Markel Corporation

Annual Report & Form 10-K



THE CORPORATE PROFILE

Markel Corporation is a diverse financial holding company serving a variety of niche markets. Our principal business markets and underwrites specialty insurance products.

In each of our businesses, we seek to provide quality products and excellent customer service so that we can be a market leader.

Our financial goals are to earn consistent underwriting and operating profits and superior investment returns to build shareholder value.

THE MARKEL STYLE

Markel has a Commitment to Success. We believe in hard work and a zealous pursuit of excellence while keeping a sense of humor. Our creed is honesty and fairness in all our dealings.

The Markel way is to seek to be a market leader in each of our pursuits. We seek to know our customers' needs and to provide our customers with quality products and service.

Our pledge to our shareholders is that we will build the financial value of our Company. We respect our relationship with our suppliers and have a commitment to our communities.

We are encouraged to look for a better way to do things...to challenge management. We have the ability to make decisions or alter a course quickly. The Markel approach is one of spontaneity and flexibility. This requires a respect for authority but a disdain of bureaucracy.

At Markel, we hold the individual's right to selfdetermination in the highest light, providing an atmosphere in which people can reach their personal potential. Being results-oriented, we are willing to put aside individual concerns in the spirit of teamwork to achieve success.

Above all, we enjoy what we are doing. There is excitement at Markel, one that comes from innovating, creating, striving for a better way, sharing success with others...winning.

Highlights

Financial Highlights

(dollars in millions, except per share data)	2020		2019		2018
Gross premium volume	\$ 9,267	\$	8,780	\$	7,864
Earned premiums	5,612		5,050		4,712
U.S. GAAP combined ratio	98 %	o	94 %	6	98 %
Markel Ventures segment operating revenues	2,795		2,055		1,913
Total operating revenues	9,735		9,526		6,841
Net income (loss) to common shareholders	798		1,790		(128)
Comprehensive income (loss) to shareholders	1,192		2,094		(376)
Total investments, cash and cash equivalents and restricted	24.025	ф	22.250	Ф	10.220
cash and cash equivalents (invested assets)	\$ 24,927	\$	22,258	\$	19,238
Total assets	41,710		37,474		33,306
Senior long-term debt and other debt	3,484		3,534		3,010
Shareholders' equity	12,800		11,071		9,081
Debt to capital	21 %	6	24 %		25 %
Per Share Data					
Common shares outstanding (at year end, in thousands)	13,783		13,794		13,888
Diluted net income (loss) per common share	\$ 55.63	\$	129.07	\$	(9.55)
Book value per common share	\$ 885.72	\$	802.59	\$	653.85
5-Year CAGR in book value per common share (1)	10 %	o	8 %	6	7 %
Closing stock price per share	\$ 1,033.30	\$	1,143.17	\$	1,038.05
5-Year CAGR in closing stock price (1)	3 %	6	11 %	6	12 %
(l) CACD					

⁽¹⁾ CAGR—compound annual growth rate

Operating Highlights

- Gross premium volume exceeded \$9 billion
- Comprehensive income to shareholders of \$1.2 billion
- Combined ratio of 98%, including six points of COVID-19 losses and three points of catastrophe losses
- Operating cash flows were \$1.7 billion
- Book value per common share was \$885.72 at December 31, 2020, representing a 10% increase for the year
- Markel Ventures completed the acquisition of Lansing Building Products, LLC, a supplier of exterior building products and materials to professional contractors throughout the U.S.

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2020

To Our Business Partners,

Thank you

Thank you to our employees throughout Markel who stood tall and continued to serve our customers through circumstances we never imagined.

Thank you to our customers who continued to depend on us.

Thank you to our shareholders who provided the necessary capital to operate our business and fulfill our promises.

Thank all of you for maintaining a long term commitment to the enduring and timeless values we articulate in the Markel Style. Our explicit creed that embraces hard work, a zealous pursuit of excellence, keeping a sense of humor, and honesty and fairness, never goes out of style. We appreciate and embrace all who share our dream.

Our values provide the ultimate in sustainability. We believe that no matter what changes the future may hold, the world will always need an organization like Markel that is dedicated to serving the needs of others.

Serving others works forever. The mindset of service drives a durable flywheel that attracts people, capital, and businesses.

We look forward to continuing to earn your trust whether you are an employee, customer, or shareholder of Markel. Many of you are in all three categories and we thank you for each role that you play.

Markel

We continue in our quest to build one of the world's great companies. We define a great company as one with a culture and system of Win-Win-Win for our employees, our customers, and our shareholders. These values define our strategy and frame every tactical decision. They apply to any and every specific line of business.

We strive to make Markel a place where our employees win by pursuing fulfilling careers of service to our customers, continuously learning, and providing for their families and communities, in a dependable and sustainable fashion.

We strive to make Markel a place where our customers win by finding everything from protection against unexpected events and circumstances, to an array of products and services from food making equipment, fire protection, green plants, management consulting, housing, medical services, educational infrastructure, transportation, building

Financial Highlights

(in millions, except per share data)	2020	2019	2018	2017	2016	2015	2014	2013	2012
Total operating revenues	\$ 9,735	9,526	6,841	6,062	5,612	5,370	5,134	4,323	3,000
Gross written premiums	\$ 9,267	8,780	7,864	5,507	4,797	4,633	4,806	3,920	2,514
Combined ratio	98 %	94 %	98 %	105 %	92 %	89 %	95 %	97 %	97 %
Invested assets	\$24,927	22,258	19,238	20,570	19,059	18,181	18,638	17,612	9,333
Invested assets per common share	\$1,808.50	1,613.62	1,385.24	1,479.45	1,365.72	1,302.48	1,334.89	1,259.26	969.23
Net income (loss) to common shareholders	\$ 798	1,790	(128)	395	456	583	321	281	253
Comprehensive income (loss) to shareholders	\$ 1,192	2,094	(376)	1,175	667	233	936	459	504
Shareholders' equity	\$12,800	11,071	9,081	9,504	8,461	7,834	7,595	6,674	3,889
Book value per common share	\$885.72	802.59	653.85	683.55	606.30	561.23	543.96	477.16	403.85
5-Year CAGR in book value per common share ⁽¹⁾	10 %	8 %	7 %	11 %	11 %	11 %	14 %	17 %	9 %
Closing stock price per share	\$1,033.30	1,143.17	1,038.05	1,139.13	904.50	883.35	682.84	580.35	433.42

⁽¹⁾ CAGR - compound annual growth rate

products, and multiple other necessary and desired items. Our underlying values guide us and apply to all of these products and services.

We strive to make Markel a place where our shareholders earn good returns on their capital and continue to want to provide us with it to make everything we do possible.

In 2020, we hit two-and-a-half out of our desired three wins. Our employees, and our customers, both continued to operate in a system that fulfilled the promises and goals we set.

While we earned positive comprehensive income and demonstrably increased the economic value of the company, our shareholders did not see those returns show up in the share price. That can be expected to happen from time to time due to overall investment market volatility. We acknowledge though that that has now been the case over the last five year period. And as you know, we consistently use five year time frames as a reasonable period to measure our performance. We know that delivering "two-and-a-half out of three" wins is not satisfactory. We can and must do better in order to regain traction and make progress like what we've experienced at Markel historically.

Over decades, Markel has accomplished the three part, Win-Win-Win goals. We are optimistic and confident that we also will do so in the future.

In the course of this letter, we hope to give you a full and candid report as to what is working well, and to discuss areas where we must improve. We hope that by the time you finish you will share our optimism about the discipline, hard choices, successes, and dedication we share to fully deliver on our commitment of excellence in each and every facet of Markel.

2020 Review

2020 stands out as a year unlike any other. We're sure you'll read these words in many annual reports and publications. While it may seem like there is an *unprecedented use of the word unprecedented* we believe it is fully justified this year.

This was truly a year unlike any other.

We started out in January brimming with optimism. We had just put the bow on 2019 where we reported a combined ratio of 94%. Those insurance results were a four point improvement over the prior year 98%, which was affected by above average levels of natural catastrophes. Our earned premiums grew from \$4.7 billion to over \$5 billion and underwriting profitability more than doubled from \$114 million to \$281 million.

In our investment operations, we had just finished a year when we earned 30% on our equity investment portfolio. That capped off a decade where we earned

2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	20-Year CAGR ⁽¹⁾
2,630	2,225	2,069	1,977	2,551	2,576	2,200	2,262	2,092	1,770	1,397	1,094	12 %
2,291	1,982	1,906	2,213	2,359	2,536	2,401	2,518	2,572	2,218	1,774	1,132	11 %
102 %	97 %	95 %	99 %	88 %	87 %	5 101 %	96 %	99 %	103 %	124 %	114 %	
8,728	8,224	7,849	6,893	7,775	7,524	6,588	6,317	5,350	4,314	3,591	3,136	11 %
907.20	846.24	799.34	702.34	780.84	752.80	672.34	641.49	543.31	438.79	365.70	427.79	7 %
142	267	202	(59)	406	393	148	165	123	75	(126)	(28)	
252	431	591	(403)	337	551	64	273	222	73	(77)	82	14 %
3,388	3,172	2,774	2,181	2,641	2,296	1,705	1,657	1,382	1,159	1,085	752	15 %
352.10	326.36	282.55	222.20	265.26	229.78	174.04	168.22	140.38	117.89	110.50	102.63	11 %
9 %	13 %	5 11 %	5 10 %	18 %	16 %	5 11 %	20 %	13 %	13 %	18 %	21 %	
414.67	378.13	340.00	299.00	491.10	480.10	317.05	364.00	253.51	205.50	179.65	181.00	9 %

annual returns of 15.2% on our equity portfolio in a disciplined, tax efficient, conservative, and low cost manner. Recurring investment income of interest and dividends reached a new record of \$452 million, up from \$434 million, despite unrelenting headwinds of lower and lower interest rates.

In our Ventures operations, we had posted record EBITDA of \$264 million, up from \$170 million, and revenues of \$2.1 billion compared to \$1.9 billion the previous year.

In our Insurance-Linked Securities and Program Services businesses, we made progress in continuing to grow and build our strategic Nephila and State National businesses. We continued to resolve the lingering issues associated with the CATCo operations. Profitability from these operations was constrained by costs associated with winding up and settling matters related to CATCo, which obscured the underlying progress evident in the ongoing businesses.

Our balance sheet was strong, and chock full of conservatively stated insurance loss reserves, high-quality fixed income investments to more than back those reserves, no near-term debt maturities, and appropriate levels of public equity investment exposure.

Boy, were we ready to bring it all home in 2020. Then, the pandemic ensued.

We did not see that coming.

The year did not unfold as we expected.

Fortunately, we've designed Markel to be *resilient*. While we in no way predicted the pandemic or the far reaching effects it would have on every aspect of our businesses and the daily lives of everyone on planet earth, we made forward progress this year despite the pandemic.

We will never be able to predict the future.

We can and must though prepare to adapt and adjust to whatever the future brings.

We believe that 2020 stands as a testament to our ability to do just that. We maintained an iron will along with a mindset of adaptability and endurance. We persisted and showed the ability to thrive despite unpredicted and unprecedented events. And we are very optimistic about our future.

We've spoken for years about the value of the Win-Win-Win architecture underlying your company.

We've worked tirelessly towards the goal of building one of the world's great companies. We define that goal as being a firm where we do things *for* our customers rather than *to* our customers, where our employees are better off for being with us, and where our shareholders are better off for having invested with us.

That is easy to say and enjoy when you've got tailwinds. 2019 was such a year and we set records across the organization. Comprehensive income in 2019 totaled \$2.1 billion, which was more than the previous four years combined, and nearly double any single previous year.

A truer and more meaningful test of the success in building one of the world's great companies takes place when conditions toughen. 2020, the year of the pandemic, stands out as a punishingly brutal exam.

In the face of this test we've got positive results to report. Financially, we earned comprehensive income of \$1.2 billion in 2020.

We reported record volumes in both our insurance and Ventures operations. We absorbed significant and unexpected insured losses in the first quarter as the pandemic started to take its toll. Then we endured and adapted.

In our insurance operations, we wrote a record amount of premium for the year and we earned underwriting profits starting in the second quarter and for the full year.

At Markel Ventures, we earned record revenues and EBITDA. Each of our companies faced challenges unlike any ever seen before. We needed to figure out how to keep our people healthy and safe, we needed to adapt to changing levels of what our customers wanted, we needed to figure out how to keep our supply chains functioning and effective, and multiple other existential challenges. Despite swirling and constantly changing conditions, our people endured and adapted and went on to set records. We are amazed and grateful for their dedication and accomplishments.

In our investment operations we earned a total return of 9.4% with equity investment returns of 15.2% and fixed income returns of 5.7%.

In our Insurance-Linked Securities and Program Services operations we reported revenues of \$316 million and operating income of \$5 million, which was net of \$59 million of amortization expense and also reflects \$51 million of expenses from CATCo's

run off operations, the majority of which is non-recurring.

As always, we think it is critical to view our financial results over meaningful periods of time. Quarterly and annual results are subject to immense volatility from investment market swings and natural catastrophes. Over longer time frames, a more meaningful and accurate picture emerges. For many years, we've measured ourselves (and based our executive incentive compensation) on five year measurements. We think that creates better Win-Win-Win and sustainable alignment for everyone committed to Markel.

This table shows some key measurements over the last three five-year periods.

(dollars in millions, except per share data)	2016 - 2020		2011 - 2015		2006 - 2010	
Total revenues	\$	37,776	\$	20,457	\$	11,398
Earned premiums	\$	23,488	\$	15,023	\$	9,870
Underwriting profits	\$	633	\$	733	\$	709
ILS and Program Services revenues	\$	939		N/A		N/A
ILS and Program Services operating loss	\$	(54)	N/A			N/A
Markel Ventures revenues	\$	9,311	\$	3,379	\$	456
Markel Ventures EBITDA	\$	1,167	\$	354	\$	45
Net investment income	\$	2,283	\$	1,580	\$	1,391
Comprehensive income to shareholders	\$	4,752	\$	2,384	\$	1,507
Closing stock price per share, at end of period	\$1	1,033.30	\$	883.35	\$	378.13

These five-year views show that we've experienced dramatic growth in the size and scale of Markel. Unfortunately, our underwriting profitability moved lower during the most recent five-year period. The combination of record levels of natural catastrophes, poor results in our reinsurance operations, and COVID-19 losses weighed on our underwriting profitability.

Investment income grew in both time frames, but at a slowing rate due to the steady, ongoing persistence of lower interest rates. Almost any time a fixed income investment matured or was sold, we had to replace it with something offering a lower yield. Dividends on our equity portfolio grew which counterbalanced some of the declines in interest rates.

Markel Ventures started as a dream in 2005 and grew to become a meaningful contributor to

revenues and earnings over the 15 years represented in this table.

We began our strategic initiative in Insurance-Linked Securities and Program Services during 2015 and the most recent five-year time frame shows the beginning era of what we expect will become a more meaningful component of Markel over the next several years. While our initial foray into ILS proved expensive and difficult, we believe that we've learned some important and critical lessons. Ongoing technological and environmental change in insurance markets continues to gallop ahead. ILS and Program Services should serve to keep Markel as a leader, guiding these changes and to protect us against the forces of disruption in the insurance marketplace.

We've designed Markel to be a resilient and adaptable company with "Three Engines" of Insurance, Investments, and Markel Ventures, that can power us forward. In any given year, one engine may be under pressure but the other two can provide positive thrust. In 2020, all three engines contributed. Over multi-year periods, such as the five-year time frame we consistently use to measure and judge ourselves, all three engines dependably propelled us forward.

Engine #1 - Insurance

Our first engine, and the heritage of Markel, is Insurance. In the Insurance engine, our insurance and reinsurance operations faced unprecedented challenges in the initial stages of the pandemic. As a vivid example, event cancellation insurance stands out as one product line where we experienced large and unprecedented losses. Normal underwriting disciplines of diversifying risk guided our approach in writing event cancellation as it does in all of our business lines. We, and our underwriters, fully believed that writing policies for things like a tennis tournament in England, the Olympics in Japan, a music festival in Tennessee, a movie festival in Colorado, a hot air balloon race in New Mexico, a wine festival in California, a beer festival in Germany, weddings, parades, concerts, ball games, and so on and so on, would fit the definition of a portfolio of diverse and uncorrelated risks.

In the case of the pandemic, all of those risks correlated to each other. Spreading things out geographically and throughout the year didn't work. All events were cancelled and significant losses occurred on policies for these events. We did not foresee that possibility.

Fortunately, those losses are finite. We are not writing event cancellation at this point and we are

near the end of when covered events from previously written policies can take place.

Business interruption coverages also loom large as a consequence of COVID-19. We have provided for the losses we expect from business interruption. We did so promptly as the pandemic unfolded and recognized the losses we believed we would face. Those reserves were calculated amidst conditions of uncertainty and necessarily reflect estimates. As 2020 progressed we gained additional data and we added to our estimates. As always, we did so in order to provide reserves which reflected our best estimate of our ultimate exposures.

We established COVID-19 related losses of \$325 million in the first quarter of 2020 and additional COVID-19 losses of \$33 million subsequently in 2020. As is always the case, we attempted to recognize all of the losses we expect to the best of our ability. Though we do not anticipate further COVID-19 losses, we cannot predict with certainty the extent to which legal decisions and other factors may impact the amount and nature of insured liabilities for pandemic related circumstances.

Despite the surprise and dramatic insured losses at the beginning of 2020, we managed to report a modest underwriting profit for the year with a combined ratio of 98%. While 98% falls short of our goals and does not produce appropriate returns on your capital, we are glad to be able to report underwriting profitability despite and in light of the unprecedented adverse conditions we faced in 2020.

As we stated earlier in this letter, we were very optimistic about reporting better insurance combined ratio results to you when we started the year. Along with the pandemic, we had more hurricanes than hurricane names in 2020, above average wildfires, and a derecho. We hate making excuses but we believe that we've made meaningful progress in improving the fundamental performance of our insurance operations and we're disappointed at how that progress is obscured by COVID-19 and above-average levels of natural catastrophes.

The headlines of COVID-19 and hurricanes fall outside our control. We cannot predict when or if such forces will strike again.

We can however act on things within our control. We have, and we continue to do so. Here is a small sample of actions we've taken, which should improve our financial results going forward.

First, we've significantly reduced writing insurance and reinsurance with exposures to natural

catastrophes. We do not know to what extent climate change and other factors have caused insured losses to increase in recent years. Neither can we predict with reasonable assurance what might happen in 2021 and beyond. As such, we've reduced our exposures to natural catastrophe-related losses overall. Should such losses strike in 2021 our losses will be less. We've not earned adequate returns for the risk and capital charges associated with large property related exposures for several years. We will redeploy the capital previously allocated to this business to higher and better uses within Markel.

Second, we've focused on increased efficiency and lower costs throughout our insurance operations. We continue to invest in technology to simplify the process of underwriting, marketing, distributing, and administering every facet of an insurance transaction. We've reduced our expense ratio from 37.7% in 2018 to 36.0% in 2020 and we are working towards, and confident of, further improvement in 2021.

Third, we've considered what it would look like to almost double the size of our insurance operations. We want to grow to \$10 billion of annual insurance premiums in five years and earn \$1 billion of annual underwriting profit while doing so. We've adopted this "10-5-1" target as an overarching goal to guide and discipline decision making within our insurance operations.

We are excited about this goal and believe it speaks to several important dimensions. The \$10 billion speaks to growth. In 2020 we wrote \$6 billion of insurance premium. We believe that growing the top line demonstrates that we are serving our customers with insurance coverages they want and need. Insurance rates continue to increase to reflect the severe losses experienced by the industry across multiple lines as well as the pervasive environment of lower interest rates.

We expect to achieve this goal largely through organic growth of our existing operations rather than through acquisitions.

The "5" speaks to a time frame. We want to reach the \$10 billion of annual insurance premiums in the next five years. The "5" provides a sense of urgency. Technology continues to drive change at a faster and faster pace. We can and must make decisions faster. By committing to growth and attaching a time frame, we're holding ourselves responsible in a measurable way to acting now rather than later.

The "1" speaks to \$1 billion of annual underwriting profits. Growth without profitability means we're doing something wrong. It also consumes capital since regulators and rating agencies require us to post capital to write insurance business. We've felt the effects of growth without sufficient profitability in the last few years and we're committing to the discipline of focus on the bottom line. We simply cannot provide our customers with quality long term financial promises if we do not earn sufficient profits all along the way to pay claims and provide appropriate returns at the same time.

In addition to the "10-5-1" goals from our insurance operations, we expect meaningful profitability from our reinsurance operations, as well as our Insurance-Linked Securities and Program Services operations beginning in 2021. We look forward to reporting positive results and demonstrating the wisdom of these initiatives.

Engine #2 - Investments

In 2020 we earned total investment returns of 9.4% comprised of 15.2% on our equity portfolio and 5.7% on our fixed income portfolio.

That sentence doesn't begin to address the tumult of the 2020 investment markets. The epic volatility and uncertainty all investors faced, and continue to face, appropriately dominates all investment thought (or at least it should in our opinion, we're not sure if it actually does).

Amidst the unprecedented conditions, we believe in keeping our eyes on the North Star while navigating amidst conditions of uncertainty. The North Star guides investment decisions at Markel both for asset allocation and specific security selection.

For example, we first decide to allocate capital either to fixed income or equity investments. Following the North Star, we first allocate enough capital into fixed income holdings to more than match our expected ultimate liability from insurance reserves.

We do this for two reasons. The first and most important is to make sure that when our customer, a policyholder, experiences a loss, we have the money to pay the claim. This is our foremost promise about the future, and we operate with a sense of stewardship and trust when it comes to honoring this promise. Consequently, we're not gunning for the highest returns with these funds; we are striving to provide as much assurance as possible that we will always have the means at hand to settle claims as they come due.

The second reason to invest in fixed income securities is to earn interest income. Interest rates continue to decline beyond any level ever seen in history. There has been no time on planet earth like today where interest rates in many locations are negative. When they're not in negative territory, they still seem too low to us to compensate us for the irreducible credit, currency, and inflation risks.

Our portfolio consists of sovereign credits with taxing authority at the federal, state, or municipal level, and a variety of high credit quality, first mortgage liens on daily use real estate, and a small component of high quality corporate bonds.

Yields continue to diminish in the face of lower overall interest rates. We are price takers, not price makers, in this arena and as such, we simply have to accept the rates on offer.

We believe that taking *more* credit or interest rate risk for *less* return is unwise. While we've sacrificed some incremental yield from taking this view in the last several years, we simply can't in good faith commit your capital or the funds we hold on behalf of our policyholders to riskier propositions. We think we will be well served by maintaining the capital integrity and storm worthiness of our balance sheet despite the temptation to pick up some yield by venturing further astray.

This stance will strike some as unnecessarily conservative until the day it doesn't. Just as is the case with insurance underwriting decisions, we need to balance potential rewards against potential risks. The risk/reward ratios in credit markets don't look good to us.

At the same time, we are in a period of rapid growth in our insurance operations. While premiums are growing faster than underwriting profits we think it's best to post capital in the form of high quality and shorter term fixed income securities, which keeps regulators and rating agencies happy.

When our expected underwriting profitability develops from this growth, we will have greater degrees of flexibility and latitude to invest more broadly. Underwriting profits create capital that we can then invest in higher return equity securities of all stripes.

In our equity portfolio we earned a total return of 15.2%. Our North Star in making equity investment decisions is to follow our longstanding four part discipline. Those four parts are, one, to invest in businesses with good returns on capital that don't use too much leverage, two, with management

teams with equal measures of talent and integrity, three, at companies with reinvestment opportunities and capital discipline, and four, at fair prices.

We've followed that North Star consistently through the entire history of Markel since our initial public offering in 1986 and it serves us well. We believe in the timelessness of the system. The names and businesses that meet this test continue to change, but the test remains the same.

Following that discipline caused us to reduce our equity exposures in the first part of the year. In light of the outbreak of the pandemic we re-underwrote every security that we owned (equities and fixed income) and made decisions based on our sense that the fundamental economic environment had experienced a seismic shift.

We also faced near term concerns about our underwriting profitability and a strong desire to carry the strongest balance sheet we could into an environment where we thought there would be opportunity to write well priced insurance business.

Tactically, that decision can be criticized as it caused us to reduce our equity exposure by approximately 20% at lower prices than prevailed at the end of 2020. We understand and share the frustration of that decision at that moment, but we would make the same decision again faced with the same facts and uncertainties. We made that decision to first protect the company in the face of such uncertainty and in order to maximize our ability to continue to write insurance premiums at favorable rates. We believe it is the best and highest use for capital in this environment and we look forward to reporting favorable results to you in the next few years that stem in part from these actions.

Engine #3 - Markel Ventures

The people of Markel Ventures produced a spectacular year. Revenues and EBITDA set new records of \$2.8 billion and \$367 million respectively.

As we stated throughout the year, we stand amazed and grateful at this accomplishment. Over the last 15 years we've brought together an amazing group of companies led by talented and dedicated managers. As a group they embody the values we seek. Their performance in 2020 amidst conditions of unprecedented adversity stands as nothing less than stunning.

2019 had been a record year and we were optimistic but slightly cautious as we entered 2020. Several of our businesses are quite cyclical and highly sensitive to general economic conditions such as auto sales, freight volumes, and capital equipment budgets. We were cautious entering 2020 because we had enjoyed a spectacular run of strong economic growth and favorable conditions for several years. They call them cycles for a reason and we fully anticipated a modest downturn as a strong possibility.

In March, we threw all of our budgets and plans out the window. In many cases, business simply stopped. Orders were cancelled and customers froze. No one knew what the next day would bring.

Fortunately, our managers responded in spectacular fashion. They adjusted and adapted every single component of their organizations. They changed workplace conditions to provide for the health and safety of their employees, they figured out how to operate with damaged supply chains and unsteady vendors, they adjusted their costs, and they made countless other decisions on a continuous basis under conditions of epic uncertainty.

Fortunately, the general economy also found some footing. Everyone in the world adapted to new conditions and governments and authorities responded with unprecedented financial and fiscal injections to keep economies from imploding.

In the middle of the storm in April, Lansing Building Products joined Markel. Our relationship with Lansing dates back many years. Formal discussions about them joining Markel began in 2019. Lansing embodies the values and culture we seek. For Lansing, Markel represents a long term home for a third generation family business. We can help them to grow and provide assurance to the people of that organization that they will be working for a stable and dependable organization. Their charge is to build their business profitably and serve their customers. As part of Markel, they will not be highly leveraged or operate with a sometimes conflicting goal of seeking an "exit" as would often be the case under alternative forms of ownership.

For Markel, Lansing provides another venue and forum for us to build resiliency and dependability. Building products should be on a somewhat different cycle than insurance, green plants, medical services, or management consulting and as such, the diversification should add stability to our overall cash flows and economic performance.

In total, over the last 15 years we've cumulatively invested approximately \$2.7 billion to acquire the businesses that comprise the Ventures group. So far, those companies have dividended back, and built up internal cash balances, of approximately \$1.2 billion.

In a very over simplified notion, we have a net investment of \$1.5 billion in a collection of businesses that earned \$367 million in EBITDA in 2020 amidst tough economic conditions.

