental-related claims due to the vagaries of court coverage decisions, plaintiffs' expanded theories of liability, the risks inherent in complex litigation and other uncertainties, including, without limitation, those which are set forth below.

Asbestos Reserves. Because each policyholder presents different liability and coverage issues, the Company generally reviews the exposure presented by each policyholder at least annually. Among the factors which the Company may consider in the course of this review are: available insurance coverage, including the role of any umbrella or excess insurance the Company has issued to the policyholder; limits and deductibles; an analysis of the policyholder's potential liability; the jurisdictions involved; past and anticipated future claim activity and loss development on pending claims; past settlement values of similar claims; allocated claim adjustment expense; the potential role of other insurance; the role, if any, of non-asbestos claims or potential non-asbestos claims in any resolution process; and applicable coverage defenses or determinations, if any, including the determination as to whether or not an asbestos claim is a products/completed operation claim subject to an aggregate limit and the available coverage, if any, for that claim.

In the third quarter of 2019, the Company completed its annual in-depth asbestos claim review, including a review of active policyholders and litigation cases for potential product and "non-product" liability, and noted the continuation of the following trends:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

- a high level of litigation activity in certain jurisdictions involving individuals alleging serious asbestos-related illness, primarily involving mesothelioma claims;
- while overall payment patterns have been generally stable, there has been an increase in severity for certain policyholders due to the high level of litigation activity; and
- a moderate level of asbestos-related bankruptcy activity.

In the home office and field office category, which accounts for the vast majority of policyholders with active asbestos-related claims, the number of policyholders with open asbestos claims and net asbestos-related payments were comparable with 2018. Payments on behalf of policyholders in this category continue to be influenced by a high level of litigation activity in a limited number of jurisdictions where individuals alleging serious asbestos-related injury, primarily mesothelioma, continue to target defendants who were not traditionally primary targets of asbestos litigation.

The Company's quarterly asbestos reserve reviews include an analysis of exposure and claim payment patterns by policyholder category, as well as recent settlements, policyholder bankruptcies, judicial rulings and legislative actions. The Company also analyzes developing payment patterns among policyholders in the home office and field office category and the assumed reinsurance and other category as well as projected reinsurance billings and recoveries. In addition, the Company reviews its historical gross and net loss and expense paid experience, year-by-year, to assess any emerging trends, fluctuations, or characteristics suggested by the aggregate paid activity. Conventional actuarial methods are not utilized to establish asbestos reserves and the Company's evaluations have not resulted in a reliable method to determine a meaningful average asbestos defense or indemnity payment.

The completion of these reviews and analyses in 2019, 2018 and 2017 resulted in \$220 million, \$225 million and \$225 million increases, respectively, to the Company's net asbestos reserves. In each year, the reserve increases were primarily driven by increases in the Company's estimate of projected settlement and defense costs related to a broad number of policyholders in the home office and field office category. The increase in the estimate of projected settlement and defense costs resulted from payment trends that continue to be higher than previously anticipated due to the impact of the current litigation environment surrounding mesothelioma claims discussed above. Over the past decade, the property and casualty insurance industry, including the Company, has experienced net unfavorable prior year reserve development with regard to asbestos reserves, but the Company believes that over that period there has been a reduction in the volatility associated with the Company's overall asbestos exposure as the overall asbestos environment has evolved from one dominated by exposure to significant litigation risks, particularly coverage disputes relating to policyholders in bankruptcy who were asserting that their claims were not subject to the aggregate limits contained in their policies, to an environment primarily driven by a frequency of litigation related to individuals with mesothelioma. The Company's overall view of the current underlying asbestos environment is essentially unchanged from recent periods and there remains a high degree of uncertainty with respect to future exposure to asbestos claims.

Net asbestos paid loss and loss expenses in 2019, 2018 and 2017 were \$224 million, \$225 million and \$271 million, respectively. Approximately 4%, 9% and 4% of total net paid losses in 2019, 2018 and 2017, respectively, related to policyholders with whom the Company entered into settlement agreements that limit those policyholders' ability to present future claims to the Company.

Environmental Reserves. In establishing environmental reserves, the Company evaluates the exposure presented by each policyholder and the anticipated cost of resolution, if any. These claims are mainly brought pursuant to various state or federal statutes that require a liable party to undertake or pay for environmental remediation. Liability under these statutes may be joint and several with other responsible parties. In the course of its analysis, the Company generally considers the probable liability, available coverage and relevant judicial interpretations. In addition, the Company considers the many variables presented, such as: the nature of the alleged activities of the policyholder at each site; the number of sites; the total number of potentially responsible parties at each site; the nature of the alleged environmental harm and the corresponding remedy at each site; the nature of government enforcement activities at each site; the ownership and general use of each site; the overall nature of the insurance relationship between the Company and the policyholder, including the role of any umbrella or excess insurance the Company has issued to the policyholder; the involvement of other insurers; the potential for other available coverage, including the number of years of coverage; the role, if any, of non-environmental claims or potential non-environmental claims in any resolution process; and the applicable law in each jurisdiction. The evaluation of the exposure presented by a policyholder can change as information concerning that policyholder and the many variables presented is developed. Conventional actuarial methods are not used to estimate these reserves.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. INSURANCE CLAIM RESERVES (Continued)

The Company continues to receive notices from policyholders tendering claims for the first time, frequently under policies issued prior to the mid-1980s. These policyholders continue to present smaller exposures, have fewer sites and are lower tier defendants. Further, in many instances, clean-up costs have been reduced because regulatory agencies are willing to accept risk-based site analyses and more efficient clean-up technologies. Over the past several years, the Company has experienced generally favorable trends in the number of new policyholders tendering environmental claims for the first time and in the number of pending declaratory judgment actions relating to environmental matters. However, the degree to which those favorable trends have continued has been less than anticipated. In addition, reserve development on existing environmental claims as well as the costs associated with coverage litigation on environmental matters has been greater than anticipated, driven by claims and legal developments in a limited number of jurisdictions. As a result of these factors, in 2019, 2018 and 2017, the Company increased its net environmental reserves by \$76 million, \$55 million and \$65 million, respectively.

Asbestos and Environmental Reserves. As a result of the processes and procedures discussed above, management believes that the reserves carried for asbestos and environmental claims are appropriately established based upon known facts, current law and management's judgment. However, the uncertainties surrounding the final resolution of these claims continue, and it is difficult to determine the ultimate exposure for asbestos and environmental claims and related litigation. As a result, these reserves are subject to revision as new information becomes available and as claims develop. Changes in the legal, regulatory and legislative environment may impact the future resolution of asbestos and environmental claims and result in adverse loss reserve development. The emergence of a greater number of asbestos or environmental claims beyond that which is anticipated may result in adverse loss reserve development. Changes in applicable legislation and future court and regulatory decisions and interpretations, including the outcome of legal challenges to legislative and/or judicial reforms establishing medical criteria for the pursuit of asbestos claims, could affect the settlement of asbestos and environmental claims. It is also difficult to predict the ultimate outcome of complex coverage disputes until settlement negotiations near completion and significant legal questions are resolved or, failing settlement, until the dispute is adjudicated. This is particularly the case with policyholders in bankruptcy where negotiations often involve a large number of claimants and other parties and require court approval to be effective. As part of its continuing analysis of asbestos and environmental reserves, the Company continues to study the implications of these and other developments.

Because of the uncertainties set forth above, additional liabilities may arise for amounts in excess of the Company's current reserves. In addition, the Company's estimate of claims and claim adjustment expenses may change. These additional liabilities or increases in estimates, or a range of either, cannot now be reasonably estimated and could result in income statement charges that could be material to the Company's operating results in future periods.

Catastrophe Exposure

The Company has geographic exposure to catastrophe losses, which include hurricanes, tornadoes and other windstorms, earthquakes, hail, wildfires, severe winter weather, floods, tsunamis, volcanic eruptions, solar flares and other naturally-occurring events. Catastrophes can also result from terrorist attacks and other intentionally destructive acts including those involving nuclear, biological, chemical and radiological events, cyber events, explosions and destruction of infrastructure. The incidence and severity of catastrophes are inherently unpredictable. The extent of losses from a catastrophe is a function of both the total amount of insured exposure in the area affected by the event and the severity of the event. Most catastrophes are restricted to small geographic areas; however, hurricanes, earthquakes, wildfires and cyber attacks may produce significant damage in larger areas, especially those that are heavily populated. The Company generally seeks to mitigate its exposure to catastrophes through individual risk selection and the purchase of catastrophe reinsurance.

There are also risks which impact the estimation of ultimate costs for catastrophes. For example, the estimation of reserves related to hurricanes can be affected by the inability of the Company and its insureds to access portions of the impacted areas, the complexity of factors contributing to the losses, the legal and regulatory uncertainties and the nature of the information available to establish the reserves. Complex factors include, but are not limited to: determining whether damage was caused by flooding versus wind; evaluating general liability and pollution exposures; estimating additional living expenses; the impact of demand surge; the potential impact of changing climate conditions, including higher frequency and severity of weather-related events; infrastructure disruption; fraud; the effect of mold damage and business income interruption costs; and reinsurance collectibility. The timing of a catastrophe's occurrence, such as at or near the end of a reporting period, can also affect the information available to the Company in estimating reserves for that reporting period. The estimates related to catastrophes are adjusted as actual claims emerge.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. DEBT

Debt outstanding was as follows:

Short-term: \$ 100 \$ 100 3.90% Senior notes due November 1, 2020 500 — 5.90% Senior notes due June 2, 2019 — 500 Total short-term debt 600 600 Long-term: 3.90% Senior notes due November 1, 2020 — 500 Total short-term debt — 500 Long-term: 3.90% Senior notes due November 1, 2020 200 200 7.57% Senior notes due April 15, 2026 200 200 7.625% Junior subordinated debentures due December 15, 2027 125 125 6.375% Senior notes due March 15, 2033 500 500 6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 73	(at December 31, in millions)	2019	2018
3.90% Senior notes due November 1, 2020 500 — 5.90% Senior notes due June 2, 2019 — 500 Total short-term debt 600 600 Long-term: 3.90% Senior notes due November 1, 2020 — 500 7.75% Senior notes due April 15, 2026 200 200 7.625% Junior subordinated debentures due December 15, 2027 125 125 6.375% Senior notes due March 15, 2033 500 500 6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.50% Senior notes due August 25, 2045 400 400 4.30% Senior notes due August 25, 2045 50 50 8.50% Junior subordinated debentures due December 15, 2045 56 56 8.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due May 30, 2047 500<	Short-term:		
5.90% Senior notes due June 2, 2019	Commercial paper	\$ 100	\$ 100
Total short-term debt 600 600 Long-term: 90% Senior notes due November 1, 2020 900 200 7.75% Senior notes due April 15, 2026 200 200 7.625% Junior subordinated debentures due December 15, 2027 125 125 6.375% Senior notes due March 15, 2033 500 500 6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 500 4.10% Senior notes due March 4, 2049 6,604 6,604 <	3.90% Senior notes due November 1, 2020	500	_
Long-term: 3.90% Senior notes due November 1, 2020 — 500 7.75% Senior notes due April 15, 2026 200 200 7.625% Junior subordinated debentures due December 15, 2027 125 125 6.375% Senior notes due March 15, 2033 500 500 6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 <	5.90% Senior notes due June 2, 2019	_	500
3.90% Senior notes due November 1, 2020 — 500 7.75% Senior notes due April 15, 2026 200 200 7.625% Junior subordinated debentures due December 15, 2027 125 125 6.375% Senior notes due March 15, 2033 500 500 6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,604 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt	Total short-term debt	600	600
7.75% Senior notes due April 15, 2026 200 200 7.625% Junior subordinated debentures due December 15, 2027 125 125 6.375% Senior notes due March 15, 2033 500 500 6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 73 4.00% Senior notes due May 30, 2047 700 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs <t< td=""><td>Long-term:</td><td></td><td></td></t<>	Long-term:		
7.625% Junior subordinated debentures due December 15, 2027 125 125 6.375% Senior notes due March 15, 2033 500 500 6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,604 6,604 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	3.90% Senior notes due November 1, 2020	_	500
6.375% Senior notes due March 15, 2033 500 500 6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	7.75% Senior notes due April 15, 2026	200	200
6.75% Senior notes due June 20, 2036 400 400 6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	7.625% Junior subordinated debentures due December 15, 2027	125	125
6.25% Senior notes due June 15, 2037 800 800 5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	6.375% Senior notes due March 15, 2033	500	500
5.35% Senior notes due November 1, 2040 750 750 4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	6.75% Senior notes due June 20, 2036	400	400
4.60% Senior notes due August 1, 2043 500 500 4.30% Senior notes due August 25, 2045 400 400 8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	6.25% Senior notes due June 15, 2037	800	800
4.30% Senior notes due August 25, 2045	5.35% Senior notes due November 1, 2040	750	750
8.50% Junior subordinated debentures due December 15, 2045 56 56 3.75% Senior notes due May 15, 2046 500 500 8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	4.60% Senior notes due August 1, 2043	500	500
3.75% Senior notes due May 15, 2046	4.30% Senior notes due August 25, 2045	400	400
8.312% Junior subordinated debentures due July 1, 2046 73 73 4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	8.50% Junior subordinated debentures due December 15, 2045	56	56
4.00% Senior notes due May 30, 2047 700 700 4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 - Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	3.75% Senior notes due May 15, 2046	500	500
4.05% Senior notes due March 7, 2048 500 500 4.10% Senior notes due March 4, 2049 500 — Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	8.312% Junior subordinated debentures due July 1, 2046	73	73
4.10% Senior notes due March 4, 2049 500 — Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	4.00% Senior notes due May 30, 2047	700	700
Total long-term debt 6,004 6,004 Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	4.05% Senior notes due March 7, 2048	500	500
Total debt principal 6,604 6,604 Unamortized fair value adjustment 43 44 Unamortized debt issuance costs (89) (84)	4.10% Senior notes due March 4, 2049	500	_
Unamortized fair value adjustment4344Unamortized debt issuance costs(89)(84)	Total long-term debt	6,004	6,004
Unamortized debt issuance costs	Total debt principal	6,604	6,604
(67)	Unamortized fair value adjustment	43	44
Total debt	Unamortized debt issuance costs	(89)	(84)
	Total debt	\$ 6,558	\$ 6,564

2019 Debt Issuance. On March 4, 2019, the Company issued \$500 million aggregate principal amount of 4.10% senior notes that will mature on March 4, 2049. The net proceeds of the issuance, after the deduction of the underwriting discount and expenses payable by the Company, totaled approximately \$492 million. Interest on the senior notes is payable semi-annually in arrears on March 4 and September 4. Prior to September 4, 2048, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to the greater of (a) 100% of the principal amount of any senior notes to be redeemed or (b) the sum of the present values of the remaining scheduled payments of principal and interest to but excluding September 4, 2048 on any senior notes to be redeemed (exclusive of interest accrued to the date of redemption) discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the then current Treasury rate (as defined in the senior notes), plus 20 basis points. On or after September 4, 2048, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to 100% of the principal amount of any senior notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

2019 Debt Repayment. On June 2, 2019, the Company's \$500 million, 5.90% senior notes matured and were fully paid.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. DEBT (Continued)

2018 Debt Issuance. On March 7, 2018, the Company issued \$500 million aggregate principal amount of 4.05% senior notes that will mature on March 7, 2048. The net proceeds of the issuance, after the deduction of the underwriting discount and expenses payable by the Company, totaled approximately \$491 million. Interest on the senior notes is payable semi-annually in arrears on March 7 and September 7. Prior to September 7, 2047, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to the greater of (a) 100% of the principal amount of any senior notes to be redeemed or (b) the sum of the present values of the remaining scheduled payments of principal and interest to but excluding September 7, 2047 on any senior notes to be redeemed (exclusive of interest accrued to the date of redemption) discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the then current Treasury rate (as defined in the senior notes), plus 15 basis points. On or after September 7, 2047, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to 100% of the principal amount of any senior notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

2018 Debt Repayment. On May 15, 2018, the Company's \$500 million, 5.80% senior notes matured and were fully paid.

2017 Debt Issuance. On May 22, 2017, the Company issued \$700 million aggregate principal amount of 4.00% senior notes that will mature on May 30, 2047. The net proceeds of the issuance, after the deduction of the underwriting discount and expenses payable by the Company, totaled approximately \$689 million. Interest on the senior notes is payable semi-annually in arrears on May 30 and November 30. Prior to November 30, 2046, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to the greater of (a) 100% of the principal amount of any senior notes to be redeemed or (b) the sum of the present values of the remaining scheduled payments of principal and interest to November 30, 2046 on any senior notes to be redeemed (exclusive of interest accrued to the date of redemption) discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the then current Treasury rate (as defined in the senior notes), plus 15 basis points. On or after November 30, 2046, the senior notes may be redeemed, in whole or in part, at the Company's option, at any time or from time to time, at a redemption price equal to 100% of the principal amount of any senior notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

2017 Debt Redemption and Repayment. On June 2, 2017, the Company redeemed the remaining \$107 million aggregate principal amount of its 6.25% Fixed-to-Floating Rate Junior Subordinated Debentures due 2067 at a price per debenture of 100% of the principal amount thereof, plus accrued and unpaid interest to the redemption date. On December 15, 2017, the Company's \$450 million, 5.75% senior notes matured and were fully paid.

Description of Debt

Commercial Paper—The Company maintains an \$800 million commercial paper program. Interest rates on commercial paper issued in 2019 ranged from 1.58% to 2.48%, and in 2018 ranged from 1.47% to 2.37%.

Senior Notes—The Company's various senior debt issues are unsecured obligations that rank equally with one another. Interest payments are made semi-annually. The Company generally may redeem some or all of the notes prior to maturity in accordance with terms unique to each debt instrument.

Junior Subordinated Debentures—The Company's three junior subordinated debenture instruments are all similar in nature to each other. Three separate business trusts issued preferred securities to investors and used the proceeds to purchase the Company's junior subordinated debentures. Interest on each of the instruments is paid semi-annually.

The Company's consolidated balance sheet includes the debt instruments acquired in a business acquisition, which were recorded at fair value as of the acquisition date. The resulting fair value adjustment is being amortized over the remaining life of the respective debt instruments using the effective-interest method. The amortization of the fair value adjustment reduced interest expense by \$1 million and \$2 million for the years ended December 31, 2019 and 2018, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. DEBT (Continued)

The following table presents merger-related unamortized fair value adjustments and the related effective interest rate:

		Unamortized Fair Value Purchase Adjustment at Decem				Unamortized Fair Value Purchase Adjustment at December 31,		
(in millions)	Issue Rate	Maturity Date		2019		2018	Interest Rate to Maturity	
Junior subordinated debentures	7.625%	Dec. 2027	\$	11	\$	12	6.147%	
	8.500%	Dec. 2045		14		14	6.362%	
	8.312%	Jul. 2046		18		18	6.362%	
Total			\$	43	\$	44		

The Travelers Companies, Inc. fully and unconditionally guarantees the payment of all principal, premiums, if any, and interest on certain debt obligations of its subsidiaries Travelers Property Casualty Corp. and Travelers Insurance Group Holdings, Inc. The guarantees pertain to the \$200 million 7.75% notes due 2026 and the \$500 million 6.375% notes due 2033.

Maturities—The amount of debt obligations, other than commercial paper, that become due in each of the next five years is as follows: 2020, \$500 million; 2021, \$0; 2022, \$0; 2023, \$0; and 2024, \$0.

Credit Agreement

The Company is party to a five-year, \$1.0 billion revolving credit agreement with a syndicate of financial institutions that expires on June 4, 2023. Pursuant to the credit agreement covenants, the Company must maintain a minimum consolidated net worth, defined as shareholders' equity determined in accordance with GAAP (excluding accumulated other comprehensive income (loss)) plus (a) trust preferred securities (not to exceed 15% of total capital) and (b) mandatorily convertible securities (combined with trust preferred securities, not to exceed 25% of total capital) less goodwill and other intangible assets. The threshold is adjusted downward by an amount equal to 70% of the aggregate amount of common stock repurchased by the Company after March 31, 2018, up to a maximum deduction of \$1.75 billion. The threshold was \$12.55 billion at December 31, 2019 and could decline to a minimum of \$12.494 billion during the term of the credit agreement, subject to the Company repurchasing an additional \$80 million of its common stock. In addition, the credit agreement contains other customary restrictive covenants as well as certain customary events of default, including with respect to a change in control, which is defined to include the acquisition of 35% or more of the Company's voting stock and certain changes in the composition of the Company's Board of Directors. At December 31, 2019, the Company was in compliance with these covenants. Generally, the cost of borrowing under this agreement will range from LIBOR plus 75 basis points to LIBOR plus 137.5 basis points, depending on the Company's credit ratings. At December 31, 2019, that cost would have been LIBOR plus 100 basis points, had there been any amounts outstanding under the credit agreement. In the event that LIBOR is no longer available, the credit agreement provides that the Company and the syndicate of financial institutions use commercially reasonable efforts to jointly agree upon an alternate rate of interest.

Shelf Registration

The Company has a shelf registration statement filed with the Securities and Exchange Commission that expires on June 10, 2022 which permits it to issue securities from time to time at prices and on other terms to be determined at the time of offering.

9. SHAREHOLDERS' EQUITY AND DIVIDEND AVAILABILITY

Authorized Shares

The number of authorized shares of the Company is 1.755 billion, consisting of five million shares of preferred stock, 1.745 billion shares of voting common stock and five million undesignated shares. The Company's Articles of Incorporation authorize the Board of Directors to establish, from the undesignated shares, one or more classes and series of shares, and to further designate the type of shares and terms thereof.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. SHAREHOLDERS' EQUITY AND DIVIDEND AVAILABILITY (Continued)

Preferred Stock

The Company's Articles of Incorporation provide authority to issue up to five million shares of preferred stock.

Common Stock

The Company is governed by the Minnesota Business Corporation Act. All authorized shares of voting common stock have no par value. Shares of common stock reacquired are considered authorized and unissued shares.

Restricted Stock

At December 31,2019,41,997 shares of restricted stock issued by the Company in August 2017 to certain employees of an acquired business remained outstanding and unvested. The restricted shares vest in August 2020 and are subject to service conditions. As a result, the value of the shares is recognized over the vesting period and is included with the share-based compensation cost of awards that are issued under the Company's share-based incentive compensation plan (see note 13). Recipients generally have all the rights of a shareholder of the Company including the right to vote the applicable shares of common stock and to receive dividends on such shares, if and as declared by the Board of Directors. The restricted shares are held under the Company's control with the Company's transfer agent and will be released upon vesting.

Treasury Stock

The Company's Board of Directors has approved common share repurchase authorizations under which repurchases may be made from time to time in the open market, pursuant to pre-set trading plans meeting the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, in private transactions or otherwise. The authorizations do not have a stated expiration date. The timing and actual number of shares to be repurchased in the future will depend on a variety of factors, including the Company's financial position, earnings, share price, catastrophe losses, maintaining capital levels commensurate with the Company's desired ratings from independent rating agencies, changes in levels of written premiums, funding of the Company's qualified pension plan, capital requirements of the Company's operating subsidiaries, legal requirements, regulatory constraints, other investment opportunities (including mergers and acquisitions and related financings), market conditions and other factors. In April 2017, the Board of Directors approved a share repurchase authorization that added an additional \$5.0 billion of repurchase capacity. The following table summarizes repurchase activity in 2019 and remaining repurchase capacity at December 31, 2019.

(in millions, except per share amounts) Quarterly Period Ending	Number of shares repurchased	of shares irchased	Avera	Average price paid per share		ining capacity nare repurchase thorization
March 31, 2019	2.9	\$ 375	\$	129.42	\$	2,911
June 30, 2019	2.6	375		145.87		2,536
September 30, 2019	2.5	375		147.23		2,161
December 31, 2019	2.8	375		134.33		1,786
Total	10.8	\$ 1,500		138.80		1,786

The Company's Amended and Restated 2004 Stock Incentive Plan and the Amended and Restated 2014 Stock Incentive Plan provide settlement alternatives to employees in which the Company retains shares to cover payroll withholding taxes in connection with the vesting of restricted stock unit awards and performance share awards, and shares used by employees to cover the price of certain stock options that were exercised. During the years ended December 31, 2019 and 2018, the Company acquired \$48 million and \$51 million, respectively, of its common stock under these plans.

Common shares acquired are reported as treasury stock in the consolidated balance sheet.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. SHAREHOLDERS' EQUITY AND DIVIDEND AVAILABILITY (Continued)

Dividend Availability

The Company's U.S. insurance subsidiaries, domiciled principally in the State of Connecticut, are subject to various regulatory restrictions that limit the maximum amount of dividends available to be paid by each insurance subsidiary to its respective parent company without prior approval of insurance regulatory authorities. A maximum of \$2.79 billion is available by the end of 2020 for such dividends to the holding company, TRV, without prior approval of the Connecticut Insurance Department. The Company may choose to accelerate the timing within 2020 and/or increase the amount of dividends from its insurance subsidiaries in 2020, which could result in certain dividends being subject to approval by the Connecticut Insurance Department.

In addition to the regulatory restrictions on the availability of dividends that can be paid by the Company's U.S. insurance subsidiaries, the maximum amount of dividends that may be paid to the Company's shareholders is limited, to a lesser degree, by certain covenants contained in its line of credit agreement with a syndicate of financial institutions that require the Company to maintain a minimum consolidated net worth as described in note 8.

TRV is not dependent on dividends or other forms of repatriation from its foreign operations to support its liquidity needs. The undistributed earnings of the Company's foreign operations are intended to be permanently reinvested in those operations, and such earnings were not material to the Company's financial position or liquidity at December 31, 2019.

TRV and its two non-insurance holding company subsidiaries received dividends of \$2.50 billion, \$2.30 billion and \$2.33 billion from their U.S. insurance subsidiaries in 2019, 2018 and 2017, respectively.

For the years ended December 31, 2019, 2018 and 2017, TRV declared cash dividends per common share of \$3.23, \$3.03 and \$2.83, respectively, and paid cash dividends of \$844 million, \$814 million and \$785 million, respectively.

Statutory Net Income and Statutory Capital and Surplus

Statutory net income of the Company's domestic and international insurance subsidiaries was \$2.74 billion, \$2.61 billion and \$2.30 billion for the years ended December 31, 2019, 2018 and 2017, respectively. Statutory capital and surplus of the Company's domestic and international insurance subsidiaries was \$21.33 billion and \$20.77 billion at December 31, 2019 and 2018, respectively.

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. OTHER COMPREHENSIVE INCOME AND ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table presents the changes in the Company's accumulated other comprehensive income (AOCI) for the years ended December 31, 2019, 2018 and 2017.

	Changes in Net Unreal Investment	lized Gains (Losses) on t Securities			
(in millions)	Having No Credit Losses Recognized in the Consolidated Statement of Income	Having Credit Losses Recognized in the Consolidated Statement of Income	Net Benefit Plan Assets and Obligations Recognized in Shareholders' Equity	Net Unrealized Foreign Currency Translation	Total Accumulated Other Comprehensive Income (Loss)
Balance, December 31, 2016	\$ 528	\$ 202	\$ (703)	\$ (782)	\$ (755)
Other comprehensive income (loss) (OCI) before reclassifications, net of tax	367	4	(24)	171	518
Amounts reclassified from AOCI, net of tax	(148)	1	41	_	(106)
Net OCI, current period	219	5	17	171	412
Balance, December 31, 2017	747	207	(686)	(611)	(343)
Cumulative effect of adoption of updated accounting guidance for equity financial instruments at January 1,					
2018	(34)	_	_	_	(34)
Income tax benefit	(12)				(12)
Net of taxes	(22)				(22)
Reclassification of certain tax effects from accumulated other comprehensive income at January 1, 2018	145	7	(141)	(35)	(24)
Total effect of adoption of new guidance at January 1, 2018, net of tax	123	7	(141)	(35)	(46)
OCI before reclassifications, net of tax	(1,151)	(21)	(114)	(227)	(1,513)
Amounts reclassified from AOCI, net of tax	(25)	_	68	_	43
Net OCI, current period	(1,176)	(21)	(46)	(227)	(1,470)
Balance, December 31, 2018	(306)	193	(873)	(873)	(1,859)
OCI before reclassifications, net of tax	2,406	(4)	(14)	106	2,494
Amounts reclassified from AOCI, net of tax	(43)	_	41	7	5
Net OCI, current period	2,363	(4)	27	113	2,499
Balance, December 31, 2019	\$ 2,057	\$ 189	\$ (846)	\$ (760)	\$ 640

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. OTHER COMPREHENSIVE INCOME AND ACCUMULATED OTHER COMPREHENSIVE INCOME (Continued)

The following table presents the pre-tax components of the Company's other comprehensive income (loss) and the related income tax expense (benefit).

(for the year ended December 31, in millions)	2019	2018	2017
Changes in net unrealized gains (losses) on investment securities:			
Having no credit losses recognized in the consolidated statement of income	\$ 2,994	\$ (1,489)	\$ 294
Income tax expense (benefit)	631	(313)	75
Net of taxes	2,363	(1,176)	219
Having credit losses recognized in the consolidated statement of income .	(4)	(27)	8
Income tax expense (benefit)	_	(6)	3
Net of taxes	(4)	(21)	5
Net changes in benefit plan assets and obligations	33	(56)	29
Income tax expense (benefit)	6	(10)	12
Net of taxes	27	(46)	17
Net changes in unrealized foreign currency translation	117	(247)	191
Income tax expense (benefit)	4	(20)	20
Net of taxes	113	(227)	171
Total other comprehensive income (loss)	3,140	(1,819)	522
Total income tax expense (benefit)	641	(349)	110
Total other comprehensive income (loss), net of taxes	\$ 2,499	\$ (1,470)	\$ 412

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. OTHER COMPREHENSIVE INCOME AND ACCUMULATED OTHER COMPREHENSIVE INCOME (Continued)

The following table presents the pre-tax and related income tax (expense) benefit components of the amounts reclassified from the Company's AOCI to the Company's consolidated statement of income.

(for the year ended December 31, in millions)	2019	2018	2017
Reclassification adjustments related to unrealized gains (losses) on investment securities:			
Having no credit losses recognized in the consolidated statement of income (1)	\$ (55)	\$ (32)	\$ (228)
Income tax expense (2)	(12)	(7)	(80)
Net of taxes	(43)	(25)	(148)
Having credit losses recognized in the consolidated statement of income (1)			1
Income tax benefit (2)	_	_	_
Net of taxes	_		1
Reclassification adjustment related to benefit plan assets and obligations:			
Claims and claim adjustment expenses (3)	21	35	32
General and administrative expenses (3)	31	51	48
Total	52	86	80
Income tax benefit (2)	11	18	39
Net of taxes	41	68	41
Reclassification adjustment related to foreign currency translation (1)	7		
Income tax benefit (2)	_	_	_
Net of taxes	7		
Total reclassifications	4	54	(147)
Total income tax (expense) benefit	(1)	11	(41)
Total reclassifications, net of taxes	\$ 5	\$ 43	\$ (106)

^{(1) (}Increases) decreases net realized investment gains on the consolidated statement of income.

^{(2) (}Increases) decreases income tax expense on the consolidated statement of income.

⁽³⁾ Increases (decreases) expenses on the consolidated statement of income.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. EARNINGS PER SHARE

Basic earnings per share was computed by dividing net income available to common shareholders by the weighted average number of common shares outstanding during the period. The computation of diluted earnings per share reflected the effect of potentially dilutive securities and excludes the effect of any anti-dilutive shares.

Potentially dilutive securities include restricted stock units, deferred stock units, stock options and performance share awards related to the employee share-based incentive compensation programs. The restricted stock units and deferred stock units contain non-forfeitable rights to dividends and are included as participating securities in the calculation of basic and diluted earnings per share using the two-class method. Stock option and performance share awards are included in the calculation of diluted earnings per share using the treasury stock method.

The following is a reconciliation of the income and share data used in the basic and diluted earnings per share computations:

(for the year ended December 31, in millions, except per share amounts)	2019		2019 2018		2017	
Basic and Diluted						
Net income, as reported	\$	2,622	\$	2,523	\$	2,056
Participating securities — allocated income		(19)		(19)		(15)
Net income available to common shareholders — basic and diluted	\$	2,603	\$	2,504	\$	2,041
Common Shares						
Basic						
Weighted average shares outstanding		260.0		267.4		276.0
Diluted						
Weighted average shares outstanding		260.0		267.4		276.0
Weighted average effects of dilutive securities:						
Stock options and performance shares		2.3		2.4		2.6
Total		262.3		269.8		278.6
Net income Per Common Share						
Basic	\$	10.01	\$	9.37	\$	7.39
Diluted	\$	9.92	\$	9.28	\$	7.33

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. INCOME TAXES

Components of Income Tax Expense

The following table presents the components of income tax expense included in the amounts reported in the Company's consolidated financial statements:

(for the year ended December 31, in millions)	2019	2018	2017
Composition of income tax expense included in the consolidated statement of income			
Current expense:			
Federal	\$ 546	\$ 424	\$ 314
Impact of TCJA at enactment	_	_	21
Foreign	7	41	56
State	6	8	4
Total current tax expense	559	473	395
Deferred expense (benefit):			
Federal	(33)	(13)	229
Impact of TCJA at enactment	_	_	108
Foreign	(10)	(22)	(58)
Total deferred tax expense (benefit)	(43)	(35)	279
Total income tax expense included in the consolidated statement of income	516	438	674
Composition of income tax expense (benefit) included in shareholders' equity			
Expense (benefit) relating to changes in the unrealized gain (loss) on investments, unrealized loss on foreign exchange and other items in other comprehensive income (loss)	641	(349)	110
Total income tax expense included in the consolidated financial statements	\$ 1,157	\$ 89	\$ 784
	Ψ 1,157	= = = = = = = = = = = = = = = = = = = =	707

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. INCOME TAXES (Continued)

The following is a reconciliation of income tax expense at the U.S. federal statutory income tax rate to the income tax expense reported in the Company's consolidated statement of income:

(for the year ended December 31, in millions)	2019		2019 2018		2017
Income (loss) before income taxes					
U.S	\$	3,211	\$	3,039	\$ 2,798
Foreign		(73)		(78)	(68)
Total income before income taxes		3,138		2,961	2,730
Effective tax rate					
Statutory tax rate		21%		21%	35%
Expected federal income tax expense		659		622	956
Tax effect of:					
Nontaxable investment income		(149)		(150)	(297)
TCJA at enactment		_		_	129
Other, net		6		(34)	(114)
Total income tax expense	\$	516	\$	438	\$ 674
Effective tax rate		16%		15%	25%

The Company paid income taxes of \$428 million, \$408 million and \$514 million during the years ended December 31, 2019, 2018 and 2017, respectively. The current income tax payable of \$126 million at December 31, 2019 was included in other liabilities in the consolidated balance sheet. The current income tax receivable of \$12 million at December 31, 2018 was included in other assets in the consolidated balance sheet.

Tax Cuts and Jobs Act of 2017

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act of 2017 (TCJA) which, among other changes, reduced the U.S. federal tax rate from 35% to 21% beginning on January 1, 2018 and imposed a tax on undistributed and previously untaxed post-1986 foreign earnings and profits (accumulated foreign earnings). Total income tax expense for 2017 included a net charge of \$129 million to reflect the estimated impacts of the changes in tax laws and tax rates included in TCJA at the date of enactment, primarily reflecting the revaluation of the Company's deferred tax assets and liabilities at the new statutory federal tax rate of 21%, and the recognition of tax imposed on accumulated foreign earnings. The estimated effects of enactment of TCJA were reflected in the Company's net deferred tax asset and current income tax receivable reported on the Company's consolidated balance sheet at December 31, 2017.

In computing taxable income, property and casualty insurers reduce underwriting income by claims and claim adjustment expenses incurred. The deduction for claims incurred is discounted at the interest rates and for the claim payment patterns prescribed by the U.S. Treasury. TCJA changed the prescribed interest rates to rates based on corporate bond yield curves and extended the applicable time periods for the claim payment pattern. These changes were effective for tax years beginning after 2017 and are subject to a transition rule that spreads the additional tax payment from the amount determined by applying these changes over the subsequent eight years beginning in 2018. This item is a taxable temporary difference and had no direct impact on total tax expense for 2017 and will not directly impact total tax expense in future years. The required additional tax payments are currently estimated to approximate \$19 million per year through 2025 and will result in a modest reduction in net investment income over that period.

The U.S. Treasury issued final regulations for the tax discounting of loss reserves that became effective in June 2019. The final regulations did not materially impact the Company's amounts payable related to the transition rules for discounting loss reserves.

During the fourth quarter of 2017, the Company recorded provisional amounts for the tax imposed on accumulated foreign earnings and partnership investments, as well as the amount due under the transition rule relating to the change in discounting of claims incurred, based on information available at December 31, 2017. In 2018, the Company made minor adjustments to the provisional amounts for taxes related to accumulated foreign earnings based upon final earnings from its foreign operations and the proposed

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. INCOME TAXES (Continued)

regulations issued by the U.S. Treasury. These minor adjustments were consistent with final regulations issued by the U.S. Treasury in January 2019. The Company also made minor adjustments to the provisional amount for taxes related to partnership investments based upon the latest available information associated with those investments (Form K-1s) that were received in 2018 and 2019.