We think any reasonable analyst would conclude these businesses are worth far more than what we paid and that they contribute to the resiliency and value of the Markel Corporation in tangible and intangible ways.

Capital Management

For many years we've followed a four step triage on how we allocate capital. Our first priority is to support our existing businesses. We prefer to fund people who are already part of Markel and who have already proven their skills and abilities.

Our second priority for capital is to acquire new businesses to expand the scale and resiliency of Markel.

Our third priority for capital is to acquire publicly traded equity securities.

Our fourth priority is to repurchase our own stock when we believe our shares to be trading below a reasonable estimate of intrinsic value.

In the first part of 2020, we were allocating capital to all four buckets. Our insurance businesses were experiencing strong growth. We funded that growth with short term and high quality fixed income securities. This is the type of capital that rating agencies and regulators prefer.

We also purchased Lansing Building Products. Lansing embodies everything we look for in a business. It meets each and every one of our four part tests. The business enjoys a demonstrated record of earning good returns on capital and not using too much leverage to do it. The management of Lansing embodies the values that guide Markel and they will add to the cultural fabric of your company in positive ways. Additionally, we believe that Lansing can continue to grow within the building products industry and the transaction took place at a fair price.

As the pandemic developed and business conditions changed, we halted purchasing additional equity securities. In fact, we liquidated a portion of our portfolio to help fund the opportunities we saw in our existing insurance business as well as to complete the Lansing acquisition. We also stopped repurchasing our shares.

In May we raised \$600 million of preferred equity to increase the conservatism and heft of our balance sheet and to help fund our growth opportunities. The preferred stock is callable beginning in 2025.

In 2021, we will follow the same capital allocation triage. We've acted decisively to increase profitability throughout Markel and we're optimistic that we'll be marching through the four part list as we have in the past. In fact, by year end 2020 we resumed modest purchases of equity securities in our publicly traded equity portfolio.

The Future

2020 brought challenges we never imagined. Despite those challenges, we persisted and we adapted. We provided for our customers and took care of our people to the best of our ability. We reported substantial profits and re-thought and re-engineered each and every aspect of what takes place at Markel.

In larger and smaller doses, that describes what we've done for decades. No decade ever ended up at the same place or the same way it started. Accordingly we changed, and grew, and prospered all the way along. We're incredibly optimistic about our resilience, the power of our values based system, our flexibility, and our unending dedication to serving our customers, our employees, and our shareholders. Win-Win-Win works and it represents the ultimate in sustainability.

As we wrote in 1986, at the time of our initial public offering, in the words of the Markel Style, "We believe in hard work and a zealous pursuit of excellence while keeping a sense of humor. Our creed is honesty and fairness in all our dealings."

Those words stand as a timeless formula that will drive our results in the future just as they have in the past.

This company started as a dream.

The dream lives on.

Thank you.

Thomas S. Gayner, Co-Chief Executive Officer

Richard R. Whitt, III, Co-Chief Executive Officer

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2020

Commission File Number 001-15811

MARKEL CORPORATION

(Exact name of registrant as specified in its charter)

A Virginia Corporation IRS Employer Identification No. 54-1959284

4521 Highwoods Parkway, Glen Allen, Virginia 23060-6148
(Address of principal executive offices) (Zip code)
Registrant's telephone number, including area code: (804) 747-0136

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

Title of each class		Trading Symbol(s)		Name of exchange on w	hich registered
Common Stock, no par val	lue	MKL		New York Stock I	
Securities registered pursuan	nt to Section	12(g) of the Act: None			
Indicate by check mark if the ract. Yes ⊠ No □	registrant is a	well-known seasoned issuer,	, as defined in	Rule 405 of the Securit	ties
Indicate by check mark if the ract. Yes □ No ⊠	registrant is n	ot required to file reports pur	suant to Section	on 13 or Section 15(d) o	of the
Indicate by check mark whether Securities Exchange Act of 193 file such reports), and (2) has be	34 during the	e preceding 12 months (or for	such shorter p	period that the registran	t was required to
Indicate by check mark whether pursuant to Rule 405 of Regulation that the registrant was required	ation S-T (§ 2	232.405 of this chapter) durin			
Indicate by check mark whether reporting company, or an emer "smaller reporting company," a	rging growth	company. See the definitions	s of "large acce	elerated filer," "accelera	
Large accelerated filer Smaller reporting company	⊠	Accelerated filer Emerging growth company		Non-accelerated filer	
If an emerging growth compan for complying with any new or □	•				1
Indicate by check mark whether effectiveness of its internal cor 7262(b)) by the registered publications.	ntrol over fin	ancial reporting under Section	n 404(b) of the	e Sarbanes-Oxley Act (
Indicate by check mark whether	er the registra	ant is a shell company (as def	ined in Rule 1	2b-2 of the Act). Yes	□ No ⊠
The aggregate market value of approximately \$12,437,000,00		f the registrant's Common Sto	ock held by no	n-affiliates as of June 3	0, 2020 was

The number of shares of the registrant's Common Stock outstanding at February 2, 2021: 13,783,813.

Documents Incorporated By Reference: The portions of the registrant's Proxy Statement for the Annual Meeting of Shareholders scheduled to be held on May 10, 2021, referred to in Part III.

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PARTI

Item 1. BUSINESS

Markel Corporation is a diverse financial holding company serving a variety of niche markets. We aspire to build one of the world's great companies and deploy three financial engines in pursuit of this goal.

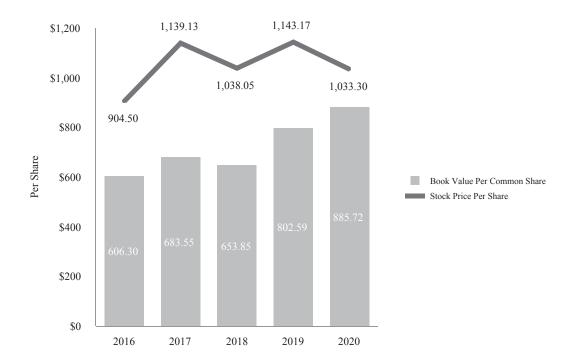
Insurance - Our principal business markets and underwrites specialty insurance products using multiple platforms that enable us to best match risk and capital.

Investing - Our investing activities are primarily related to our underwriting operations. The majority of our investable assets come from premiums paid by policyholders and the remainder is comprised of shareholder funds.

Markel Ventures - Through our Markel Ventures operations, we own controlling interests in a diverse portfolio of businesses that operate outside of the specialty insurance marketplace.

Our financial goals are to earn consistent underwriting and operating profits and superior investment returns to build shareholder value. We measure financial success by our ability to grow book value per common share and the market price per share of our stock, or total shareholder return, at high rates of return over a long period of time. To mitigate the effects of short-term volatility, we generally use five-year time periods to measure our performance. Growth in book value per common share is an important measure of our success because it includes all underwriting, operating and investing results. Over the past five years, we have grown book value per common share at a compound annual rate of 10% to \$885.72 per share at December 31, 2020. Growth in total shareholder value is also an important measure of our success, as a significant portion of our operations are not recorded at fair value or otherwise captured in book value. Over the past five years, our stock price per share increased at a compound annual rate of 3%.

The following graph presents book value per common share and stock price per share for the past five years as of December 31.



Insurance

Our insurance engine is comprised of the following types of operations:

- Underwriting our underwriting operations are comprised of our risk-bearing insurance and reinsurance operations
- Insurance-linked securities our insurance-linked securities (ILS) operations include investment fund managers that
 offer a variety of investment products, including insurance-linked securities, catastrophe bonds, insurance swaps and
 weather derivatives, as well as managing general agents that place risks with the funds managed or with third parties
- Program services our program services business serves as a fronting platform that provides other insurance entities access to the United States (U.S.) property and casualty insurance market

Through our underwriting, ILS and program services operations, we have a suite of capabilities through which we can access capital to support our customers' risks, which includes our own capital through our underwriting operations, as well as third party capital through our ILS and program services operations. Within each of these platforms, we believe that our specialty product focus and niche market strategy enable us to develop expertise and specialized market knowledge. We seek to differentiate ourselves from competitors by our expertise, service, continuity and other value-based considerations, including the multiple platforms through which we can manage risk and deploy capital. For example, we may leverage the strength of our underwriting platform to write certain risks on behalf of our ILS operations in accordance with their desired return objectives. We may also cede certain risks written through our underwriting operations to our ILS operations to the extent those risks are more aligned with the risk profile of our ILS investors than our own capital risk tolerance. Our ability to access multiple insurance platforms allows us to achieve income streams from our insurance operations beyond the traditional underwriting model.

Underwriting

Specialty Insurance and Reinsurance

Within our underwriting operations, we underwrite specialty insurance products on a risk-bearing basis. The specialty insurance market differs significantly from the standard market. In the standard market, insurance rates and forms are highly regulated, products and coverages are largely uniform with relatively predictable exposures and companies tend to compete for customers on the basis of price. In contrast, the specialty market provides coverage for hard-to-place risks that generally do not fit the underwriting criteria of standard carriers.

Competition in the specialty insurance market tends to focus less on price than in the standard insurance market and more on other value-based considerations, such as availability, service and expertise. While specialty market exposures may have higher perceived insurance risks than their standard market counterparts, we seek to manage these risks and achieve higher financial returns. To reach our financial and operational goals, we must have extensive knowledge and expertise in our chosen markets. Many of our larger accounts are considered on an individual basis where customized forms and tailored solutions are employed.

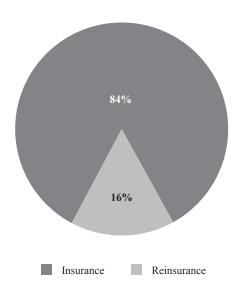
By focusing on the distinctive risk characteristics of our insureds, we have been able to identify a variety of niche markets where we can add value with our specialty product offerings and alternative platforms through which we can access capital to support our customers' risks. Examples of niche insurance markets that we have targeted include liability coverage for highly specialized professionals, wind and earthquake-exposed commercial properties, equine-related risks, classic cars, credit and surety-related risks, collateral protection risks and marine, energy and environmental-related activities. Our market strategy in each of these areas of specialization is tailored to the unique nature of the loss exposure, coverage and services required by insureds. In each of our niche markets, we assign teams of experienced underwriters and claims specialists who provide a full range of insurance services.

We also participate in the reinsurance market in certain classes of reinsurance product offerings. In the reinsurance market, our clients are other insurance companies, or cedents. We typically write our reinsurance products in the form of treaty reinsurance contracts, which are contractual arrangements that provide for automatic reinsuring of a type or category of risk underwritten by cedents. Generally, we participate on reinsurance treaties with a number of other reinsurers, each with an allocated portion of the treaty, with the terms and conditions of the treaty being substantially the same for each participating reinsurer. With treaty reinsurance contracts, we do not separately evaluate each of the individual risks assumed under the contracts and are largely dependent on the individual underwriting decisions made by the cedent. Accordingly, we review and analyze the cedent's risk management and underwriting practices in deciding whether to provide treaty reinsurance and in pricing of treaty reinsurance contracts.

Our reinsurance products are written globally on both a quota share and excess of loss basis. Quota share contracts require us to share the losses and expenses in an agreed proportion with the cedent. Excess of loss contracts require us to indemnify the cedent against all or a specified portion of losses and expenses in excess of a specified dollar or percentage amount. Our reinsurance products may include features such as contractual provisions that require our cedent to share in a portion of losses resulting from ceded risks, may require payment of additional premium amounts or provide experience refunds if the losses we incur differ from those projected at the time of the execution of the contract or may require reinstatement premium to restore the coverage after there has been a loss occurrence.

We distinguish ourselves in the reinsurance market by the expertise of our underwriting teams, our access to global reinsurance markets, our ability to offer large capacity lines and our ability to customize reinsurance solutions to fit our cedents' needs. Additionally, as with our insurance underwriting operations, our ability to access third party capital through our ILS and program services platforms provides additional capital alternatives to support certain risks, to the extent those risks do not align with our underwriting risk tolerance. For example, in late 2020, we made the decision to discontinue writing catastrophe-exposed property reinsurance on a risk-bearing basis, and instead will only write such business on behalf of our ILS operations, to the extent it matches the risk profile of our third party ILS investors, who will ultimately assume the risk. Our reinsurance product offerings include coverage for general liability, professional liability, property, workers' compensation and credit and surety risks.

The following chart presents the composition of our underwriting operations between insurance and reinsurance based on 2020 gross premium volume of \$7.2 billion, which also aligns with our two reportable underwriting segments.



The Insurance segment includes all of our direct business and facultative placements and is written through our Markel Specialty, Markel International and State National divisions, with the exception of our State National division's program services business, which is not included in a reportable segment. The Reinsurance segment includes all treaty reinsurance and is primarily written through our Global Reinsurance division. Additional detail regarding our underwriting divisions and products is included in "Underwriting Segments."

The following table summarizes our U.S. insurance and reinsurance subsidiaries.

U.S. Legal Entity	Abbreviation	State of Domicile
Evanston Insurance Company	EIC	Illinois
Essentia Insurance Company	Essentia	Missouri
FirstComp Insurance Company	FCIC	Nebraska
Markel American Insurance Company	MAIC	Virginia
Markel Global Reinsurance Company	MGRC	Delaware
Markel Insurance Company	MIC	Illinois
National Specialty Insurance Company	NSIC	Texas
State National Insurance Company, Inc.	SNIC	Texas
Suretec Insurance Company	SIC	Texas

All U.S. subsidiaries, with the exception of FCIC, are licensed, authorized, or accredited to write business in all 50 states and the District of Columbia. EIC is also authorized in Guam, Puerto Rico, and the U.S. Virgin Islands, and MAIC is also licensed in Puerto Rico. FCIC is licensed in 28 states.

The following table summarizes our international insurance and reinsurance subsidiaries.

International Legal Entity	Abbreviation	Country
Markel Bermuda Limited	MBL	Bermuda
Markel Insurance SE	MISE	Germany
Markel International Insurance Company Limited	MIICL	United Kingdom
Markel Syndicate 3000	Syndicate 3000	United Kingdom

Markets

In the U.S., we write business in the excess and surplus lines (E&S) and admitted insurance and reinsurance markets. The E&S, or non-admitted, market focuses on hard-to-place risks and loss exposures that generally cannot be written in the standard market. U.S. insurance regulations generally require an E&S account to be declined by admitted carriers before an E&S company may write the business. E&S eligibility allows our insurance subsidiaries to underwrite unique loss exposures with more flexible policy forms and unregulated premium rates. This typically results in coverages that are more restrictive and more expensive than coverages in the standard market. In 2019, the E&S market represented \$55 billion, or 8%, of the \$712 billion U.S. property and casualty industry. (1) In 2019, we were the second largest E&S writer in the U.S. as measured by direct premium writings. (1) Our E&S insurance operations are conducted through EIC. Our business written in the admitted market focuses on risks that, although unique and hard-to-place in the standard market, must remain with an admitted insurance company for marketing and regulatory reasons. Hard-to-place risks written in the admitted market cover insureds engaged in similar, but highly specialized, activities that require a total insurance program not otherwise available from standard insurers or insurance products that are overlooked by large admitted carriers. The admitted market is subject to more state regulation than the E&S market, particularly with regard to rate and form filing requirements, restrictions on the ability to exit lines of business, premium tax payments and membership in various state associations, such as state guaranty funds and assigned risk plans. The majority of our admitted insurance operations are conducted through MIC, MAIC, FCIC and Essentia. Our admitted operations also include SIC, SNIC, and NSIC. Our U.S. reinsurance operations are conducted through MGRC.

We also participate in the London insurance and reinsurance market, which is known for its ability to provide innovative, tailored coverage and capacity for unique and hard-to-place risks. Hard-to-place risks in the London market are generally distinguishable from standard risks due to the complexity or significant size of the risk. It is primarily a broker market, which means that insurance brokers bring most of the business to the market. Risks written in this market are written on either a direct basis or a subscription basis, the latter of which means that loss exposures brought into the market are typically insured by more than one insurance company or Lloyd's of London (Lloyd's) syndicate, often due to the high limits of insurance coverage required. When we write business in the subscription market, we prefer to participate as lead underwriter in order to control underwriting terms, policy conditions and claims handling. We participate in the London insurance and reinsurance market primarily through Markel Capital Limited (Markel Capital) and MIICL. Markel Capital is the corporate capital provider for Syndicate 3000, through which our Lloyd's operations are conducted. Syndicate 3000 is managed by Markel Syndicate Management Limited. In addition to their headquarters in London, Markel Capital and MIICL have offices across the United Kingdom (U.K.), Europe, Canada, Latin America, Asia Pacific and the Middle East through which we are able to offer insurance and reinsurance. The London insurance market produced approximately \$76 billion of gross written premium in 2019, of which \$47 billion was produced by Lloyd's syndicates. (1,2) In 2019, our share of the London market was approximately 2% as measured by gross written premiums.

In Bermuda, which is known for its significant concentration of insurance and reinsurance businesses, we participate in the worldwide insurance and reinsurance markets. The Bermuda property and casualty market is a significant source of capital for the U.S. market and the leading location for cessions by U.S. insurers.⁽³⁾ The Bermuda market produced \$71 billion of gross written premium in 2018.⁽⁴⁾ In 2018, our share of the Bermuda market was approximately 1% as measured by gross written premiums in our underwriting operations. We conduct our Bermuda underwriting operations through MBL, which is registered as a Class 4 insurer and Class C long-term insurer under the insurance laws of Bermuda.

We also write business through MISE, a regulated insurance carrier located in Munich, Germany. In anticipation of the U.K.'s exit from the European Union (E.U.), which occurred on January 31, 2020, we established MISE in 2018. From its offices in Germany, MISE transacts business in E.U. member states and throughout the European Economic Area (EEA). MISE has established branches in Ireland, the Netherlands, Spain, Switzerland and the U.K. In order to maintain access to E.U. business for Lloyd's syndicates, including Syndicate 3000, the Society of Lloyd's has organized an insurance company in Brussels, Belgium, which supplements, or serves as an alternative to, MISE for access to E.U. markets. For further discussion regarding the exit of the U.K. from the E.U., and its potential impacts to us, see the risk factor titled "The exit of the United Kingdom from the European Union could have a material adverse effect on us" under Item 1A Risk Factors.

While we operate in various other markets, substantially all of our gross written premiums in 2020 were written from our platforms in the United States, United Kingdom, Bermuda and Germany. In 2020, 79% of gross premium writings from our global underwriting operations were attributed to risks or cedents located in the United States. We were the 37th largest reinsurer in 2019, as measured by worldwide gross reinsurance premium writings.⁽⁵⁾

Most of our business is placed through insurance and reinsurance brokers, retail insurance agents and intermediaries, including managing general agents. Brokers and retail agents have limited quoting and binding authority. Managing general agents have broader underwriting authority. These agents are carefully selected and agency business is controlled through regular audits and pre-approvals. Certain products and programs are marketed directly to consumers or distributed through wholesale brokers. We seek to develop and capitalize on relationships with insurance and reinsurance brokers, insurance and reinsurance companies, large global corporations and financial intermediaries to develop and underwrite business. A significant volume of premium for the property and casualty insurance and reinsurance industry is produced through a small number of large insurance and reinsurance brokers. In 2020, the top two independent brokers accounted for 31% of gross premiums written in our underwriting segments. Additionally, a significant portion of the reinsurance contracts securitized through our ILS operations, for the benefit of third party investors, are placed through these two independent brokers.

- (1) London Company Market Statistics Report, International Underwriting Association (October 2019).
- (2) Lloyd's Annual Report 2019.
- (3) Offshore Reinsurance in the U.S. Market, Reinsurance Association of America (2018).
- (4) Bermuda Monetary Authority 2019 Annual Report.
- (5) Market Segment Report Global Reinsurance, A.M. Best (September 2, 2020).

Ceded Reinsurance

In a reinsurance transaction, an insurance company transfers, or cedes, all or part of its exposure in return for a premium. In a retrocessional reinsurance transaction, a reinsured exposure is further ceded to another reinsurer. Within our underwriting operations, we purchase reinsurance and retrocessional reinsurance to manage our net retention on individual risks and overall exposure to losses, while providing us with the ability to offer policies with sufficient limits to meet policyholder needs. Additionally, with multiple platforms through which we are able to connect risk and capital, we may leverage our underwriting expertise to support third party capital in our ILS and program services platforms in order to most efficiently match our customer's risk with the appropriate source of capital. In those instances where we are ceding risks within our underwriting operations to one of our other insurance platforms, we earn fees and commissions in exchange for our services.

We purchase reinsurance and retrocessional reinsurance coverage for our catastrophe-exposed policies to ensure that our net retained catastrophe risk is within our corporate tolerances. In late 2020, we made the decision to discontinue writing catastrophe-exposed property reinsurance within our Reinsurance segment on a risk-bearing basis, and instead, this business will either be written directly by, or ceded to, our ILS operations to be placed with third party capital to the extent it fits the ILS investors' risk profile. On other product lines for which we purchase reinsurance or retrocessional reinsurance, we shifted from buying proportional reinsurance coverages towards excess of loss coverages in both our Insurance and Reinsurance segments in late 2018 and have also shifted from purchasing coverages related to specific lines of business towards enterprise-wide coverages. All of these changes allow us to retain more of our profitable business while continuing to manage volatility within our underwriting results. Net retention of gross premium volume in our underwriting segments was 83% in 2020 and 84% in 2019.

Reinsurance and retrocessional treaties are generally purchased on an annual or biennial basis and are subject to renegotiation at renewal. In most circumstances, the reinsurer remains responsible for all business produced before termination. Treaties typically contain provisions concerning ceding commissions, required reports to reinsurers, responsibility for taxes, arbitration in the event of a dispute and provisions that allow us to demand that a reinsurer post letters of credit or assets as security if a reinsurer becomes an unauthorized reinsurer under applicable regulations or if its rating falls below an acceptable level.

Our ceded reinsurance and retrocessional contracts do not legally discharge us from our primary liability for the full amount of the policies, and we will be required to pay the loss and bear collection risk if the reinsurer fails to meet its obligations under the reinsurance agreement. We attempt to minimize credit exposure to reinsurers through adherence to internal ceded reinsurance guidelines. We manage our exposures so that no unsecured exposure to any one reinsurer is material to our ongoing business.

When appropriate, we pursue reinsurance commutations that involve the termination of ceded reinsurance and retrocessional reinsurance contracts. Our commutation strategy related to ceded reinsurance and retrocessional contracts is to reduce credit exposure and eliminate administrative expenses associated with the run-off of ceded reinsurance placed with certain reinsurers.

See note 10 of the notes to consolidated financial statements included under Item 8 and Item 7A Quantitative and Qualitative Disclosures About Market Risk for additional information about our ceded reinsurance programs and exposures.

Competition and Underwriting Philosophy

We compete with numerous domestic and international insurance companies and reinsurers, Lloyd's syndicates, risk retention groups, insurance buying groups, risk securitization programs, alternative capital sources, such as that provided through ILS, and alternative self-insurance mechanisms. We also compete with new companies that continue to be formed to enter the insurance and reinsurance markets, particularly companies with new or "disruptive" technologies or business models. Competition may take the form of lower prices, broader coverages, greater product flexibility, enhanced digital capabilities through which to distribute insurance products, higher coverage limits, higher quality services or higher ratings by independent rating agencies. In all of our markets, we compete on the basis of overall financial strength, ratings assigned by independent rating agencies, development of specialty products to satisfy well-defined market needs and by maintaining relationships with agents, brokers and insureds who rely on our expertise. This expertise is our principal means of competing. We offer a diverse portfolio of products, each with its own distinct competitive environment, which requires us to be responsive to changes in

market conditions for individual product lines. With each of our products, we seek to write business that produces underwriting profits by competing with innovative ideas, appropriate pricing, expense control and quality service to policyholders, agents and brokers. More recently, we have also leveraged our underwriting capacity and expertise through relationships with start-ups and digital distribution partners through which we can develop ideas that leverage emerging technologies and modern customer acquisition strategies to create the service and experience that consumers have grown to expect and demand.

Few barriers exist to prevent insurers and reinsurers from entering our markets within the property and casualty industry. Market conditions, risk tolerance and capital capacity influence the degree of competition at any point in time. During periods of excess underwriting capacity, as defined by availability of capital, competition can result in lower pricing and less favorable policy terms and conditions for insurers. During periods of reduced underwriting capacity, pricing and policy terms and conditions are generally more favorable for insurers. Historically, the performance of the property and casualty reinsurance and insurance industries has tended to fluctuate in cyclical periods of price competition and excess underwriting capacity, followed by periods of high premium rates and shortages of underwriting capacity. At any given time, our portfolio of insurance products could be experiencing varying combinations of these characteristics. This cyclical market pattern can be more pronounced in the specialty insurance and reinsurance markets in which we compete than the standard insurance market.

Following several years of price decreases, and the high level of natural catastrophes that occurred in 2017, we began seeing more favorable rates in 2018, particularly on our catastrophe-exposed and loss-affected business, that have continued and further strengthened through 2020 following the continued high level of natural catastrophes and the high level of losses attributed to the COVID-19 pandemic. We are also seeing improved pricing on many of our other product lines, the primary exception being workers' compensation, where we continue to see rate decreases given favorable loss experience in recent years. These rate increases have been been more significant in the primary, or insurance markets, than the reinsurance markets.

By focusing on market niches where we have underwriting expertise, and leveraging capabilities offered through our multiple insurance platforms, we seek to earn consistent underwriting profits, which are a key component of our strategy. The property and casualty insurance industry commonly defines underwriting profit or loss as earned premiums net of losses and loss adjustment expenses and underwriting, acquisition and insurance expenses. We believe that the ability to achieve consistent underwriting profits demonstrates knowledge and expertise, commitment to superior customer service and the ability to manage insurance risk. We use underwriting profit or loss as a basis for evaluating our underwriting performance. The combined ratio is a measure of underwriting performance and represents the relationship of incurred losses, loss adjustment expenses and underwriting, acquisition and insurance expenses to earned premiums. A combined ratio less than 100% indicates an underwriting profit, while a combined ratio greater than 100% reflects an underwriting loss. In 2020, our combined ratio was 98%. See Item 7 Management's Discussion & Analysis of Financial Condition and Results of Operations for a discussion of our underwriting results.

We routinely review the pricing of our major product lines. When we believe the prevailing market price will not support our underwriting profit targets, the business is not written. As a result of our underwriting discipline, gross premium volume may vary when we alter our product offerings to maintain or improve underwriting profitability.

Over the past few years, we have increased our focus on growing our most profitable lines of business and have discontinued certain lines or programs that have not performed consistent with our expectations. This is particularly true within our Reinsurance segment, where we made the decision in late 2020 to discontinue writing catastrophe-exposed property business on a risk-bearing basis, and instead, this business will either be written directly by, or ceded to, our ILS operations to be placed with third party capital. In more limited instances, we have taken similar actions within our Insurance segment, and we have also made changes in our ceded reinsurance programs, as previously discussed. With these changes, along with the more favorable rates we are seeing in the market, we expect less volatility in our underwriting results going forward.