Deferred Tax Asset (Liability)

The net deferred tax asset (liability) comprises the tax effects of temporary differences related to the following assets and liabilities:

Deferred tax assets Claims and claim adjustment expense reserves \$ 551 \$ 571 Unearned premium reserves 539 503 Compensation-related liabilities 97 92 Other 243 200 Total gross deferred tax assets 1,430 1,366 Less: valuation allowance 27 8 Adjusted gross deferred tax assets 1,403 1,358 Deferred tax liabilities 115 159 Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913 Net deferred tax asset (liability) \$ (137) \$ 445	(at December 31, in millions)	2019	2018
Unearned premium reserves 539 503 Compensation-related liabilities 97 92 Other 243 200 Total gross deferred tax assets 1,430 1,366 Less: valuation allowance 27 8 Adjusted gross deferred tax assets 1,403 1,358 Deferred tax liabilities 115 159 Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Deferred tax assets		
Compensation-related liabilities 97 92 Other 243 200 Total gross deferred tax assets 1,430 1,366 Less: valuation allowance 27 8 Adjusted gross deferred tax assets 1,403 1,358 Deferred tax liabilities 115 159 Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Claims and claim adjustment expense reserves	\$ 551	\$ 571
Other 243 200 Total gross deferred tax assets 1,430 1,366 Less: valuation allowance 27 8 Adjusted gross deferred tax assets 1,403 1,358 Deferred tax liabilities 115 159 Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Unearned premium reserves	539	503
Total gross deferred tax assets 1,430 1,366 Less: valuation allowance 27 8 Adjusted gross deferred tax assets 1,403 1,358 Deferred tax liabilities 115 159 Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Compensation-related liabilities	97	92
Less: valuation allowance 27 8 Adjusted gross deferred tax assets 1,403 1,358 Deferred tax liabilities Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Other	243	200
Adjusted gross deferred tax assets 1,403 1,358 Deferred tax liabilities Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Total gross deferred tax assets	1,430	1,366
Deferred tax liabilities Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Less: valuation allowance	27	8
Claims and claim adjustment expense reserve discounting (transition rule) 115 159 Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Adjusted gross deferred tax assets	1,403	1,358
Deferred acquisition costs 427 397 Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Deferred tax liabilities		
Investments 781 152 Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Claims and claim adjustment expense reserve discounting (transition rule)	115	159
Internally developed software 94 92 Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Deferred acquisition costs	427	397
Depreciation 70 67 Other 53 46 Total gross deferred tax liabilities 1,540 913	Investments	781	152
Other 53 46 Total gross deferred tax liabilities 1,540 913	Internally developed software	94	92
Total gross deferred tax liabilities 913	Depreciation	70	67
	Other	53	46
Net deferred tax asset (liability) \$ (137) \$ 445	Total gross deferred tax liabilities	1,540	913
	Net deferred tax asset (liability)	\$ (137)	\$ 445

If the Company determines that any of its deferred tax assets will not result in future tax benefits, a valuation allowance must be established for the portion of these assets that are not expected to be realized. The net change in the valuation allowance for deferred tax assets was an increase of \$19 million in 2019, \$16 million relating to the Company's Republic of Ireland subsidiary, \$2 million relating to the Company's consolidated Brazilian subsidiary and \$1 million relating to the Company's Canadian subsidiary. Based upon a review of the Company's anticipated future taxable income, and also including all other available evidence, both positive and negative, the Company's management concluded that it is more likely than not that the net deferred tax assets will be realized.

U.S. income taxes have not been recognized on any undistributed earnings that are intended to be permanently reinvested. After TCJA, any potential U.S. income tax on these amounts is immaterial.

Net Operating Losses

For tax return purposes, as of December 31, 2019, the Company had net operating loss (NOL) carryforwards in the United States, Brazil, Canada, the Republic of Ireland and the United Kingdom. The amount and timing of realizing the benefits of NOL carryforwards depend on future taxable income and limitations imposed by tax laws. Only the benefits of the United Kingdom NOL carryforwards have been recognized in the consolidated financial statements and are included in net deferred tax assets. The NOL amounts by jurisdiction and year of expiration are as follows:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. INCOME TAXES (Continued)

(in millions)	Amount	Year of expiration
United States	\$ 2	2035 - 2036
Brazil	\$ 25	None
Canada	\$ 5	2035 - 2039
Republic of Ireland	\$ 124	None
United Kingdom	\$ 202	None

Uncertain Tax Positions

The following is a reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2019 and 2018:

(in millions)		2019	2018
Balance at January 1	\$	31	\$ 6
Additions for tax positions of prior years		8	25
Reductions for tax positions of prior years		_	_
Reductions based on tax positions related to current year		_	_
Expiration of statute of limitations	\$	(2)	_
Balance at December 31	\$	37	\$ 31
	\$ \$	37	\$ 31

Included in the balances at December 31, 2019 and 2018 were \$34 million and \$29 million, respectively, of unrecognized tax benefits that, if recognized, would affect the annual effective tax rate. Also included in the balances at those dates were \$3 million and \$2 million, respectively, of tax positions for which the ultimate deductibility is certain, but for which there is uncertainty about the timing of deductibility. The timing of such deductibility could affect the annual effective tax rate depending on the year of deduction and tax rate at the time.

The Company recognizes accrued interest and penalties, if any, related to unrecognized tax benefits in income taxes. During the years ended December 31, 2019, 2018 and 2017, the Company recognized approximately \$(1) million, \$(10) million and \$(33) million in interest, respectively. The Company had approximately \$13 million and \$14 million accrued for the payment of interest at December 31, 2019 and 2018, respectively.

The IRS is conducting an examination of the Company's U.S. income tax returns for 2017 and 2018. The Company does not expect any significant changes to its liability for unrecognized tax benefits during the next twelve months.

13. SHARE-BASED INCENTIVE COMPENSATION

The Company has a share-based incentive compensation plan, The Travelers Companies, Inc. Amended and Restated 2014 Stock Incentive Plan (the 2014 Incentive Plan), the purposes of which are to align the interests of the Company's non-employee directors, executive officers and other employees with those of the Company's shareholders and to attract and retain personnel by providing incentives in the form of share-based awards. The 2014 Incentive Plan permits grants of nonqualified stock options, incentive stock options, stock appreciation rights, restricted stock, restricted stock units, deferred stock, deferred stock units, performance awards and other share-based or share-denominated awards with respect to the Company's common stock. The Company has a policy of issuing new shares to settle the exercise of stock option awards and the vesting of other equity awards.

In connection with the adoption of the 2014 Incentive Plan, The Travelers Companies, Inc. Amended and Restated 2004 Stock Incentive Plan, as amended (the 2004 Incentive Plan) was terminated, joining several other legacy share-based incentive compensation plans that had been terminated in prior years (together, the legacy plans). Outstanding grants were not affected by the termination of the legacy plans. The 2014 Incentive Plan is currently the only plan pursuant to which future stock-based awards may be granted.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. SHARE-BASED INCENTIVE COMPENSATION (Continued)

The number of shares of the Company's common stock initially authorized for grant under the 2014 Incentive Plan was 10 million shares. In May 2019, 2017 and 2016, the Company's shareholders authorized an additional 3.1 million, 2.5 million and 4.4 million shares of the Company's common stock, respectively, for grant under the 2014 Incentive Plan. The following are not counted towards the combined 20.0 million shares available and will be available for future grants under the 2014 Incentive Plan: (i) shares of common stock subject to awards that expire unexercised, that are forfeited, terminated or canceled, that are settled in cash or other forms of property, or otherwise do not result in the issuance of shares of common stock, in whole or in part; (ii) shares that are used to pay the exercise price of stock options and shares used to pay withholding taxes on awards generally; and (iii) shares purchased by the Company on the open market using cash option exercise proceeds; provided, however, that the increase in the number of shares of common stock available for grant pursuant to such market purchases shall not be greater than the number that could be repurchased at fair market value on the date of exercise of the stock option giving rise to such option proceeds. In addition, the 20.0 million shares authorized by shareholders for issuance under the 2014 Incentive Plan will be increased by any shares subject to awards under the 2004 Incentive Plan that were outstanding as of May 27, 2014 and subsequently expire, are forfeited, canceled, settled in cash or otherwise terminate without the issuance of shares.

The Company also has a compensation program for non-employee directors (the Director Compensation Program). Under the Director Compensation Program, non-employee directors' compensation consists of an annual retainer, a deferred stock award, committee chair fees and a lead director fee. Each non-employee director may choose to receive all or a portion of his or her annual retainer, committee chair fee and lead director fee in the form of cash or deferred stock units which vest upon grant. The annual deferred stock awards vest in full one day prior to the date of the Company's annual meeting of shareholders occurring in the year following the year of the grant date, subject to continued service. The deferred stock awards, including dividend equivalents, accumulate until distribution either in a lump sum six months after termination of service as a director or, if the director so elects, in annual installments beginning at least six months following termination of service as a director. The deferred stock units issued under the Director Compensation Program are awarded under the 2014 Incentive Plan.

Stock Option Awards

Stock option awards granted to eligible officers and key employees have a ten-year term. All stock options are granted with an exercise price equal to the closing price of the Company's common stock on the date of grant. The stock options granted generally vest upon meeting certain years of service criteria. Except as the Compensation Committee of the Board of Directors may allow in the future, stock options cannot be sold or transferred by the participant. Stock options outstanding under the 2014 Incentive Plan and the 2004 Incentive Plan generally vest three years after grant date (cliff vest).

The fair value of each option award is estimated on the date of grant by application of a variation of the Black-Scholes option pricing model using the assumptions noted in the following table. The expected term of newly granted stock options is the time to vest plus half the remaining time to expiration. This considers the vesting restriction and represents an even pattern of exercise behavior over the remaining term. The expected volatility assumption is based on the historical volatility of the Company's common stock for the same period as the estimated option term generally using the volatility of the week prior to the stock option grant. The expected dividend is based upon the Company's current quarter dividend annualized and assumed to be constant over the expected option term. The risk-free interest rate for each option is the interpolated market yield of a U.S. Treasury bill with a term comparable to the expected option term for the same week used for measuring volatility. The following table provides information about options granted:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. SHARE-BASED INCENTIVE COMPENSATION (Continued)

(for the year ended December 31,)		2019		2018	2017
Assumptions used in estimating fair value of options on grant date					
Expected term of stock options		6 years		6 years	6 years
Expected volatility of Company's stock	1	15.47% - 15.91%		14.94%	16.50%
Weighted average volatility		15.48%		14.94%	16.50%
Expected annual dividend per share		\$3.08 - \$3.28		\$2.88	\$2.68
Risk-free rate		1.70% - 2.54%		2.68%	2.08%
Additional information					
Weighted average grant-date fair value of options granted (per share)	\$	16.64	\$	20.13	\$ 16.15
Total intrinsic value of options exercised during the year (in millions)	\$	88	\$	67	\$ 90

A summary of stock option activity under the 2014 Incentive Plan and the legacy plans as of and for the year ended December 31, 2019 is as follows:

Number		Weighted Average Exercise Price	Weighted Average Contractual Life Remaining	Int V	gregate crinsic Value millions)
8,994,356	\$	106.93			
2,057,494		126.19			
(1,874,412)		92.98			
(114,164)		127.55			
9,063,274	\$	113.93	6.3 years	\$	215
6,025,208	\$	106.91	5.3 years	\$	184
4,001,010	\$	96.37	3.9 years	\$	163
	8,994,356 2,057,494 (1,874,412) (114,164) 9,063,274 6,025,208	8,994,356 \$ 2,057,494 (1,874,412) (114,164) 9,063,274 \$ 6,025,208 \$	Number Average Exercise Price 8,994,356 \$ 106.93 2,057,494 126.19 (1,874,412) 92.98 (114,164) 127.55 9,063,274 \$ 113.93 6,025,208 \$ 106.91	Number Weighted Average Exercise Price Average Contractual Life Remaining 8,994,356 \$ 106.93 2,057,494 126.19 (1,874,412) 92.98 (114,164) 127.55 9,063,274 \$ 113.93 6.3 years 6,025,208 \$ 106.91 5.3 years	Number Weighted Average Exercise Price Average Contractual Life Remaining Agg Int V (\$ in 12 to 12 to 13 to 13 to 13 to 14 t

⁽¹⁾ Represents awards for which the requisite service has been rendered, including those that are retirement eligible.

On February 4, 2020, the Company, under the 2014 Incentive Plan, granted 2,474,036 stock option awards with an exercise price of \$132.58 per share. The fair value attributable to the stock option awards on the date of grant was \$14.41 per share.

Restricted Stock Units, Deferred Stock Units and Performance Share Award Programs

The Company issues restricted stock unit awards to eligible officers and key employees under the Equity Awards program established pursuant to the 2014 Incentive Plan. A restricted stock unit represents the right to receive a share of common stock. These restricted stock unit awards are granted at market price, generally vest three years from the date of grant, do not have voting rights and the underlying shares of common stock are not issued until the vesting criteria is satisfied. In addition, members of the Company's Board of Directors can be issued deferred stock units from (i) an annual award; (ii) deferred compensation (in lieu of cash retainer, committee chair fees and lead director fees); and (iii) dividend equivalents earned on outstanding deferred compensation.

The Company also has a Performance Share Awards Program established pursuant to the 2004 Incentive Plan and which continues pursuant to the 2014 Incentive Plan. Under the program, the Company may issue performance share awards to certain employees of the Company who hold positions of Vice President (or its equivalent) or above. The performance share awards provide the recipient the right to earn shares of the Company's common stock based upon the Company's attainment of certain performance goals and the recipient meeting certain years of service criteria. The performance goals for performance share awards are based on the Company's adjusted return on equity over a three-year performance period. Vesting of performance shares is contingent

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. SHARE-BASED INCENTIVE COMPENSATION (Continued)

upon the Company attaining the relevant performance period minimum threshold return on equity and the recipient meeting certain years of service criteria, generally three years for full vesting, subject to proration for certain termination conditions. If the performance period return on equity is below the minimum threshold, none of the performance shares will vest. If performance meets or exceeds the minimum performance threshold, a range of performance shares will vest (50% to 150% for awards granted in 2018, 2019 and 2020), depending on the actual return on equity attained.

The fair value of restricted stock units, deferred stock units and performance shares is measured at the market price of the Company stock at date of grant. Under terms of the 2014 Incentive Plan, holders of deferred stock units and performance shares may receive dividend equivalents.

The total fair value of shares that vested during the years ended December 31, 2019, 2018 and 2017 was \$130 million, \$135 million and \$166 million, respectively.

A summary of restricted stock units, deferred stock units and performance share activity under the 2014 Incentive Plan and the legacy plans as of and for the year ended December 31, 2019 is as follows:

	Restricted and Do Units		Stock	Performance Shares					
Other Equity Instruments	Number	G	Veighted Average rant-Date air Value	Number	Weighted Average Grant-Date Fair Value				
Nonvested, beginning of year	1,216,676	\$	122.34	684,889	\$	128.83			
Granted	591,365		126.88	371,754		126.18			
Vested	(592,754) (1)		114.17	(365,743) (2)		118.78			
Forfeited	(77,626)		127.75	(27,625)		129.78			
Performance-based adjustment	_		_	5,472 (3)		123.17			
Nonvested, end of year	1,137,661 (4)	\$	128.59	668,747	\$	132.76			

- (1) Represents awards for which the requisite service has been rendered.
- (2) Reflects the number of performance shares attributable to the performance goals attained over the completed performance period (three years) and for which service conditions have been met.
- (3) Represents the current year change in estimated performance shares to reflect the attainment of performance goals for the awards that were granted in each of the years 2017 through 2019.
- (4) 95,953 shares of restricted common stock were also issued outside of the 2014 Incentive Plan in 2017 in connection with the acquisition of Simply Business, of which 41,997 shares remain unvested and are not included in this table. See note 9.

In addition to the nonvested shares presented in the above table, there are related nonvested dividend equivalent shares. The number of nonvested dividend equivalent shares related to deferred stock units was 329 at the beginning of the year and 285 at the end of the year and the number of nonvested dividend equivalent shares related to performance shares was 24,876 at the beginning of the year and 22,359 at the end of the year. The dividend equivalent shares are subject to the same vesting terms as the deferred stock units and performance shares.

On February 4, 2020, the Company, under the 2014 Incentive Plan, granted 911,291 common stock awards in the form of restricted stock units, deferred stock units and performance share awards to participating officers, non-employee directors and other key employees. The restricted stock units and deferred stock units totaled 540,881 shares while the performance share awards totaled 370,410 shares. The fair value per share attributable to the common stock awards on the date of grant was \$132.58.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. SHARE-BASED INCENTIVE COMPENSATION (Continued)

Share-Based Compensation Cost Recognition

The amount of compensation cost for awards subject to a service condition is based on the number of shares expected to be issued and is recognized over the time period for which service is to be provided (requisite service period). Awards granted to retireeeligible employees or to employees who become retiree-eligible before an award's vesting date are considered to have met the requisite service condition. The compensation cost for awards subject to a performance condition is based upon the probable outcome of the performance condition, which on the grant date reflects an estimate of attaining 100% of the performance shares granted. The compensation cost reflects an estimated annual forfeiture rate from 3.5% to 4.5% over the requisite service period of the awards. That estimate is revised if subsequent information indicates that the actual number of instruments expected to vest is likely to differ from previous estimates. Compensation costs for awards are recognized on a straight-line basis over the requisite service period. For awards that have graded vesting terms, the compensation cost is recognized on a straight-line basis over the requisite service period for each separate vesting portion of the award as if the award was, in substance, multiple awards. The total compensation cost for all share-based incentive compensation awards recognized in earnings for the years ended December 31, 2019, 2018 and 2017 was \$142 million, \$140 million and \$136 million, respectively. Included in these amounts are compensation cost adjustments of \$2 million, \$3 million and \$3 million, for the years ended December 31, 2019, 2018 and 2017, respectively, that reflected the cost associated with the updated estimate of performance shares due to attaining certain performance levels from the date of the initial grant of the performance awards. The related tax benefits recognized in earnings were \$26 million, \$26 million and \$45 million for the years ended December 31, 2019, 2018 and 2017, respectively.

At December 31, 2019, there was \$136 million of total unrecognized compensation cost related to all nonvested share-based incentive compensation awards. This includes stock options, restricted and deferred stock units and performance shares granted under the 2014 Incentive Plan and restricted common stock issued in connection with a 2017 business acquisition. The unrecognized compensation cost is expected to be recognized over a weighted-average period of 1.7 years. Cash received from the exercise of employee stock options under share-based compensation plans totaled \$213 million, \$132 million and \$173 million in 2019, 2018 and 2017, respectively. The tax benefit for tax deductions from employee stock options exercised during 2019, 2018 and 2017 totaled \$18 million, \$14 million and \$31 million, respectively.

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS

The Company sponsors a qualified non-contributory defined benefit pension plan (the qualified domestic pension plan), which covers substantially all U.S. domestic employees and provides benefits under a cash balance formula, except that certain limited groups of legacy participants are covered by a prior traditional final average pay formula. In addition, the Company sponsors a nonqualified defined benefit pension plan which covers certain highly-compensated employees, pension plans for employees of its foreign subsidiaries, and a postretirement health and life insurance benefit plan for employees satisfying certain age and service requirements and for certain retirees.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

Obligations and Funded Status

The following tables summarize the funded status, obligations and amounts recognized in the consolidated balance sheet for the Company's benefit plans. The Company uses a December 31 measurement date for its pension and postretirement benefit plans.

(at and for the year ended December 31,	Qualified Domestic Pension Plan		Nonqualified and Foreign Pension Plans				Total				
in millions)	2019		2018 2019		2019		2018	2019		2018	
Change in projected benefit obligation:											
Benefit obligation at beginning of year	\$ 3,444	\$	3,679	\$	215	\$	230	\$	3,659	\$	3,909
Benefits earned	112		126		6		7		118		133
Interest cost on benefit obligation	134		119		7		7		141		126
Actuarial (gain) loss	451		(273)		19		(11)		470		(284)
Benefits paid	(187)		(207)		(11)		(12)		(198)		(219)
Foreign currency exchange rate change	_		_		5		(6)		5		(6)
Benefit obligation at end of year	\$ 3,954	\$	3,444	\$	241	\$	215	\$	4,195	\$	3,659
Change in plan assets:											
Fair value of plan assets at beginning of year	\$ 3,771	\$	3,957	\$	103	\$	113	\$	3,874	\$	4,070
Actual return on plan assets	686		(179)		10		(1)		696		(180)
Company contributions	_		200		8		10		8		210
Benefits paid	(187)		(207)		(11)		(12)		(198)		(219)
Foreign currency exchange rate change	_		_		5		(7)		5		(7)
Fair value of plan assets at end of year	4,270		3,771		115		103		4,385		3,874
Funded status of plan at end of year	\$ 316	\$	327	\$	(126)	\$	(112)	\$	190	\$	215
Amounts recognized in the consolidated balance sheet consist of:											
Accrued over-funded benefit plan assets	\$ 316	\$	327	\$	1	\$	4	\$	317	\$	331
Accrued under-funded benefit plan liabilities	_		_		(127)		(116)		(127)		(116)
Total	\$ 316	\$	327	\$	(126)	\$	(112)	\$	190	\$	215
Amounts recognized in accumulated other comprehensive income consist of:											
Net actuarial loss	\$ 1,094	\$	1,113	\$	49	\$	36	\$	1,143	\$	1,149
Prior service cost (benefit)	(3)		(5)		_		1		(3)		(4)
Total	\$ 1,091	\$	1,108	\$	49	\$	37	\$	1,140	\$	1,145

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

		irement t Plans		
(at and for the year ended December 31, in millions)	2019		2018	
Change in projected benefit obligation:				
Benefit obligation at beginning of year	\$ 203	\$	225	
Benefits earned	_		_	
Interest cost on benefit obligation	7		7	
Actuarial gain	(31)		(18)	
Benefits paid	(9)		(10)	
Foreign currency exchange rate change	1		(1)	
Benefit obligation at end of year	\$ 171	\$	203	
Change in plan assets:				
Fair value of plan assets at beginning of year	\$ 12	\$	13	
Actual return on plan assets	1		_	
Company contributions	8		9	
Benefits paid	(9)		(10)	
Fair value of plan assets at end of year	12		12	
Funded status of plan at end of year	\$ (159)	\$	(191)	
Amounts recognized in the consolidated balance sheet consist of:				
Accrued under-funded benefit plan liability	\$ (159)	\$	(191)	
Amounts recognized in accumulated other comprehensive income consist of:				
Net actuarial gain	\$ (49)	\$	(17)	
Prior service benefit	(21)		(25)	
Total	\$ (70)	\$	(42)	

The total accumulated benefit obligation for the Company's defined benefit pension plans was \$4.05 billion and \$3.53 billion at December 31, 2019 and 2018, respectively. The qualified domestic pension plan accounted for \$3.82 billion and \$3.32 billion of the total accumulated benefit obligation at December 31, 2019 and 2018, respectively, whereas the nonqualified and foreign plans accounted for \$0.23 billion and \$0.21 billion of the total accumulated benefit obligation at December 31, 2019 and 2018, respectively.

For pension plans with a projected benefit obligation in excess of plan assets, the aggregate projected benefit obligation was \$228 million and \$203 million at December 31, 2019 and 2018, respectively, and the aggregate plan assets were \$100 million and \$87 million at December 31, 2019 and 2018, respectively. For pension plans with an accumulated benefit obligation in excess of plan assets, the aggregate accumulated benefit obligation was \$218 million and \$195 million at December 31, 2019 and 2018, respectively, and the aggregate plan assets were \$100 million and \$87 million at December 31, 2019 and 2018, respectively. For postretirement benefit plans with an accumulated benefit obligation in excess of plan assets, the aggregate accumulated benefit obligation was \$171 million and \$203 million at December 31, 2019 and 2018, respectively, and the aggregate plan assets were \$12 million at both December 31, 2019 and 2018.

The \$451 million actuarial loss experienced in 2019 for the qualified domestic pension plan was largely driven by the decrease in the assumed discount rate from the prior year that was used to determine the projected benefit obligation at December 31, 2019. The \$273 million actuarial gain experienced in 2018 for the qualified domestic pension plan was largely driven by the increase in the assumed discount rate from the prior year that was used to determine the projected benefit obligation at December 31, 2018.

The Company has discretion regarding whether to provide additional funding and when to provide such funding to its qualified domestic pension plan. In 2019, 2018 and 2017, there were no required contributions to the qualified domestic pension plan. In 2019, the Company made no voluntary contributions to the qualified domestic pension plan. In 2018 and 2017, the Company voluntarily made contributions totaling \$200 million and \$300 million, respectively, to the qualified domestic pension plan. There

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

is no required contribution to the qualified domestic pension plan during 2020, and the Company has not determined whether or not additional funding will be made during 2020. With respect to the Company's foreign pension plans, there are no significant required contributions in 2020.

The following table summarizes the components of net periodic benefit cost and other amounts recognized in other comprehensive income related to the benefit plans.

			Pens	ion Plans		Postretirement Benefit Plans					
(for the year ended December 31, in millions)	201	19		2018	2017		2019	2018		2017	
Net Periodic Benefit Cost:											
Service cost	\$	118	\$	133	\$ 119	\$	_	\$	_	\$	
Non-service cost:											
Interest cost on benefit obligation		141		126	127		7		7	7	
Expected return on plan assets		(275)		(264)	(240)		(1)		_	_	
Settlement		_		_	3		_		_	_	
Amortization of unrecognized:											
Prior service benefit		(1)		(1)	(1)		(3)		(4)	(4)	
Net actuarial loss		56		91	85		_		_	_	
Total non-service cost (benefit)		(79)		(48)	(26)		3		3	3	
Net periodic benefit cost		39		85	93		3		3	3	
Other Changes in Benefit Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income:											
Prior service benefit		_		_	_		_		_	_	
Net actuarial loss (gain)		49		160	40		(31)		(18)	13	
Foreign currency exchange rate change		1		(1)	2		_		_	(1)	
Settlement		_		_	(2)		_		_	_	
Amortization of prior service benefit		1		1	1		3		4	4	
Amortization of net actuarial loss		(56)		(91)	(85)		_		_	_	
Total other changes recognized in other comprehensive income		(5)		69	(44)		(28)		(14)	16	
Total other changes recognized in net periodic benefit cost and other comprehensive income	\$	34	\$	154	\$ 49	\$	(25)	\$	(11)	\$ 19	

The following table indicates the line items in which the respective service costs and non-service cost (benefit) are presented in the consolidated statement of income for the years ended December 31, 2019, 2018 and 2017.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

			Pen	nsion Plans			Postretirement Benefit Plans					
(for the year ended December 31, in millions)		2019		2018		2017		2019		2018	2017	
Service Cost:												
Net investment income	\$	1	\$	1	\$	_	\$	_	\$	_	\$	_
Claims and claim adjustment expenses		48		54		48		_		_		_
General and administrative expenses		69		78		71		_		_		_
Total service cost		118		133		119						
Non-Service Cost (Benefit):												
Claims and claim adjustment expenses		(33)		(19)		(11)		1		1		1
General and administrative expenses		(46)		(29)		(15)		2		2		2
Total non-service cost (benefit)		(79)		(48)		(26)		3		3		3
Net periodic benefit cost	\$	39	\$	85	\$	93	\$	3	\$	3	\$	3

Assumptions

The following table summarizes assumptions used with regard to the Company's qualified and nonqualified domestic pension plans and the domestic postretirement benefit plans.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

(at and for the year ended December 31,)	2019	2018
Assumptions used to determine benefit obligations		
Discount rate:		
Qualified domestic pension plan	3.28%	4.39%
Nonqualified domestic pension plan	3.17%	4.33%
Domestic postretirement benefit plan	3.09%	4.26%
Cash balance interest crediting rate	4.01%	4.01%
Future compensation increase rate	4.00%	4.00%
Assumptions used to determine net periodic benefit cost		
Discount rate:		
Qualified domestic pension plan:		
Service cost	4.57%	3.87%
Interest cost	4.02%	3.34%
Nonqualified domestic pension plan:		
Service cost	4.40%	3.73%
Interest cost	3.95%	3.26%
Domestic postretirement benefit plan:		
Interest cost	3.90%	3.21%
Expected long-term rate of return on assets:		
Pension plan	7.00%	7.00%
Postretirement benefit plan	4.00%	4.00%
Assumed health care cost trend rates		
Following year:		
Medical (before age 65)	$\boldsymbol{7.00\%}$	7.50%
Medical (age 65 and older)	8.25%	8.75%
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	4.50%	4.50%
Year that the rate reaches the ultimate trend rate:		
Medical (before age 65)	2026	2026
Medical (age 65 and older)	2026	2026

The discount rate assumption used to determine the *benefit obligation* is based on a yield-curve approach. Under this approach, individual spot rates from the yield curve of a hypothetical portfolio of high quality fixed maturity corporate bonds (rated Aa) available at the year-end valuation date, for which the timing and amount of cash outflows correspond with the timing and amount of the estimated benefit payouts of the Company's benefit plan, are applied to expected future benefits payments in measuring the projected *benefit obligation*. The discount rate assumption used to determine *benefit obligations* disclosed above represents the weighted average of the individual spot rates.

The discount rate assumption used to determine the *net periodic benefit cost* is the single weighted average discount rate derived from the yield curve used to measure the *benefit obligation* at the beginning of the year.

In choosing the expected long-term rate of return on plan assets, the Company selected the rate that was set as the return objective by the Company's Benefit Plans Investment Committee, which had considered the historical returns of equity and fixed maturity markets in conjunction with prevailing economic and financial market conditions.

The assumptions made for the Company's foreign pension and foreign postretirement benefit plans are not materially different from those of the Company's qualified domestic pension plan and the domestic postretirement benefit plan.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

Plan Assets

The qualified domestic pension plan assets are invested for the exclusive benefit of the plan participants and beneficiaries and are intended, over time, to satisfy the benefit obligations under the plan. Risk tolerance is established through consideration of plan liabilities, plan funded status and corporate financial position. The asset mix guidelines have been established and are reviewed quarterly. These guidelines are intended to serve as tools to facilitate the investment of plan assets to maximize long-term total return and the ongoing oversight of the plan's investment performance. Investment risk is measured and monitored on an ongoing basis through daily and monthly investment portfolio reviews, annual liability measurements and periodic asset/liability studies.

The Company's overall investment strategy for the qualified domestic pension plan is to achieve a mix of approximately 85% to 90% of investments for long-term growth and 10% to 15% for near-term benefit payments with a diversification of asset types, fund strategies and fund managers. The current target allocations for plan assets are 55% to 65% equity securities and 20% to 40% fixed income securities, with the remainder allocated to short-term securities. Equity securities primarily include investments in large, medium and small-cap companies primarily located in the United States. Fixed income securities include corporate bonds of companies from diversified industries, mortgage-backed securities, U.S. Treasury securities and debt securities issued by foreign governments.

Assets of the Company's foreign pension plans are not significant.

Fair Value Measurement — Pension Plans and Other Postretirement Benefit Assets

For a discussion of the methods employed by the Company to measure the fair value of invested assets, see note 4. The following discussion of fair value measurements applies exclusively to the Company's pension plans and other postretirement benefit assets.

Fair value estimates for equity and bond mutual funds held by the pension plans reflect prices received from an external pricing service that are based on observable market transactions. These estimates are primarily included in Level 1.

Short-term securities are carried at fair value which approximates cost plus accrued interest or amortized discount. The fair value or market value of these is periodically compared to this amortized cost and is based on significant observable inputs as determined by an external pricing service. Accordingly, the estimates of fair value for such short-term securities, other than U.S. Treasury securities and money market mutual funds, provided by an external pricing service are included in the amount disclosed in Level 2 of the hierarchy. The estimated fair value of U.S. Treasury securities and money market mutual funds is included in the amount disclosed in Level 1 as the estimates are based on unadjusted market prices.

Fair Value Hierarchy — Pension Plans

The following tables present the level within the fair value hierarchy at which the financial assets of the Company's pension plans are measured on a recurring basis.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

Total		Level 1	Level 2		Level 3	
	_					
\$ 3	\$	_	\$	3	\$	_
30		_		30		_
30		_		30		_
715		_		715		_
778		_		778		_
1,585		1,578		7		_
869		866		3		_
2,454		2,444		10		_
1,018	_	1,017		1		_
2		_		_		2
20		20		_		_
27		27		_		_
86		17		69		_
133	_	64		69		_
\$ 4,385	\$	3,525	\$	858	\$	2
\$ 	\$ 3 30 715 778 1,585 869 2,454 1,018 2 20 27 86 133	\$ 3 \$ 30 \$ 30 \$ 715 778 \$ 1,585 869 \$ 2,454 \$ 1,018 \$ 2 \$ 20 \$ 27 \$ 86 \$ 133 \$ \$ \$	\$ 3 \$ — 30 — 30 — 715 — 778 — 1,585 1,578 869 866 2,454 2,444 1,018 1,017 2 — 20 20 27 27 86 17 133 64	\$ 3 \$ - \$ 30 - 715 - 778 - 1,585 1,578 869 866 2,454 2,444 1,018 1,017 2 - 20 20 27 27 86 17 133 64	\$ 3 \$ - \$ 3 30 - 30 30 - 30 715 - 715 778 - 778 1,585 1,578 7 869 866 3 2,454 2,444 10 1,018 1,017 1 2 20 20 - 27 27 - 86 17 69 133 64 69	\$ 3 \$ - \$ 3 \$ \$ 30 \$ 30 \$ 30 \$ 30 \$ 30 \$

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

(at December 31, 2018, in millions)		Total		Level 1	Level 2	Level 3		
Invested assets:								
Fixed maturities								
Obligations of states, municipalities and political subdivisions	\$	3	\$	_	\$ 3	\$	_	
Debt securities issued by foreign governments		27		_	27		_	
Mortgage-backed securities, collateralized mortgage obligations and pass-through securities		30		_	30		_	
All other corporate bonds		712		_	712		_	
Total fixed maturities		772			772			
Mutual funds								
Equity mutual funds		1,288		1,282	6		_	
Bond mutual funds		760		757	3		_	
Total mutual funds		2,048		2,039	9		_	
Equity securities		783		783	_		_	
Other investments		1					1	
Cash and short-term securities								
U.S. Treasury securities		30		30	_		_	
Money market mutual funds		_		_	_		_	
Other		240		19	221		_	
Total cash and short-term securities		270		49	221		_	
Total	\$	3,874	\$	2,871	\$ 1,002	\$	1	

Other Postretirement Benefit Plans

The Company's overall investment strategy is to achieve a mix of approximately 35% to 65% of investments for long-term growth and 35% to 65% for near-term insurance payments with a wide diversification of asset types, fund strategies and fund managers. The current target allocations for plan assets are 25% to 75% fixed income securities, with the remainder allocated to short-term securities. Fixed income securities include corporate bonds of companies from diversified industries, mortgage-backed securities and U.S. Treasuries.

Fair Value — Other Postretirement Benefit Plans

The Company's other postretirement benefit plans had financial assets of \$12 million at both December 31, 2019 and 2018, which are measured at fair value on a recurring basis. The assets are primarily corporate bonds, which are categorized as level 2 in the fair value hierarchy.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PENSION PLANS, RETIREMENT BENEFITS AND SAVINGS PLANS (Continued)

Estimated Future Benefit Payments

The following table presents the estimated benefits expected to be paid by the Company's pension and postretirement benefit plans for the next ten years (reflecting estimated future employee service).

	Benefits Expected to be Paid				
(in millions)	Pension Plans	Postretirement Benefit Plans			
2020	\$ 250	\$ 12			
2021	261	12			
2022	265	12			
2023	273	12			
2024	276	12			
2025 through 2029	1,400	55			

Savings Plan

The Company has a savings plan, The Travelers 401(k) Savings Plan (the Savings Plan), in which substantially all U.S. domestic Company employees are eligible to participate. Under the Savings Plan, the Company matches employee contributions up to 5% of eligible pay, with a maximum annual match of \$6,500 which becomes 100% vested after three years of service. The Company's matching contribution is made in cash and invested according to the employee's current investment elections and can be reinvested into other investment options in accordance with the terms of the Savings Plan. The Company's non-U.S. employees participate in separate savings plans. The total expense related to all of the savings plans was \$123 million, \$118 million and \$119 million for the years ended December 31, 2019, 2018 and 2017, respectively.

All common shares held by the Savings Plan are considered outstanding for basic and diluted EPS computations and dividends paid on all shares are charged to retained earnings.

15. LEASES

The Company enters into lease agreements for real estate that is primarily used for office space in the ordinary course of business. These leases are accounted for as operating leases, whereby lease expense is recognized on a straight-line basis over the term of the lease. See note 1—Adoption of Accounting Standards—*Leases* for additional information regarding the accounting for leases.

Most leases include an option to extend or renew the lease term. The exercise of the renewal option is at the Company's discretion. The operating lease liability includes lease payments related to options to extend or renew the lease term if the Company is reasonably certain of exercising those options. The Company, in determining the present value of lease payments, utilizes either the rate implicit in the lease, if that rate is readily determinable, or the Company's incremental secured borrowing rate commensurate with the term of the underlying lease.

Lease expense is included in general and administrative expenses in the consolidated statement of income. Additional information regarding the Company's real estate operating leases is as follows:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

15. LEASES (Continued)

(for the year ended December 31, in millions)	 2019
Lease cost	
Operating leases	\$ 92
Short-term leases (1)	10
Lease expense	102
Less: sublease income (2)	_
Net lease cost	\$ 102
Other information on operating leases	
Cash payments to settle a lease liability reported in cash flows	\$ 104
Right-of-use assets obtained in exchange for new lease liabilities	\$ 60
Weighted average discount rate	3.02%
Weighted average remaining lease term in years	5.1 years

⁽¹⁾ Leases with an initial term of twelve months or less are not recorded on the balance sheet.

Lease expense was \$185 million and \$188 million, respectively, for the years ended December 31, 2018 and 2017 for real estate and other operating leases.

The following table presents the contractual maturities of the Company's lease liabilities:

(in millions)	Estate Lease iability
2020	\$ 108
2021	93
2022	71
2023	51
2024	35
Thereafter	54
Total undiscounted lease payments	412
Less: present value adjustment	32
Operating lease liability	\$ 380

16. CONTINGENCIES, COMMITMENTS AND GUARANTEES

Contingencies

The major pending legal proceedings, other than ordinary routine litigation incidental to the business, to which the Company or any of its subsidiaries is a party or to which any of the Company's properties is subject are described below.

Asbestos and Environmental Claims and Litigation

In the ordinary course of its insurance business, the Company has received and continues to receive claims for insurance arising under policies issued by the Company asserting alleged injuries and damages from asbestos- and environmental-related exposures

⁽²⁾ Sublease income consists of rent from third parties of office space and is recognized as part of other revenues in the consolidated statement of income.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. CONTINGENCIES, COMMITMENTS AND GUARANTEES (Continued)

that are the subject of related coverage litigation. The Company is defending asbestos- and environmental-related litigation vigorously and believes that it has meritorious defenses; however, the outcomes of these disputes are uncertain. In this regard, the Company employs dedicated specialists and comprehensive resolution strategies to manage asbestos and environmental loss exposure, including settling litigation under appropriate circumstances. Currently, it is not possible to predict legal outcomes and their impact on future loss development for claims and litigation relating to asbestos and environmental claims. Any such development could be affected by future court decisions and interpretations, as well as future changes, if any, in applicable legislation. Because of these uncertainties, additional liabilities may arise for amounts in excess of the Company's current insurance reserves. In addition, the Company's estimate of ultimate claims and claim adjustment expenses may change. These additional liabilities or changes in estimates, or a range of either, cannot now be reasonably estimated and could result in income statement charges that could be material to the Company's results of operations in future periods.

Other Proceedings Not Arising Under Insurance Contracts or Reinsurance Agreements

The Company is involved in other lawsuits, including lawsuits alleging extra-contractual damages relating to insurance contracts or reinsurance agreements, that do not arise under insurance contracts or reinsurance agreements. The legal costs associated with such lawsuits are expensed in the period in which the costs are incurred. Based upon currently available information, the Company does not believe it is reasonably possible that any such lawsuit or related lawsuits would be material to the Company's results of operations or would have a material adverse effect on the Company's financial position or liquidity.