Underwriting Segments

We monitor and assesses the performance of our ongoing underwriting operations on a global basis in the following two segments: Insurance and Reinsurance. See note 2 of the notes to consolidated financial statements included under Item 8 for additional segment reporting disclosures.

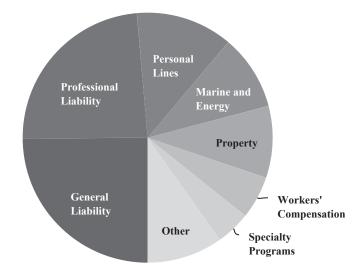
Insurance Segment

Our Insurance segment reported gross premium volume of \$6.0 billion, earned premiums of \$4.7 billion and an underwriting profit of \$169.0 million in 2020. The following chart presents the composition of our Insurance segment by division based on 2020 gross premium volume.



The Markel Specialty division writes business on an admitted and non-admitted basis for individuals and small businesses to Fortune 1000 companies for agents and brokers in the U.S., Bermuda, the U.K. and Ireland as well as program insurance and other specialty coverages for well-defined niche markets. This division was formed effective April 1, 2020 through the combination of our Markel Assurance and Markel Specialty divisions. The newly combined Markel Specialty division creates a unified platform that we believe makes it easier for our customers to access our diverse portfolio of products and capabilities and provides an improved customer experience. The Markel International division writes business worldwide from our London and Munich-based platforms, which include branch offices around the world. The State National division writes collateral protection insurance, which insures personal automobiles and other vehicles held as collateral for loans made by credit unions, banks and specialty finance companies through its lender services product line on both an admitted and non-admitted basis.

The following chart displays the types of products written in our Insurance segment based on 2020 gross premium volume.



General Liability product offerings include a variety of primary and excess liability coverages targeting apartments and office buildings, retail stores, contractors, consultants, construction professionals, financial service professionals, professional practices, social welfare organizations and medical products, as well as businesses in the life sciences, energy, medical, healthcare, pharmaceutical, recreational, transportation, heavy industrial and hospitality industries. Specific products include excess and umbrella products, products liability products, environmental liability products and casualty facultative reinsurance written for individual casualty risks.

Professional liability coverages include unique solutions for highly specialized professions, including architects and engineers, lawyers, accountants, agents and brokers, service technicians and consultants. We offer claims-made medical malpractice coverage for doctors and dentists; claims-made professional liability coverage for individual healthcare providers such as therapists, pharmacists, physician assistants and nurse anesthetists; and coverages for medical facilities and other allied healthcare risks such as clinics, laboratories, pharmacies and senior living facilities. Other professional liability coverages include errors and omissions, union liability, professional indemnity, intellectual property, executive liability for financial institutions and Fortune 1000 companies and management liability. Additionally, we offer cyber liability products, which provide coverage for, among other things, data breach and privacy liability, data breach loss to insureds and electronic media coverage.

Personal lines products provide first and third party coverages for classic cars, motorcycles and a variety of personal watercraft, including vintage boats, high performance boats and yachts and recreational vehicles, such as motorcycles, snowmobiles and ATVs. Based on the seasonal nature of much of our personal lines business, we generally will experience higher claims activity during the second and third quarters of the year. Additionally, property coverages are offered for mobile homes, dwellings and homeowners that do not qualify for standard homeowner's coverage.

Marine and energy products include a portfolio of coverages for cargo, energy, hull, liability, war and terrorism risks. The cargo product line is an international transit-based book providing coverage for many types of cargo. Energy coverage includes all aspects of oil, gas and renewable energy activities. Hull coverages consist of coverage for physical damage to ocean-going tonnage, yachts and mortgagees' interests. Liability coverage provides for a broad range of energy liabilities, as well as traditional marine exposures including charterers, terminal operators and ship repairers. War coverage includes protections for the hulls of ships and aircraft, and other related interests, against war and associated perils. Terrorism coverage provides for property damage and business interruption related to political and civil violence including war and civil war.

Property coverages consist principally of fire, allied lines (including windstorm, hail and water damage) and other specialized property coverages, including catastrophe-exposed property risks such as earthquake and wind on both a primary and excess basis. Catastrophe-exposed property risks are typically lower frequency and higher severity in nature than more standard property risks. Our property coverages are exposed to windstorm losses that, based on the seasonal nature of those events, are more likely to occur in the third and fourth quarters of the year. Our property risks range from small, single-location accounts to large, multi-state, multi-location, multi-national accounts on a worldwide basis. Other types of property products include inland marine products, railroad-related products and specie coverage for fine art on exhibition and in private collections.

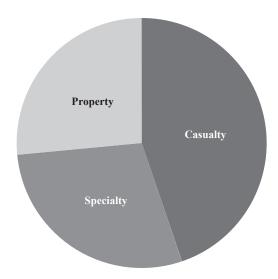
Workers' compensation products provide wage replacement and medical benefits to employees injured in the course of employment and target main-street, service and artisan contractor businesses, retail stores and restaurants.

Specialty programs business included in this segment is offered on a standalone or package basis and generally targets specialized commercial markets and various customer groups, such as amateur sports and senior living facilities. Other specialty programs business written in this segment includes general agent programs that use managing general agents to offer single source admitted and non-admitted programs for a specific class or line of business, including first and third party coverages.

Other product lines within the Insurance segment include credit and surety products and collateral protection insurance.

Reinsurance Segment

Our Reinsurance segment product offerings are underwritten primarily by our Global Reinsurance division, which operates from platforms in the U.S., Bermuda and the U.K. Our Reinsurance segment reported gross premium volume of \$1.1 billion, earned premiums of \$929.3 million and an underwriting loss of \$34.0 million in 2020. The following chart displays the types of products written in our Reinsurance segment based on 2020 gross premium volume.



Our casualty treaty reinsurance programs are written on a quota share and excess of loss basis and include general liability, professional liability, medical malpractice and environmental impairment liability. General liability reinsurance includes umbrella and excess casualty products that are written worldwide. Our professional liability reinsurance programs are offered worldwide and consist of directors and officers liability, including publicly traded, private, and non-profit companies in both commercial and financial institution arenas; lawyers errors and omissions for small, medium and large-sized law firms; accountants errors and omissions for small and medium-sized firms; technology errors and omissions and cyber liability focusing on network security and privacy exposures. Medical malpractice reinsurance products are offered in the United States and include coverage for physician, surgeon, hospital and long term care medical malpractice writers. Environmental treaty reinsurance provides coverage for pollution legal liability, contractors pollution and professional liability exposures on both a nationwide and regional basis within the U.S.

Specialty treaty reinsurance products offered in the Reinsurance segment include structured and whole turnover credit, political risk, mortgage and contract and commercial surety reinsurance programs covering worldwide exposures, public entity reinsurance products, workers' compensation excess of loss and quota share treaties, whole account, marine and agriculture reinsurance products. Our mortgage products offer coverage for private mortgage insurers in the U.S., Australia and Europe. Our public entity reinsurance products offer customized programs for government risk pools, including counties, municipalities, schools, public housing authorities and special districts (e.g., water, sewer, parks) located in the U.S. Types of coverage for public entities include general liability, environmental impairment liability, cyber and errors and omissions. Our workers' compensation business includes standard and catastrophe exposed workers' compensation business. Marine reinsurance products include offshore and onshore marine and energy risks on a worldwide basis, including hull, cargo and liability. Agriculture reinsurance covers multi-peril crop insurance, hail and related exposures, for risks located in the U.S. and Canada.

Property treaty products are offered on an excess of loss and quota share basis for catastrophe, per risk and retrocessional exposures worldwide. A significant portion of the property treaty business covers U.S. exposures, with the remainder coming from international property exposures. Our property treaty products include coverage for catastrophe exposures, as well as individual property risks such as buildings, structures, equipment and contents and provide coverage for both personal lines and commercial property exposures. Our retrocessional products provide coverage for all types of underlying exposures and geographic zones. Our catastrophe exposures are generally written on an excess of loss basis and target both personal and commercial lines of business providing coverage for losses from natural disasters, including hurricanes, wind storms and earthquakes. Based on the seasonal nature of hurricanes and wind storms, certain catastrophic losses are more likely to occur in the third and fourth quarters of the year. In late 2020, we made the decision to discontinue writing catastrophe-exposed property reinsurance within our Reinsurance segment on a risk-bearing basis, and instead, any such business will either be

written directly by, or ceded to, our Nephila ILS operations to be placed with third party capital to the extent it fits the ILS investors' risk profile. However, as some of our reinsurance contracts are written with multi-year terms, we will continue to have catastrophe-exposure through the expiration of those contracts, some of which extend into 2023. Additionally, on the contracts that are ceded, we will continue to bear underwriting risk for aggregate agreement year losses on these exposures in excess of a limit that we believe is highly unlikely to be exceeded. We also continue to have exposure to catastrophes on our retrocessional reinsurance business.

Insurance-Linked Securities

Our insurance-linked securities operations are comprised of our Nephila and run-off Markel CATCo operations, as further described below. We receive management fees for investment and insurance management services provided through these operations based on the net asset value of the accounts managed, and for certain funds, incentive fees based on the annual performance of the funds managed. Through our Nephila operations, we also provide managing general agent services and receive commissions based on the direct written premiums of the insurance contracts placed. Total revenues from our insurance-linked securities operations for the year ended December 31, 2020 were \$212.3 million, which are included in services and other revenues in our consolidated statement of income and comprehensive income.

Nephila

In November 2018, we completed the acquisition of all of the outstanding shares of Nephila Holdings Ltd. (together with its subsidiaries, Nephila). Headquartered in Bermuda, Nephila serves as an insurance and investment fund manager and managing general agent that offers a broad range of investment products, including insurance-linked securities, catastrophe bonds, insurance swaps and weather derivatives.

Nephila serves as the investment manager to several Bermuda, Ireland and U.S. based private funds (the Nephila Funds). To provide access for the Nephila Funds to the insurance, reinsurance and weather markets, Nephila also acts as an insurance manager to certain Bermuda Class 3 and 3A reinsurance companies and Lloyd's Syndicate 2357 (Syndicate 2357) (collectively, the Nephila Reinsurers). Nephila also serves as a managing general agent that underwrites and administers property insurance policies and provides delegated underwriting services to providers of insurance capital, including the Nephila Reinsurers. The results of the Nephila Reinsurers are attributed to the Nephila Funds primarily through derivative transactions between these entities. Neither the Nephila Funds nor the Nephila Reinsurers are subsidiaries of Markel Corporation, and as such, these entities are not included in our consolidated financial statements. As of December 31, 2020, Nephila's net assets under management were \$9.6 billion.

See note 16 of the notes to consolidated financial statements included under Item 8 for further details regarding our Nephila operations.

Markel CATCo

Our Markel CATCo operations are conducted through Markel CATCo Investment Management Ltd. (MCIM). MCIM is an ILS investment fund manager headquartered in Bermuda and, through 2019, was focused on building and managing highly diversified, collateralized retrocession and reinsurance portfolios covering global property catastrophe risks. MCIM serves as the insurance manager for Markel CATCo Re Ltd. (Markel CATCo Re), a Bermuda Class 3 reinsurance company, and as the investment manager for Markel CATCo Reinsurance Fund Ltd., a Bermuda exempted mutual fund company comprised of multiple segregated accounts (Markel CATCo Funds). MCIM also serves as the investment manager to CATCo Reinsurance Opportunities Fund Ltd. (CROF), a limited liability closed-end Bermuda exempted mutual fund company listed on a market operated by the London Stock Exchange and on the Bermuda Stock Exchange. CROF invests substantially all of its assets in Markel CATCo Reinsurance Fund Ltd.

In July 2019, MCIM announced it would cease accepting new investments in the Markel CATCo Funds and would not write any new business in Markel CATCo Re. Both the Markel CATCo Funds and Markel CATCo Re have been placed into run-off, and MCIM is returning capital to investors as it becomes available. For further details regarding these developments within our Markel CATCo operations, see note 19 of the notes to consolidated financial statements included under Item 8. As of December 31, 2020, MCIM's remaining net assets under management were \$1.0 billion.

See note 15 of the notes to consolidated financial statements included under Item 8 for further details regarding our Markel CATCo operations.

Lodgepine

In 2019, we established Lodgepine Capital Management Limited (Lodgepine), our new retrocessional insurance-linked securities fund manager in Bermuda. Lodgepine's initial product offering will be Lodgepine Fund Limited, a property catastrophe retrocessional investment fund, and subject to certain conditions, we have committed to invest up to \$100 million in Lodgepine Fund Limited. Lodgepine Fund Limited initially plans to subscribe to a portfolio of retrocessional reinsurance, which includes contracts written in our Reinsurance segment.

Program Services

Our program services business, which is provided through our State National division, generates fee income, in the form of ceding (program service) fees, by offering issuing carrier capacity to both specialty managing general agents and other producers who sell, control and administer books of insurance business that are supported by third parties that assume reinsurance risk, including Syndicate 2357 and other Nephila Reinsurers. These reinsurers are domestic and foreign insurers and institutional risk investors (capacity providers) that want to access specific lines of U.S. property and casualty insurance business, but may not have the required licenses and filings to do so. In general, fronting refers to business in which we write insurance on behalf of a general agent or capacity provider and then cede all, or substantially all, of the risk under these policies to the capacity provider in exchange for ceding fees.

Through our program services business, we write a wide variety of insurance products, principally including general liability insurance, commercial multi-peril insurance, property insurance and workers' compensation insurance. Program services business written through our State National division is separately managed from our underwriting divisions, which write similar products, in order to protect our program services customers and eliminate internal competition for this business.

The following table summarizes the subsidiaries through which our program services business is primarily written.

Legal Entity	Abbreviation	State of Domicile
City National Insurance Company	CNIC	Texas
Independent Specialty Insurance Company	ISIC	Delaware
National Specialty Insurance Company	NSIC	Texas
State National Insurance Company, Inc.	SNIC	Texas
United Specialty Insurance Company	USIC	Delaware

All of these subsidiaries are licensed to write property and casualty insurance in all 50 states and the District of Columbia. USIC is also eligible to write business in the U.S. Virgin Islands. Many of our programs are arranged with the assistance of brokers that are seeking to provide customized insurance solutions for specialty insurance business that requires a carrier rated "A" by A.M. Best Company (Best). Our specialized business model relies on third party producers or capacity providers to provide the infrastructure associated with providing policy administration, claims handling, cash handling, underwriting, or other traditional insurance company services. We believe there are relatively few active competitors in the fronting business. We compete primarily on the basis of price, customer service, geographic coverage, financial strength ratings, licenses, reputation, business model and experience.

Total revenues attributed to our program services business for the year ended December 31, 2020 were \$104.2 million. Our program services business generated \$2.1 billion of gross written premium volume for the year ended December 31, 2020.

In our program services business, we generally enter into a 100% quota share reinsurance agreement whereby we cede to the capacity provider substantially all of our gross liability under all policies issued by and on behalf of us by the producer. The capacity provider is generally entitled to 100% of the net premiums received on policies reinsured, less the ceding fee to us, the commission paid to the producer and premium taxes on the policies. In connection with writing this business, we also enter into agency agreements with both the producer and the capacity provider whereby the producer and capacity provider are generally required to deal directly with each other to develop business structures and terms to implement and maintain the ongoing contractual relationship. In a number of cases, the producer and capacity provider for a program are part of the same organization or are otherwise affiliated. As a result of our contract design, substantially all of the underwriting risk and operational risk inherent in the arrangement is borne by the capacity provider. The capacity provider assumes and is liable for substantially all losses incurred in connection with the risks under the reinsurance agreement, including judgments and settlements. Our contracts with capacity providers do not legally discharge us from our primary liability for the full amount of

the policies, and we will be required to pay the loss and bear collection risk if the capacity provider fails to meet its obligations under the reinsurance agreement. As a result, we remain exposed to the credit risk of capacity providers, or the risk that one of our capacity providers becomes insolvent or otherwise unable or unwilling to pay policyholder claims. We mitigate this credit risk generally by either selecting well capitalized, highly rated authorized capacity providers or requiring that the capacity provider post substantial collateral to secure the reinsured risks.

Although we reinsure substantially all of the risks inherent in our program services business, we have certain programs that contain limits on our reinsurers' obligations to us that expose us to underwriting risk, including loss ratio caps, aggregate reinsurance limits or exclusion of the credit risk of producers. Under certain programs, including one program with Syndicate 2357, an unconsolidated affiliate, we also bear underwriting risk for annual aggregate agreement year losses in excess of a limit that we believe is highly unlikely to be exceeded. See note 16 of the notes to consolidated financial statements included under Item 8 for further details regarding our program with Syndicate 2357.

Ratings

Financial stability and strength are important purchase considerations of policyholders, cedents and insurance agents and brokers. Because an insurance premium paid today purchases coverage for losses that might not be paid for many years, the financial viability of the insurer is of critical concern. Various independent rating agencies provide information and assign ratings to assist buyers in their search for financially sound insurers. Rating agencies periodically re-evaluate assigned ratings based upon changes in the insurer's operating results, financial condition or other significant factors influencing the insurer's business. Changes in assigned ratings could have an adverse impact on an insurer's ability to write new business.

Best assigns financial strength ratings (FSRs) to property and casualty insurance companies based on quantitative criteria such as profitability, leverage and liquidity, as well as qualitative assessments such as the spread of risk, the adequacy and soundness of ceded reinsurance, the quality and estimated market value of assets, the adequacy of loss reserves and surplus and the competence, experience and integrity of management. Best's FSRs range from "A++" (superior) to "F" (in liquidation).

Seventeen of our eighteen insurance subsidiaries are rated by Best. All seventeen of our insurance subsidiaries rated by Best have been assigned an FSR of "A" (excellent). Our Lloyd's syndicate is part of a group rating for the Lloyd's overall market, which has been assigned an FSR of "A" (excellent) by Best.

Nine of our eighteen insurance subsidiaries are rated by S&P. All nine of our insurance subsidiaries rated by S&P have been assigned an FSR of "A" (strong). Our Lloyd's syndicate is part of a group rating for the Lloyd's overall market, which has been assigned an FSR of "A+" (strong) by S&P.

Five of our eighteen insurance subsidiaries are rated by Moody's Corporation (Moody's). All five insurance subsidiaries rated by Moody's have been assigned an FSR of "A2" (good).

Investments

Our business strategy recognizes the importance of both consistent underwriting and operating profits and superior investment returns to build shareholder value. We rely on sound underwriting practices to produce investable funds. The majority of our investable assets come from premiums paid by policyholders. Policyholder funds are invested predominantly in high-quality government, municipal and corporate bonds that generally match the duration and currency of our loss reserves. The balance, comprised of shareholder funds, is available to be invested in equity securities, which over the long run, have produced higher returns relative to fixed maturity investments. When purchasing equity securities, we seek to invest in profitable companies, with honest and talented management, that exhibit reinvestment opportunities and capital discipline, at reasonable prices. We intend to hold these investments over the long term. Substantially all of our investment portfolio is managed by company employees.

We evaluate our investment performance by analyzing net investment income and net investment gains (losses) as well as our taxable equivalent total investment return, which is a non-GAAP financial measure. In 2020, net investment income was \$371.8 million and net investment gains were \$618.0 million. We focus on long-term total investment return, understanding that the level of investment gains or losses and unrealized gains or losses may vary from one period to the next. Through December 31, 2020, the five-year annual return for our investment portfolio was 7.4%. See "Investing Results" under Item 7 Management's Discussion & Analysis of Financial Condition and Results of Operations for more information about our investing results, including taxable equivalent total investment return, and Item 7A Quantitative and Qualitative Disclosures About Market Risk for more information about our investments.

Markel Ventures

Through our wholly owned subsidiary Markel Ventures, Inc. (Markel Ventures), we own interests in various businesses that operate outside of the specialty insurance marketplace. These businesses are viewed by management as separate and distinct from our insurance operations. Local management teams oversee the day-to-day operations of these companies, including investment and capital allocation decisions for their respective companies.

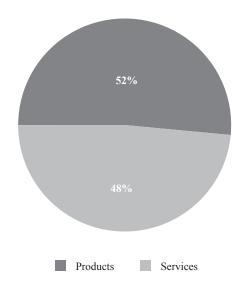
Our senior management team is responsible for decisions regarding allocation of capital for acquisitions and new investments. Our strategy in making these investments is similar to our strategy for purchasing equity securities. We seek to invest in profitable companies, with honest and talented management, that exhibit reinvestment opportunities and capital discipline, at reasonable prices. We intend to own the businesses acquired for a long period of time.

Our chief operating decision maker allocates resources to and assesses the performance of these various businesses in the aggregate as the Markel Ventures segment. This segment includes a diverse portfolio of businesses from different industries that offer various types of products and services to businesses and consumers. See note 2 of the notes to consolidated financial statements included under Item 8 for additional segment reporting disclosures.

During the last three years, our Markel Ventures operations have continued to expand through acquisitions of majority interests in various businesses, including Lansing Building Products, LLC in 2020, VSC Fire & Security, Inc. in 2019 and Brahmin Leather Works, LLC in 2018. See note 3 of the notes to consolidated financial statements included under Item 8 for additional details related to these acquisitions.

In 2020, our Markel Ventures operations reported revenues of \$2.8 billion, operating income of \$254.1 million, net income to shareholders of \$145.4 million and earnings before interest, income taxes, depreciation and amortization (EBITDA) of \$366.9 million. We use Markel Ventures EBITDA, which is a non-GAAP financial measure, as an operating performance measure in conjunction with revenues, operating income and net income. See "Markel Ventures" under Item 7 Management's Discussion & Analysis of Financial Condition and Results of Operations for more information on EBITDA.

The following chart displays the types of businesses within our Markel Ventures segment based on 2020 operating revenues.



Our Markel Ventures products group is comprised of businesses that manufacture or produce equipment, transportation-related products, and consumer and building products. For example, types of products offered by businesses in this group include equipment used in baking systems and food processing, over-the-road car haulers and laminated oak and composite wood flooring used in the trucking industry as well as ornamental plants and residential homes.

Our Markel Ventures services group is comprised of businesses that provide distribution, consulting and other types of services to businesses and consumers. For example, types of services offered by businesses in this group include distribution of exterior building products, fire protection and life safety services, management and technology consulting and retail intelligence.

The demand for many of our Markel Ventures products and services is seasonal, with variations in revenues throughout the vear depending on the industry, and cyclical based on certain larger economic trends and activity.

The majority of our businesses in this segment are headquartered across the U.S., with subsidiaries of certain businesses located outside of the U.S. This segment offers a wide range of products and services across many markets and encounters a variety of competitors that vary by product line, end market and geographic area. Each business within the segment has several main competitors and numerous smaller ones in most of their end markets and geographic areas. Examples of the end markets include U.S. and international markets for retailing, food production and transportation, as well as a variety of U.S. markets including construction, housing, banking and financial services.

Regulatory Environment

We are subject to extensive state, federal and international regulation and supervision in the jurisdictions in which we do business. Regulations vary from jurisdiction to jurisdiction. Additionally, as a company with publicly-traded securities, we are also subject to certain legal and regulatory requirements applicable generally to public companies, including the rules and regulations of the U.S. Securities and Exchange Commission (SEC) and the New York Stock Exchange relating to reporting and disclosure, accounting and financial reporting, corporate governance and other matters.

The following is a summary of significant regulations that apply to our businesses, but it is not intended to be a comprehensive review of every regulation to which we are subject. For information regarding certain risks associated with regulations applicable to us, see Item 1A Risk Factors.

U.S. Insurance Regulation

State Regulation

Overview. Our U.S. insurance company subsidiaries are subject to varying degrees of regulation and supervision by the states and other jurisdictions in which they do business. In the U.S., authority for the regulation, supervision and administration of the business of insurance in each state is generally delegated to a state insurance commissioner who oversees a regulatory body responsible for the supervision of the business of insurance. Through this authority, state regulatory authorities have broad regulatory, supervisory and administrative powers relating to: solvency standards; corporate conduct; market conduct activities; regulating unfair trade and claims practices; licensing of insurers; licensing and appointment of agents; approval of forms and policies used; the nature of, and limitations on, insurers' investments; the form and content of annual statements and other reports on the financial condition of insurers; and establishment of loss reserves. States also regulate various aspects of the contractual relationships between insurers and independent agents. In addition, the National Association of Insurance Commissioners (NAIC), comprised of the insurance commissioners of each U.S. jurisdiction, develops or amends model statutes and regulations that, in turn, most states adopt.

Group Supervision - Global Supervisory College; Global Common Framework. Regulators within and outside the U.S. are increasingly coordinating the regulation of multinational insurers by conducting a supervisory college. A supervisory college is a forum of the regulators having jurisdictional authority over an insurance holding company's worldwide insurance subsidiaries. The supervisory college meets with executive management to evaluate the insurance group on both a group-wide and legal-entity basis, particularly with respect to its financial data, business strategies, enterprise risk management and corporate governance. The Illinois Department of Insurance is our lead insurance regulator for purposes of conducting our supervisory college.

In 2020, the International Association of Insurance Supervisors adopted its Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame). ComFrame establishes a comprehensive framework for supervisors to address group-wide activities and risks of internationally active insurance groups (IAIGs) and lays the groundwork for better supervisory cooperation and coordination. ComFrame requires the designation of a group-wide supervisor (regulator) for each IAIG and imposes a group capital requirement that will be applied to an IAIG in addition to the current legal entity capital requirements imposed by state and international insurance regulators. In response to ComFrame, the NAIC revised the model Insurance Holding Company System Regulatory Act to allow state insurance regulators in the U.S. to be designated as group-wide supervisors for U.S. based IAIGs.

Holding Company Statutes. In addition to regulatory supervision of our U.S. insurance subsidiaries, we are subject to state statutes governing insurance holding company systems. Typically, those statutes require that we periodically file information with the appropriate state insurance commissioner, including information concerning our capital structure, ownership,

financial condition, dividend payments and other material transactions with affiliates, and general business operations. These statutes also require approval of changes in control of an insurer or an insurance holding company. Generally, "control" for these purposes is defined as ownership or voting power of 10% or more of a company's voting shares. Additional requirements include group-level reporting, submission of an annual enterprise risk report by a regulated insurance company's ultimate controlling person and providing information regarding an insurer's non-insurer affiliates.

Risk Based Capital Requirements. The NAIC uses a risk based capital (RBC) formula that is designed to measure the capital of an insurer taking into account the company's investments and products. RBC requirements provide a formula which, for property and casualty insurance companies, establishes capital thresholds for four categories of risk: asset risk, insurance risk, interest rate risk and business risk.

Financial Exams. State insurance regulators also prescribe the form and content of statutory financial statements, perform periodic financial examinations of insurers, set minimum reserve and loss ratio requirements, establish standards for permissible types and amounts of investments and require minimum capital and surplus levels. These statutory capital and surplus requirements include RBC rules promulgated by the NAIC.

Statutory Accounting Principles. Each of our U.S. insurance company subsidiaries is required to file detailed quarterly and annual reports, including financial statements, in accordance with prescribed statutory accounting rules, with regulatory officials in the jurisdictions in which they conduct business. The quarterly and annual financial reports filed with the states utilize statutory accounting principles (SAP) that are different from U.S. GAAP. In developing SAP, insurance regulators were primarily concerned with monitoring the solvency of insurance companies to assure an insurer's ability to pay all its current and future obligations to policyholders.