Other Commitments and Guarantees

Commitments

Investment Commitments — The Company has unfunded commitments to private equity limited partnerships and real estate partnerships in which it invests. These commitments totaled \$1.66 billion and \$1.60 billion at December 31, 2019 and 2018, respectively.

Guarantees

In the ordinary course of selling businesses to third parties, the Company has agreed to indemnify purchasers for losses arising out of breaches of representations and warranties, obligations arising from certain liabilities and any breach or failure to perform certain covenants with respect to the businesses being sold. Such indemnification provisions generally are applicable from the closing date to the expiration of the relevant statutes of limitations, although, in some cases, there may be agreed upon term limitations or no term limitations. Certain of these contingent obligations are subject to deductibles which have to be incurred by the obligee before the Company is obligated to make payments. The maximum amount of the Company's contingent obligation for indemnifications related to the sale of businesses that are quantifiable was \$351 million at December 31, 2019.

The Company also has contingent obligations for guarantees related to certain investments, certain insurance policy obligations of former insurance subsidiaries and various other indemnifications. The Company also provides standard indemnifications to service providers in the normal course of business. The indemnification clauses are often standard contractual terms. The maximum amount of the Company's obligation related to the guarantee of certain insurance policy obligations of a former insurance subsidiary was \$480 million at December 31, 2019, all of which is indemnified by a third party.

Certain of the guarantees and indemnifications described above have no stated or notional amounts or limitation to the maximum potential future payments, and, accordingly, the Company is unable to provide an estimate of the maximum potential payments for such arrangements.

17. NONCASH INVESTING AND FINANCING ACTIVITIES

There were no material noncash financing or investing activities during the years ended December 31, 2019, 2018 and 2017.

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES

The following consolidating financial statements of the Company have been prepared pursuant to Rule 3-10 of Regulation S-X. These consolidating financial statements have been prepared from the Company's financial information on the same basis of accounting as the consolidated financial statements. The Travelers Companies, Inc. (excluding its subsidiaries, TRV) has fully and unconditionally guaranteed certain debt obligations of Travelers Property Casualty Corp. (TPC) and Travelers Insurance Group Holdings, Inc. (TIGHI), which totaled \$700 million at December 31, 2019.

Prior to the merger of TPC and The St. Paul Companies, Inc. in 2004, TPC fully and unconditionally guaranteed the payment of all principal, premiums, if any, and interest on certain debt obligations of its wholly-owned subsidiary, TIGHI. Concurrent with the merger, TRV fully and unconditionally assumed such guarantee obligations of TPC. TPC is deemed to have no assets or operations independent of TIGHI. Consolidating financial information for TIGHI has not been presented herein because such financial information would be substantially the same as the financial information provided for TPC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF INCOME (Unaudited)

(in millions)	TPC		Other Subsidiaries		TRV	Eliminations	C	onsolidated
Revenues								
Premiums	\$ 19,30	62	\$	8,910	\$ _	\$	\$	28,272
Net investment income	1,73	30		697	41	_		2,468
Fee income	4:	58		1	_	_		459
Net realized investment gains (1)	4	44		36	33	_		113
Other revenues	14	42		127	_	_		269
Total revenues	21,73	36		9,771	74			31,581
Claims and expenses								
Claims and claim adjustment expenses	12,9	26		6,207	_	_		19,133
Amortization of deferred acquisition costs	3,09	95		1,506	_	_		4,601
General and administrative expenses	2,9	73		1,371	21	_		4,365
Interest expense	4	47		_	297	_		344
Total claims and expenses	19,04	41		9,084	318	_		28,443
Income (loss) before income taxes	2,69	95		687	(244)			3,138
Income tax expense (benefit)	48	83		110	(77)	_		516
Net income of subsidiaries		_		_	2,789	(2,789)		_
Net income	\$ 2,2	12	\$	577	\$ 2,622	\$ (2,789)	\$	2,622

⁽¹⁾ Total other-than-temporary impairments (OTTI) for the year ended December 31, 2019, and the amounts comprising total OTTI that were recognized in net realized investment gains and in other comprehensive income (OCI), were as follows:

(in millions)	TPC		Other osidiaries	TRV	E	liminations	Co	onsolidated
Total OTTI losses	\$	(2)	\$ (1)	\$ _	\$	_	\$	(3)
OTTI losses recognized in net realized investment gains	\$	(2)	\$ (2)	\$ _	\$	_	\$	(4)
OTTI gains recognized in OCI	\$	_	\$ 1	\$ _	\$	_	\$	1

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF INCOME (Unaudited)

(in millions)	TPC	Other Subsidiaries TRV		Eliminations	Consolidated
Revenues					
Premiums	\$ 18,508	\$ 8,551	\$	\$	\$ 27,059
Net investment income	1,704	738	32	_	2,474
Fee income	432	_	_	_	432
Net realized investment gains (losses) (1)	118	9	(13)	_	114
Other revenues	96	112	_	(5)	203
Total revenues	20,858	9,410	19	(5)	30,282
Claims and expenses					
Claims and claim adjustment expenses	12,344	5,947	_	_	18,291
Amortization of deferred acquisition costs	2,972	1,409	_	_	4,381
General and administrative expenses	2,947	1,335	20	(5)	4,297
Interest expense	48	_	304	_	352
Total claims and expenses	18,311	8,691	324	(5)	27,321
Income (loss) before income taxes	2,547	719	(305)		2,961
Income tax expense (benefit)	437	115	(114)	_	438
Net income of subsidiaries	_	_	2,714	(2,714)	_
Net income	\$ 2,110	\$ 604	\$ 2,523	\$ (2,714)	\$ 2,523

⁽¹⁾ Total other-than-temporary impairments (OTTI) for the year ended December 31, 2018, and the amounts comprising total OTTI that were recognized in net realized investment gains (losses) and in other comprehensive income (OCI), were as follows:

(in millions)	TPC	S	Other ubsidiaries	TRV	E	liminations	C	onsolidated
Total OTTI losses	\$ (1) \$		\$ _	\$		\$	(1)
OTTI losses recognized in net realized investment gains (losses)	\$ (1) \$	_	\$ _	\$	_	\$	(1)
OTTI losses recognized in OCI	\$ -	- \$	_	\$ _	\$	_	\$	_

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF INCOME (Unaudited)

(in millions)	T	PC	ther idiaries	TRV		Eliminations	Consolidated	
Revenues								
Premiums	\$	17,562	\$ 8,121	\$	_	\$	\$	25,683
Net investment income		1,627	759		24	(13)		2,397
Fee income		447	_		_	_		447
Net realized investment gains (1)		19	131		66	_		216
Other revenues		101	68		_	(10)		159
Total revenues		19,756	9,079		90	(23)		28,902
Claims and expenses								
Claims and claim adjustment expenses		11,735	5,732		_	_		17,467
Amortization of deferred acquisition costs		2,820	1,346		_	_		4,166
General and administrative expenses		2,906	1,249		25	(10)		4,170
Interest expense		48	_		321	_		369
Total claims and expenses		17,509	8,327		346	(10)		26,172
Income (loss) before income taxes		2,247	752		(256)	(13)		2,730
Income tax expense (benefit)		519	290		(130)	(5)		674
Net income of subsidiaries		_	_		2,190	(2,190)		_
Net income	\$	1,728	\$ 462	\$	2,064	\$ (2,198)	\$	2,056

⁽¹⁾ Total other-than-temporary impairments (OTTI) for the year ended December 31, 2017, and the amounts comprising total OTTI that were recognized in net realized investment gains and in other comprehensive income (OCI), were as follows:

(in millions)	TPC		Other sidiaries	TRV	E	liminations	Co	onsolidated
Total OTTI losses	\$	(4)	\$ (9)	\$ 	\$	_	\$	(13)
OTTI losses recognized in net realized investment gains	\$	(5)	\$ (9)	\$ _	\$	_	\$	(14)
OTTI gains recognized in OCI	\$	1	\$ _	\$ _	\$	_	\$	1

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (Unaudited)

(in millions)	TPC		Other bsidiaries	TRV	Elin	ninations	Co	nsolidated
Net income	\$ 2	2,212	\$ 577	\$ 2,622	\$	(2,789)	\$	2,622
Other comprehensive income (loss):								
Changes in net unrealized gains on investment securities:								
Having no credit losses recognized in the consolidated statement of income	2	2,097	893	4		_		2,994
Having credit losses recognized in the consolidated statement of income		(2)	(2)	_		_		(4)
Net changes in benefit plan assets and obligations		1	(3)	35		_		33
Net changes in unrealized foreign currency translation		53	64	_		_		117
Other comprehensive income before income taxes and other comprehensive income of subsidiaries		2,149	952	39		_		3,140
Income tax expense		441	188	12		_		641
Other comprehensive income, net of taxes, before other comprehensive income of subsidiaries		,708	764	27		_		2,499
Other comprehensive income of subsidiaries		_	_	2,472		(2,472)		_
Other comprehensive income		,708	764	2,499		(2,472)		2,499
Comprehensive income	\$ 3	3,920	\$ 1,341	\$ 5,121	\$	(5,261)	\$	5,121

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (Unaudited)

(in millions)	TPC	Other Subsidiaries	TRV	Eliminations	Consolidated
Net income	\$ 2,110	\$ 604	\$ 2,523	\$ (2,714)	\$ 2,523
Other comprehensive loss:					
Changes in net unrealized gains on investment securities:					
Having no credit losses recognized in the consolidated statement of income	(1,028)	(461)	_	_	(1,489)
Having credit losses recognized in the consolidated statement of income	(20)	(7)	_	_	(27)
Net changes in benefit plan assets and obligations	1	(4)	(53)	_	(56)
Net changes in unrealized foreign currency translation	(144)	(103)	_	_	(247)
Other comprehensive loss before income taxes and other comprehensive loss of subsidiaries	(1,191)	(575)	(53)	_	(1,819)
Income tax benefit	(231)	(101)	(17)	_	(349)
Other comprehensive loss, net of taxes, before other comprehensive loss of subsidiaries	(960)	(474)	(36)		(1,470)
Other comprehensive loss of subsidiaries	_	_	(1,434)	1,434	_
Other comprehensive loss	(960)	(474)	(1,470)	1,434	(1,470)
Comprehensive income	\$ 1,150	\$ 130	\$ 1,053	\$ (1,280)	\$ 1,053

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (Unaudited)

(in millions)	T	ГРС	Other sidiaries	TRV	Eliı	ninations	Cor	isolidated
Net income	\$	1,728	\$ 462	\$ 2,064	\$	(2,198)	\$	2,056
Other comprehensive income (loss):								
Changes in net unrealized gains on investment securities:								
Having no credit losses recognized in the consolidated statement of income		313	25	(44)		_		294
Having credit losses recognized in the consolidated statement of income		6	2	_		_		8
Net changes in benefit plan assets and obligations		(1)	8	22		_		29
Net changes in unrealized foreign currency translation		83	108	_		_		191
Other comprehensive income (loss) before income taxes and other comprehensive income of subsidiaries		401	143	(22)		_		522
Income tax expense		98	10	2		_		110
Other comprehensive income (loss), net of taxes, before other comprehensive income of subsidiaries		303	133	(24)				412
Other comprehensive income of subsidiaries		_	_	436		(436)		
Other comprehensive income		303	133	412		(436)		412
Comprehensive income	\$	2,031	\$ 595	\$ 2,476	\$	(2,634)	\$	2,468

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING BALANCE SHEET (Unaudited)

At December 31, 2019

(in millions)		TPC	Other bsidiaries		TRV	Eliminations	C	Consolidated
Assets								
Fixed maturities, available for sale, at fair value (amortized cost \$65,281)	\$	46,805	\$ 21,238	\$	91	\$	\$	68,134
Equity securities, at fair value (cost \$376)		102	114		209	_		425
Real estate investments		1	962		_	_		963
Short-term securities		2,793	760		1,390	_		4,943
Other investments		2,690	 728		1			3,419
Total investments		52,391 207	 23,802		1,691			77,884 494
Investment income accrued		428	186		4	_		618
Premiums receivable		5,331	2,578		_	_		7,909
Reinsurance recoverables		6,511	1,724		_	_		8,235
Ceded unearned premiums		603	,		_	_		689
			86		_	_		
Deferred acquisition costs		2,094	179		_	_		2,273
Contractholder receivables		4,606	13		_	_		4,619
Goodwill		2,584	1,386		_	(9))	3,961
Other intangible assets		218	112		_	_		330
Investment in subsidiaries		_	_		30,028	(30,028))	_
Other assets		2,360	 419		331			3,110
Total assets	\$	77,333	\$ 30,772	\$	32,054	\$ (30,037)	\$	110,122
Liabilities								
Claims and claim adjustment expense reserves	\$	35,568	\$ 16,281	\$	_	\$ —	\$	51,849
Unearned premium reserves		10,144	4,460		_	_		14,604
Contractholder payables		4,606	13		_	_		4,619
Payables for reinsurance premiums		210	153		_	_		363
Deferred taxes		272	(170)		35	_		137
Debt		693	_		5,865	_		6,558
Other liabilities		4,609	1,236		204	_		6,049
Total liabilities		56,102	 21,973		6,104		_	84,179
Shareholders' equity		,	 	_			_	
Common stock (1,750.0 shares authorized; 255.5 shares issued and								
outstanding)		_	585		23,469	(585)		23,469
Additional paid-in capital		11,634	7,073		_	(18,707))	_
Retained earnings		8,451	823		36,984	(9,281))	36,977
Accumulated other comprehensive income		1,146	318		640	(1,464))	640
Treasury stock, at cost (522.1 shares)		_	_		(35,143)	_		(35,143)
Total shareholders' equity		21,231	 8,799	_	25,950	(30,037)		25,943
Total liabilities and shareholders' equity	\$	77,333	\$ 30,772	\$	32,054	\$ (30,037)		110,122
	_						-	

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING BALANCE SHEET (Unaudited)

At December 31, 2018

(in millions)	TPC	Su	Other bsidiaries		TRV	Elin	ninations	C	onsolidated
Assets									
Fixed maturities, available for sale, at fair value (amortized cost \$63,601)	\$ 43,683	\$	19,697	\$	84	\$	_	\$	63,464
Equity securities, at fair value (cost \$382)	105		92		171		_		368
Real estate investments	2		902		_		_		904
Short-term securities	1,855		759		1,371		_		3,985
Other investments	2,746		810		1		_		3,557
Total investments	48,391		22,260	_	1,627				72,278
Cash	181		192		_				373
Investment income accrued	434		187		3		_		624
Premiums receivable	5,089		2,417		_		_		7,506
Reinsurance recoverables	5,904		2,466		_		_		8,370
Ceded unearned premiums	522		56		_		_		578
Deferred acquisition costs	1,930		190		_		_		2,120
Deferred taxes	167		302		(24)		_		445
Contractholder receivables	3,867		918		_		_		4,785
Goodwill	2,578		1,368		_		(9)		3,937
Other intangible assets	224		121		_		_		345
Investment in subsidiaries	_		_		26,993		(26,993)		_
Other assets	2,220		15		669		(32)		2,872
Total assets	\$ 71,507	\$	30,492	\$	29,268	\$	(27,034)	\$	104,233
Liabilities									
Claims and claim adjustment expense reserves	\$ 34,093	\$	16,575	\$	_	\$	_	\$	50,668
Unearned premium reserves	9,414		4,141		_		_		13,555
Contractholder payables	3,867		918		_		_		4,785
Payables for reinsurance premiums	169		120		_		_		289
Debt	693		32		5,871		(32)		6,564
Other liabilities	4,133		849		496		_		5,478
Total liabilities	52,369		22,635		6,367		(32)		81,339
Shareholders' equity				_					
Common stock (1,750.0 shares authorized; 263.7 shares issued and			401		22 144		(401)		22 144
263.6 shares outstanding)	11.624		401		23,144		(401)		23,144
Additional paid-in capital	11,634		7,023		- 25.011		(18,657)		- 25.204
Retained earnings	8,065		879		35,211		(8,951)		35,204
Accumulated other comprehensive loss.	(561)		(446)		(1,859)		1,007		(1,859)
Treasury stock, at cost (510.9 shares)	 				(33,595)				(33,595)
Total shareholders' equity	19,138		7,857		22,901		(27,002)		22,894
Total liabilities and shareholders' equity	\$ 71,507	\$	30,492	\$	29,268	\$	(27,034)	\$	104,233

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF CASH FLOWS (Unaudited)

(in millions)	TPC	S	Other ubsidiaries	TRV	Elim	inations	C	onsolidated
Cash flows from operating activities								
Net income	\$ 2,212	\$	577	\$ 2,622	\$	(2,789)	\$	2,622
Net adjustments to reconcile net income to net cash provided by operating activities	1,750		943	(408)		298		2,583
Net cash provided by operating activities	3,962		1,520	2,214		(2,491)		5,205
Cash flows from investing activities								
Proceeds from maturities of fixed maturities.	4,727		2,107	11		_		6,845
Proceeds from sales of investments:								
Fixed maturities	1,295		891	1		_		2,187
Equity securities	53		75	12		_		140
Other investments	345		114	_		_		459
Purchases of investments:								
Fixed maturities	(7,011)		(3,686)	(14)		_		(10,711)
Equity securities	(2)		(75)	(17)		_		(94)
Real estate investments	_		(107)	_		_		(107)
Other investments	(424)		(73)	_		_		(497)
Net sales (purchases) of short-term securities	(939)		1	(19)		_		(957)
Securities transactions in course of settlement	163		(4)	(1)		_		158
Other	(317)		(8)	_		_		(325)
Net cash used in investing activities	 (2,110)		(765)	 (27)				(2,902)
Cash flows from financing activities				 				
Treasury stock acquired — share repurchase authorization	_		_	(1,500)		_		(1,500)
Treasury stock acquired — net employee share-based compensation	_		_	(48)		_		(48)
Dividends paid to shareholders	_		_	(844)		_		(844)
Payment of debt	_		(32)	(500)		32		(500)
Issuance of debt	_		_	492		_		492
Issuance of common stock — employee share options	_		_	213		_		213
Dividends paid to parent company	(1,827)		(632)	_		2,459		_
Net cash used in financing activities	(1,827)		(664)	(2,187)		2,491		(2,187)
Effect of exchange rate changes on cash	1		4					5
Net increase in cash	26		95	_				121
Cash at beginning of year	181		192	_		_		373
Cash at end of year	\$ 207	\$	287	\$ _	\$	_	\$	494
Supplemental disclosure of cash flow information	 							
Income taxes paid (received)	\$ 375	\$	131	\$ (78)	\$	_	\$	428
Interest paid	\$ 47	\$	_	\$ 291	\$	_	\$	338

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF CASH FLOWS (Unaudited)