Own Risk and Solvency Assessment and Enterprise Risk Management. We must submit an Own Risk and Solvency Assessment Summary Report (ORSA) annually to our lead insurance regulator. The ORSA is a confidential internal assessment of the material and relevant risks associated with an insurer's current business plan and the sufficiency of capital resources to support those risks. In addition, we must file an annual enterprise risk report with our lead insurance regulator. The report must identify the material risks within the insurance holding company system that could pose enterprise risk to the U.S. insurance subsidiaries.

Rates and Form Filings. The policy forms and various premium rates of our U.S. admitted insurance subsidiaries are subject to regulation in every state in which they conduct business. In many states, rates and policy forms must be filed with the applicable insurance regulator prior to their use, and in some states, rates and forms must be affirmatively approved by the applicable insurance regulator prior to use.

Dividends. The laws of the domicile states of our U.S. insurance subsidiaries govern the amount of dividends that may be paid to our holding company, Markel Corporation. Generally, statutes in the domicile states of our insurance subsidiaries require prior approval for payment of extraordinary, as opposed to ordinary, dividends. See note 21 of the notes to consolidated financial statements included under Item 8.

Market Conduct. State insurance laws and regulations include numerous provisions governing trade practices and the marketplace activities of insurers, including provisions governing marketing and sales practices, data security, compliance of underwriting services to policyholders, confirmation of licensing and appointment of producers, claims management, antifraud controls and complaint handling. State regulatory authorities generally enforce these provisions through periodic market conduct examinations.

Investment Regulation. Investments by our U.S. insurance companies must comply with applicable laws and regulations that 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.

Federal Regulation

The U.S. federal government and its regulatory agencies generally do not directly regulate the business of insurance. However, two federal government bodies, the Federal Insurance Office (FIO) and the Financial Stability Oversight Council (FSOC), each created under The Dodd Frank Wall Street Reform and Consumer Protection Act, may impact the regulation of insurance. Although the FIO is prohibited from directly regulating the business of insurance, it has authority to represent the U.S. in international insurance matters and has limited powers to preempt certain types of state insurance laws. The FIO also

can recommend to the FSOC that it designate an insurer as an entity posing risks to the U.S. financial stability in the event of the insurer's material financial distress or failure. We have not been so designated. The U.S. federal laws that most affect our day-to-day insurance operations are: the Gramm-Leach-Bliley Act; the Fair Credit Reporting Act; the Health Insurance Portability and Accountability Act of 1996, as amended; the Terrorism Risk Insurance Act of 2002, as amended; anti-money laundering laws and regulations; the Nonadmitted and Reinsurance Reform Act of 2010, as amended; and the rules and regulations of the Office of Foreign Assets Control.

International Insurance Regulation

Overview. Our international insurance operations are subject to regulation and supervision in various jurisdictions. These regulations, which vary depending on the jurisdiction, include, among others, solvency and market conduct regulations; anti-corruption, anti-money laundering, and anti-terrorist financing guidelines, laws and regulations; various privacy, insurance, tax, tariff, trade and sanctions laws and regulations; and corporate, employment, intellectual property and investment laws and regulations. Outside of the U.S., we have insurance operations domiciled in the U.K., Europe and Bermuda, which are subject to regulation in those jurisdictions. In addition, we conduct business in Canada, Latin America, Asia Pacific and the Middle East, where our businesses also are supervised by local regulatory authorities.

European Regulation. We are subject to regulation by the Prudential Regulatory Authority and Financial Conduct Authority in respect of our U.K. insurance businesses. We are also subject to regulation by the Federal Financial Supervisory Authority, better known by its abbreviation BaFin, in respect of our German insurance carrier.

Our U.K. and German insurance businesses are subject to both the E.U.'s General Data Protection Regulation (GDPR) and Solvency II. GDPR came into effect in May 2018, and requires businesses operating in the E.U. to comply with conditions for processing personal data. Solvency II came into effect in January 2016, and requires our U.K. and German businesses to maintain certain capital standards and publish risk-related information in the form of a Solvency and Financial Condition Report. Following the U.K.'s exit from the E.U., the U.K.'s European Union (Withdrawal) Act 2018 transposes GDPR and Solvency II into U.K. law as E.U. retained law.

Bermuda Regulation. The insurance industry in Bermuda is regulated by the Bermuda Monetary Authority (BMA). Under the Bermuda Insurance Act 1978, and related regulations and standards of the BMA, each Bermuda insurance company is subject to, among other things: licensing, capital, surplus and liquidity requirements; solvency standards; restrictions on dividends and distributions; and periodic examinations of the company and its financial condition. In addition, each insurance company must obtain prior approval of ownership and transfer of shares and maintain a principal office and appoint and maintain a principal representative in Bermuda. The BMA also requires that each insurance company contract for local services, such as corporate secretary, insurance manager and registered representative services, at market rates.

ILS Regulation

Our insurance-linked securities operations are subject to regulation and supervision by various regulatory authorities, both in the U.S. and internationally. Certain of our ILS subsidiaries are organized and regulated as follows:

- registered with the SEC as an investment adviser under the Investment Advisers Act of 1940, as amended,
- registered with the U.S. Commodity Futures Trading Commission as a commodity pool operator or a commodity trading advisor under the Commodity Exchange Act, as amended,
- · registered with the BMA as an insurance manager under the Bermuda Insurance Act 1978, and/or
- registered with the BMA as an investment manager under the Bermuda Investments Business Act 2003.

Certain other ILS subsidiaries serve as the investment manager to one or more private funds that are registered with the BMA under the Investment Funds Act 2006, as amended, or the Segregated Accounts Companies Act 2000, as amended. In addition, these operations include business relationships with certain U.S., U.K. and Bermuda insurance companies that are subject to U.S. and international insurance regulation as previously described in this "Regulatory Environment" section.

As a result, subsidiaries involved in our ILS operations are subject to regulations that may impose substantive and material restrictions and requirements on their operations, including, among other things: a broader fiduciary duty to act in the best interests of their clients; disclosure of information about our businesses and conflicts of interests to clients; maintenance of written policies and procedures; maintenance of extensive books and records; restrictions on the types of fees we may charge, including performance fees; restrictions on solicitation arrangements; requirements regarding engaging in transactions with clients; maintenance of an effective compliance program; and other restrictions and requirements applicable to custody of

client assets, client privacy, advertising, pay-to-play prohibitions and cybersecurity; as well as possible sanctions, disciplinary actions or other penalties for non-compliance.

Markel Ventures Regulation

Our Markel Ventures businesses are subject to a wide variety of U.S. federal, state, and local laws and regulations, as well as international laws and regulations applicable to their international operations. Specifically, the most significant of these laws and regulations cover the following areas: safety, health, employment, the environment, transportation, U.S. and international trade, anti-corruption, data privacy and security and government contracts.

Human Capital

Our culture is our greatest asset and is defined by the Markel Style. Written in 1986, in preparation for our initial public offering, the Markel Style memorialized how we seek to operate our businesses and treat one another. It continues to provide our guiding principles across our diverse group of businesses. Key within the Markel Style is the encouragement to look for a better way to do things, to challenge management. We also seek spontaneity and flexibility and a respect for authority, but disdain for bureaucracy. Our diverse financial holding company is managed in a way to accomplish these principles. Each of our businesses operates with a high degree of autonomy so long as they operate within the principles of the Markel Style. This allows our managers to make decisions that are best for their employees and customers, as well as our shareholders. We believe this high degree of empowerment leads to the satisfaction that comes from being trusted in the responsibilities one has been given.

Further outlined in the Markel Style is our creed of honesty and fairness in all our dealings; holding the individual's right to self-determination in the highest light; putting aside individual concerns in the spirit of teamwork; and providing an atmosphere in which people can reach their full potential. We greatly value our employees, encourage their career development and reward their pursuit of excellence, while also celebrating a diverse workforce.

At December 31, 2020, we had approximately 18,900 employees, of whom approximately 4,600 were employed within our insurance operations and approximately 14,300 were employed within our Markel Ventures operations.

Insurance

Our principal business markets and underwrites specialty insurance products and within that business exists a well-developed process to ensure effective performance management, including an embedded annual and mid-year review process that enables goal setting, development planning and performance assessment. Within our insurance operations, we also have undertaken significant work over recent years to establish global leadership development programs for different levels of leadership at Markel, including partnering with various renowned business schools to create leading-edge curriculum in this area.

Employee health and overall well-being is also a key priority, and we provide a range of employee and eligible partner plans and programs, including health and voluntary benefits. These offerings include a variety of financial protection programs to help our employees meet their unique investment and savings needs including life insurance, retirement savings with company contributions in most situations and an employee stock purchase plan. Comprehensive employee assistance programs are available in all our major markets along with other well-being and fitness resources.

We rely on our employees' ideas and input to help make Markel a great place to work. For example, we conduct regular pulse surveys of employees across our insurance operations regarding their well-being and their ideas on how we can improve employee engagement. In addition, every two years we conduct a major, global employee engagement survey across our insurance operations, which historically has garnered more than 80% participation, and which enables us to identify, focus on and track progress against key engagement drivers. This survey has generated additional ideas for employee engagement; and we have made substantial changes and improvements in our human capital practices based on this feedback.

We are committed to embracing all aspects of diversity, including diversity of perspective, which we believe is crucial to sustainable success. Markel accordingly supports and encourages focused efforts to continue to build the diversity of our employee population and the inclusiveness of our culture. Our diversity and inclusion efforts seek to cultivate an inclusive environment in which every employee feels valued, respected and accepted. We believe this environment helps us increase creativity and innovation, foster business connections, serve our customers and maintain our market leadership.

Within our insurance business, our global Diversity and Inclusion (D&I) Steering Committee comprises more than 20 senior managers from around the globe who are charged with advising on D&I strategy and providing leadership support and advocacy for our D&I efforts. We have a dedicated leader responsible for talent, diversity and inclusion, to further shape the D&I strategy for our global workforce, and to ensure the integration of our D&I efforts with our global talent acquisition and development processes. We recently introduced a regional scholarship program that is focused on underrepresented groups in the insurance industry, and in late 2020, conducted unconscious bias awareness training that was completed by 79% of insurance employees globally. We are also undertaking a two-year diversity and inclusion training program, including micro learning on priority topics.

Our insurance operations support a range of employee-led D&I networks and resource groups that provide employee support and development, while also engaging in community outreach, including our Markel Women's Network, BEAM (Black Engagement at Markel), PRISM (LGBTQ+), Jitneys (Young Professionals), Markel Asian Professionals Network, Markel Veterans Network, sponsorship of Dive-In (the insurance industry's annual diversity and inclusion festival), and connections with a number of the London market partner networks. All of these networks and organizations have put in place goals and programming that are focused on education and development, community engagement, talent acquisition and networking/ support.

Markel Ventures

Our Markel Ventures operations are comprised of a diverse portfolio of businesses from different industries through which we own controlling interests. The Markel Ventures operations are viewed by management as separate and distinct from our insurance operations with local management teams that oversee the day-to-day operations of their respective companies, including human capital matters. When making these acquisitions, we seek, among other things, businesses whose leadership teams demonstrate equal measures of both integrity and talent. As a result, each Markel Ventures business fosters a culture within their operations, and with their employees, that aligns with the principles of the Markel Style.

Item 1A. RISK FACTORS

A wide range of factors could materially affect our future prospects and performance. The matters addressed under "Safe Harbor and Cautionary Statement," "Developments Related to COVID-19," and "Critical Accounting Estimates" in Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations, Item 7A Quantitative and Qualitative Disclosures About Market Risk and other information included or incorporated in this report describe many of the significant risks that could affect our operations and financial results. We are also subject to the following risks.

Headings and sub-headings for the Risk Factors below are for reference purposes only and are not intended to limit or affect in any way the meaning or scope of each Risk Factor.

Risks Primarily Related to Our Insurance Operations

Loss Exposures

We may experience losses or disruptions from catastrophes. As a company with significant property and casualty insurance underwriting operations, we may experience losses from man-made or natural catastrophes. Catastrophes include, but are not limited to, windstorms, hurricanes, earthquakes, tornadoes, derechos, hail, severe winter weather and wildfires and may include pandemics and events related to terrorism, riots and political and civil unrest. While we employ catastrophe modeling tools in our underwriting process, we cannot predict how severe a potential catastrophe will be before it occurs. The extent of losses from catastrophes is a function of the total amount of losses incurred, the number of insureds affected, the frequency and severity of the events, the effectiveness of our catastrophe risk management program and the adequacy of our reinsurance coverage. Most catastrophes occur over a small geographic area; however, some catastrophes may produce significant damage in large, heavily populated areas. In addition, catastrophes may have a material adverse effect on the investment management and incentive fees earned by our ILS operations and returns on our investments in ILS funds. Catastrophes also may result in significant disruptions in our insurance and other operations, as well as loss of income and assets. If climate change results in an increase in the frequency and/or severity of weather-related catastrophes, we may experience additional or elevated catastrophe-related losses or disruptions, which may be material.

The failure of any of the methods we employ to manage our loss exposures could have a material adverse effect on us. We seek to manage our loss exposures in a variety of ways, including adhering to maximum limitations on policies written in defined geographical zones, limiting program size for each client, establishing per risk and per occurrence limitations for each

event, employing coverage restrictions and following prudent underwriting guidelines for each program written. We also seek to manage our loss exposures through geographic diversification. Underwriting is a matter of judgment, involving assumptions about matters that are inherently unpredictable and beyond our control, and for which historical experience and probability analysis may not provide sufficient guidance. One or more future events could result in claims that substantially exceed our expectations, which could have a material adverse effect on our results of operations and financial condition. In addition, we seek to manage our loss exposures by policy terms, coverage exclusions and choice of legal forum. Disputes relating to coverage and choice of legal forum also arise. As a result, various provisions of our policies, such as choice of forum, or coverage limitations or exclusions, may not be enforceable in the manner we intend and some or all of our methods to manage loss exposures may prove ineffective.

The effects of emerging claim and coverage issues on our business are uncertain. As industry practices and legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to claims and coverage may emerge. These issues may have a material adverse effect on our business by either broadening coverage beyond our underwriting intent or by increasing the frequency and/or severity of claims. In some instances, these changes may not become apparent until after we have issued insurance or reinsurance contracts that are affected by the changes. As a result, the full extent of liability under our insurance or reinsurance contracts may not be known for many years after a contract is issued. For example, many states have recently extended the statute of limitations for certain victims of sexual abuse. This may result in a higher frequency of claims over a more extended reporting period than originally expected.

We use analytical models to assist our decision making in key areas such as pricing, reserving and capital modeling and actual results may differ materially from the model outputs and related analyses. We use various modeling techniques and data analytics (e.g., scenarios, predictive and stochastic modeling, and forecasting) to analyze and estimate exposures, loss trends and other risks associated with our insurance and ILS businesses. This includes both proprietary and third-party modeled outputs and related analyses to assist us in, among other things, decision-making related to underwriting, pricing, capital allocation, reserving, investing, reinsurance and catastrophe risk. We incorporate numerous assumptions and forecasts about the future level and variability of policyholder behavior, loss frequency and severity, interest rates, equity markets, inflation, capital requirements, and currency exchange rates, among others. The modeled outputs and related analyses from both proprietary models and third party models are subject to various assumptions, uncertainties, model design errors, complexities and the inherent limitations of any statistical analysis, including those arising from the use of historical internal and industry data and assumptions.

In addition, the modeled outputs and related analyses may from time to time contain inaccuracies, perhaps in material respects, including as a result of inaccurate inputs or applications thereof (whether due to data error, human error or otherwise). Consequently, actual results may differ materially from our modeled results. Our profitability and financial condition substantially depend on the extent to which our actual experience is consistent with assumptions we use in our models and ultimate model outputs. If, based upon these models or other factors, we misprice our products or fail to appropriately estimate the risks we are exposed to, our business, results of operations and financial condition may be materially adversely affected.

Loss Reserves

Our results may be affected because actual insured or reinsured losses differ from our loss reserves. Significant periods of time often elapse between the occurrence of an insured or reinsured loss, the reporting of the loss to us and our payment of that loss. To recognize liabilities for unpaid losses, we establish reserves as balance sheet liabilities representing estimates of amounts needed to pay reported and unreported losses and the related loss adjustment expenses. The process of estimating loss reserves is a difficult and complex exercise involving many variables and subjective judgments. This process may also become more difficult if we experience a period of rising inflation. As part of the reserving process, we review historical data and consider the impact of such factors as:

- trends in claim frequency and severity,
- changes in operations,
- emerging economic and social trends,
- trends in insurance rates,
- inflation or deflation, and
- changes in the regulatory and litigation environments.

This process assumes that past experience, adjusted for the effects of current developments and anticipated trends, is an appropriate basis for predicting future events. There is no precise method, however, for evaluating the impact of any specific factor on the adequacy of reserves, and actual results will differ from original estimates. As part of the reserving process, we

regularly review our loss reserves and make adjustments as necessary. Future increases in loss reserves for our underwriting operations will, and for our programs services operations may, result in additional charges to earnings, which may be material.

In addition, reinsurance reserves are subject to greater uncertainty than insurance reserves primarily because a reinsurer relies on (i) the original underwriting decisions and claims decisions made by ceding companies and (ii) information and data from ceding companies. As a result, we are subject to the risk that our ceding companies may not have adequately evaluated the risks reinsured by us and the premiums ceded may not adequately compensate us for the risks we assume. In addition, reinsurance reserves may be less reliable than insurance reserves because there is generally a longer lapse of time from the occurrence of the event to the reporting of the loss or benefit to the reinsurer and ultimate resolution or settlement of the loss.

Changes in the assumptions and estimates used in establishing reserves for our life and annuity reinsurance book could result in material increases in our estimated loss reserves for such business. Our run-off life and annuity reinsurance book exposes us to mortality risk, which is the risk that the level of death claims may differ from that which we assumed in establishing the reserves for our life and annuity reinsurance contracts. Some of our life and annuity reinsurance contracts expose us to longevity risk, which is the risk that an insured person will live longer than expected when the reserves were established, or morbidity risk, which is the risk that an insured person will become critically ill or disabled. Our reserving process for the life and annuity reinsurance book is designed with the objective of establishing appropriate reserves for the risks we assumed. Among other things, this process relies heavily on analysis of mortality, longevity and morbidity trends, lapse rates, interest rates and expenses. As of December 31, 2020, our reserves for life and annuity benefits totaled \$1.1 billion.

We expect mortality, morbidity, longevity, and lapse experience to fluctuate somewhat from period to period, but believe they should remain reasonably predictable over a period of many years. Mortality, longevity, morbidity or lapse experience that is less favorable than the mortality, longevity, morbidity or lapse rates that we used in establishing the reserves for a reinsurance agreement will negatively affect our net income because the reserves we originally set for the risks we assumed may not be sufficient to cover the future claims and expense payments. Furthermore, even if the total benefits paid over the life of the contract do not exceed the expected amount, unexpected increases in the incidence of deaths or illness can result in changes to our assumptions in a given reporting period, adversely affecting our net income in any particular reporting period. Fluctuations in interest rates will impact the performance of our investments related to our life and annuity reinsurance book. If there are changes to any of the above factors to the point where a reserve deficiency exists, a charge to earnings will be recorded, which may have a material adverse effect on our results of operations and financial condition.

Ceded Reinsurance

We may be unable to purchase reinsurance protection on terms acceptable to us, or we may be unable to collect on reinsurance we purchase. Our underwriting operations purchase reinsurance and retrocessional reinsurance to manage our net retention on individual risks and mitigate the volatility of losses on our results of operations and financial condition, while providing us with the ability to offer policies with sufficient limits to meet policyholder needs. In addition, we reinsure substantially all of the risks inherent in our program services business, however, we have certain programs that contain limits on our reinsurers' obligations to us that expose us to underwriting risk, including loss ratio caps, aggregate reinsurance limits or exclusion of the credit risk of producers. See note 10 of the notes to consolidated financial statements included under Item 8 for information about ceded reinsurance for our program services businesses.

The ceding of insurance does not legally discharge us from our primary liability for the full amount of the policies. Reliance on reinsurance recoveries may create credit risk as a result of the reinsurer's inability or unwillingness to pay reinsurance claims when due. We generally select well capitalized and highly rated reinsurers and in certain instances we require reinsurers to post substantial collateral to secure the reinsured risks. Deterioration in the credit quality of existing reinsurers or disputes over the terms of reinsurance could result in charges to earnings, which may have a material adverse effect on our results of operations and financial condition. In addition, collateral may not be sufficient to cover the reinsurer's obligation to us, and we may not be able to cause the reinsurer to deliver additional collateral.

As of December 31, 2020, we were the beneficiary of letters of credit, trust accounts and funds withheld in the aggregate amount of \$3.8 billion, collateralizing \$6.0 billion in reinsurance recoverables. The remaining unsecured reinsurance recoverables are ceded to highly-rated, well capitalized reinsurers. Our reinsurance recoverables are based on estimates, and our actual liabilities may exceed the amount we are able to recover from our reinsurers or any collateral securing the liabilities. The failure of a reinsurer to meet its obligations to us, whether due to insolvency, dispute or other unwillingness or inability to pay, or due to our inability to access sufficient collateral to cover our liabilities, could have a material adverse effect on our results of operations and financial condition.

The availability and cost of reinsurance are determined by market conditions beyond our control. There is no guarantee that our desired amounts of reinsurance or retrocessional reinsurance will be available in the marketplace in the future. In addition, available capacity may not be on terms we deem appropriate or acceptable or with companies with whom we want to do business. This could have a material adverse effect on our results of operations and financial condition.

Market Competition

Competition in the insurance and reinsurance markets could reduce profits from our insurance operations. Insurance and reinsurance markets are highly competitive. We compete on an international and regional basis with major U.S., Bermuda, U.K., European, and other international insurers and reinsurers and with underwriting syndicates, some of which have greater financial, marketing, and management resources than we do, have greater access to "big data," and may be able to offer a wider range of, or more sophisticated, commercial and personal lines products. Recent industry consolidation, including business combinations among insurance and other financial services companies, has resulted in larger competitors with even greater financial resources. In addition, capital market participants have created alternative products that are intended to compete with reinsurance products.

Similar to other industries, the insurance industry is undergoing rapid and significant technological and other changes. There is increasing focus by traditional insurance industry participants, technology companies, "InsurTech" start-up companies and others 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 other risks to our businesses. For example, they could result in increasing our service, administrative, policy acquisition or general expenses as we seek to distinguish our products and services from those of our competitors or otherwise keep up with such innovation and changes.

Increased competition could result in fewer submissions, lower premium rates, and less favorable policy terms and conditions, which could reduce our underwriting profits, or within our ILS and Program Services operations, our operating profits, and have a material adverse effect on our results of operations and financial condition.

The historical cyclicality in the property and casualty insurance industry could have a material adverse effect on our ability to improve or maintain underwriting profits or to grow or maintain premium volume. The insurance and reinsurance markets have historically been cyclical, characterized by extended periods of intense price competition due to excessive underwriting capacity, and more recently alternative sources of capital, as well as brief periods when shortages of capacity permitted more favorable rate levels. Among our competitive strengths have been our specialty product focus and our niche market strategy. These strengths also make us vulnerable in periods of intense competition to actions by other insurance companies who seek to write additional premiums without appropriate regard for underwriting profitability. At times it could be very difficult for us to grow or maintain premium volume levels without sacrificing underwriting profits. If we are not successful in maintaining rates or achieving rate increases, it may be difficult for us to improve or maintain underwriting profits or to grow or maintain premium volume levels.

Insurance Operations

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

- develop products that insure risks we have not previously insured, include new coverages or change coverage terms;
- change commission terms;
- change our underwriting processes;
- improve business processes and workflow to increase efficiencies and productivity and to enhance the experience of our customers and producers;
- expand distribution channels; and
- enter geographic markets where we previously have had relatively little or no market share.

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

- demand for new products or expansion into new markets may not meet our expectations;
- new products and expansion into new markets may increase or change our risk exposures, and the data and models
 we use to manage those exposures may not be as effective as those we use in existing markets or with existing
 products;
- models underlying automated underwriting and pricing decisions may not be effective;
- efforts to develop new products or markets or to change commission terms may create or increase distribution channel conflicts:
- 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; and
- changes to our business processes or workflow, including the use of new technologies, may give rise to execution
 risk.

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 depend on a few brokers for a large portion of our revenues and the loss of business provided by any one of them could have a material adverse effect on us. We market our insurance and reinsurance worldwide through insurance and reinsurance brokers. For the year ended December 31, 2020, our top two independent brokers represented 31% of the gross premiums written by our underwriting operations. Loss of all or a substantial portion of the business provided by one or more of these brokers could have a material adverse effect on our business.

Our insurance companies and senior debt are rated by various rating agencies, and a downgrade or potential downgrade in one or more of these ratings could have a material adverse effect on us. Financial strength ratings are an important factor in establishing the competitive position of insurance and reinsurance companies. Our senior debt ratings also affect the availability and cost of capital. Certain of our insurance and reinsurance company subsidiaries and our senior debt securities are rated by various rating agencies. Our financial strength and debt ratings are subject to periodic review, and are subject to revision or withdrawal at any time. The financial strength ratings of our insurance subsidiaries are significantly influenced by their statutory surplus amounts and leverage and capital adequacy ratios and other financial metrics. Rating agencies may implement changes to their ratings methodologies or internal models that have the effect of increasing or decreasing the amount of capital our insurance subsidiaries must hold or restrict how the company may deploy its capital in order to maintain its current ratings. For example, for certain of our insurance subsidiaries, rating agencies may take into account in their calculations the collateral provided to us by reinsurers. A change in this practice could adversely impact our ratings. We cannot be sure that we will be able to retain our current or any future ratings. If our ratings are reduced from their current levels by one or more rating agencies, our competitive position in our target markets within the insurance industry could suffer and it would be more difficult for us to market our products. A ratings downgrade could result in a substantial loss of business as policyholders and ceding company clients move to other companies with higher claims-paying and financial strength ratings. In addition, a downgrade could trigger contract provisions that allow cedents to terminate their reinsurance contracts on terms disadvantageous to us or require us to collateralize our obligations through trusts or letters of credit. A ratings downgrade could also have a material adverse effect on our liquidity, including the availability of our letter of credit facilities, and limit our access to capital markets, increase our cost of borrowing or issuing debt and require us to post collateral

The amount of capital that our insurance subsidiaries have and must hold to maintain their financial strength and credit ratings and meet other requirements can vary significantly from time to time and is sensitive to a number of factors, some of which are outside of our control. Capital requirements for our insurance subsidiaries are prescribed by the applicable insurance regulators, while rating agencies establish requirements that inform ratings for our insurance subsidiaries and senior debt securities. Projecting surplus and the related capital requirements is complex and requires making assumptions regarding how our business will perform within the broader macroeconomic environment. Insurance regulators and rating agencies evaluate company capital through financial models that calculate minimum capitalization requirements based on risk-based capital formulas for property and casualty insurance groups and their subsidiaries. In any particular year, capital levels and risk-based capital requirements may increase or decrease depending on a variety of factors including the mix of business written by our insurance subsidiaries and correlation or diversification in the business profile, the amount of additional capital our insurance subsidiaries must hold to support business growth, the value of securities in our investment portfolio, changes in interest rates and foreign currency exchange rates, as well as changes to the regulatory and rating agency models used to

determine our required capital. In addition, in December 2020, the NAIC adopted a group capital calculation (GCC) for U.S. based global insurance groups, along with model legislative language designed to enable the GCC once adopted by state legislatures. The first formal filings of a GCC are expected to occur in 2022. Even though it is not intended to be a prescribed capital requirement, the GCC, once implemented, could have an impact on the amount of group capital we are required to hold and how it is allocated.