(in millions)	TPC	Other Subsidiaries	TRV	Eliminations	Consolidated
Cash flows from operating activities		-	-		
Net income	\$ 2,110	\$ 604	\$ 2,523	\$ (2,714)	\$ 2,523
Net adjustments to reconcile net income to net cash provided by operating activities	1,141	605	(363)	474	1,857
Net cash provided by operating activities	3,251	1,209	2,160	(2,240)	4,380
Cash flows from investing activities					
Proceeds from maturities of fixed maturities.	5,158	1,906	22	_	7,086
Proceeds from sales of investments:					
Fixed maturities	2,449	1,096	1	_	3,546
Equity securities	65	107	6	_	178
Real estate investments	66	8	_	_	74
Other investments	403	108	_	_	511
Purchases of investments:					
Fixed maturities	(9,404)	(4,096)	(26)	_	(13,526)
Equity securities	(8)	(99)	(10)	_	(117)
Real estate investments	(1)	(73)) —	_	(74)
Other investments	(454)	(83)) —	_	(537)
Net sales (purchases) of short-term securities	895	154	(141)	_	908
Securities transactions in course of settlement	(80)) 24	_	_	(56)
Acquisition, net of cash acquired	_	(4)	_	_	(4)
Other	(310)	(8)	_	_	(318)
Net cash used in investing activities	(1,221)	(960)	(148)	_	(2,329)
Cash flows from financing activities					
Treasury stock acquired — share repurchase authorization	_	_	(1,270)	_	(1,270)
Treasury stock acquired — net employee share-based compensation	_	_	(51)	_	(51)
Dividends paid to shareholders	_	_	(814)	_	(814)
Payment of debt	_	_	(600)	_	(600)
Issuance of debt	_	18	591	(18)	591
Issuance of common stock — employee share options	_	_	132	_	132
Dividends paid to parent company	(2,003)	(255)	_	2,258	_
Net cash used in financing activities	(2,003)	(237)	(2,012)	2,240	(2,012)
Effect of exchange rate changes on cash	(3)	(7)			(10)
Net increase in cash	24	5			29
Cash at beginning of year	157	187	_	_	344
Cash at end of year	\$ 181	\$ 192	\$ -	\$ -	\$ 373
Supplemental disclosure of cash flow information					
Income taxes paid (received)	\$ 437	\$ 254	\$ (283)	\$	\$ 408
Interest paid	\$ 47	\$	\$ 300	\$ _	\$ 347

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. CONSOLIDATING FINANCIAL STATEMENTS OF THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES (Continued)

CONSOLIDATING STATEMENT OF CASH FLOWS (Unaudited)

(in millions)	TPC	5	Other Subsidiaries		TRV	E	Climinations	Co	nsolidated
Cash flows from operating activities									
Net income	\$ 1,728	\$	462	\$	2,064	\$	(2,198)	\$	2,056
Net adjustments to reconcile net income to net cash provided by operating activities	1,500		701		(32)		(77)		2,092
Net cash provided by operating activities	3,228		1,163		2,032		(2,275)		4,148
Cash flows from investing activities									
Proceeds from maturities of fixed maturities.	6,576		2,168		6		_		8,750
Proceeds from sales of investments:									
Fixed maturities	1,007		846		1		_		1,854
Equity securities	97		414		254		_		765
Real estate investments	_		23		_		_		23
Other investments	357		124		_		(13)		468
Purchases of investments:									
Fixed maturities	(8,513)		(3,697)		(40)		_		(12,250)
Equity securities	(68)		(133)		(258)		_		(459)
Real estate investments	(1)		(58)		_		_		(59)
Other investments	(444)		(97)		_		_		(541)
Net sales (purchases) of short-term securities	(303)		(120)		397		_		(26)
Securities transactions in course of settlement	(55)		5		3		_		(47)
Acquisition, net of cash acquired	_		25		(477)		13		(439)
Other	(244)		3		_		_		(241)
Net cash used in investing activities	(1,591)		(497)		(114)		_		(2,202)
Cash flows from financing activities									
Treasury stock acquired — share repurchase authorization	_		_		(1,378)		_		(1,378)
Treasury stock acquired — net employee share-based compensation	_		_		(62)		_		(62)
Dividends paid to shareholders	_		_		(785)		_		(785)
Payment of debt	_		_		(657)		_		(657)
Issuance of debt	_		14		789		(14)		789
Issuance of common stock — employee share options	_		_		173		_		173
Dividends paid to parent company	(1,624)		(665)		_		2,289		_
Net cash used in financing activities	 (1,624)	_	(651)	_	(1,920)	_	2,275		(1,920)
Effect of exchange rate changes on cash	3	_	8			_			11
Net increase (decrease) in cash	 16	_	23		(2)				37
Cash at beginning of year	141		164		2		_		307
Cash at end of year	\$ 157	\$	187	\$		\$	_	\$	344
Supplemental disclosure of cash flow information		_				_			
Income taxes paid (received)	\$ 481	\$	206	\$	(173)	\$	_	\$	514
Interest paid	\$ 47	\$	_	\$	320	\$	_	\$	367
*									

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

19. SELECTED QUARTERLY FINANCIAL DATA (Unaudited)

2019 (in millions, except per share amounts)	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		Total	
Total revenues	\$	7,671	\$	7,834	\$	8,013	\$	8,063	\$	31,581
Total expenses		6,704		7,169		7,581		6,989		28,443
Income before income taxes		967		665		432		1,074		3,138
Income tax expense		171		108		36		201		516
Net income	\$	796	\$	557	\$	396	\$	873	\$	2,622
Net income per share ⁽¹⁾ :										
Basic	\$	3.01	\$	2.11	\$	1.52	\$	3.37	\$	10.01
Diluted		2.99		2.10		1.50		3.35		9.92

2018 (in millions, except per share amounts)	(First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
Total revenues	\$	7,286	\$ 7,477	\$ 7,723	\$ 7,796	\$ 30,282
Total expenses		6,508	6,846	6,917	7,050	27,321
Income before income taxes		778	631	806	746	2,961
Income tax expense		109	107	97	125	438
Net income	\$	669	\$ 524	\$ 709	\$ 621	\$ 2,523
Net income per share (1):						
Basic	\$	2.45	\$ 1.93	\$ 2.65	\$ 2.33	\$ 9.37
Diluted		2.42	1.92	2.62	2.32	9.28

⁽¹⁾ Due to the use of an average number of shares for each quarter, the sum of the quarterly earnings per share may not equal the total earnings per share for the full year.

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

Not Applicable.

Item 9A. 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)) that are designed 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 SEC's rules and forms, and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures. 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, 2019. Based upon that evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2019, the design and operation of the Company's disclosure controls and procedures were effective to accomplish their objectives at the reasonable assurance level.

In addition, there was no change in the Company's internal control over financial reporting (as that term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2019 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

The Company regularly seeks to identify, develop and implement improvements to its technology systems and business processes, some of which may affect its internal control over financial reporting. These changes may include such activities as implementing new, more efficient systems, updating existing systems or platforms, automating manual processes or utilizing technology developed by third parties. These systems changes are often phased in over multiple periods in order to limit the implementation risk in any one period, and as each change is implemented the Company monitors its effectiveness as part of its internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is designed to provide reasonable assurances regarding the reliability of financial reporting and the preparation of the consolidated financial statements of the Company in accordance with U.S. generally accepted accounting principles. The Company's accounting policies and internal controls over financial reporting, established and maintained by management, are under the general oversight of the Company's Audit Committee.

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 U.S. generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of the Company's management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition
 of 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.

Management has assessed the Company's internal control over financial reporting as of December 31, 2019. The standard measures adopted by management in making its evaluation are the measures in the *Internal Control - Integrated Framework* (2013) published by the Committee of Sponsoring Organizations of the Treadway Commission.

Based upon its assessment, management has concluded that the Company's internal control over financial reporting was effective at December 31, 2019, and that there were no material weaknesses in the Company's internal control over financial reporting as of that date.

KPMG LLP, an independent registered public accounting firm, which has audited and reported on the consolidated financial statements contained in this Form 10-K, has issued its report on the effectiveness of the Company's internal control over financial reporting which follows this report.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors The Travelers Companies, Inc.:

Opinion on Internal Control Over Financial Reporting

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheet of the Company as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedules as listed in the index to consolidated financial statements and schedules (collectively, the consolidated financial statements), and our report dated February 13, 2020 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

KPMG LLP

New York, New York February 13, 2020

Item 9B. OTHER INFORMATION

Executive Ownership and Sales. All of the Company's executive officers are subject to the Company's executive stock ownership policy. For a summary of this policy as currently in effect, see "Compensation Discussion and Analysis - Additional Compensation Information - Stock Ownership Guidelines, Anti-Hedging and Pledging Policies, and Other Trading Restrictions" in the Company's proxy statement filed with the SEC on April 5, 2019 (Proxy Statement). From time to time, some of the Company's executives may determine that it is advisable to diversify their investments for personal financial planning reasons, or may seek liquidity for other reasons, and may, in compliance with the stock ownership policy, sell shares of common stock of the Company on the open market, in private transactions or to the Company. To effect such sales, from time to time, some of the Company's executives may enter into trading plans designed to comply with the Company's Securities Trading Policy and the provisions of Rule 10b5-1 under the Securities Exchange Act of 1934. The trading plans will not reduce any of the executives' ownership of the Company's shares below the applicable executive stock ownership guidelines. The Company does not undertake any obligation to report Rule 10b5-1 plans that may be adopted by any employee or director of the Company in the future, or to report any modifications or termination of any publicly announced plan. As of the date of this report, none of the Company's named executive officers (i.e. an executive officer included in the compensation disclosures in the Proxy Statement) has entered into a Rule 105b-1 trading plan that remains in effect.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Executive Officers of the Company

Set forth below is information concerning the Company's executive officers as of February 13, 2020.

Name	Age	Office
Alan D. Schnitzer	54	Chairman of the Board of Directors and Chief Executive Officer
William H. Heyman	71	Vice Chairman
Avrohom J. Kess	51	Vice Chairman and Chief Legal Officer
Daniel S. Frey	55	Executive Vice President and Chief Financial Officer
Diane D. Bengston	64	Executive Vice President and Chief Human Resources Officer
Andy F. Bessette	66	Executive Vice President and Chief Administrative Officer
Michael F. Klein	52	Executive Vice President and President, Personal Insurance
Thomas M. Kunkel	61	Executive Vice President and President, Bond & Specialty Insurance
Mojgan M. Lefebvre	54	Executive Vice President and Chief Technology and Operations Officer
Maria Olivo	55	Executive Vice President, Strategic Development and President, International
Gregory C. Toczydlowski	53	Executive Vice President and President, Business Insurance

Alan D. Schnitzer, 54, has been Chairman of the Board of Directors since August 2017 and Chief Executive Officer and Director since December 2015. He previously served as Vice Chairman and Chief Executive Officer, Business and International Insurance from July 2014. Mr. Schnitzer was Vice Chairman - Financial, Professional & International Insurance and Field Management; Chief Legal Officer from May 2012 until July 2014 and Vice Chairman and Chief Legal Officer and Executive Vice President - Financial, Professional and International Insurance from May 2008 until May 2012. He was Vice Chairman and Chief Legal Officer from April 2007 until May 2008. Prior to joining the Company, he was a partner at the law firm of Simpson Thacher & Bartlett LLP.

William H. Heyman, 71, has been Vice Chairman since August 2019. Prior to that, Mr. Heyman was Vice Chairman and Chief Investment Officer since May 2005. He previously served as Executive Vice President and Chief Investment Officer from May 2002. Mr. Heyman held various positions with Citigroup from 1995 until 2002, including the position of chairman of Citigroup Investments from 2000 until 2002. Prior to joining Citigroup in 1995, Mr. Heyman was, successively: a managing director of Salomon Brothers; Director of the Division of Market Regulation of the U.S. Securities and Exchange Commission; and a managing director of Smith Barney.

Avrohom J. Kess, 51, has been Vice Chairman and Chief Legal Officer since December 2016. Prior to that, Mr. Kess was a partner, member of the Corporate Department and Head of the Public Company Advisory Practice at the law firm of Simpson Thacher & Bartlett LLP, which he joined in 1995.

Daniel S. Frey, 55, has been Executive Vice President and Chief Financial Officer since September 2018. Mr. Frey has held various financial management roles since joining a predecessor to the Company in 2003, including Senior Vice President and Chief Financial Officer, Personal Insurance from September 2014, Senior Vice President Finance, Business Insurance from August 2010 and Senior Vice President and Chief Financial Officer, Claim Services from June 2006. Prior to that, Mr. Frey held the position of Chief Financial Officer at Spalding Sports Worldwide from 1999 to 2003 and held various financial management positions at Duracell International, Inc. from 1994 to 1999. Mr. Frey began his career at Deloitte in 1986.

Diane D. Bengston, 64, has been Executive Vice President and Chief Human Resources Officer since March 2018. Prior to that, she was Executive Vice President, Enterprise Human Resources from October 2016. Ms. Bengston previously held various management positions since 1979 with the Company and a predecessor, including leading Enterprise Diversity and Inclusion and Talent Management.

Andy F. Bessette, 66, has been Executive Vice President and Chief Administrative Officer since January 2002. Mr. Bessette previously held various management positions with predecessors of the Company since 1980, including Vice President, Corporate Real Estate and Services at Travelers Property Casualty Corp.

Michael F. Klein, 52, has been Executive Vice President and President, Personal Insurance since July 2015, and was also Head of Enterprise Business Intelligence & Analytics from May 2016 to May 2018. He previously served as Executive Vice President and Co-President, Business Insurance from July 2014, Executive Vice President, Middle Market from November 2012, President of Middle Market from March 2010, President of Commercial Accounts from September 2007, and Senior Vice President, Industry and Product Group from June 2006. Prior to that, Mr. Klein held various positions with the Company since 1990.

Thomas M. Kunkel, 61, has been Executive Vice President and President of Bond & Specialty Insurance since May 2015. He previously served as President of the Bond & Financial Products organization from 2005. Prior to that, Mr. Kunkel held various positions with the Company or its predecessors since 1984, including Regional Chief Underwriting Officer for Bond's Construction Surety business, head of Bond's field management organization, and head of Bond's Commercial Surety business.

Mojgan M. Lefebvre, 54, has been Executive Vice President and Chief Technology and Operations Officer since May 2019. Prior to that, Ms. Lefebvre was Executive Vice President and Chief Information Officer, Enterprise Operations and eBusiness since joining the Company in September 2018. Ms. Lefebvre previously held various information technology roles at Liberty Mutual, where she was most recently Senior Vice President and Chief Information Officer for the Global Risk Solutions business, from 2010 to 2018, at bioMerieux from 2007 to 2010 and at TeleTech Holdings from 2004 to 2007.

Maria Olivo, 55, has been Executive Vice President, Strategic Development and President, International since October 2018. Prior to that, she was Executive Vice President, Strategic Development and Corporate Treasurer since July 2010. She previously served as Executive Vice President and Treasurer from June 2009 and Executive Vice President, Market Development from October 2007. Prior to that Ms. Olivo held various positions with the Company or its predecessors since 2002, including leading Corporate Development, Investor Relations and Corporate Communications. Ms. Olivo was deputy head of Strategic Investments at Swiss Re Capital Partners from April 2000 until June 2002. Prior to joining Swiss Re Capital Partners, she was a director in Salomon Smith Barney's Investment Bank.

Gregory C. Toczydlowski, 53, has been Executive Vice President and President of Business Insurance since June 2016. He previously served as Executive Vice President and President, Small Commercial and Business Insurance Technology and Operations from July 2015 and Executive Vice President and President of Personal Insurance from July 2009. Prior to that, Mr. Toczydlowski held various positions with the Company or its predecessors since 1990, including Chief Operating Officer of Personal Insurance and Chief Financial Officer for the independent agency distribution channel within Personal Insurance.

Code of Ethics

The Company has adopted a Code of Business Conduct and Ethics (Code of Ethics) that applies to all employees, including executive officers, and to directors. The Code of Ethics is available on the Corporate Governance page of the Company's website at www.travelers.com. If the Company ever were to amend or waive any provision of its Code of Ethics that applies to the Company's principal executive officer, principal financial officer, principal accounting officer or any person performing similar functions, the Company intends to satisfy its disclosure obligations, if any, with respect to any such waiver or amendment by posting such information on its website set forth above rather than by filing a Current Report on Form 8-K.

Other

The following sections of the Company's definitive Proxy Statement relating to its 2020 Annual Meeting of Shareholders, which will be filed with the SEC no later than 120 days after the end of the Company's fiscal year on December 31, 2019 (the Proxy Statement), are incorporated herein by reference: "Nominees for Election of Directors," "Governance of Your Company - Specific Considerations Regarding the 2020 Nominees," "Governance of Your Company - Committees of the Board and Meetings - Audit Committee" and, if included in the Proxy Statement, "Share Ownership Information - Delinquent Section 16(a) Reports."

Item 11. EXECUTIVE COMPENSATION

The following sections of the Proxy Statement are incorporated herein by reference: "Compensation Discussion and Analysis," "Compensation Committee Report," "Summary Compensation Table," "Grants of Plan-Based Awards in 2019," "Narrative Supplement to Summary Compensation Table and Grants of Plan-Based Awards in 2019," "Option Exercises and Stock Vested in 2019," "Outstanding Equity Awards at December 31, 2019," "Post-Employment Compensation," "Potential Payments to Named Executive Officers Upon Termination of Employment or Change in Control," "Non-Employee Director Compensation," "Governance of Your Company - Risk Management and Compensation" and "CEO Pay Ratio."

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS

The "Share Ownership Information - 5% Owners" and "Share Ownership Information - Directors and Executive Officers" sections of the Proxy Statement are incorporated herein by reference.

EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth information as of December 31, 2019 regarding the Company's equity compensation plans. The only plan pursuant to which the Company may currently make additional equity grants is The Travelers Companies, Inc. Amended and Restated 2014 Stock Incentive Plan (the 2014 Incentive Plan).

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))	
Equity compensation plans approved by security holders (1)	12,007,879 (2)	\$113.80 per share (3)	8,273,774	4)

- (1) In addition to the 2014 Incentive Plan, also included are The Travelers Companies, Inc. Amended and Restated 2004 Stock Incentive Plan, as amended (the 2004 Incentive Plan), which was replaced by the 2014 Incentive Plan, and certain plans for employees in the United Kingdom and the Republic of Ireland and The Travelers Deferred Compensation Plan for Non-Employee Directors. Shares delivered under these plans are issued pursuant to the 2004 Incentive Plan and the 2014 Incentive Plan.
- (2) Total includes (i) 9,143,777 stock options, (ii) 1,034,334 performance shares and dividend equivalents accrued thereon (assuming issuance of 100% of performance shares granted), (iii) 1,572,135 restricted stock units, (iv) 235,477 director deferred stock awards and dividend equivalents accrued thereon and (v) 22,156 common stock units credited to the deferred compensation accounts of certain non-employee directors in lieu of cash compensation, at the election of such directors.
- (3) The weighted average exercise prices for both the 2004 Incentive Plan and the 2014 Incentive Plan relate only to stock options. The calculation of the weighted average exercise price does not include outstanding equity awards that are received or exercised for no consideration and also does not include common stock units credited to the deferred compensation accounts of certain non-employee directors at fair market value in lieu of cash compensation at the election of such directors.
- These shares are available for grant as of December 31, 2019 under the 2014 Incentive Plan pursuant to which the Compensation Committee of the Board of Directors may make various stock-based awards including nonqualified stock options, incentive stock options, stock appreciation rights, restricted stock, restricted stock units, deferred stock, deferred stock units, performance awards and other stock-based or stock-denominated awards with respect to the Company's common stock. This includes 10 million shares initially authorized for issuance under the 2014 Incentive Plan and an additional 3.1 million shares, 2.5 million shares and 4.4 million shares authorized by shareholders in May 2019, May 2017 and May 2016, respectively, and shares subject to awards under the 2004 Incentive

Plan and the 2014 Incentive Plan that expired, were cancelled, forfeited, settled in cash or otherwise terminated without the issuance of shares.