Insurance Regulation

Our insurance subsidiaries are subject to supervision and regulation that may have a material adverse effect on our operations and financial condition. Our insurance subsidiaries are subject to supervision and regulation by the regulatory authorities in the various jurisdictions in which they conduct business, including state, national and international insurance regulators. Regulatory authorities have broad regulatory, supervisory and administrative powers relating to, among other things, data protection and data privacy, solvency standards, licensing, coverage requirements, policy rates and forms and the form and content of financial reports. Regulatory and legislative authorities continue to implement enhanced or new regulatory requirements, in certain instances intended to prevent future financial crises or otherwise assure the stability of financial institutions. Regulatory authorities also may seek to exercise their supervisory or enforcement authority in new or more extensive ways, such as imposing increased capital requirements. These actions, if they occur, could affect the competitive market and the way we conduct our business and manage our capital and could result in lower revenues and higher costs. As a result, such actions could have a material effect on our results of operations and financial condition.

Regulators may challenge our use of fronting arrangements in states in which our capacity providers are not licensed. Our program services business enters into fronting arrangements with general agents and domestic and foreign insurers that want to access specific U.S. property and casualty insurance business in states in which the capacity providers are not licensed or are not authorized to write particular lines of insurance. Some state insurance regulators may object to these fronting arrangements. In certain states, an insurance commissioner has the authority to prohibit an authorized insurer from acting as an issuing carrier for an unauthorized insurer. In addition, insurance departments in states in which there is no such statutory or regulatory prohibition, could deem the assuming insurer to be transacting insurance business without a license and the issuing carrier to be aiding and abetting the unauthorized sale of insurance.

If regulators in any of the states where we conduct our fronting business were to prohibit or limit those arrangements, we would be prevented or limited from conducting that business for which a capacity provider is not authorized in those states, unless and until the capacity provider is able to obtain the necessary licenses. This could have a material adverse effect on our results of operations and financial condition.

Risks Primarily Related to Our Investments and Access to Capital

Changes in Economic Conditions

Our investment results may be impacted by changes in interest rates, U.S. and international monetary and fiscal policies as well as broader economic conditions. We receive premiums from customers for insuring their risks. We invest these funds until they are needed to pay policyholder claims. Fluctuations in the value of our investment portfolio can occur as a result of changes in interest rates and U.S. and international fiscal, monetary and trade policies as well as broader economic conditions (including, for example, equity market conditions and significant inflation or deflation). Although we attempt to take measures to manage the risks of investing in these changing environments, we may not be able to mitigate our sensitivity to them effectively. Despite our mitigation efforts, which include duration and currency targets for asset portfolios, compliance monitoring of these targets and means to reasonably and effectively match asset duration and currency to the duration and currency of the loss reserves, changes in interest rates and U.S. and international fiscal, monetary and trade policies as well as broader economic conditions could have a material adverse effect on our investment results.

We invest a significant portion of our shareholders' equity in equity securities, which may result in significant variability in our investment results and net income and may have a material adverse effect on shareholders' equity. Additionally, our equity investment portfolio is concentrated, and declines in the value of these significant investments could have a material adverse effect on our financial results. Equity securities were 55% and 69% of our shareholders' equity at December 31, 2020 and 2019, respectively. Equity securities have historically produced higher returns than fixed maturity securities over long periods of time; however, investing in equity securities may result in significant variability in investment returns from one period to the next. In volatile financial markets, we could experience significant declines in the fair value of our equity investment portfolio, which would result in a material decrease in net income and shareholders' equity. Our equity portfolio is concentrated in particular issuers and industries and, as a result, a decline in the fair value of these

concentrated investments also could result in a material decrease in net income and shareholders' equity. A material decrease in shareholders' equity may have a material adverse effect on our ability to carry out our business plans.

Access to Capital

We may require additional capital in the future, which may not be available or may only be available on unfavorable terms. To the extent that cash flows generated by our operations are insufficient to fund future operating requirements, or that our capital position is adversely impacted by a decline in the fair value of our investment portfolio, losses from catastrophe events or otherwise, we may need to raise additional funds through financings or curtail our growth. We also may be required to liquidate fixed maturity securities or equity securities, which may result in realized investment losses. Any further sources of capital, including capacity needed for letters of credit, if available at all, may be on terms that are unfavorable to us. Our access to additional sources of capital will depend on a variety of factors, such as market conditions, the general availability of credit, the availability of credit to the industries in which we operate, our results of operations, financial condition, credit ratings and credit capacity, as well as pending litigation or regulatory investigations. Our ability to borrow under our revolving credit facilities and letter of credit facilities is contingent on our compliance with the covenants and other requirements under those facilities. Similarly, our access to capital may be impaired if regulatory authorities or rating agencies take negative actions against us. Our inability to obtain adequate capital when needed could have a negative impact on our ability to invest in, or take advantage of opportunities to expand, our businesses, such as possible acquisitions or the creation of new ventures, and inhibit our ability to refinance our existing indebtedness on terms acceptable to us. Any of these effects could have a material adverse effect on our results of operations and financial condition.

Our failure to comply with covenants and other requirements under our revolving credit facility, senior debt and other indebtedness could have a material adverse effect on us. The agreements and indentures relating to our revolving credit facility, senior debt and other indebtedness, including letter of credit facilities used by certain of our insurance subsidiaries, contain covenants and other requirements. If we fail to comply with those covenants or requirements, the lenders, noteholders or counterparties under those agreements and indentures could declare a default and demand immediate repayment of all amounts owed to them. In addition, where applicable, our lenders may cancel their commitments to lend or issue letters of credit or require us to pledge additional or a different type of collateral. A default under one debt agreement may also put us at risk of a cross-default under other debt agreements or other arrangements. Any of these effects could have a material adverse effect on our results of operations and financial condition.

Our liquidity and our ability to meet our debt and other obligations, and pay dividends on our preferred stock, depend on the receipt of funds from our subsidiaries. We are a holding company, and as a result, our cash flow and our ability to meet our debt and other obligations, and pay dividends on our preferred stock, depend upon the earnings of our subsidiaries and on the distribution of earnings, loans or other payments by our subsidiaries to us. The payment of dividends by our insurance subsidiaries, which account for a significant portion of our operating cash flows, may require prior regulatory notice or approval or may be restricted by capital requirements imposed by regulatory authorities. Similarly, our insurance subsidiaries may require capital contributions from us to satisfy their capital requirements. In addition, our reinsurance contracts typically allow the cedent, upon a reduction in an insurance company's capital in excess of specified amounts, to terminate its contract on terms disadvantageous to us or to exercise other remedies that may adversely affect us. Those contract provisions may have the effect of limiting distributions by our insurance subsidiaries to us.

Risks Primarily Related to Our ILS Operations

We may be exposed to risk in connection with our management of third party capital. Some of our operating subsidiaries may owe certain legal duties and obligations to third party investors. A failure to fulfill any of those duties or obligations could result in significant liabilities, penalties or other losses, and harm our businesses and results of operations. In addition, third party investors may decide not to renew their investments in the funds we manage, which could materially impact the financial condition of those funds, and could, in turn, have a material adverse effect on our results of operations and financial condition. Moreover, we may not be able to maintain or raise additional third party capital for the funds we manage or for potential new funds and therefore we may forego existing or potential fee income and other income generating opportunities.

Developments at our Markel CATCo operations could have a material adverse effect on us. In December 2018, the U.S. Department of Justice, U.S. Securities and Exchange Commission and Bermuda Monetary Authority initiated inquiries into loss reserves recorded in late 2017 and early 2018 at Markel CATCo Re (the Markel CATCo Inquiries). Subsequently, several related putative class actions were filed against Markel Corporation and certain present or former officers and directors alleging violations of the federal securities laws relating to the matters that are the subject of the Markel CATCo Inquiries. Those actions were consolidated and were voluntarily dismissed. See Item 3 Legal Proceedings and note 19 of the notes to

consolidated financial statements included under Item 8 for more information regarding the Markel CATCo Inquiries and other matters related to Markel CATCo. The Markel CATCo Inquiries and the related matters, as well as other matters of which we are currently unaware, could result in additional claims, litigation, investigations, enforcement actions or proceedings. For example, additional litigation may be filed by investors in the Markel CATCo Funds. We also could become subject to increased regulatory scrutiny, investigations or proceedings in any of the jurisdictions where we operate. If any regulatory authority takes action against us or we enter into an agreement to settle a matter, we may incur sanctions or be required to pay substantial fines or implement remedial measures that could prove costly or disruptive to our businesses and operations. An unfavorable outcome in one or more of these matters, and others we cannot anticipate, could have a material adverse effect on our results of operations and financial condition. In addition, we may take steps to mitigate potential risks or liabilities that may arise from the Markel CATCo Inquiries and related developments, and some of those steps may have a material impact on our results of operations or financial condition. Even if an unfavorable outcome does not materialize, these matters, and actions we may take in response, could have an adverse impact on our reputation, limit our access to capital markets and result in substantial expense and disruption.

Risks Related to All of Our Operations

Legal and Regulatory Risks

The legal and regulatory requirements applicable to our businesses are extensive. Failure to comply could have a material adverse effect on us. Each of our businesses is highly dependent on the ability to engage on a daily basis in a large number of financial and operational activities, including, among others, insurance underwriting, claim processing, investment activities, the management of third party capital and providing products and services to businesses and consumers, many of which are highly complex. These activities are subject to internal guidelines and policies, as well as legal and regulatory requirements, including, among others, those related to privacy, anti-corruption, anti-bribery and global finance and investments and insurance matters. Our continued expansion into new businesses and markets has brought about additional requirements. While we believe that we have adopted adequate and effective risk management and compliance programs, compliance risks remain, particularly as we become subject to additional rules and regulations. Failure to comply with, or to obtain, appropriate authorizations or exemptions under any applicable laws and regulations could result in restrictions on our ability to do business or undertake activities that are regulated in one or more of the jurisdictions in which we conduct business. Any such failure could also subject us to fines, penalties, equitable relief and changes to our business practices. In addition, a failure to comply could result in defaults under our senior unsecured debt agreements or credit facilities or damage our businesses or our reputation.

Compliance with applicable laws and regulations is time consuming and personnel- and systems-intensive. Shareholder activism, the current political environment, and the current high level of government intervention and regulatory reform may lead to substantial new regulations and compliance obligations. Any changes in, or the enactment of new, applicable laws and regulations may increase the complexity of the regulatory environment in which we operate, which could materially increase our direct and indirect compliance costs and other expenses of doing business, and have a material adverse effect on our results of operations and financial condition.

Losses from legal and regulatory actions may have a material adverse effect on us. From time to time we may be involved in various legal actions, including at times multi-party or class action litigation, some of which involve claims for substantial or indeterminate amounts. A significant unfavorable outcome in one or more of these actions could have a material adverse effect on our results of operations and financial condition. We are also involved from time to time in various regulatory actions, investigations and inquiries, including market conduct exams by insurance regulatory authorities. If a regulatory authority takes action against us or we enter into a consent order or agreement to settle a matter, a regulatory authority has the option to require us to pay substantial fines or implement remedial measures that could prove costly or disruptive to our businesses and operations. Even if an unfavorable outcome does not materialize, these matters could have an adverse impact on our reputation and result in substantial expense and disruption. See note 19 of the notes to consolidated financial statements included under Item 8 and Item 3 Legal Proceedings.

We are subject to laws and regulations relating to economic and trade sanctions and bribery and corruption, the violation of which could have a material adverse effect on us. We are required to comply with the economic and trade sanctions and embargo programs administered by the U.S. Department of the Treasury's Office of Foreign Assets Control and similar multi-national bodies and governmental agencies worldwide, as well as applicable anti-corruption laws and anti-bribery and regulations of the U.S. and other jurisdictions where we operate. A violation of a sanction, embargo program, or anti-corruption law, could subject us, and individual employees, to a regulatory enforcement action as well as significant civil and criminal penalties. In addition, a violation could result in defaults under our outstanding indebtedness or credit facilities or

damage our businesses or our reputation. Those penalties or defaults, or damage to our businesses or reputation, could have a material adverse effect on our results of operations and financial condition. In some cases the requirements and limitations applicable to the global operations of U.S. companies and their affiliates are more restrictive than, and may even conflict with, those applicable to non-U.S. companies and their affiliates, which also could have a material adverse effect on our results of operations and financial condition.

Employee error and misconduct may be difficult to detect and prevent and may result in significant losses. There have been a number of cases involving misconduct by employees in a broad range of industries in recent years, and we run the risk of misconduct by our employees. Instances of fraud, illegal acts, errors, failure to document transactions properly or to obtain proper internal authorization, or failure to comply with regulatory requirements or our internal policies may result in losses. It is not always possible to deter or prevent employee errors or misconduct, and the controls that we have in place to prevent and detect this activity may not be effective in all cases.

Global Operations

We manage our global operations through a network of business entities, which could result in inconsistent management, governance and oversight practices. We manage our global operations through a network of business entities throughout the U.S., Bermuda, the U.K., Europe, Canada, Latin America, Asia Pacific and the Middle East. These business entities are managed by executives, and supported by shared and centralized services, primarily at the holding company level; however, for certain of our businesses subsidiary-level management is responsible for day-to-day operations, profitability, personnel decisions, the growth of the business, and legal and regulatory compliance, including adherence to applicable local laws. Operating through subsidiary-level management can make it difficult for us to implement strategic decisions and coordinated procedures throughout our global operations. In addition, some of our business entities operate with management, sales, and support personnel that may be insufficient to support growth in their respective locations and industries, without significant central oversight and coordination. We continue to enhance our operating, governance and oversight procedures to effectively support, and improve transparency throughout, our global operations and network of business entities; however, our operating strategy nonetheless could result in inconsistent management, governance, and oversight practices, which may have a material adverse effect on our results of operations and financial condition.

We have substantial international operations and investments, which expose us to increased political, civil, operational and economic risks. A substantial portion of our revenues and income is derived from our operations and investments outside the U.S., including from the U.K., Bermuda, Europe, Canada, Latin America, Asia Pacific and the Middle East. Our international operations and investments expose us to increased political, civil, operational and economic risks. Deterioration or volatility in foreign and international financial markets or general economic and political and civil conditions could adversely affect our operating results, financial condition and liquidity. Concerns about the economic conditions, capital markets, political, civil and economic stability and solvency of certain countries may contribute to global market volatility. Political and civil changes in the jurisdictions where we operate and elsewhere, some of which may be disruptive, can also interfere with our customers and our activities in a particular location. Our international operations also may be subject to a number of additional risks, particularly in emerging economies, including 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 a material adverse effect on our businesses.

General economic, market or industry conditions could lead to investment losses, adverse effects on our businesses and limit our access to the capital markets. General economic and market conditions and industry specific conditions, including extended economic recessions or expansions; prolonged periods of slow economic growth; inflation or deflation; fluctuations and volatility in foreign currency exchange rates, commodity and energy prices and interest rates; volatility in the credit and capital markets; the imposition of tariffs and other changes in international trade regulation and other factors, could lead to: substantial realized and unrealized investment losses in future periods; declines in demand for, or increased frequency and severity of claims made under, our insurance products; disruptions in global supply chains and increased costs of inputs for our products and services; reduced demand for our services and the products we sell and distribute; and limited or no access to the capital markets. Any of these impacts could have a material adverse effect on our results of operations, financial condition, debt and financial strength ratings or our insurance subsidiaries' capital.

The exit of the United Kingdom from the European Union could have a material adverse effect on us. The U.K. left the E.U. (Brexit) on January 31, 2020. The U.K. and the E.U. now exist as separate markets, with distinct legal and regulatory regimes. While certain aspects of the relationship between the U.K. and the E.U. have been agreed, including under the Trade and Cooperation Agreement that took effect January 1, 2021, many issues related to the provision of services between the U.K. and the E.U. have not been addressed, particularly for financial services.

The U.K.'s exit from the E.U. could continue to contribute to instability in global financial markets, including foreign currency markets, and adversely affect European and worldwide economic or market conditions. Significant uncertainties remain related to the ultimate political, monetary and economic impacts of Brexit, including related tax, accounting and financial reporting implications. Brexit could also lead to legal and regulatory uncertainty and, a number, potentially large, of new and divergent national laws and regulations, including new tax rules and data privacy rules, as the U.K. and E.U. regulatory environments evolve. These impacts, combined with the legal and regulatory uncertainty, may adversely affect our operations and also may result in increased claims arising from the impact on our policyholders.

Any of these effects of Brexit, and others we cannot anticipate, could have a material adverse effect on our results of operations and financial condition.

Acquisitions, Integration and Retention

We may not find suitable acquisition candidates or new ventures. As part of our growth strategy, we continue to evaluate possible acquisition transactions on an ongoing basis, and at any given time we may be engaged in discussions with respect to possible acquisitions and new ventures. We may not be able to identify suitable acquisition targets or ventures, any such transactions may not be financed or completed on acceptable terms and our future acquisitions or ventures may not be successful.

The integration of acquired companies may not be as successful as we anticipate. We have completed, and expect to complete, acquisitions in an effort to achieve profitable growth in our underwriting and other insurance operations and to create additional value on a diversified basis in our Markel Ventures operations. Acquisitions present operational, regulatory, strategic and financial risks, as well as risks associated with liabilities arising from the previous operations of the acquired companies. We also must make decisions about the degree to which we integrate acquisitions into our existing businesses, operations and systems, and over what timeframe. Those decisions may adversely affect how successfully the acquired businesses perform, both in the short term and in the long term. All of these risks are magnified in the case of a large acquisition. Integration of the operations and personnel of acquired companies may prove more difficult than anticipated, which may result in failure to achieve financial objectives associated with the acquisition or diversion of management attention. In addition, integration of formerly privately-held companies into the management and internal control and financial reporting systems of a publicly-held company presents additional risks. See note 3 of the notes to consolidated financial statements included under Item 8 for information about our recent acquisitions.

Impairment in the value of our goodwill or other intangible assets could have a material adverse effect on our operating results and financial condition. As of December 31, 2020, goodwill and intangible assets totaled \$4.4 billion and represented 34% of shareholders' equity. We record goodwill and intangible assets at fair value upon the acquisition of a business. Goodwill represents the excess of amounts paid to acquire businesses over the fair value of the net assets acquired. Goodwill and indefinite-lived intangible assets are evaluated for impairment annually, or more frequently if events or circumstances indicate that their carrying value may not be recoverable. Declines in operating results, divestitures, sustained market declines and other factors that impact the fair value of a reporting unit could result in an impairment of goodwill or intangible assets and, in turn, a charge to net income. Such a charge could have a material adverse effect on our results of operations or financial condition. Developments that adversely affect the future cash flows or earnings of an acquired business may cause the goodwill or intangible assets recorded for it to be impaired. See "Critical Accounting Estimates - Goodwill and Intangible Assets" included under Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations and note 6 of the notes to consolidated financial statements included under Item 8 for information about our goodwill and intangible assets.

The loss of one or more key executives or an inability to attract and retain qualified personnel could have a material adverse effect on us. Our success depends on our ability to retain the services of our existing key executives and to attract and retain additional qualified personnel in the future. The loss of the services of any of our key executives or the inability to hire and retain other highly qualified personnel in the future could have a material adverse effect on our ability to conduct or grow our business.

Information Technology Systems and Third-Party Systems and Service Providers

Information technology systems that we use could fail or suffer a security breach, which could have a material adverse effect on us or result in the loss of regulated or sensitive information. Our businesses are dependent upon the operational effectiveness and security of our enterprise systems and those maintained by third parties. Among other things, we rely on these systems to interact with producers, insureds, customers, clients, and other third parties, to perform actuarial and other

modeling functions, to underwrite business, to prepare policies and process premiums, to process claims and make claims payments, to prepare internal and external financial statements and information, as well as to engage in a wide variety of other business activities. A significant failure of our enterprise systems, or those of third parties upon which we may rely, whether because of a natural disaster, network outage or a cyber-attack on those systems, could compromise our personal, confidential and proprietary information as well as that of our customers and business partners, impede or interrupt our business operations and could result in other negative consequences, including remediation costs, loss of revenue, additional regulatory scrutiny and fines, litigation and monetary and reputational damages. Although we have implemented controls and take protective actions to reduce the risk of an enterprise failure and protect against a security breach, such measures may be insufficient to prevent, or mitigate the effects of, a natural disaster, network outage or a cyber-attack on our systems that could result in liability to us, cause our data to be corrupted or stolen and cause us to commit resources, management time and money to prevent or correct those failures.

In addition, we are subject to numerous data privacy laws and regulations enacted in the jurisdictions in which we do business. A misuse or mishandling of personal, confidential or proprietary information being sent to or received from a client, employee or third party could damage our businesses or our reputation or result in significant monetary damages, regulatory enforcement actions, fines and criminal prosecution in one or more jurisdictions. For example, under the European General Data Protection Regulation there are significant new punishments for non-compliance which could result in a penalty of up to 4% of a firm's global annual revenue. In addition, a violation of data privacy laws and regulations could result in defaults under our outstanding indebtedness or credit facilities. Those monetary damages, penalties, regulatory or legal actions or defaults, or the damage to our businesses or reputation, could have a material adverse effect on our results of operations and financial condition. Third parties to whom we outsource certain functions are also subject to these risks, and their failure to adhere to these laws and regulations also could damage our businesses or reputation or result in regulatory intervention, which could have a material adverse effect on our results of operations and financial condition.

Further, we routinely transmit, receive and store personal, confidential and proprietary information by email and other electronic means. Although we attempt to protect this personal, confidential and proprietary information, we may be unable to do so in all cases, especially with customers, business partners and other third parties who may not have or use appropriate controls to protect confidential information.

While we maintain cyber risk insurance providing first party and third party coverages, that insurance may not cover all costs associated with the consequences of personal, confidential or proprietary information being compromised. A material cyber security breach could have a material adverse effect on our results of operations and financial condition.

Outsourced providers may perform poorly, breach their obligations to us or expose us to enhanced risks. We outsource certain business functions to third-party providers, and these providers may not perform as anticipated or may fail to adhere to the obligations owed to us. For example, certain of our business units rely on relationships with a number of third-party administrators under contracts pursuant to which these third-party administrators manage and pay claims on our behalf and advise us with respect to case reserves. In these relationships, we rely on controls incorporated in the provisions of the administration agreement, as well as on the administrator's internal controls, to manage the claims process within our prescribed parameters. In addition, certain of our business units use managing general agents, general agents and other producers to write and administer business on our behalf within prescribed underwriting authorities. Although we monitor these administrators, agents, producers and other service providers on an ongoing basis, our monitoring efforts may not be adequate, or our service providers could exceed their authorities or otherwise breach obligations owed to us, which could result in operational disruption, reputational damage and regulatory intervention and otherwise have a material adverse effect on our results of operation and financial condition.

In addition, we outsource certain technology and business process functions to third parties and may do so increasingly in the future. If we do not effectively develop and implement our outsourcing strategy, third party providers do not perform as anticipated or we experience technological or other problems with a transition, we may not realize 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 enhanced risk related to privacy and data security, which could result in monetary and reputational damages. In addition, our ability to receive services from third party providers might be impacted by cultural differences, political and civil instability, unanticipated or additional regulatory requirements or policies. As a result, our ability to conduct our business may be adversely affected.

COVID-19 Pandemic

The COVID-19 pandemic has had, and may continue to have, material adverse effects on us. The effects of the COVID-19 pandemic, and U.S. and international responses, are wide-ranging, costly, disruptive and rapidly changing. The COVID-19 pandemic has had, and may continue to have, material adverse effects on our underwriting, investment, Markel Ventures and other operations, and on our results of operations and financial condition. Factors that give rise, or may give rise, to those effects include, or may include, the following, as well as others that we cannot predict:

- Executive, legislative or regulatory mandates or judicial decisions that require retroactive coverage of business interruption claims stemming from the COVID-19 pandemic or to expand the scope of other types of insurance or reinsurance coverages, for example, workers' compensation insurance;
- Regulatory actions:
 - prohibiting or postponing the cancellation or non-renewal of insurance policies in accordance with policy terms or requiring renewals on current terms and conditions;
 - requiring the coverage of losses irrespective of policy terms or exclusions;
 - relaxing policyholder reporting requirements for claims, which may affect coverage under our claims made and claims made and reported policies;
 - requiring or encouraging premium refunds;
 - granting extended grace periods for premium payments; and
 - extending due dates to pay past due premiums;
- Rapidly and dramatically changing business conditions and compliance obligations, including as a result of federal and state executive orders and regulatory guidance;
- Disruptions, delays and increased costs and risks related to working remotely, having limited or no access to our facilities, workplace re-entry, employee safety concerns and reductions or interruptions of critical or essential services. Those effects may include, among others:
 - an inability, or a decreased ability, to provide our insurance and non-insurance products and services, provide customer service, pay third parties in a timely manner or perform other necessary business functions; and
 - exposure to additional and increased risks related to internal controls, data security and information privacy,
 for both us and for our suppliers, vendors and other third-parties with whom we do business;
- Illnesses suffered by key employees, or a significant percentage of our workforce or the workforce of our agents, brokers, suppliers or outsourcing providers, which could prevent or delay the performance of critical business functions;
- Illnesses suffered by employees who have continued to work, or who have or will return to work, in our facilities may expose us to increased risk of employment related claims and litigation;
- Lawsuits and other legal actions challenging the promptness of coverage determinations or the coverage determinations themselves on claims under applicable insurance or reinsurance policies, including, among others, business interruption claims, resulting in increased claims, litigation and related expenses;
- Delays in the reporting of non-COVID-19 claims, and the settlement of those claims, due to a variety of factors, including "stay-at-home" and similar orders instituted by many governmental authorities, potentially increasing the severity of those claims and reducing the predictability of the underlying statistical data used in establishing reserves, particularly for longer-tailed lines of business;
- Reduced demand for our insurance and non-insurance products and services due to reduced global economic activity, which could adversely impact our revenues and cash flows;
- Adverse impacts on our revenues and cash flows due to:
 - premium refunds or delayed receipt of premium payments;
 - delayed payment of reinsurance recoverables; and
 - expedited claims payments in response to regulatory requirements;
- Adverse effects on future cash flows or earnings of one or more of our underwriting, Markel Ventures or other acquired businesses, which could result in an impairment of goodwill or intangible assets and, in turn, a charge to net income:
- Increased needs for capital at our regulated insurance and reinsurance subsidiaries and non-insurance subsidiaries and the constraints that may be placed on our liquidity and other uses of holding company capital;

- Insured or reinsured losses from COVID-19-related claims could be greater than our reserves for those losses;
- Volatility and declines in global financial markets, defaults on fixed maturity securities (including corporate bonds, mortgage-backed securities and securities issued by municipalities, foreign governments and non-sovereign foreign institutions), and declines in interest rates and dividend payments, which have reduced, and could continue to reduce, future investment results and the fair market value of our invested assets;
- Deterioration in global financial and economic conditions, which have had, or could have, a broad range of material adverse effects on our businesses, and on our results of operations and financial condition, including, among others:
 - increased reinsurance costs and the inability to obtain the desired kinds and amounts of reinsurance;
 - furloughs and lay-offs of employees;
 - odowngrades, or changes in outlook, by rating agencies of the financial strength or debt ratings of the Company or our insurance or reinsurance company subsidiaries;
 - reduced ability to access capital;
 - inability of our key vendors and contract counterparties to perform or pay the obligations required of them on a timely basis, or at all; and
 - increased credit risk, including credit risk related to our fixed maturity investments and receivables from insureds, reinsurers and customers;
- Deferred or reduced management and incentive fees from our insurance-linked securities operations, due to uncertainty regarding actual or potential COVID-19 related loss exposures, adverse impacts on our ability to maintain or raise third party capital for existing or new investment vehicles and increased risks related to our management of third party capital;
- A failure to satisfy financial covenants under our revolving credit agreement, which can be adversely affected by a significant decline in our consolidated net worth due to changes in the fair value of our equity investments, impairments in our fixed maturity investment portfolio, or impairment of our goodwill and intangible assets, as well as other things that adversely impact our results of operations. While we currently have no debt outstanding under our revolving credit facility, a failure to satisfy the financial covenants under the revolving credit agreement, unless waived or amended, would result in our inability to borrow or secure letters of credit under that facility;
- Increases in the number of consumer complaints challenging coverage or claims decisions under applicable insurance policies;
- Increases in the number of potential fraudulent claims made under insurance policies due to the economic hardships experienced by companies and individuals as a result of the COVID-19 pandemic; and
- Increases in local, state and federal taxes to pay for costs incurred by governmental expenditures associated with the COVID-19 pandemic.

One or more of these factors resulting from the COVID-19 pandemic, and others the Company cannot anticipate, could have material adverse effects on the Company's results of operations and financial condition; and the extent of these effects will depend, at least in part, on the scope, severity, duration and subsequent recurrences of the pandemic. In addition, the Company may take steps to mitigate potential risks or liabilities that may arise from the COVID-19 pandemic and related developments and some of those steps may have a material adverse effect on the Company's results of operations and financial condition. Even if an unfavorable outcome does not materialize, these factors, and actions the Company may take in response, may have a material adverse impact on the Company's reputation and result in substantial expense and disruption.

See Item 7 Management's Discussion & Analysis of Financial Condition and Results of Operations, including "Developments Related to COVID-19", and the notes to consolidated financial statements included under Item 8, including note 20 Developments Related to COVID-19, for additional discussion of effects COVID-19 has had, and could have, on our businesses, results of operations and financial condition.

In addition, it is important to note and emphasize, the COVID-19 pandemic also may have the effect of triggering or intensifying many of the risks described elsewhere under this Item 1A Risk Factors.

Item 3. LEGAL PROCEEDINGS

Markel CATCo Inquiries

We previously reported that in December 2018 the U.S. Department of Justice, U.S. Securities and Exchange Commission and Bermuda Monetary Authority (together, the Governmental Authorities) initiated inquiries into loss reserves recorded in late 2017 and early 2018 at our Markel CATCo operations. Those reserves are held at Markel CATCo Re, an unconsolidated

subsidiary of MCIM. The Markel CATCo Inquiries are limited to MCIM and its subsidiaries (together, Markel CATCo) and do not involve other Markel subsidiaries.

We retained outside counsel to conduct an internal review of Markel CATCo's loss reserving in late 2017 and early 2018. The internal review was completed in April 2019 and found no evidence that Markel CATCo personnel acted in bad faith in exercising business judgment in the setting of reserves and making related disclosures during late 2017 and early 2018. Our outside counsel has met with the Governmental Authorities and reported the findings from the internal review. At this time, we are unable to predict the duration, scope or result of the Markel CATCo Inquiries.

Thomas Yeransian v. Markel Corporation

In October 2010, we completed the acquisition of Aspen Holdings, Inc. (Aspen). As part of the consideration for that acquisition, Aspen shareholders received contingent value rights (CVRs). Based on a valuation of the CVRs as of their December 31, 2017 maturity date, we paid \$9.9 million to the CVR holders on June 5, 2018, which represents 90% of the undisputed portion of the final amount we believe we are required to pay under the CVR agreement.

Prior to the December 31, 2017 CVR maturity date, the CVR holder representative, Thomas Yeransian, had disputed our prior estimation of the value of the CVRs. On September 15, 2016, Mr. Yeransian filed a suit, Thomas Yeransian v. Markel Corporation (U.S. District Court for the District of Delaware), alleging, among other things, that we are in default under the CVR agreement. The suit seeks: \$47.3 million in damages, which represents the unadjusted value of the CVRs; plus interest (\$19.2 million through December 31, 2020) and default interest (up to an additional \$16.2 million through December 31, 2020, depending on the date any default occurred); and an unspecified amount of punitive damages, costs, and attorneys' fees.

At the initial hearing held February 21, 2017, the court stayed the proceedings and ordered the parties to discuss resolving the dispute pursuant to the independent CVR valuation procedure under the CVR agreement. The parties met on April 5, 2017, but were unsuccessful in reaching agreement on a process for resolving the dispute. We subsequently filed a motion to stay the litigation and compel arbitration, and, on July 31, 2017, the court issued an order granting that motion.

On September 20, 2018, a new judge was assigned to the case. On October 12, 2018, the court denied both Mr. Yeransian's motion to reconsider the order staying the litigation and compelling arbitration and our motion for sanctions against Mr. Yeransian for violating the confidentiality of mediation proceedings. The court subsequently (1) on December 3, 2018 ordered Mr. Yeransian to provide the court and us with the identity of an actuarial firm to participate in the selection of independent experts for the CVR valuation process under the CVR agreement and (2) on December 11, 2018 denied Mr. Yeransian's motion for judgment that we had waived our right to require Mr. Yeransian's participation in the CVR valuation process. On July 8, 2019, the Court granted our motion for instructions as to how the independent experts are to conduct the CVR valuation process and denied Mr. Yeransian's motion to have a hearing officer appointed to oversee the valuation process. The independent experts, who were jointly selected by the parties, have been engaged and are conducting the valuation process.

On November 13, 2018, Mr. Yeransian filed a second suit, Thomas Yeransian v. Markel Corporation (U.S. District Court for the District of Delaware), which also alleges that the Company is in default under the CVR agreement. The second suit seeks the same monetary damages and relief as the original suit. We filed a motion to stay this suit until the arbitration for the original suit has concluded and the CVR holders have received the remainder of the final amount due under the CVR Agreement. The court granted that motion on August 6, 2019.

On June 5, 2020, Yeransian filed a third suit, Thomas Yeransian v. Markel Corporation (U.S. District Court for the District of Delaware). Similar to the first and second suits, the third suit alleges that the Company is in default under the CVR agreement and, in addition, has interfered with the current, on-going arbitration for the CVR valuation. The third suit seeks the same monetary damages and relief as the original suit and the second suit, as well as other declaratory and non-monetary judgments and orders. We filed a motion to stay this suit.

We believe Mr. Yeransian's suits to be without merit. We further believe that any material loss resulting from the suits to be remote. We do not believe the contractual contingent consideration payments related to the CVRs, as ultimately determined by the independent experts in the valuation process, will have a material impact on the Company's liquidity.

Information About Our Executive Officers

Thomas S. Gayner

Co-Chief Executive Officer since January 2016. President and Chief Investment Officer from May 2010 to December 2015. Chief Investment Officer from January 2001 to December 2015. President, Markel-Gayner Asset Management Corporation, a subsidiary, since December 1990. Director from 1998 to 2004. Director since August 2016. Age 59.

Richard R. Whitt, III

Co-Chief Executive Officer since January 2016. President and Co-Chief Operating Officer from May 2010 to December 2015. Senior Vice President and Chief Financial Officer from May 2005 to May 2010. Director since August 2016. Age 57.

Robert C. Cox

President and Chief Operating Officer, Insurance Operations since September 2018. Executive Vice President of Chubb Ltd. (a public company) and Division Chairman of Chubb Ltd.'s North American Financial Lines from January 2016 until retirement in July 2016; Executive Vice President of Chubb & Son and Chief Operating Officer of Chubb Specialty Insurance from June 2013 to January 2016. Age 62.

Michael R. Heaton

President, Markel Ventures since January 2016; President and Chief Operating Officer, Markel Ventures, Inc., a subsidiary, since January 2016 and September 2013, respectively. Age 44.

Bradley J. Kiscaden

President and Chief Administrative Officer, Insurance Operations since September 2018. Executive Vice President and Chief Actuarial Officer from July 2012 to September 2018. Chief Actuarial Officer from March 1999 to September 2018. Age 58.

Jeremy A. Noble

Senior Vice President and Chief Financial Officer since September 2018. Senior Vice President, Finance from June 2018 to September 2018. Finance Director, Markel International from July 2015 to June 2018. Managing Director, Internal Audit from September 2011 to July 2015. Age 45.

Linda V. Schreiner

Senior Vice President, Strategic Management since January 2016. Senior Vice President, Human Resources and Communications of MeadWestvaco Corporation (a public company) from January 2002 to July 2015. Age 61.

Richard R. Grinnan

Senior Vice President, Chief Legal Officer and Secretary since February 2020. General Counsel and Secretary from June 2014 to February 2020. Assistant General Counsel from August 2012 to June 2014. Age 52.

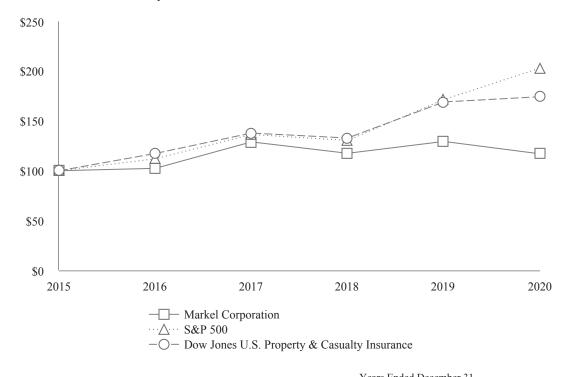
Susan L. Davies

Chief Human Resources Officer, Markel Insurance since September 2018. Managing Executive, Human Resources from January 2018 to August 2020. Senior Director Global Organization Effectiveness and Strategy from October 2016 to January 2018. Associate Vice President Talent Management of CarMax, Inc. (a public company) from September 2015 to October 2016. Age 56.

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

Performance Graph

The following graph compares the cumulative total return (based on share price) on our common stock with the cumulative total return of companies included in the S&P 500 Index and the Dow Jones U.S. Property & Casualty Insurance Companies Index. This information is not necessarily indicative of future results.



	1 ears Ended December 31,											
	2015 (1)			2016 2017		2018		2019		2020		
Markel Corporation	\$	100	\$	102	\$	129	\$	118	\$	129	\$	117
S&P 500		100		112		136		130		171		203
Dow Jones U.S. Property & Casualty Insurance		100		117		138		133		169		174

^{(1) \$100} invested on December 31, 2015 in our common stock or the listed index. Includes reinvestment of dividends.

Common Stock and Dividend Information

Our common stock trades on the New York Stock Exchange under the symbol MKL. The number of shareholders of record as of February 2, 2021 was approximately 300. The total number of shareholders, including those holding shares in street name or in brokerage accounts, is estimated to be in excess of 170,000. Our current strategy is to retain earnings and, consequently, we have not paid and do not expect to pay a cash dividend on our common stock.

Securities Authorized for Issuance Under Equity Compensation Plans

See Part III for information on securities authorized for issuance under our equity compensation plans.

Available Information

This document represents Markel Corporation's Annual Report on Form 10-K, which is filed with the U.S. Securities and Exchange Commission. We make available free of charge on or through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the U.S. Securities and Exchange Commission. Our website address is www.markel.com.

Transfer Agent

American Stock Transfer & Trust Co., LLC, Operations Center, 6201 15th Avenue, Brooklyn, NY 11219 (800) 937-5449 help@astfinancial.com

Item 6. SELECTED FINANCIAL DATA

(dollars in millions, except per share data)	2020	2019	2018	2017	2016	5-Year CAGR ⁽¹⁾
Results of Operations						
Earned premiums	\$5,612	\$ 5,050	\$ 4,712	\$ 4,248	\$ 3,866	8 %
Net investment income	372	452	434	406	373	1 %
Products revenues	1,440	1,610	1,498	951	885	11 %
Services and other revenues	1,694	813	635	462	422	51 %
Total operating revenues (2)	9,735	9,526	6,841	6,062	5,612	13 %
Net income (loss) to common shareholders (2)	798	1,790	(128)	395	456	
Comprehensive income (loss) to shareholders	1,192	2,094	(376)	1,175	667	
Diluted net income (loss) per common share	\$55.63	\$129.07	\$ (9.55)	\$ 25.81	\$ 31.27	
Financial Position						
Total investments, cash and cash equivalents and restricted cash and cash equivalents (invested assets)	\$24,927	\$22,258	\$19,238	\$20,570	\$19,059	7 %
Total assets	41,710	37,474	33,306	32,805	25,875	11 %
Unpaid losses and loss adjustment expenses	16,222	14,729	14,276	13,584	10,116	10 %
Senior long-term debt and other debt	3,484	3,534	3,010	3,099	2,575	
Shareholders' equity	12,800	11,071	9,081	9,504	8,461	10 %
Common shares outstanding (at year end, in thousands)	13,783	13,794	13,888	13,904	13,955	
Consolidated Performance Measures (3)						
Book value per common share outstanding	\$885.72	\$802.59	\$653.85	\$683.55	\$606.30	10 %
5-Year CAGR in book value per common share (1)	10 %	8 %	7 %	11 %	11 %	
Closing stock price	\$1,033.30	\$1,143.17	\$1,038.05	\$1,139.13	\$904.50	3 %
5-Year CAGR in closing stock price (1)	3 %	11 %	12 %	21 %	17 %	
U.S. GAAP combined ratio	98 %	94 %	98 %	105 %	92 %	
Investment yield	2 %	3 %	3 %	3 %	2 %	
Taxable equivalent total investment return	9 %	15 %	(1)%	10 %	4 %	
Debt to capital	21 %	24 %	25 %	25 %	23 %	

⁽¹⁾ CAGR—compound annual growth rate.

⁽²⁾ In accordance with the provisions of Accounting Standards Update No. 2016-01, beginning January 1, 2018, all changes in the fair value of equity securities are recognized in net income.

⁽³⁾ These measures provide a basis for management to evaluate performance. The method we use to compute these measures may differ from the methods used by other companies. See further discussion on the calculation of these measures and management's evaluation of these measures in Item 7 Management's Discussion & Analysis of Financial Condition and Results of Operations.

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

The accompanying consolidated financial statements and related notes have been prepared in accordance with United States (U.S.) generally accepted accounting principles (GAAP) and include the accounts of Markel Corporation and its subsidiaries, as well as any variable interest entities that meet the requirements for consolidation (the Company). For a discussion of our significant accounting policies, as well as recently issued accounting pronouncements that we have not yet adopted and their expected effects on our consolidated financial position, results of operations and cash flows, see note 1 of the notes to consolidated financial statements included under Item 8.

The following discussion and analysis includes discussion of changes in our results of operations and financial condition from 2019 to 2020 and should be read in conjunction with Item 6 Selected Financial Data, the consolidated financial statements and related notes included under Item 8, Item 1A Risk Factors and "Safe Harbor and Cautionary Statement" under Item 7. A discussion of changes in our results of operations and financial condition from 2018 to 2019 may be found in Part II Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations in our 2019 Annual Report on Form 10-K, which was filed with the U.S. Securities and Exchange Commission on February 21, 2020.

Results of Operations

The following table presents the components of net income to shareholders, net income to common shareholders and comprehensive income to shareholders.

	Years Ended December 31,					
(dollars in thousands)	2020	2019				
Insurance segment profit	\$ 169,001	\$ 309,778				
Reinsurance segment loss	(75,470)	(39,999)				
Investing segment profit (1)	989,564	2,052,874				
Markel Ventures segment profit (2)	254,078	168,417				
Other operations (3)	(63,289)	(13,724)				
Interest expense	(177,582)	(171,687)				
Net foreign exchange losses	(95,853)	(2,265)				
Loss on early extinguishment of debt	_	(17,586)				
Income tax expense	(168,682)	(486,346)				
Net income attributable to noncontrolling interests	(15,737)	(8,996)				
Net income to shareholders	816,030	1,790,466				
Preferred stock dividends	(18,400)					
Net income to common shareholders	797,630	1,790,466				
Other comprehensive income to shareholders	375,604	303,422				
Comprehensive income to shareholders	\$ 1,191,634	\$ 2,093,888				
(1)						

⁽¹⁾ Net investment income and net investment gains, if any, attributable to Markel Ventures are included in segment profit for Markel Ventures. All other net investment income and net investment gains are included in Investing segment profit.

The decrease in comprehensive income to shareholders in 2020 was primarily due to lower net investment gains on our equity portfolio in 2020 compared to 2019. Comprehensive income to shareholders in 2020 also reflects significant underwriting losses and other impacts attributed to COVID-19, a novel coronavirus outbreak that was declared a pandemic by the World Health Organization on March 11, 2020, which has caused unprecedented social and economic disruption, increased volatility of capital markets and interventions by various governments and central banks around the world. The components of net income to shareholders and comprehensive income to shareholders are discussed in further detail under "Underwriting Results," "Investing Results," "Markel Ventures," "Other Operations," "Interest Expense, Loss on Early Extinguishment of Debt and Income Taxes" and "Comprehensive Income to Shareholders."

⁽²⁾ Segment profit for the Markel Ventures segment includes amortization of intangible assets attributable to Markel Ventures.

⁽³⁾ Other operations includes the results attributable to our operations that are not included in a reportable segment, as well as any amortization of intangible assets that is not allocated to a reportable segment. Amortization of intangible assets attributable to our underwriting segments was \$41.9 million and \$39.7 million for the years ended December 31, 2020 and 2019, respectively; however, we do not allocate amortization of intangible assets between the Insurance and Reinsurance segments.

Underwriting Results

Underwriting profits are a key component of our strategy to build shareholder value. We believe that the ability to achieve consistent underwriting profits demonstrates knowledge and expertise, commitment to superior customer service and the ability to manage insurance risk. The property and casualty insurance industry commonly defines underwriting profit or loss as earned premiums net of losses and loss adjustment expenses and underwriting, acquisition and insurance expenses. We use underwriting profit or loss and the combined ratio as a basis for evaluating our underwriting performance. The combined ratio is a measure of underwriting performance and represents the relationship of incurred losses, loss adjustment expenses and underwriting, acquisition and insurance expenses to earned premiums. The combined ratio is the sum of the loss ratio and the expense ratio. The loss ratio represents the relationship of incurred losses and loss adjustment expenses to earned premiums. The expense ratio represents the relationship of underwriting, acquisition and insurance expenses to earned premiums. A combined ratio less than 100% indicates an underwriting profit, while a combined ratio greater than 100% reflects an underwriting loss. Segment profit for our underwriting segments may also include other revenues and expenses that are attributable to our underwriting operations that are not captured in underwriting profit.

The following table presents selected data from our underwriting operations.

	Years Ended December 31,					
(dollars in thousands)	<u> </u>	2020		2019		
Gross premium volume (1)	\$	7,154,628	\$	6,436,168		
Net written premiums	\$	5,932,238	\$	5,412,071		
Net retention ⁽¹⁾		83 %		84 %		
Earned premiums	\$	5,612,205	\$	5,049,793		
Losses and loss adjustment expenses	\$	3,466,961	\$	2,891,190		
Underwriting, acquisition and insurance expenses	\$	2,017,627	\$	1,878,093		
Underwriting profit	\$	127,617	\$	280,510		
Disposal loss	\$	(41,461)	\$	_		
U.S. GAAP Combined Ratios						
Insurance		96 %		93 %		
Reinsurance		104 %		104 %		
Consolidated		98 %		94 %		

Voors Ended December 21

Combined Ratio

Our consolidated combined ratio for 2020 included \$360.4 million, or six points, of underwriting loss attributed to COVID-19 and \$168.9 million, or three points, of underwriting loss attributed to natural catastrophes compared to \$100.4 million, or two points, of catastrophe losses in 2019. Excluding the impacts of COVID-19 and catastrophe losses, our combined ratio improved due to a lower attritional loss ratio and a lower expense ratio arising from improved performance within our Insurance segment in 2020 compared to 2019.

COVID-19 Losses

The following table summarizes, by segment, the components of the underwriting loss attributed to the COVID-19 pandemic in 2020. The losses and loss adjustment expenses were net of ceded losses of \$106.2 million.

	Year Ended December 31, 2020							
(dollars in thousands)	Insurance			Reinsurance		Reinsurance Consol		Consolidated
Losses and loss adjustment expenses	\$	296,420	\$	61,884	\$	358,304		
Ceded (assumed) reinstatement premiums		2,145		(93)		2,052		
Underwriting loss	\$	298,565	\$	61,791	\$	360,356		
Impact on combined ratio	<u> </u>	6 %		7 %		6 %		

Gross premium volume and net retention for the years ended December 31, 2020 and 2019 exclude \$2.1 billion and \$2.3 billion, respectively, of written premiums attributable to our program services business and other fronting arrangements that were ceded.

The COVID-19 outbreak was identified as a potential exposure within our underwriting operations in late February, at which point we began to regularly review all of our product lines to identify lines of business we believed could be directly impacted by COVID-19 and to evaluate the extent to which the virus may impact our coverages. In those instances where we identified COVID-19 as the proximate, or direct, cause of loss, we established net reserves for losses and loss adjustment expenses totaling \$325.0 million during the first quarter of 2020. Our direct losses from COVID-19 were primarily attributed to business written within our international insurance operations and were primarily associated with coverages for event cancellation and business interruption losses in policies where no specific pandemic exclusions exist. Since establishing these initial reserves in the first quarter of 2020, we have increased our estimate of direct net losses and loss adjustment expenses attributable to COVID-19 by \$18.3 million following changes in certain assumptions on which our estimates are based, resulting in total direct net losses and loss adjustment expenses of \$343.3 million for the year ended December 31, 2020.

In addition to loss exposures that are directly attributable to COVID-19, we also are exposed to losses indirectly related to the COVID-19 pandemic and associated with a broader range of coverages, including coverages within our trade credit, professional liability and workers' compensation product lines, among others, as well as certain of our reinsurance product lines. During 2020, we recognized \$15.0 million of net losses and loss adjustment expenses in our trade credit product line within our Insurance segment related to losses that were indirectly attributable to the pandemic. We do not believe any other significant indirect losses attributable to COVID-19 have been incurred. See "Developments Related to COVID-19" for further discussion of other potential indirect exposures arising from the pandemic.

The following table summarizes, by coverage and underwriting platform, the components of our direct net losses and loss adjustment expenses from COVID-19 for 2020.

Year Ended December 31, 2020					
Insurance		Reinsurance		Consolidated	
\$	185.7	\$	_	\$	185.7
	7.5		_		7.5
	72.3		21.6		93.9
	8.0		13.6		21.6
	7.9		26.7		34.6
\$	281.4	\$	61.9	\$	343.3
		\$ 185.7 7.5 72.3 8.0 7.9	Insurance Reir	Insurance Reinsurance \$ 185.7 \$ — 7.5 — 72.3 21.6 8.0 13.6 7.9 26.7	Insurance Reinsurance Cor \$ 185.7 \$ — \$ \$ 7.5 — — 72.3 21.6 8.0 13.6 7.9 26.7 —

Both the gross and net loss estimates for direct losses attributed to COVID-19 represent our best estimates as of December 31, 2020 based upon information currently available. These estimates are based on reported claims, detailed policy level reviews and reviews of in-force assumed reinsurance contracts for potential exposures, as well as analysis of our ceded reinsurance contracts and analysis provided by our brokers and claims counsel. We also considered the results of recent judicial rulings. There are no recent historical events with similar characteristics to COVID-19, and therefore we have no past loss experience on which to base our estimates. Additionally, the economic and social impacts of the pandemic continue to evolve.

Significant assumptions on which our estimates of reserves for direct COVID-19 losses and loss adjustment expenses are based include:

- the scope of coverage provided under our policies, particularly those that provide for business interruption coverage, which generally falls under the following three categories:
 - coverage has not been triggered because the policy's insuring agreement has not been satisfied and/or a covered cause of loss has not been established;
 - the policy would not respond because the policy includes a communicable disease, virus or pandemic exclusion; or
 - the policy may provide coverage for communicable diseases and pandemics, but also includes conditions and limitations to coverage;
- coverage provided under our ceded reinsurance contracts;
- the expected duration of the disruption caused by the COVID-19 pandemic; and

• the ability of insureds to mitigate some or all of their losses. For example, in the case of our event cancellation coverages, by deferring the event or moving to a virtual format, and for our business interruption exposures, the ability to continue providing certain services or to provide services remotely.

Due to the inherent uncertainty associated with the assumptions surrounding the COVID-19 pandemic, these estimates are subject to a wide range of variability. Our initial estimates in the first quarter of 2020 reflected limited claims reporting and were based on broad assumptions about coverage, liability and reinsurance. A test case of a sample of business interruption coverages for policies written in the United Kingdom (U.K.), which do not have the same exclusions as policies commonly written in the U.S., concluded in the third quarter of 2020 with the court's judgment finding mostly in favor of policyholders. This ruling was subsequently upheld by the U.K. supreme court. This ruling was most impactful to certain estimates in our Reinsurance segment, where we increased our estimate of losses and loss adjustment expenses on certain treaties following an increase in estimated losses by the respective cedents on the treaties. The ruling did not meaningfully impact the reserves previously established for business interruption coverage within our Insurance segment given the assumptions made in our initial estimates and our policy terms and conditions. Our estimates at December 31, 2020 also reflect additional data gathered through increased claims reporting and changes in our expectation of the duration of the pandemic, which was most impactful to our event cancellation coverages.

As of December 31, 2020, assumptions about coverage, liability and reinsurance continue to be subject to judicial review and may be subject to other government action. Additionally, we have begun to see significant litigation involving the handling of business interruption claims associated with COVID-19, and in certain instances, assessing the validity of policy exclusions for pandemics and interpreting policy terms to determine coverage for pandemics, which are also in the process of being tested in various judicial systems. While we believe our net reserves for losses and loss adjustment expenses for COVID-19 as of December 31, 2020 are adequate based on information currently available, we continue to closely monitor reported claims, government actions, judicial decisions and changes in the levels of worldwide social disruption and economic activity arising from the pandemic and will adjust our estimates of gross and net losses as new information becomes available. Such adjustments to our reserves for COVID-19 losses and loss adjustment expenses may be material to our results of operations, financial condition and cash flows.