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

The "Governance of Your Company — Transactions with Related Persons," "Nominees for Election of Directors" and "Governance of Your Company — Directors Independence and Independence Determinations" sections of the Proxy Statement are incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The "Audit and Non-Audit Fees" section of the Proxy Statement is incorporated herein by reference.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Documents filed as a part of the report:

- (1) Financial Statements and Schedules. See Index to Consolidated Financial Statements and Schedules on page 120 hereof.
- (2) Exhibits:

Exhibit Number	Description of Exhibit
3.1	Amended and Restated Articles of Incorporation of The Travelers Companies, Inc. (the "Company"), as amended and restated May 23, 2013, were filed as Exhibit 3.1 to the Company's current report on Form 8-K filed on May 24, 2013, and are incorporated herein by reference.
3.2	Bylaws of The Travelers Companies, Inc. as Amended and Restated October 22, 2019 were filed as Exhibit 3.2 to the Company's quarterly report on Form 10-Q for the fiscal quarter ended September 30, 2019, and are incorporated herein by reference.
4.1†	Description of Common Stock.
10.1	Revolving Credit Agreement, dated June 4, 2018, between the Company and a syndicate of financial institutions, was filed as Exhibit 10.1 to the Company's current report on Form 8-K filed on June 6, 2018, and is incorporated herein by reference.
10.2*	The Travelers Companies, Inc. Policy Regarding Executive Incentive Compensation Recoupment was filed as Exhibit 10.42 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2009, and is incorporated herein by reference.
10.3*	Letter Agreement between Alan D. Schnitzer and the Company, dated April 15, 2007, was filed as Exhibit 10.1 to the Company's quarterly report on Form 10-Q for the fiscal quarter ended June 30, 2007, and is incorporated herein by reference.
10.4*	Letter Agreement between Alan D. Schnitzer and the Company, dated August 4, 2015, was filed as Exhibit 10.2 to the Company's quarterly report on Form 10-Q for the fiscal quarter ended September 30, 2015, and is incorporated herein by reference.
10.5*	Time Sharing Agreement, dated September 2, 2015, by and between the Company and Alan D. Schnitzer, was filed as Exhibit 10.3 to the Company's quarterly report on Form 10-Q for the fiscal quarter ended September 30, 2015, and is incorporated herein by reference.
10.6*	Letter Agreement between Avrohom J. Kess and the Company, dated December 19, 2016, was filed as Exhibit 10.49 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2016, and is incorporated by reference.
10.7*	The Travelers Companies, Inc. Amended and Restated 2014 Stock Incentive Plan was filed as Exhibit 10.1 to the Company's current report on Form 8-K filed on May 24, 2019, and is incorporated herein by reference.
10.8*	The Travelers Companies, Inc. Amended and Restated 2004 Stock Incentive Plan was filed as Exhibit 10.28 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2008, and is incorporated herein by reference.
10.9*	Amendment to The Travelers Companies, Inc. Amended and Restated 2004 Stock Incentive Plan was filed as Exhibit 10.7 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2012, and is incorporated herein by reference.
10.10*	Travelers Property Casualty Corp. ("TPC") 2002 Stock Incentive Plan, as amended effective January 23, 2003, was filed as Exhibit 10.22 to TPC's annual report on Form 10-K for the fiscal year ended December 31, 2002, and is incorporated herein by reference.

- 10.11* Amendment to the TPC 2002 Stock Incentive Plan, as amended effective January 23, 2003, was filed as Exhibit 10.9 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2012, and is incorporated herein by reference.
- 10.12* Current Director Compensation Program, effective as of May 19, 2016, was filed as Exhibit 10.2 to the Company's quarterly report on Form 10-Q for the fiscal quarter ended June 30, 2016, and is incorporated herein by reference.
- 10.13* The Company's Amended and Restated Deferred Compensation Plan for Non-Employee Directors was filed as Exhibit 10.29 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2008, and is incorporated herein by reference.
- 10.14* TPC Compensation Plan for Non-Employee Directors, as amended on January 22, 2004, was filed as Exhibit 10.16 to TPC's annual report on Form 10-K for the fiscal year ended December 31, 2003, and is incorporated herein by reference.
- 10.15* The SPC Directors' Deferred Compensation Plan was filed as Exhibit 10(b) to the Company's annual report on Form 10-K for the fiscal year ended December 31, 1997, and is incorporated herein by reference.
- 10.16* The SPC Deferred Stock Plan for Non-Employee Directors was filed as Exhibit 10(a) to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2000, and is incorporated herein by reference.
- 10.17* The Travelers Severance Plan (as Amended and Restated, effective January 1,2015) was filed as Exhibit 10.20 to the Company's annual report on Form 10-K for the fiscal year ended December 31,2014, and is incorporated herein by reference.
- 10.18* The Company's Senior Executive Performance Plan was filed as Exhibit 10.1 to the Company's quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2005, and is incorporated herein by reference.
- 10.19* First Amendment to the Company's Senior Executive Performance Plan was filed as Exhibit 10.40 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2009, and is incorporated herein by reference.
- 10.20* The Travelers Deferred Compensation Plan, as Amended and Restated, effective January 1, 2009, was filed as Exhibit 99.1 to the Company's Registration Statement on Form S-8 (Registration No. 333-157091) dated February 4, 2009, and is incorporated herein by reference.
- 10.21* First Amendment to The Travelers Deferred Compensation Plan was filed as Exhibit 10.37 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2009, and is incorporated herein by reference.
- 10.22* TPC Deferred Compensation Plan was filed as Exhibit 10.23 to TPC's annual report on Form 10-K for the fiscal year ended December 31, 2002, and is incorporated herein by reference.
- 10.23* The Travelers Benefit Equalization Plan, as Amended and Restated effective as of January 1, 2016, was filed as Exhibit 10.29 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2015, and is incorporated herein by reference.
- 10.24* TPC Benefit Equalization Plan was filed as Exhibit 10.24 to TPC's annual report on Form 10-K for the fiscal year ended December 31, 2002, and is incorporated herein by reference.
- 10.25* The SPC Benefit Equalization Plan-2001 Revision and the first and second amendments thereto were filed as Exhibit 10.27 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2004, and are incorporated herein by reference.
- 10.26* The SPC Annual Incentive Plan was filed as an exhibit to the Company's Definitive Proxy Statement on Schedule 14A, filed on March 29, 1999, and is incorporated herein by reference.
- 10.27* Form of Non-Competition Agreement was filed as Exhibit 10.43 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2009, and is incorporated herein by reference.
- 10.28* Form of Amended and Restated Non-Solicitation and Non-Disclosure Agreement for Executive Officers was filed as Exhibit 10.35 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2016, and is incorporated herein by reference.
- 10.29* Form of Restricted Stock Unit Award Notification and Agreement (For Management Committee Member Executing Non-Compete) was filed as Exhibit 10.37 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2014, and is incorporated herein by reference.
- 10.30^{†*} Form of Stock Option Grant Notification and Agreement.
- 10.31†* Form of Restricted Stock Unit Award Notification and Agreement.
- 10.32* Form of Performance Shares Award Notification and Agreement (2017) was filed as Exhibit 10.45 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2016, and is incorporated herein by reference.
- 10.33* Form of Performance Share Award Notification and Agreement (2018) was filed as Exhibit 10.40 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2017, and is incorporated herein by reference.

- 10.34* Form of Performance Share Award Notification and Agreement (2019) was filed as Exhibit 10.36 to the Company's annual report on Form 10-K for the fiscal year ended December 31, 2018, and is incorporated herein by reference.
- 10.35^{†*} Form of Performance Share Award Notification and Agreement (2020).
- 10.36†* Form of Non-Employee Director Notification and Agreement of Annual Deferred Stock Award.
 - 21.1† A list of the subsidiaries of the Company.
 - 23.1† Consent of KPMG LLP, Independent Registered Public Accounting Firm, with respect to the incorporation by reference of KPMG LLP's audit report into Registration Statements of the Company on Form S-8 and Form S-3.
 - 24.1† Power of Attorney.
 - 31.1[†] Certification of Alan D. Schnitzer, Chairman and Chief Executive Officer of the Company, as required by Section 302 of the Sarbanes-Oxley Act of 2002.
 - 31.2† Certification of Daniel S. Frey, Chief Financial Officer of the Company, as required by Section 302 of the Sarbanes-Oxley Act of 2002.
 - 32.1[†] Certification of Alan D. Schnitzer, Chairman and Chief Executive Officer of the Company, as required by Section 906 of the Sarbanes-Oxley Act of 2002.
 - 32.2† Certification of Daniel S. Frey, Chief Financial Officer of the Company, as required by Section 906 of the Sarbanes-Oxley Act of 2002.
- The following information from The Travelers Companies, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2019 formatted in Inline XBRL: (i) Consolidated Statement of Income for the years ended December 31, 2019, 2018 and 2017; (ii) Consolidated Statement of Comprehensive Income for the years ended December 31, 2019, 2018 and 2017; (iii) Consolidated Balance Sheet at December 31, 2019 and 2018; (iv) Consolidated Statement of Changes in Shareholders' Equity for the years ended December 31, 2019, 2018 and 2017; (vi) Consolidated Statement of Cash Flows for the years ended December 31, 2019, 2018 and 2017; (vi) Notes to Consolidated Financial Statements; (vii) Financial Statement Schedules; and (viii) the cover page.
- 104.1 Cover Page Interactive Data File (Embedded within the Inline XBRL document and included in Exhibit 101.1).

The total amount of securities authorized pursuant to any instrument defining rights of holders of long-term debt of the Company does not exceed 10% of the total assets of the Company and its consolidated subsidiaries. Therefore, the Company is not filing any instruments evidencing long-term debt. However, the Company will furnish copies of any such instrument to the Securities and Exchange Commission upon request.

Copies of any of the exhibits referred to above will be furnished to security holders who make written request therefor to The Travelers Companies, Inc., 385 Washington Street, Saint Paul, MN, 55102, Attention: Corporate Secretary.

The agreements and other documents filed as exhibits to this report are not intended to provide factual information or other disclosure other than the terms of the agreements or other documents themselves, and you should not rely on them for that purpose. In particular, any representations and warranties made by the Company in these agreements or other documents were made solely within the specific context of the relevant agreement or document and may not describe the actual state of affairs at the date they were made or at any other time.

Item 16. FORM 10-K SUMMARY

None.

[†] Filed herewith.

^{*} Management contract or compensatory plan in which directors and/or executive officers are eligible to participate.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, The Travelers Companies, Inc. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

THE TRAVELERS COMPANIES, INC.

(Registrant)

Date: February 13, 2020 By /s/ CHRISTINE K. KALLA

Christine K. Kalla Executive Vice President and General Counsel (Authorized Signatory)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of The Travelers Companies, Inc. and in the capacities and on the dates indicated.

			Date
By	/s/ ALAN D. SCHNITZER	Director, Chairman and Chief Executive Officer (Principal	February 13, 2020
_	Alan D. Schnitzer	Executive Officer)	1 Columny 13, 2020
By	/s/ DANIEL S. FREY	Executive Vice President and Chief Financial Officer (Principal	February 13, 2020
_	Daniel S. Frey	Financial Officer)	1 Columny 13, 2020
By	/s/ DOUGLAS K. RUSSELL	Senior Vice President and Corporate Controller (Principal	February 13, 2020
_	Douglas K. Russell	Accounting Officer)	1 cordary 13, 2020
Ву	*	- Director	February 13, 2020
_	Alan L. Beller	- Director	1 Columny 13, 2020
Ву	*	— Director	February 13, 2020
_	Janet M. Dolan	- Director	1 cordary 13, 2020
Ву	*	— Director	February 13, 2020
_	Patricia L. Higgins	- Director	1 cordary 13, 2020
Ву	*	— Director	February 13, 2020
	William J. Kane	- Director	1 cordary 13, 2020
Ву	*	— Director	February 13, 2020
	Clarence Otis Jr.	Director	1 cordary 13, 2020
Ву	*	– Director	February 13, 2020
_	Philip T. Ruegger III	- Director	1 cordary 13, 2020
Ву	*	- Director	February 13, 2020
	Todd C. Schermerhorn	Director	1 cordary 13, 2020
Ву	*	– Director	February 13, 2020
	Donald J. Shepard	Director	1 cordary 13, 2020
Ву	*	- Director	February 13, 2020
	Laurie J. Thomsen	- Director	1 cordary 13, 2020
*By _	/s/ CHRISTINE K. KALLA	_	
	Christine K. Kalla, Attorney-in-fact		February 13, 2020

THE TRAVELERS COMPANIES, INC.

(Parent Company Only)

CONDENSED FINANCIAL INFORMATION OF REGISTRANT

(in millions)

CONDENSED STATEMENT OF INCOME

2019	2018	2017
\$ 41	\$ 32	\$ 24
33	(13)	66
74	19	90
297	304	321
21	20	25
318	324	346
(244)	(305)	(256)
(77)	(114)	(130)
(167)	(191)	(126)
2,789	2,714	2,190
\$ 2,622	\$ 2,523	\$ 2,064
	\$ 41 33 74 297 21 318 (244) (77) (167) 2,789	\$ 41 \$ 32 33 (13) 74 19 297 304 21 20 318 324 (244) (305) (77) (114) (167) (191) 2,789 2,714

⁽¹⁾ The parent company had no other-than-temporary impairment gains or losses recognized in net realized investment gains (losses) or in other comprehensive income during the years ended December 31, 2019, 2018 and 2017.

The condensed financial statements should be read in conjunction with the notes to the condensed financial information of the registrant, as well as the consolidated financial statements and notes thereto.

See the Report of Independent Registered Public Accounting Firm.

THE TRAVELERS COMPANIES, INC.

(Parent Company Only)

CONDENSED FINANCIAL INFORMATION OF REGISTRANT

(in millions)

CONDENSED STATEMENT OF COMPREHENSIVE INCOME

2019		2018		2017	
\$	2,622	\$	2,523	\$	2,064
	4		_		(44)
	35		(53)		22
	39		(53)		(22)
	12		(17)		2
	27		(36)		(24)
	2,472		(1,434)		436
	2,499		(1,470)		412
\$	5,121	\$	1,053	\$	2,476
	\$	\$ 2,622 4 35 39 12 27 2,472 2,499	\$ 2,622 \$ 4 35 39 12 27 2,472 2,499	\$ 2,622 \$ 2,523 4 — 35 (53) 39 (53) 12 (17) 27 (36) 2,472 (1,434) 2,499 (1,470)	\$ 2,622 \$ 2,523 \$ 4

The condensed financial statements should be read in conjunction with the notes to the condensed financial information of the registrant, as well as the consolidated financial statements and notes thereto.

See the Report of Independent Registered Public Accounting Firm.

THE TRAVELERS COMPANIES, INC.

(Parent Company Only)

CONDENSED FINANCIAL INFORMATION OF REGISTRANT

(in millions)

CONDENSED BALANCE SHEET

At December 31,	2019	2018
Assets		
Fixed maturities	\$ 91	\$ 84
Equity securities	209	171
Short-term securities	1,390	1,371
Investment in subsidiaries	30,028	26,993
Other assets	336	649
Total assets	\$ 32,054	\$ 29,268
Liabilities		
Debt	\$ 5,865	\$ 5,871
Other liabilities	239	496
Total liabilities	6,104	6,367
Shareholders' equity		
Common stock (1,750.0 shares authorized; 255.5 and 263.7 shares issued, 255.5 and 263.6 shares outstanding)	23,469	23,144
Retained earnings	36,984	35,211
Accumulated other comprehensive income (loss)	640	(1,859)
Treasury stock, at cost (522.1 and 510.9 shares)	(35,143)	(33,595)
Total shareholders' equity	25,950	22,901
Total liabilities and shareholders' equity	\$ 32,054	\$ 29,268

The condensed financial statements should be read in conjunction with the notes to the condensed financial information of the registrant, as well as the consolidated financial statements and notes thereto.

See the Report of Independent Registered Public Accounting Firm.

THE TRAVELERS COMPANIES, INC.

(Parent Company Only)

CONDENSED FINANCIAL INFORMATION OF REGISTRANT

(in millions)

CONDENSED STATEMENT OF CASH FLOWS

For the year ended December 31,	2019	2018	2017
Cash flows from operating activities			
Net income	\$ 2,622	\$ 2,523	\$ 2,064
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in net income of subsidiaries	(2,789)	(2,714)	(2,190)
Dividends received from consolidated subsidiaries	2,459	2,258	2,289
Deferred federal income tax expense (benefit)	(2)	28	40
Change in income taxes payable	3	100	3
Other	(79)	(35)	(174)
Net cash provided by operating activities	2,214	2,160	2,032
Cash flows from investing activities			
Net sales (purchases) of short-term securities	(19)	(141)	397
Other investments, net	(8)	(7)	(34)
Acquisition, net of cash acquired	_	_	(477)
Net cash used in investing activities	(27)	(148)	(114)
Cash flows from financing activities			
Treasury stock acquired—share repurchase authorization	(1,500)	(1,270)	(1,378)
Treasury stock acquired—net employee share-based compensation	(48)	(51)	(62)
Dividends paid to shareholders	(844)	(814)	(785)
Payment of debt	(500)	(600)	(657)
Issuance of debt	492	591	789
Issuance of common stock—employee share options	213	132	173
Net cash used in financing activities	(2,187)	(2,012)	(1,920)
Net decrease in cash			(2)
Cash at beginning of year	_	_	2
Cash at end of year	\$ _	\$ _	\$
Supplemental disclosure of cash flow information			
Cash received during the year for taxes	\$ 78	\$ 283	\$ 173
Cash paid during the year for interest	\$ 291	\$ 300	\$ 320

The condensed financial statements should be read in conjunction with the notes to the condensed financial information of the registrant, as well as the consolidated financial statements and notes thereto.

THE TRAVELERS COMPANIES, INC.

(Parent Company Only)

NOTES TO THE CONDENSED FINANCIAL INFORMATION OF REGISTRANT

1. GUARANTEES

The Travelers Companies, Inc. (TRV) fully and unconditionally guarantees the payment of all principal, premiums, if any, and interest on certain debt obligations of its subsidiaries TPC and TIGHI. The guarantees pertain to the \$200 million 7.75% notes due 2026 and the \$500 million 6.375% notes due 2033.

TRV also has contingent obligations for guarantees in connection with the selling of businesses to third parties, certain insurance obligations of a subsidiary and various indemnifications including indemnifications to service providers in the normal course of business. The guarantees and indemnification clauses are often standard contractual terms and include indemnifications for breaches of representations and warranties and in some cases obligations arising from certain liabilities. The terms of these provisions vary in duration and nature.

Certain of the guarantees and indemnifications described above have no stated or notional amounts or limitation to the maximum potential future payments. Accordingly, TRV is unable to provide an estimate of the maximum potential payments for such arrangements, and the likelihood for any payment under these guarantees is remote.