Catastrophe Losses

Underwriting results in 2020 included \$168.9 million of underwriting loss from Hurricanes Isaias, Laura, Sally, Delta and Zeta, as well as wildfires in the western U.S. and the derecho in Iowa (2020 Catastrophes). These losses and loss adjustment expenses were net of ceded losses of \$125.7 million. Underwriting results in 2019 included \$100.4 million of underwriting loss from Hurricane Dorian and Typhoons Faxai and Hagibis (2019 Catastrophes). These losses and loss adjustment expenses were net of ceded losses of \$62.5 million. The following table summarizes, by segment, the components of the underwriting losses related to the 2020 and 2019 Catastrophes.

(J. Hans in discounts)
(dollars in thousands)
Losses and loss adjustment expenses
Ceded (assumed) reinstatement premiums
Underwriting loss
Impact on combined ratio
impact on combined ratio

Years Ended December 31,										
	2020		2019							
	2020 Catastrophes	S	2019 Catastrophes							
Insurance	Reinsurance	Consolidated	Insurance	Reinsurance	Consolidated					
\$124,386	\$ 47,848	\$172,234	\$ 8,317	\$105,644	\$113,961					
	(3,368)	(3,368)		(13,552)	(13,552)					
\$124,386	\$ 44,480	\$168,866	\$ 8,317	\$ 92,092	\$100,409					
3 %	5 %	3 %	<u> </u>	10 %	2 %					

The net losses and loss adjustment expenses on the 2020 Catastrophes as of December 31, 2020 represent our best estimates based upon information currently available. Our estimates for these losses are based on claims received to date, detailed policy and reinsurance contract level reviews, preliminary industry loss estimates and output from both industry and proprietary models, as well as analysis of our ceded reinsurance contracts. Given the number of events comprising the 2020 Catastrophes, and in certain instances, the limited claims activity thus far, these estimates are still dependent on broad assumptions about coverage, liability and reinsurance and are therefore subject to a wide range of variability. While we believe our reserves for the 2020 Catastrophes as of December 31, 2020 are adequate, we continue to closely monitor reported claims and will adjust our estimates of gross and net losses as new information becomes available.

Insurance Segment

The combined ratio for the Insurance segment in 2020 was 96% (including six points for underwriting losses attributed to COVID-19 and three points for underwriting losses on the 2020 Catastrophes) compared to 93% in 2019.

The increase in the combined ratio was driven by the impact of losses attributed to COVID-19 in 2020 and higher catastrophe losses in 2020 compared to 2019, partially offset by a lower attritional loss ratio and a lower expense ratio in 2020 compared to 2019. Higher earned premiums in 2020 compared to 2019 had a favorable impact on our expense ratio while reducing the benefit of the prior accident years' loss ratio.

- Excluding the impact of losses attributed to COVID-19 and the 2020 and 2019 Catastrophes, the current accident year loss ratio decreased primarily due to lower loss experience and a benefit from improved pricing in 2020 on our property and professional liability product lines. We also experienced lower attritional losses on our marine and energy product lines in 2020, primarily due to changes in the mix of business.
- The Insurance segment's 2020 combined ratio included \$554.6 million of favorable development on prior years' loss reserves compared to \$462.1 million in 2019. The increase in favorable development was primarily due to more favorable development on our professional liability product lines in 2020 compared to 2019 and favorable development on our property product lines in 2020 compared to adverse development in 2019. These favorable changes were partially offset by less favorable development on our general liability product lines in 2020 compared to 2019. In 2020 and 2019, favorable development was most significant on our general liability, professional liability, workers' compensation and marine and energy product lines. See note 9 of the notes to consolidated financial statements included under Item 8 for more information on the Insurance segment's prior year loss reserve development.
- The decrease in the expense ratio in 2020 was primarily due to the favorable impact of higher earned premiums in 2020 while maintaining consistent levels of general expenses with 2019.

Reinsurance Segment

The combined ratio for the Reinsurance segment was 104% for both 2020 and 2019. In 2020, the Reinsurance segment combined ratio included seven points for underwriting losses attributed to COVID-19 and five points for underwriting losses on the 2020 Catastrophes. In 2019, the Reinsurance segment combined ratio included 10 points for underwriting losses on the 2019 Catastrophes.

Excluding the impact of COVID-19 and catastrophe losses, the combined ratio decreased in 2020 due to a lower attritional loss ratio, partially offset by the impact of less favorable development on prior accident years' loss reserves.

- Excluding the impact of losses attributed to COVID-19 and the 2020 and 2019 Catastrophes, the current accident year
 loss ratio decreased primarily due to fewer large loss events across several product lines in 2020 compared to 2019,
 most notably on our property product lines.
- The Reinsurance segment's 2020 combined ratio included \$51.8 million of favorable development on prior years' loss reserves compared to \$64.8 million in 2019. The decrease in favorable development was primarily due to more adverse development on our public entity product lines in 2020, which totaled \$34.4 million in 2020 or four points on the segment combined ratio, as well as less favorable development on our whole account product line in 2020 compared to 2019. These unfavorable changes were partially offset by more favorable development on our property product lines in 2020 compared to 2019. In 2020, favorable development was most significant on our property product lines. In 2020 we also recognized additional exposure related to net favorable premium adjustments along with adverse development on certain of our professional liability product lines. The favorable development on prior years' loss reserves in 2019 was most significant on our property and whole account product lines. See note 9 of the notes to consolidated financial statements included under Item 8 for more information on the Reinsurance segment's prior year loss reserve development.

Gross Premium Volume

	Years Ended December 31,			
(dollars in thousands)		2020		2019
Insurance	\$	6,029,024	\$	5,320,253
Reinsurance		1,130,923		1,114,153
Other underwriting		58		(79)
Total Underwriting		7,160,005		6,434,327
Program services and other		2,106,660		2,345,644
Total	\$	9,266,665	\$	8,779,971

Gross premium volume in our underwriting operations increased 11% in 2020, primarily due to an increase in gross premium volume in our Insurance segment. Also impacting consolidated gross premium volume were gross premiums written through our program services business and other fronting arrangements, which decreased 10% in 2020. The decrease in gross premium volume in our program services business was driven by the run-off of one large program and the cancellation of an in-force book of policies related to another large program. Substantially all gross premiums from our program services business and other fronting arrangements were ceded to third parties in 2020 and 2019. See "Other Operations" for further discussion on gross premiums from our program services operations.

Gross premium volume in our Insurance segment increased 13% in 2020, primarily driven by new business and more favorable rates within our professional liability, general liability, personal lines and marine and energy product lines.

Gross premium volume in our Reinsurance segment increased 2% in 2020, driven by higher gross premiums within our professional liability and general liability product lines, partially offset by lower gross premiums within our credit and surety product lines. Higher gross premiums within our professional liability product lines were primarily due to increased exposures and improved pricing on renewals, as well as new business. Higher gross premiums within our general liability product lines were primarily due to new business, partially offset by decreased exposures on renewals. Lower gross premiums within our credit and surety product lines in 2020 were primarily due to unfavorable premium adjustments. Significant variability in gross premium volume can be expected in our Reinsurance segment due to individually significant contracts and multi-year contracts.

Following the high level of catastrophes that have occurred in recent years, and based on general market conditions, we are seeing more favorable rates, particularly on our catastrophe-exposed and loss-affected business. We are also seeing improved pricing on most of our other product lines, most notably within our general liability and professional liability product lines. The primary exception is workers' compensation, where we continue to see low single digit rate decreases given generally favorable loss experience in recent years. When we believe the prevailing market price will not support our underwriting profit targets, the business is not written. As a result of our underwriting discipline, gross premium volume may vary when we alter our product offerings to maintain or improve underwriting profitability.

See "Developments Related to COVID-19" for discussion of potential impacts of the pandemic on our premiums.

Net Written Premiums

(dollars in thousands) 2020 2019 Insurance \$ 4,977,662 \$ 4,444,702 Reinsurance 960,123 964,947 Other underwriting (170) 581 Total Underwriting 5,937,615 5,410,230 Program services and other (5,377) 1,841 Total \$ 5,932,238 \$ 5,412,071		 Years Ended December 31,				
Reinsurance 960,123 964,947 Other underwriting (170) 581 Total Underwriting 5,937,615 5,410,230 Program services and other (5,377) 1,841	(dollars in thousands)	2020		2019		
Other underwriting (170) 581 Total Underwriting 5,937,615 5,410,230 Program services and other (5,377) 1,841	Insurance	\$ 4,977,662	\$	4,444,702		
Total Underwriting 5,937,615 5,410,230 Program services and other (5,377) 1,841	Reinsurance	960,123		964,947		
Program services and other (5,377) 1,841	Other underwriting	 (170)		581		
	Total Underwriting	 5,937,615		5,410,230		
Total \$ 5,932,238 \$ 5,412,071	Program services and other	 (5,377)		1,841		
	Total	\$ 5,932,238	\$	5,412,071		

Net retention of gross premium volume for our underwriting operations was 83% in 2020 and 84% in 2019. The decrease in net retention in 2020 was driven by our Insurance segment, due in part to a new quota share agreement to fully cede premiums on a program that was put into run-off in 2020. Within our underwriting operations, we purchase reinsurance and retrocessional reinsurance in order to manage our net retention on individual risks and overall exposure to losses, and enable us to write policies with sufficient limits to meet policyholder needs.

In late 2020, we decided to discontinue writing catastrophe-exposed property reinsurance within our Reinsurance segment on a risk-bearing basis, and beginning January 1, 2021, any such business will either be written directly by, or ceded to, our Nephila insurance-linked securities (ILS) operations to be placed with third party capital to the extent it fits the ILS investors' risk profile. For the year ended December 31, 2020, gross and net written premiums for this business were \$221.2 million and \$125.2 million, respectively.

Earned Premiums

	Years Ended December 31,				
(dollars in thousands)	2020			2019	
Insurance	\$	4,688,448	\$	4,144,073	
Reinsurance		929,348		903,587	
Other underwriting		(170)		581	
Total Underwriting		5,617,626		5,048,241	
Program services and other		(5,421)		1,552	
Total	\$	5,612,205	\$	5,049,793	

Earned premiums increased 11% in 2020, primarily due to the increase in gross premium volume within our Insurance segment on our professional liability and general liability product lines, as previously discussed.

Disposal Loss

Results attributable to our Reinsurance segment for the year ended December 31, 2020 included a disposal loss of \$41.5 million related to the planned disposition of our reinsurance operations in Latin America, which was included in services and other expenses and was not included in the segment's underwriting loss. This disposal loss is primarily attributable to foreign currency translation adjustments for these operations, which were previously included in accumulated other comprehensive income.

Investing Results

Our business strategy recognizes the importance of both consistent underwriting and operating profits and superior investment returns to build shareholder value. We rely on sound underwriting practices to produce investable funds. We measure investing results by our net investment income, net investment gains and the change in net unrealized investment gains on available-for-sale investments, as well as investment yield and our taxable equivalent total investment return. Based on the potential for volatility in the financial markets, we believe investment performance is best analyzed over several years.

The following table summarizes our investment performance.

	Years Ended December 31,					
(dollars in thousands)	2020	2019	2018	2017	2016	
Net investment income	\$ 371,830	\$ 451,888	\$ 434,215	\$ 405,709	\$ 373,230	
Net investment gains (losses) (1)	\$ 617,979	\$1,601,722	\$ (437,596)	\$ (5,303)	\$ 65,147	
Change in net unrealized investment gains on available-for-sale investments (2)	\$ 442,089	\$ 381,890	\$ (299,446)	\$1,125,440	\$ 342,111	
Investment yield (3)	2.4 %	3.0 %	2.7 %	2.6 %	2.4 %	
Taxable equivalent total investment return	9.4 %	14.6 %	(1.0)%	10.2 %	4.4 %	
Invested assets, end of year	\$24,926,592	\$22,258,265	\$19,238,261	\$20,570,337	\$19,058,666	

- (1) Effective January 1, 2018, we adopted Financial Accounting Standards Board Accounting Standards Update (ASU) No. 2016-01. As a result, equity securities are no longer classified as available-for-sale with unrealized gains and losses recognized in other comprehensive income; rather, all changes in the fair value of equity securities are now recognized in net income. Prior periods have not been restated to conform to the current presentation.
- (2) The increase in net unrealized gains on available-for-sale securities for the years ended December 31, 2020 and 2019 was net of an adjustment related to our life and annuity benefit reserves of \$68.2 million and \$51.4 million, respectively.
- (3) Investment yield reflects net investment income as a percentage of monthly average invested assets at amortized cost.

Net investment income decreased 18% in 2020, driven primarily by the impact of lower short-term interest rates on short-term investment income. We also earned lower interest income on our fixed maturity investment portfolio due to lower average holdings of fixed maturity securities during 2020 compared to 2019 and a lower yield, as fixed maturity securities purchased in 2020 had lower interest rates than securities that matured or were called or sold in 2020. See note 4(d) of the notes to consolidated financial statements included under Item 8 for further details on the components of net investment income.

Net investment gains were \$618.0 million and \$1.6 billion in 2020 and 2019, respectively. See note 4(e) of the notes to consolidated financial statements included under Item 8 for further details on the components of net investment gains (losses). Net investment gains in both 2020 and 2019 were primarily attributable to an increase in the fair value of equity securities. Net investment gains for 2020 reflected significant market volatility experienced during the year. The impact of significant declines in the fair value of our equity portfolio in the first quarter of 2020, driven by unfavorable market value movements resulting from the onset of the COVID-19 pandemic, were more than offset by increases in the fair value of our equity portfolio over the subsequent three quarters of 2020.

In 2020, the increase in net unrealized gains on available-for-sale investments was \$442.1 million compared to \$381.9 million in 2019. The increase in net unrealized gains on available-sale investments in both 2020 and 2019 was attributable to an increase in the fair value of our fixed maturity portfolio as a result of decreases in interest rates.

We evaluate our investment performance by analyzing taxable equivalent total investment return, which is a non-GAAP financial measure. Taxable equivalent total investment return includes items that impact net income, such as coupon interest on fixed maturity securities, changes in fair value of equity securities, dividends on equity securities and realized investment gains or losses on available-for-sale securities, as well as changes in unrealized gains or losses on available-for-sale securities, which do not impact net income. Certain items that are included in net investment income have been excluded from the calculation of taxable equivalent total investment return, such as amortization and accretion of premiums and discounts on our fixed maturity portfolio, to provide a comparable basis for measuring our investment return against industry investment returns. The calculation of taxable equivalent total investment return also includes the current tax benefit associated with income on certain investments that is either taxed at a lower rate than the statutory income tax rate or is not fully included in U.S. taxable income. We believe the taxable equivalent total investment return is a better reflection of the economics of our decision to invest in certain asset classes. We focus on our long-term investment return, understanding that the level of investment gains or losses may vary from one period to the next.

We believe our investment performance is best analyzed from the review of taxable equivalent total investment return over several years. The following table presents taxable equivalent total investment return before and after the effects of foreign currency movements.

_		Five-Year Annual	Ten-Year Annual				
	2020	2019	2018	2017	2016	Return	Return
Equities	15.2 %	30.0 %	(3.5)%	25.5 %	13.5 %	15.5 %	14.7 %
Fixed maturity securities, cash and short-term investments (1)	5.7 %	6.5 %	1.3 %	3.4 %	2.4 %	3.8 %	4.0 %
Total portfolio, before foreign currency effect	8.6 %	14.4 %	(0.7)%	9.2 %	5.0 %	7.1 %	6.7 %
Total portfolio	9.4 %	14.6 %	(1.0)%	10.2 %	4.4 %	7.4 %	6.5 %

⁽¹⁾ Includes cash and cash equivalents and restricted cash and cash equivalents.

The following table reconciles investment yield to taxable equivalent total investment return.

	Years Ended December 31,								
	2020	2019	2018	2017	2016				
Investment yield (1)	2.4 %	3.0 %	2.7 %	2.6 %	2.4 %				
Adjustment of investment yield from amortized cost to fair value	(0.5)%	(0.7)%	(0.6)%	(0.5)%	(0.4)%				
Net amortization of net premium on fixed maturity securities	0.4 %	0.4 %	0.4 %	0.4 %	0.4 %				
Net investment gains (losses) and change in net unrealized investment gains on available-for-sale securities (2)	5.8 %	10.3 %	(3.8)%	5.9 %	2.3 %				
Taxable equivalent effect for interest and dividends (3)	0.1 %	0.2 %	0.1 %	0.4 %	0.4 %				
Other (4)	1.2 %	1.4 %	0.2 %	1.4 %	(0.7)%				
Taxable equivalent total investment return	9.4 %	14.6 %	(1.0)%	10.2 %	4.4 %				

⁽¹⁾ Investment yield reflects net investment income as a percentage of monthly average invested assets at amortized cost.

Invested Assets

Investments, cash and cash equivalents and restricted cash and cash equivalents (invested assets) were \$24.9 billion at December 31, 2020 compared to \$22.3 billion at December 31, 2019, reflecting an increase of 12% in 2020 attributable to cash flows from operations of \$1.7 billion and increases in the fair value of equity and fixed maturity securities totaling \$1.0 billion.

The following table presents the composition of our investment portfolio.

	Deceme)CI 31,
	2020	2019
Short-term investments, cash and cash equivalents and restricted cash and cash equivalents	29 %	21 %
Fixed maturity securities	43 %	45 %
Equity securities	28 %	34 %
Total	100 %	100 %

December 31

The change in the composition of the investment portfolio from December 31, 2019 to December 31, 2020 is primarily due to a decrease in holdings of equity securities and an increase in holdings of short-term investments during 2020. Given the dislocation in the financial markets and related uncertainty around the global credit markets following the onset of the COVID-19 pandemic in the first quarter of 2020, we sold significant holdings of equity securities and subsequently reallocated proceeds to purchase short-term investments and fixed maturity securities. See "Developments Related to COVID-19" for

⁽²⁾ Adjustment includes the impact of changes in foreign currency exchange rates beginning in 2018.

⁽³⁾ Adjustment to tax-exempt interest and dividend income to reflect a taxable equivalent basis.

⁽⁴⁾ Adjustment to reflect the impact of time-weighting the inputs to the calculation of taxable equivalent total investment return and the impact of changes in foreign currency exchange rates prior to 2018.

further discussion of actions we took in our investment portfolio in response to the pandemic. In 2020, our holdings of cash and cash equivalents also increased due to operating cash inflows and proceeds from our issuance of preferred shares, partially offset by cash used for acquisitions, all of which are further discussed in "Liquidity and Capital Resources."

Markel Ventures

Our Markel Ventures segment includes a diverse portfolio of businesses from different industries that offer various types of products and services to businesses and consumers, predominately in the United States. We measure Markel Ventures' results by its operating income and net income, as well as earnings before interest, income taxes, depreciation and amortization (EBITDA). We consolidate the results of our Markel Ventures subsidiaries on a one-month lag, with the exception of significant transactions or events that occur during the intervening period.

In April 2020, we acquired a controlling interest in Lansing Building Products, LLC, a supplier of exterior building products and materials to professional contractors throughout the U.S., which simultaneously acquired the distribution business of Harvey Building Products to enhance its geographic reach and scale (together, Lansing).

In November 2019, we acquired VSC Fire & Security, Inc. (VSC), a Virginia-based privately held provider of comprehensive fire protection, life safety and low voltage solutions.

The following tables summarize the amounts recognized on the consolidated balance sheets and consolidated statements of income related to Markel Ventures.

		December	ber 31,		
(dollars in thousands)	2020	<u> </u>	2019		
ASSETS					
Cash and cash equivalents	\$ 36	3,532 \$	256,758		
Receivables	29	9,051	225,630		
Goodwill	90	1,045	606,777		
Intangible assets	62	3,120	473,122		
Other assets:					
Inventory	41	2,554	303,053		
Property, plant and equipment, net	49	2,477	441,934		
Right-of-use lease assets	36	8,126	81,778		
Other	17	6,155	161,783		
Total Other assets	1,44	9,312	988,548		
Total Assets	\$ 3,63	6,060 \$	2,550,835		
LIABILITIES AND EQUITY					
Accounts payable and accrued liabilities	\$ 27	0,361 \$	139,068		
Senior long-term debt and other debt (1)	77	5,650	929,243		
Other liabilities:					
Lease liabilities	37	4,667	85,680		
Other	38	0,190	281,660		
Total Other liabilities	75	4,857	367,340		
Total Liabilities	1,80	0,868	1,435,651		
Redeemable noncontrolling interests	24	5,642	177,562		
Shareholders' equity (2)	1,59	9,466	950,086		
Noncontrolling interests		9,916)	(12,464)		
Total Equity	1,58	9,550	937,622		
Total Liabilities and Equity	\$ 3,63	6,060 \$	2,550,835		
(1)					

Debt as of December 31, 2020 and 2019 included \$733.0 million and \$858.8 million, respectively, of debt due to other subsidiaries of Markel Corporation, which was eliminated in consolidation.

⁽²⁾ Shareholders' equity as of December 31, 2020 and 2019 included \$1.2 billion and \$654.3 million, respectively, of common stock, which represents Markel Corporation's investment in Markel Ventures, which was eliminated in consolidation.

		December 31,		
(dollars in thousands)		2020		2019
OPERATING REVENUES				_
Products revenues	\$	1,439,515	\$	1,609,586
Services and other revenues		1,355,199		445,659
Net investment income		245		736
Total Operating Revenues		2,794,959		2,055,981
OPERATING EXPENSES				
Products expenses		1,256,159		1,455,245
Services and other expenses		1,232,150		389,385
Amortization of intangible assets		52,572		41,973
Total Operating Expenses		2,540,881		1,886,603
Operating Income		254,078		169,378
Net foreign exchange gains (losses)		(1,092)		384
Interest expense (1)		(46,664)		(33,795)
Income Before Income Taxes		206,322		135,967
Income tax expense		(45,815)		(35,317)
Net Income		160,507		100,650
Net income attributable to noncontrolling interests		(15,058)		(7,749)
Net Income to Shareholders	\$	145,449	\$	92,901
EBITDA	\$	366,934	\$	263,944

Interest expense for the years ended December 31, 2020 and 2019 included intercompany interest expense of \$32.0 million and \$24.9 million, respectively, which was eliminated in consolidation.

Operating revenues from our Markel Ventures segment increased in 2020 due to the contribution of revenues from Lansing, which was acquired in April 2020, and VSC, which was acquired in November 2019. Operating revenues in 2020 attributable to these acquisitions totaled \$915.7 million. Excluding the contributions of Lansing and VSC in 2020, operating revenues from our other Markel Ventures businesses decreased in 2020, primarily due to lower sales volumes at our transportation-related and equipment manufacturing businesses due in part to impacts attributable to the economic and social disruption caused by the COVID-19 pandemic. These decreases were partially offset by the impact of higher sales volumes at one of our consumer and building products businesses in 2020 compared to 2019.

Operating income and EBITDA from our Markel Ventures segment increased in 2020 due in part to the acquisitions of Lansing and VSC, as well as higher sales volumes at one of our consumer and building products businesses, as previously discussed. The increase in operating income and EBITDA in 2020 was also due to a loss recognized in 2019 related to the disposition of certain components of one of our equipment manufacturing businesses. These increases were partially offset by the impact of lower operating revenues at our transportation-related businesses, as previously discussed.

Net income to shareholders from our Markel Ventures segment increased in 2020, primarily due to higher operating income, partially offset by higher interest expense and income tax expense.

See "Developments Related to COVID-19" for further discussion of impacts of the pandemic on our Markel Ventures operations.

Markel Ventures EBITDA is a non-GAAP financial measure. We use Markel Ventures EBITDA as an operating performance measure in conjunction with U.S. GAAP measures, including operating revenues, operating income and net income to shareholders, to monitor and evaluate the performance of our Markel Ventures segment. Because EBITDA excludes interest, income taxes, depreciation and amortization, it provides an indicator of economic performance that is useful to both management and investors in evaluating our Markel Ventures businesses as it is not affected by levels of debt, interest rates, effective tax rates or levels of depreciation or amortization resulting from purchase accounting.

The following table reconciles Markel Ventures operating income to Markel Ventures EBITDA.

	Years ended December 31						
(dollars in thousands)	2020			2019			
Markel Ventures operating income	\$	254,078	\$	168,417			
Depreciation expense		60,284		53,554			
Amortization of intangible assets		52,572		41,973			
Markel Ventures EBITDA	\$	366,934	\$	263,944			

The following table summarizes the cash flows attributable to Markel Ventures for the years ended December 31, 2020 and 2019.

	Years ended	Decer	nber 31,
(dollars in thousands)	 2020		2019
Cash, cash equivalents, restricted cash and restricted cash equivalents, beginning of year	\$ 256,758	\$	164,336
Net cash provided by operating activities	357,675		201,514
Net cash used by investing activities	(607,641)		(321,950)
Net cash provided by financing activities (1)(2)	356,542		213,032
Effect of foreign currency rate changes on cash, cash equivalents, restricted cash and restricted cash equivalents	 198		(174)
Increase in cash, cash equivalents, restricted cash and restricted cash equivalents	106,774		92,422
Cash, cash equivalents, restricted cash and restricted cash equivalents, end of year	\$ 363,532	\$	256,758

⁽¹⁾ Net cash provided by financing activities for the year ended December 31, 2020 included a capital contribution from our holding company, Markel Corporation, of \$535.0 million, which was eliminated in consolidation. There were no capital contributions from our holding company for the year ended December 31, 2019.

Other Operations

The following table presents the components of operating revenues and operating expenses that are not included in a reportable segment.

	Years Ended December 31,											
			2020						2019			
(dollars in thousands)	 ervices and er revenues		Services and other expenses		211111111111111111111111111111111111111							ortization of ngible assets
Other operations:												
Insurance-linked securities	\$ 212,307	\$	231,473	\$	38,447	\$	225,604	\$	217,412	\$	43,360	
Program services	104,171		20,427		20,937		108,813		19,556		20,938	
Life and annuity	1,233		17,713		_		1,507		21,062		_	
Other	 20,627		17,896		5,453		32,580		28,264		2,700	
	338,338		287,509		64,837		368,504		286,294		66,998	
Underwriting operations					41,906						39,667	
Total	\$ 338,338	\$	287,509	\$	106,743	\$	368,504	\$	286,294	\$	106,665	

⁽²⁾ Net cash provided by financing activities for the year ended December 31, 2020 included net repayments of intercompany debt of \$125.9 million, which were eliminated in consolidation. Net cash provided by financing activities for the year ended December 31, 2019 included net additions to intercompany debt of \$252.8 million, respectively, which were eliminated in consolidation.

Insurance-Linked Securities

The decrease in operating revenues in our insurance-linked securities operations in 2020 was driven by lower revenues from our Markel CATCo operations, which are in run-off, primarily due to lower assets under management during 2020 compared to 2019 and a further reduction in the management fee rate in 2020. This decrease was partially offset by higher revenues from our Nephila operations. Higher revenues from our Nephila operations in 2020 were due to growth in our managing general agent operations, partially offset by lower investment management fees as a result of lower assets under management. Nephila's net assets under management were \$9.6 billion and \$10.4 billion as of December 31, 2020 and 2019, respectively. Markel CATCo's net assets under management were \$1.0 billion and \$2.8 billion as of December 31, 2020 and 2019, respectively.