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES Supplementary Insurance Information **2017-2019** (in millions)

Segment	De Acq	Deferred Acquisition Costs	C	Claims and Claim Adjustment Expense Reserves	2 2	Unearned Premiums	_ ਦ	Earned Premiums	Inv	Net Investment Income (1)	Cla Ad Ad	Claims and Claim Adjustment Expenses	Amor of Do Acqu	Amortization of Deferred Acquisition Costs	Ot Oper Exper	Other Operating Expenses (2)	W Pre	Net Written Premiums
2019			ļ															
Business Insurance	♦	1,161	ઝ	42,252	ઝ	7,540	❤	15,300	↔	1,816	∽	10,963	♦	2,503	∽	2,627	∽	15,629
Bond & Specialty Insurance		309		3,316		1,845		2,565		233		1,094		478		483		2,739
Personal Insurance		803		6,268		5,219		10,407		419		7,076		1,620		1,220		10,783
Total—Reportable Segments		2,273		51,836		14,604		28,272		2,468		19,133		4,601		4,330		29,151
Other		I		13		I		I		I		I		I		379		I
Consolidated	ዏ	2,273	↔	51,849	∽	14,604	∽	28,272	∽	2,468	∽	19,133	∽	4,601	∻	4,709	∽	29,151
2018																		
Business Insurance	↔	1,102	↔	41,132	↔	7,112	↔	14,722	∽	1,833	↔	10,171	∽	2,388	↔	2,623	↔	14,956
Bond & Specialty Insurance		277		3,255		1,619		2,420		233		772		454		459		2,528
Personal Insurance		741		6,266		4,824		9,917		408		7,348		1,539		1,185		10,224
Total—Reportable Segments		2,120		50,653		13,555		27,059		2,474		18,291		4,381		4,267		27,708
Other				15						1				I		382		I
Consolidated	∻	2,120		50,668	-∞	13,555	∞	27,059	∻	2,474	$ s_{\parallel}$	18,291	∞	4,381	∽	4,649	∞	27,708
2017																		
Business Insurance	S	1,060	↔	40,352	↔	6,857	S	14,146	∨	1,786	< >>	9,521	∨	2,286	↔	2,563	\$	14,270
Bond & Specialty Insurance		258		3,421		1,515		2,307		228		668		432		464		2,359
Personal Insurance		707		5,860		4,543		9,230		383		7,047		1,448		1,111		9,590
Total—Reportable Segments		2,025		49,633		12,915		25,683		2,397		17,467		4,166		4,138		26,219
Other				17		I		I		I		I				401		I
Consolidated	S	2,025	↔	49,650	↔	12,915	↔	25,683	s	2,397	s	17,467	∽	4,166	S	4,539	S	26,219

See note 2 of notes to the consolidated financial statements for discussion of the method used to allocate net investment income and invested assets to the identified segments.

 Ξ

Expense allocations are determined in accordance with prescribed statutory accounting practices. These practices make a reasonable allocation of all expenses to those product lines with which they are associated. 6

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES Valuation and Qualifying Accounts

(in millions)

	b	alance at eginning of period	Charged to costs and expenses	Charged to other accounts	D	Deductions (1)	Balance at end of period
2019							
Reinsurance recoverables	\$	110	\$ _	\$ _	\$	18	\$ 92
Allowance for uncollectible:							
Premiums receivable from underwriting activities	\$	54	\$ 59	\$ _	\$	58	\$ 55
Deductibles	\$	24	\$ (2)	\$ _	\$	_	\$ 22
2018							
Reinsurance recoverables	\$	111	\$ _	\$ _	\$	1	\$ 110
Allowance for uncollectible:							
Premiums receivable from underwriting activities	\$	58	\$ 50	\$ _	\$	54	\$ 54
Deductibles	\$	26	\$ (1)	\$ _	\$	1	\$ 24
2017							
Reinsurance recoverables	\$	116	\$ _	\$ _	\$	5	\$ 111
Allowance for uncollectible:							
Premiums receivable from underwriting activities	\$	61	\$ 38	\$ _	\$	41	\$ 58
Deductibles	\$	34	\$ (2)	\$ _	\$	6	\$ 26

⁽¹⁾ Credited to the related asset account.

THE TRAVELERS COMPANIES, INC. AND SUBSIDIARIES Supplementary Information Concerning Property-Casualty Insurance Operations $^{\rm (l)}$

2017-2019 (in millions)

	Net Written Premiums	29,151	27,708	26,219
	2	↔	↔	↔
	Paid Claims and Claim Adjustment Ne Expenses P	17,794	17,060	16,043
	Pa A _	€	∨	↔
	Amortization P of Deferred s Acquisition A Prior Year Costs	4,601	4,381	4,166
		∞	∨	↔
Jaim nt urred	rior Year	164	(406)	(458)
nd C tmei Inci	4	ዏ	↔	↔
Claims and Claim Adjustment Expenses Incurred Related to:	Net Investment Current Income Year P	18,854	18,614	17,846
		€	↔	↔
	Net ivestment Income	2,468	2,474	2,397
	ī	↔	↔	↔
	Unearned Earned I Premiums Premiums	28,272	27,059	25,683
	Д.	↔	↔	↔
	Jnearned remiums	14,604	13,555	12,915
	ם	€	↔	↔
	Discount From Reserves for Unpaid Claims(3)	1,155	1,158	1,102
	Un Ch	€	↔	↔
	Claims and Claim Adjustment Expense Reserves	51,836	50,653	49,633
	Cla Exp	€	↔	↔
	Deferred Acquisition Costs	2,273	2,120	2,025
	•	∞	↔	↔
	Affiliation with Registrant(2)	2019	2018	2017

(1) Excludes accident and health insurance business.

(2) Consolidated property-casualty insurance operations.

(3)

For a discussion of types of reserves discounted and discount rates used, see note 7 of notes to the consolidated financial statements.

CERTIFICATION

I, Alan D. Schnitzer, certify that:

- 1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2019 of The Travelers Companies, Inc. (the Company);
- 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 Company as of, and for, the periods presented in this report;
- 4. The Company'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 Company and have:
 - 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 Company, 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;
 - 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 Company'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 Company's internal control over financial reporting that occurred during the Company's most recent fiscal quarter (the Company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
- 5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's Board of Directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company'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 Company's internal control over financial reporting.

Date: February 13, 2020	By:	/s/ ALAN D. SCHNITZER
		Alan D. Schnitzer Chairman and Chief Executive Officer

CERTIFICATION

I, Daniel S. Frey, certify that:

- 1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2019 of The Travelers Companies, Inc. (the Company);
- 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 Company as of, and for, the periods presented in this report;
- 4. The Company'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 Company and have:
 - 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 Company, 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;
 - 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;
 - evaluated the effectiveness of the Company'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 Company's internal control over financial reporting that occurred during the Company's most recent fiscal quarter (the Company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
- 5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's Board of Directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company'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 Company's internal control over financial reporting.

Date: February 13, 2020	By:	/s/ DANIEL S. FREY
	•	Daniel S. Frey Executive Vice President and Chief Financial Officer

THE TRAVELERS COMPANIES, INC. CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and 18 U.S.C. Section 1350, the undersigned officer of The Travelers Companies, Inc. (the "Company") hereby certifies that the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 13, 2020	By:	/s/ ALAN D. SCHNITZER
		Name: Alan D. Schnitzer Title: Chairman and Chief Executive Officer

Exhibit 32.2

THE TRAVELERS COMPANIES, INC. CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and 18 U.S.C. Section 1350, the undersigned officer of The Travelers Companies, Inc. (the "Company") hereby certifies that the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 13, 2020	By:	/s/ DANIEL S. FREY
		Name: Daniel S. Frey Title: Executive Vice President and Chief Financial

Shareholders' Information

Your dividends

The Travelers Companies, Inc. has paid cash dividends without interruption for 148 years. Our most recent quarterly dividend of \$0.82 per share was declared on January 23, 2020, payable March 31, 2020, to shareholders of record as of March 10, 2020.

Automatic dividend reinvestment program

This program provides a convenient opportunity for our shareholders to increase their holding of Travelers common stock. An explanatory brochure and enrollment card may be obtained by calling our stock transfer agent, Equiniti Trust Company, at 888.326.5102, or by mailing a request to the address below.

Stock transfer agent and registrar

For address changes, dividend checks, direct deposits of dividends, account consolidations, registration changes, lost stock certificates and general stock holding questions, please contact:

Equiniti Trust Company EQ Shareowner Services P.O. Box 64854 Saint Paul, MN 55164-0854

Toll Free: 888.326.5102 Outside U.S. and Canada: 651.450.4064 shareowneronline.com

Financial information

Travelers makes available, free of charge on its website, all of its filings that are made electronically to the SEC, including Forms 10-K, 10-Q and 8-K. To access these filings, go to travelers.com > Investors > Financial Information > SEC Filings.

Requests for additional information may be directed to:

The Travelers Companies, Inc. 485 Lexington Avenue
New York, NY 10017-2630
Investor Relations, NY08EX
Attn: Abbe Goldstein
917.778.6824

Annual Meeting of Shareholders

The Annual Meeting of Shareholders will be held on May 21, 2020, at The Hartford Marriott Downtown, 200 Columbus Boulevard, Hartford, CT 06103-2807. As part of our precautions regarding the coronavirus or COVID-19 pandemic, we are planning for the possibility that the Annual Meeting may be held virtually over the internet. If we take this step, we will announce the decision to do so in advance, and details on how to participate will be available on our website at travelers.com under the "Investors" heading.

On or about April 3, 2020, we plan to send proxy materials, or a notice of internet availability of proxy materials, to shareholders of record as of the close of business on March 24, 2020. The notice will provide instructions on where to access our Proxy Statement and Annual Report as well as how to vote your shares electronically. The notice also includes instructions on how to request a printed copy of our proxy materials.

Stock price and dividends declared

The Travelers Companies, Inc. common stock is listed on the New York Stock Exchange (NYSE) and is publicly traded under the ticker symbol "TRV".

The following tables set forth the quarterly high and low closing sales prices of The Travelers Companies, Inc. common stock, as well as the amount of quarterly cash dividends declared per share for 2019 and 2018.

Cook Dividond

			Cash Dividend
2019	High	Low	Declared
First Quarter	\$137.16	\$115.26	\$0.77
Second Quarter	153.13	135.19	0.82
Third Quarter	154.83	143.48	0.82
Fourth Quarter	145.55	128.93	0.82
			Cash Dividend
2018	High	Low	Cash Dividend Declared
2018 First Quarter	High \$150.00	Low \$131.45	
			Declared
First Quarter	\$150.00	\$131.45	Declared \$0.72

Additional information

We have included the tables below and on the next page to provide reconciliations of certain GAAP financial measures to non-GAAP financial measures as follows: (i) a reconciliation of net income to core income, (ii) a reconciliation of shareholders' equity to adjusted shareholders' equity, which are components of the return on equity and core return on equity ratios, (iii) a calculation of return on equity and core return on equity, (iv) a calculation of book value per share and adjusted book value per share, (v) a reconciliation of after-tax underwriting gain (excluding the impact of catastrophes and net favorable (unfavorable) prior year reserve development) to net income and (vi) a reconciliation of invested assets to invested assets excluding net unrealized investment gains (losses).

For the year ended December 31,

(Dollars in millions, after-tax)	2019	2018	2017	2016	2015
Reconciliation of net income to	o core in	come			
Net income	\$2,622	\$2,523	\$2,056	\$3,014	\$3,439
Adjustments:					
Net realized investment gains	(85)	(93)	(142)	(47)	(2)
Impact of TCJA ¹ at enactment	-	-	129	-	-
Core income	\$2,537	\$2,430	\$2,043	\$2,967	\$3,437

As of December 31,

(Dollars in millions)	2019	2018	2017	2016	2015	2014
Reconciliation of shareholders' equity to adjusted sha	areholders' equity					
Shareholders' equity	\$25,943	\$22,894	\$23,731	\$23,221	\$23,598	\$24,836
Adjustments:						
Net unrealized investment (gains) losses,						
net of tax, included in shareholders' equity	(2,246)	113	(1,112)	(730)	(1,289)	(1,966)
Net realized investment gains, net of tax	(85)	(93)	(142)	(47)	(2)	(51)
Impact of TCJA ¹ at enactment	-	-	287	-	-	-
Adjusted shareholders' equity	\$23,612	\$22,914	\$22,764	\$22,444	\$22,307	\$22,819

For the year ended December 31, 2017

\$ 2,056

\$23,671

8.7%

2016

\$ 3,014

\$24,182

12.5%

2015

\$ 3,439

\$24,304

14.2%

2019

\$ 2,622

\$24,922

10.5%

2018

\$ 2,523

\$22,843

11.0%

(Dollars in millions, after-tax)

Average shareholders' equity

Net income

Return on equity

Calculation of return on equity and core return on equity

(b) the number of quarters in the period presented times two.

Core income Adjusted average shareholders' equity	\$ 2,5 \$23,3		2,430 22,814	\$ 2,043 \$22,743			\$ 3,437 \$22,681			
Core return on equity	10.9	9%	10.7%	9.0%	5 13	.3%	15.2%			
				As	of Deceml	per 31,				
(Dollars in millions, except per share amounts)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Calculation of book value per share and adjusted	book valu	e per sha	re							
Shareholders' equity	\$25,943	\$22,894	\$23,731	\$23,221	\$23,598	\$24,836	\$24,796	\$25,405	\$24,477	\$25,475
Less: Net unrealized investment gains (losses), net of tax, included in shareholders' equity Less: Preferred stock	2,246	(113)) 1,112	730	1,289	1,966 -	1,322	3,103	2,871	1,859 68
Shareholders' equity, excluding net unrealized investment gains (losses), net of tax, included in shareholders' equity and preferred stock	\$23,697	\$23,007	\$22,619	\$22,491	\$22,309	\$22,870	\$23,474	\$22,302	\$21,606	\$23,548
Common shares outstanding	255.5	263.6	271.4	279.6	295.9	322.2	353.5	377.4	392.8	434.6
Book value per share Adjusted book value per share	\$101.55 92.76	\$86.84 87.27	\$87.46 83.36	\$83.05 80.44	\$79.75 75.39	\$77.08 70.98	\$70.15 66.41	\$67.31 59.09	\$62.32 55.01	\$58.47 54.19
				For the yea	ar ended D	ecember	31,			
(Dollars in millions, after-tax)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Reconciliation of after-tax underwriting gain (exclude development) to net income	ling the im	pact of c	atastroph	nes and ne	t favorable	e (unfavo	rable) pri	or year re	eserve	
Underwriting gain excluding the impact of catastroph and net favorable (unfavorable) prior year reserve development (underlying underwriting gain) Impact of catastrophes	\$ 1,400	\$1,522 (1,355)	\$1,239 (1,267)	\$1,265 (576)	\$1,446 (338)	\$1,430 (462)	\$1,277) (387)	\$ 888) (1,214)		\$ 715 (729
Impact of net favorable (unfavorable) prior year reserve development	(47)	409	378	510	617	616	552	622	473	818
year reserve development	654	576	350	510	, ,	, ,	552 1,442	622	473 (745)	818
year reserve development Underwriting gain (loss) Net investment income	654 2,097	576 2,102	350 1,872	510 1,199 1,846	617 1,725 1,905	616 1,584 2,216	1,442 2,186	296 2,316	473 (745) 2,330	804 2,468
year reserve development Underwriting gain (loss) Net investment income Other, including interest expense Core income Net realized investment gains	654	576 2,102	350 1,872	510 1,199 1,846 (78) 2,967 47	617	616	1,442 2,186	296 2,316	473 (745) 2,330) (195) 1,390	804 2,468
year reserve development Underwriting gain (loss) Net investment income Other, including interest expense Core income Net realized investment gains Impact of TCJA ¹ at enactment	654 2,097 (214) 2,537	576 2,102 (248) 2,430 93	350 1,872 (179) 2,043 142	510 1,199 1,846 (78) 2,967 47	617 1,725 1,905 (193) 3,437	616 1,584 2,216 (159) 3,641	1,442 2,186) (61) 3,567 106	296 2,316) (171) 2,441 32	473 (745) 2,330) (195) 1,390	804 2,468 (229 3,043 173
year reserve development Underwriting gain (loss) Net investment income Other, including interest expense Core income Net realized investment gains Impact of TCJA¹ at enactment	654 2,097 (214) 2,537 85 -	576 2,102 (248) 2,430 93	350 1,872 (179) 2,043 142 (129)	510 1,199 1,846 (78) 2,967 47 - \$3,014	617 1,725 1,905 (193) 3,437 2 - \$3,439	616 1,584 2,216 (159) 3,641 51 - \$3,692	1,442 2,186) (61) 3,567 106	296 2,316) (171) 2,441 32	473 (745) 2,330 (195) 1,390 36	804 2,468 (229 3,043 173
year reserve development Underwriting gain (loss) Net investment income Other, including interest expense Core income Net realized investment gains Impact of TCJA¹ at enactment	654 2,097 (214) 2,537 85 -	576 2,102 (248) 2,430 93	350 1,872 (179) 2,043 142 (129) \$2,056	510 1,199 1,846 (78) 2,967 47 - \$3,014	617 1,725 1,905 (193) 3,437 2	616 1,584 2,216 (159) 3,641 51 - \$3,692	1,442 2,186 (61) 3,567 106 - \$3,673	296 2,316) (171] 2,441 32 - \$2,473	473 (745) 2,330) (195) 1,390 36 - \$1,426	804 2,468 (229 3,043 173
year reserve development Underwriting gain (loss) Net investment income Other, including interest expense Core income Net realized investment gains Impact of TCJA¹ at enactment Net income	654 2,097 (214) 2,537 85 - \$ 2,622	576 2,102 (248) 2,430 93 - \$2,523	350 1,872 (179) 2,043 142 (129) \$2,056	510 1,199 1,846 (78) 2,967 47 - \$3,014 As (617 1,725 1,905 (193) 3,437 2 - \$3,439 of December 2015	616 1,584 2,216 (159) 3,641 51 - \$3,692 per 31,	1,442 2,186 (61) 3,567 106 - \$3,673	296 2,316) (171] 2,441 32 - \$2,473	473 (745) 2,330) (195) 1,390 36 - \$1,426	804 2,468 (229 3,043 173 - \$3,216
Underwriting gain (loss) Net investment income Other, including interest expense Core income Net realized investment gains Impact of TCJA¹ at enactment Net income (Dollars in millions)	654 2,097 (214) 2,537 85 - \$ 2,622 2019 ets excludi \$77,884	576 2,102 (248) 2,430 93 - \$2,523 2018 ng net ui	350 1,872 (179) 2,043 142 (129) \$2,056	510 1,199 1,846 (78) 2,967 47 - \$3,014 As of the control of the co	617 1,725 1,905 (193) 3,437 2 - \$3,439 of December 2015 nt gains (616 1,584 2,216 (159) 3,641 51 - \$3,692 per 31, 2014	1,442 2,186) (61) 3,567 106 - \$3,673	296 2,316) (171] 2,441 32 - \$2,473	473 (745) 2,330) (195) 1,390 36 - \$1,426	804 2,468 (229 3,043 173 - \$3,216

Return on equity is the ratio of (a) net income for the period presented to (b) average shareholders' equity for the period presented. Core return on equity is the ratio of (a) core income for the period presented to (b) adjusted average shareholders' equity for the period presented.

Average shareholders' equity is (a) the sum of total shareholders' equity at the beginning and end of each of the quarters for the period presented divided by

Adjusted shareholders' equity is shareholders' equity excluding net unrealized investment gains (losses), net of tax, included in shareholders' equity, net realized investment gains (losses), net of tax, for the period presented and the effect of a change in tax laws and tax rates at enactment (excluding the portion related to net unrealized investment gains (losses)). Adjusted average shareholders' equity is (a) the sum of adjusted shareholders' equity at the beginning and end of each of the

Definitions of other terms used in this Annual Report are included in the Glossary of Selected Insurance Terms portion of the Form 10-K.

quarters for the period presented divided by (b) the number of quarters in the period presented times two.





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