The increase in services and other expenses in our insurance-linked securities operations in 2020 was primarily due to an increase in expenses at our Nephila operations due to growth in our managing general agent operations in 2020, partially offset by a favorable impact from acquisition-related costs in 2019 that did not recur in 2020. Services and other expenses at our Markel CATCo operations in 2020 were consistent with 2019 as the expenses associated with a legal settlement in 2020 were offset by lower professional fees and general operating expenses in 2020, as these operations are in run-off. Services and other expenses for both periods also reflect start-up costs associated with our new retrocessional insurance-linked securities fund manager, Lodgepine.

Program Services

The decrease in operating revenues in our program services operations in 2020 compared to 2019 was primarily due to lower gross premium volume. Gross premiums in our program services operations were \$2.1 billion and \$2.3 billion for the years ended December 31, 2020 and 2019, respectively. The decrease in gross premium volume was driven by the run-off of one large program and the cancellation of an in-force book of policies related to another large program resulting in a one-time unfavorable premium adjustment of \$55.0 million associated with the return of unearned premium in 2020. These decreases were partially offset by gross written premiums from new programs added in 2020.

See "Developments Related to COVID-19" for discussion of actual and potential impacts of the pandemic on our insurance-linked securities and program services operations.

Interest Expense, Loss on Early Extinguishment of Debt and Income Taxes

Interest Expense and Loss on Early Extinguishment of Debt

Interest expense was \$177.6 million in 2020 compared to \$171.7 million in 2019. The change in interest expense reflects the impact of the following transactions that occurred in 2019:

- the purchase and redemption of our 6.25% and 5.35% unsecured senior notes in the third and fourth quarters of 2019,
- the repayment of our 7.125% unsecured senior notes in the third quarter of 2019 and
- the issuance of our 5.0% unsecured senior notes issued in the second quarter of 2019 and the issuance of our 3.35% and 4.15% unsecured senior notes in the third quarter of 2019.

In September 2019, we purchased a portion of our 6.25% unsecured senior notes and our 5.35% unsecured senior notes. In October 2019, we redeemed the remaining outstanding balance on these notes. In connection with these redemptions, we recognized losses on early extinguishment of debt of \$17.6 million during 2019.

See note 12 of the notes to consolidated financial statements included under Item 8 for further details about our 2019 senior long-term debt transactions.

Income Taxes

The effective tax rate was 17% in 2020 compared to 21% in 2019. The effective tax rate for 2020 differs from the effective tax rate for 2019 and the statutory rate of 21% primarily due to a tax benefit that was recognized in 2020 for accumulated losses on certain investments we sold that were not previously deductible. See note 13 of the notes to consolidated financial statements included under Item 8 for further discussion of our income taxes.

Comprehensive Income to Shareholders

The following table summarizes the components of comprehensive income to shareholders.

	Years Ended December 31,				
(dollars in thousands)	2020			2019	
Net income to shareholders	\$	816,030	\$	1,790,466	
Other comprehensive income					
Change in net unrealized gains on available-for-sale investments, net of taxes		352,773		297,977	
Other, net of taxes		22,849		5,424	
Other comprehensive (income) loss attributable to noncontrolling interest	(18)			21	
Other comprehensive income to shareholders		375,604		303,422	
Comprehensive income to shareholders	\$	1,191,634	\$	2,093,888	

Book Value per Common Share and Total Shareholder Return

Book value per common share increased 10% for the year ended December 31, 2020 and 23% for the year ended December 31, 2019, primarily due to net income to shareholders, as shown above. Over the past five years, we have grown book value per common share at a compound annual rate of 10% to \$885.72 per share at December 31, 2020.

Our stock price per share decreased 10% for the year ended December 31, 2020 and increased 10% for the year ended December 31, 2019. Over the past five years, our stock price per share increased at a compound annual rate of 3%.

Liquidity and Capital Resources

Holding Company

We seek to maintain prudent levels of liquidity and financial leverage for the protection of our policyholders, creditors and shareholders. Our debt to capital ratio was 21% at December 31, 2020 and 24% at December 31, 2019. The decrease reflects an increase in shareholders' equity in 2020, primarily due to net income to shareholders as well as proceeds from our preferred shares offering.

In May 2020, we issued 600,000 6.00% Fixed-Rate Reset Non-Cumulative Series A preferred shares, with no par value and a liquidation preference of \$1,000 per share, for aggregate net proceeds after expenses of \$591.9 million. Dividends, if declared by our Board of Directors, are payable semi-annually in arrears in December and June. If we do not declare and pay the full dividends for the latest completed dividend period on all outstanding Series A preferred shares, we may not (i) declare or pay a dividend on our common shares or (ii) purchase, redeem or otherwise acquire for consideration any common shares, subject to certain exceptions. In 2020, total dividends declared and paid on Series A preferred shares were \$18.4 million. See note 17 of the notes to consolidated financial statements included under Item 8 for further information regarding our Series A preferred shares.

At December 31, 2020, our holding company (Markel Corporation) held \$4.1 billion of invested assets compared to \$4.0 billion at December 31, 2019. The increase in holding company invested assets was primarily due to the proceeds from our preferred shares offering and dividends from our subsidiaries, offset by cash used in connection with the acquisition of Lansing. After satisfying our interest and principal obligations on our senior long-term debt and notes payable to subsidiaries, as well as any other holding company obligations, excess liquidity at Markel Corporation is available, among other things, to allocate capital to our existing businesses, complete acquisitions, build our portfolio of equity securities or repurchase shares of our common stock.

Our Board of Directors has approved the repurchase of up to \$300 million of common stock under a share repurchase program. As of December 31, 2020, \$240.8 million remained available for repurchases under the program. We temporarily suspended repurchases of our common shares in March 2020 in conjunction with other measures we took in response to COVID-19, and in February 2021, we announced that we are recommencing repurchases under the program. This share repurchase program has no expiration date but may be terminated by the Board of Directors at any time.

Our underwriting operations collect premiums and pay claims, reinsurance costs and operating expenses. Premiums collected from our underwriting operations are invested primarily in short-term investments and long-term fixed maturity securities. Short-term investments held by our insurance subsidiaries provide liquidity for projected claims, reinsurance costs and operating expenses. As a holding company, Markel Corporation receives cash from its subsidiaries as reimbursement for operating and other administrative expenses it incurs. The reimbursements are made within the guidelines of various management agreements between the holding company and its subsidiaries.

The holding company relies on dividends from its subsidiaries to meet debt service obligations and pay dividends on our preferred stock. Under the insurance laws of the various states in which our domestic insurance subsidiaries are incorporated, an insurer is restricted in the amount of dividends it may pay without prior approval of regulatory authorities. There are also regulatory restrictions on the amount of dividends that certain of our foreign subsidiaries may pay based on applicable laws in their respective jurisdictions. At December 31, 2020, our domestic insurance subsidiaries and Markel Bermuda Limited could pay ordinary dividends of \$1.1 billion during the following twelve months under these laws.

We maintain a revolving credit facility, which provides up to \$300 million of capacity for future acquisitions, investments and stock repurchases and for other working capital and general corporate purposes. At our discretion, up to \$200 million of the total capacity may be used for letters of credit. We may increase the capacity of the facility by up to \$200 million subject to obtaining commitments for the increase and satisfying certain other terms and conditions. This facility expires in April 2024. See note 12 of the notes to consolidated financial statements included under Item 8 for further discussion of our revolving credit facility. As of December 31, 2020 and 2019, there were no borrowings outstanding on our revolving credit facility.

We were in compliance with all covenants contained in our revolving credit facility at December 31, 2020. To the extent that we are not in compliance with our covenants, our access to the revolving credit facility could be restricted. While we believe this to be unlikely, the inability to access the revolving credit facility could adversely affect our liquidity.

We have access to various capital sources, including dividends from certain of our insurance and Markel Ventures subsidiaries, holding company invested assets, undrawn capacity under our revolving credit facility and access to the debt and equity capital markets. We believe that we have sufficient liquidity to meet our capital needs. However, the availability of these sources of capital and the availability and terms of future financings will depend on a variety of factors, and could be adversely affected by, among other things, risks and uncertainties related to COVID-19. See "Developments Related to COVID-19" for further discussion of the potential impacts of COVID-19 on our liquidity and capital resources and the "Access to Capital" risk factors under Item 1A Risk Factors for more discussion regarding our access to capital sources.

Cash Flows and Invested Assets

Net cash provided by operating activities was \$1.7 billion in 2020 compared to \$1.3 billion in 2019. The increase in net cash flows from operating activities for the year ended December 31, 2020 was primarily driven by higher net premium collections in our Insurance segment.

Net cash used by investing activities was \$511.7 million in 2020 compared to \$535.2 million in 2019. In 2020, net cash used by investing activities included \$829.5 million of net purchases of short-term investments and \$550.8 million of net cash used for the acquisition of Lansing. Net cash used by investing activities in 2020 was net of \$1.2 billion of proceeds from sales of equity securities, net of purchases equity securities. See "Investing Results - Invested Assets" for discussion of changes in our allocation of funds within the investment portfolio in 2020 and "Developments Related to COVID-19" for discussion of actions we took in our investment portfolio in response to the pandemic. Net cash used by investing activities in 2019 included \$245.3 million of net cash used for acquisitions and \$257.7 million of cash used for equity method investments, including \$212.5 million of cash used to purchase a minority ownership interest in The Hagerty Group, LLC. Net cash used by investing activities in 2019 was net of \$170.3 million of proceeds from maturities and sales of fixed maturity securities and sales of equity securities, net of purchases of fixed maturity securities and equity securities. Cash flow from investing activities is affected by various factors such as anticipated payment of claims, financing activity, acquisition opportunities and individual buy and sell decisions made in the normal course of our investment portfolio management.

Invested assets were \$24.9 billion at December 31, 2020 compared to \$22.3 billion at December 31, 2019. See "Investing Results - Invested Assets" for further discussion of changes in invested assets during 2020.

Net cash provided by financing activities was \$434.6 million in 2020 compared to \$359.3 million in 2019. In 2020, we issued preferred shares with net proceeds of \$591.9 million, as previously discussed. In 2019, we issued unsecured senior notes with net proceeds of \$1.4 billion, before expenses. We used \$861.9 million of these proceeds to repay our 7.125% unsecured senior

notes as well as purchase and redeem two additional series of our unsecured senior notes. See note 12 of the notes to consolidated financial statements included under Item 8 for more details regarding the components of senior long-term debt. Cash of \$26.8 million and \$116.3 million was used to repurchase shares of our common stock during 2020 and 2019, respectively.

Contractual Obligations

The following table summarizes our contractual cash payment obligations at December 31, 2020.

	Payments Due by Period (1)								
(dollars in thousands)	Total	Less than 1 year	1-3 years	4-5 years	More than 5 years				
Unpaid losses and loss adjustment expenses (note 9)	\$16,279,119	\$ 4,078,054	\$ 5,743,319	\$ 3,083,903	\$ 3,373,843				
Senior long-term debt and other debt (note 12)	6,583,170	195,132	888,878	262,487	5,236,673				
Life and annuity benefits (note 11)	1,233,228	70,802	134,840	124,876	902,710				
Lease payments (note 7)	632,045	90,311	147,824	107,875	286,035				
Total	\$24,727,562	\$ 4,434,299	\$ 6,914,861	\$ 3,579,141	\$ 9,799,261				

⁽¹⁾ See respective notes to consolidated financial statements included under Item 8 for further discussion of these obligations.

Reserves for unpaid losses and loss adjustment expenses represent future contractual obligations associated with property and casualty insurance and reinsurance contracts issued to our policyholders or other insurance companies. Information presented in the table of contractual cash payment obligations is an estimate of our future payment of claims as of December 31, 2020. Payment patterns for losses and loss adjustment expenses were generally based upon historical claims settlement patterns. Each claim is settled individually based upon its merits, and certain claims may take years to settle, especially if legal action is involved. The actual cash payments for settled claims will vary, possibly significantly, from the estimates shown in the preceding table. The unpaid losses and loss adjustment expenses in this table are our gross estimates of payments for known liabilities as of December 31, 2020. The expected payments by period are the estimated payments at a future time, whereas the reserves for unpaid losses and loss adjustment expenses included on the consolidated balance sheet include the unamortized portion of any fair value adjustments for unpaid losses and loss adjustment expenses assumed in conjunction with an acquisition and any adjustments to discount reserves.

Senior long-term debt and other debt was \$3.5 billion at both December 31, 2020 and December 31, 2019. The amounts in the contractual obligations table include interest expense and exclude net unamortized premium and net unamortized debt issuance costs.

Reserves for life and annuity benefits represent future contractual obligations associated with reinsurance contracts issued to other insurance companies. Information presented in the table of contractual cash payment obligations is an estimate of our future payment of benefits as of December 31, 2020. The assumptions used in estimating the likely payments due by period are based on cedent experience, industry mortality tables, and our expense experience. Due to the inherent uncertainty in the process of estimating the timing of such payments, there is a risk that the amounts paid in any such period can be significantly different from the estimates shown in the preceding table. The life and annuity benefits in the table are our gross estimates of known obligations as of December 31, 2020. These obligations are computed on a net present value basis on the consolidated balance sheet as of December 31, 2020, whereas the expected payments by period in the table are the estimated payments at a future time and do not reflect a discount of the amount payable or any adjustments for life and annuity benefit reserves.

Restricted Assets and Capital

At December 31, 2020, we had \$4.7 billion of invested assets held in trust or on deposit for the benefit of policyholders or ceding companies or to support underwriting activities. Additionally, we have pledged investments and cash and cash equivalents totaling \$387.2 million at December 31, 2020 as security for letters of credit that have been issued by various banks on our behalf. These invested assets and the related liabilities are included in our consolidated balance sheet. See note 4(f) of the notes to consolidated financial statements included under Item 8 for further discussion of restrictions over our invested assets.

Our insurance operations require capital to support premium writings, and we remain committed to maintaining adequate capital and surplus at each of our insurance subsidiaries. The National Association of Insurance Commissioners (NAIC) developed a model law and risk-based capital formula designed to help regulators identify domestic property and casualty insurers that may be inadequately capitalized. Under the NAIC's requirements, a domestic insurer must maintain total capital

and surplus above a calculated threshold or face varying levels of regulatory action. Capital adequacy of our foreign insurance subsidiaries is regulated by applicable laws of the U.K., Bermuda and other jurisdictions, including Germany. At December 31, 2020, the capital and surplus of each of our insurance subsidiaries significantly exceeded the amount of statutory capital and surplus necessary to satisfy regulatory requirements.

Developments Related to COVID-19

On March 11, 2020, COVID-19, a novel coronavirus outbreak, was declared a pandemic by the World Health Organization. This pandemic has caused unprecedented social and economic disruption, increased volatility of capital markets and intervention by various governments and central banks around the world. In addition to the losses incurred in our underwriting operations during 2020, and the decreased demand for certain products and services within our Markel Ventures operations, we are experiencing significant impacts across our business operations. Most of the workforce in our insurance operations is working remotely from their homes. For those employees who are returning to the office, we have taken significant measures and developed new policies and procedures to protect their health and safety. While remote working continues to be the predominate approach, and has been operating effectively, an extended period of remote work arrangements could strain our business continuity plans, introduce or increase operational and control risks, including but not limited to increased cybersecurity risks, and adversely impact our ability to effectively manage our businesses. Within our Markel Ventures operations, most of our businesses are operating on their premises, however, their ability to continue to do so may be impacted as the pandemic continues to evolve. For those employees in our insurance and Markel Ventures operations who are returning to work, or have continued work, on our premises, there is a risk that they will contract COVID-19, which could expose us to increased risk of employment related claims and litigation. Illnesses suffered by key employees, or a significant percentage of our workforce, also could prevent or delay the performance of critical business functions.

We are committed to serving the needs of our employees, customers, business partners and shareholders and continue to focus our efforts on safeguarding our people, supporting our front office and business operations and keeping our employees, customers, business partners and shareholders informed.

Other impacts we have experienced in our operations during the year ended December 31, 2020, as well as steps we are taking to respond to the economic disruption and dislocation caused by the pandemic, are discussed below, along with potential future impacts to our results of operations and financial condition. See "Critical Accounting Estimates - Goodwill and Intangible Assets" for discussion of our consideration of these impacts, among other things, on the valuation of our goodwill and intangible assets.

Liquidity and Capital Resources

We seek to maintain prudent levels of liquidity and financial leverage for the protection of our policyholders, creditors and shareholders. We began the year in a strong liquidity position, holding \$4.0 billion of invested assets at our holding company, and at December 31, 2020, our holding company held \$4.1 billion of invested assets. Invested assets at the holding company as of December 31, 2020 include net proceeds from our May 2020 issuance of preferred stock totaling \$591.9 million, and following two debt issuances in 2019 and the 2019 purchase and redemption of our unsecured senior notes due to mature in 2020 and 2021, we have no unsecured senior notes maturing until July 2022. We also have access to our \$300 million revolving credit facility. We continue to maintain a fixed maturity portfolio comprised of high credit quality, investment grade securities with an average rating of "AA."

Significant volatility in the equity markets arising from economic uncertainty following the onset of the COVID-19 pandemic resulted in a significant decline in the fair value of our equity portfolio in the first quarter of 2020. Although this decline was more than offset by subsequent increases in the fair value of our equity portfolio attributable to net favorable market value movements during the rest of the year, future declines in our investment portfolio are possible and could have a material adverse impact on the Company's financial condition, results of operations and liquidity.

Given the dislocation in the financial markets and related uncertainty around the global credit markets resulting from the onset of the pandemic, we took several steps within our investment portfolio to increase our allocation to cash. Initially, we were retaining cash proceeds from maturities of short-term investments and fixed maturity securities and paused our purchases of equity securities. However, as the global markets began to stabilize, we subsequently began reallocating cash to purchase short-term investments and fixed maturity securities and on a more limited basis, equity securities. We also sold certain equity securities based on our views of the underlying fundamentals of these positions and where pricing was deemed appropriate. We also suspended repurchases of our common shares in March 2020, but subsequently recommenced our share repurchase program in February 2021. We continue to focus on expense reductions across our company.

Underwriting losses arising from COVID-19, as well as the 2020 Catastrophes, reduced the capital held by some of our insurance subsidiaries. Capital at our insurance subsidiaries was also impacted by declines in the fair value of equity securities following the onset of the pandemic, which subsequently recovered in the latter part of 2020. Our insurance operations may require additional capital to support premium writings, and we remain committed to maintaining adequate capital and surplus at each of our insurance subsidiaries. As of December 31, 2020, the statutory capital of all of our insurance subsidiaries significantly exceeded required capital, and we believe we are well positioned to continue to pay claims, including those arising from the pandemic, promptly in accordance with the terms of our policies.

We continue to believe we have adequate liquidity to meet our capital and operating needs, including that which may be required to support the operating needs of our subsidiaries.

Underwriting Operations

As previously discussed, our underwriting results for the year ended December 31, 2020 included \$343.3 million of net losses and loss adjustment expenses directly attributed to COVID-19 (where COVID-19 was deemed the proximate cause of loss). Due to the inherent uncertainty associated with the assumptions surrounding this pandemic, these estimates are subject to a wide range of variability. While we believe our net reserves for direct losses and loss adjustment expenses for COVID-19 as of December 31, 2020 are adequate based on information currently available, we continue to closely monitor reported claims, government actions, judicial decisions and changes in local and worldwide social disruption arising from the pandemic and will adjust our estimates of gross and net losses as new information becomes available. See "Results of Operations - Underwriting Results" for further discussion on our estimate of direct losses and loss adjustment expenses attributed to COVID-19.

We also have underwriting exposure to loss impacts that are indirectly related to the COVID-19 pandemic and associated with a broader range of coverages, including coverages within our trade credit, professional liability and workers' compensation product lines, among others, as well as certain of our reinsurance product lines. During the year ended December 31, 2020, we recognized \$15.0 million of net losses and loss adjustment expenses in our trade credit product line within our Insurance segment related to losses that were indirectly attributable to the pandemic. As the impacts of the pandemic continue to evolve, we expect that further losses indirectly related to the COVID-19 pandemic are likely to emerge. As an example, we provide liability coverage for health and medical institutions and professions, as well as other professions, which have been strained or otherwise impacted by the pandemic. We do not believe any other significant indirect losses have been incurred.

The widespread economic and social disruption caused by COVID-19 has created significant financial hardships for individuals and businesses worldwide. However, we do not believe there has been any material change in our exposure to credit losses.

The significant decline in economic activity during the pandemic may have a material unfavorable impact on our premium volume, due to business closures, reduced recreational activity and lower gross receipts, revenues and payrolls of our insureds, among other things. While premium volume for the year ended December 31, 2020 was impacted by these effects of the pandemic, the impact was not material to our underwriting results. For those policies where the underlying loss exposures have been reduced as a result of decreased economic activity or stay-at-home orders resulting from COVID-19, we also may be required to refund premiums to policyholders, however, there have been no material adjustments required to date.

Within our underwriting operations, we also are reviewing and analyzing the underwriting guidelines and procedures we use to underwrite and reinsure policies that provide coverages related to communicable diseases, viruses, pathogens and other similar risks. Where appropriate, we are taking steps to mitigate our exposure to additional or further losses related to these types of risks, including increasing pricing and adding policy terms and conditions, including exclusions. These actions may reduce premium volume in certain classes of business. With few exceptions, we also stopped writing event cancellation risks, which has reduced our future exposure to losses even if the duration of the pandemic continues to extend. Premium volume attributable to this book of business was not material.

Markel Ventures Operations

Beginning in the second quarter of 2020, the economic and social disruption created by the pandemic impacted the results of operations, financial position and cash flows of our Markel Ventures operations. Revenues across many of our businesses decreased due to changes in consumer behavior and the overall impact of current economic conditions on commercial and consumer spending, all of which impacted demand for certain products and services within our businesses. We also saw orders and contracts canceled or postponed, and as a result of reduced demand, we temporarily reduced capacity at certain of our

operations. While demand for products and services at most of our impacted businesses has begun to recover, since the social and economic disruption caused by the pandemic is ongoing, we expect that revenues from our Markel Ventures operations will continue to be impacted, and these impacts may continue to be material.

In order to partially mitigate the impact of decreased revenues, certain of our businesses took actions to reduce expenses, including, but not limited to, elimination of non-essential expenses, cancellation or deferral of open positions, salary reductions and workforce furloughs and reductions. Our businesses may increase borrowings, if needed, to maintain the cash flow required to operate.

Further loss of revenues in certain of our products and services businesses could also impact the carrying value of inventory, goodwill and intangible assets and other long-lived assets within our Markel Ventures operations, which may become impaired. In certain cases, revenue declines also could result in ongoing cash and working capital constraints and could impact the companies' liquidity and their ability to comply with debt covenants, and, in response, we may take steps necessary to support these operations.

As a result of the economic hardship experienced by our customers, we may modify our payment terms or offer discounts to our customers, and we also are exposed to increased credit risk. However, we do not believe there has been any material change in our exposure to credit losses.

Insurance-Linked Securities and Program Services

Through our insurance-linked securities operations, we receive management fees for investment and insurance management services based on the net asset value of the accounts we manage, and, for certain funds, incentive fees based on the annual performance of the funds managed.

For the year ended December 31, 2020, investment losses attributed to COVID-19 within the investment funds we manage were not significant; however, uncertainty around potential COVID-19 loss exposures within the funds we manage, has reduced, and may further reduce, the net asset value on which our management fees are based. Volatility in the capital markets and investor uncertainty regarding insurance industry exposure to COVID-19 also has impacted, and may continue to impact, our ability to raise additional third party capital for the funds we manage, as well as for new funds. We also have experienced, and may continue to experience, higher than anticipated investor redemptions from our funds. Deferred or reduced investment management fees could have a material impact on our results of operations and financial condition, and the associated decline in cash flows also could impact the carrying value of our goodwill and intangible assets within our ILS operations, which may become impaired. See "Critical Accounting Estimates - Goodwill and Intangible Assets" for further discussion and considerations regarding the valuation of goodwill and intangible assets attributed to our ILS operations as of December 31, 2020.

Our program services business generates fee income, in the form of ceding (program service) fees. This fee income is calculated based on the gross premium volume of the insurance programs we support. Similar to our underwriting operations, the significant decline in economic activity may have an unfavorable impact on premium volume, which may result in a reduction in fee income.

For additional risks to our businesses related to COVID-19, see the risk factor titled "The COVID-19 pandemic has had, and may continue to have, material adverse effects on us" under Item 1A Risk Factors.

Critical Accounting Estimates

Critical accounting estimates are those estimates that both are important to the portrayal of our financial condition and results of operations and require us to exercise significant judgment. The preparation of financial statements in accordance with U.S. GAAP requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of material contingent assets and liabilities. These estimates, by necessity, are based on assumptions about numerous factors. Actual results may differ materially from the estimates and assumptions used in preparing the consolidated financial statements. Our accounts with accounting policies that involve critical accounting estimates are unpaid losses and loss adjustment expenses, life and annuity benefits and goodwill and intangible assets.

Unpaid Losses and Loss Adjustment Expenses

Our consolidated balance sheets included estimated unpaid losses and loss adjustment expenses of \$16.2 billion and reinsurance recoverables on unpaid losses of \$5.7 billion at December 31, 2020 compared to \$14.7 billion and \$5.3 billion, respectively, at December 31, 2019. Included in these balances were unpaid losses and loss adjustment expenses and reinsurance recoverables on unpaid losses attributable to our program services business and other fronting arrangements totaling \$3.3 billion for the year ended December 31, 2020 and \$2.9 billion for the year ended December 31, 2019. Our consolidated balance sheets do not include reserves for losses and loss adjustment expenses attributed to unconsolidated subsidiaries or affiliates that we manage through our insurance-linked securities operations, including Markel CATCo Re and the Nephila Reinsurers.

We accrue liabilities for unpaid losses and loss adjustment expenses based upon estimates of the ultimate amounts payable. We maintain reserves for specific claims incurred and reported (case reserves) and reserves for claims incurred but not reported (IBNR reserves).

Reported claims are in various stages of the settlement process, and the corresponding reserves for reported claims are based upon all information available to us. Case reserves consider our estimate of the ultimate cost to settle the claims, including investigation and defense of lawsuits resulting from the claims, and may be subject to adjustment for differences between costs originally estimated and costs subsequently re-estimated or incurred. Claims are settled based upon their merits, and some claims may take years to settle, especially if legal action is involved. As of any balance sheet date, all claims have not yet been reported, and some claims may not be reported for many years. As a result, the liability for unpaid losses and loss adjustment expenses includes significant estimates for incurred but not reported claims.

There is normally a time lag between when a loss event occurs and when it is actually reported to us. The actuarial methods that we use to estimate losses have been designed to address the lag in loss reporting as well as the delay in obtaining information that would allow us to more accurately estimate future payments. There is also often a time lag between cedents establishing case reserves and re-estimating their reserves, and notifying us of the new or revised case reserves. As a result, the reporting lag is more pronounced in our reinsurance contracts than in our insurance contracts due to the reliance on ceding companies to report their claims to us. On reinsurance transactions, the reporting lag will generally be 60 to 90 days after the end of a reporting period, but can be longer in some cases. Based on the experience of our actuaries and management, we select loss development factors and trending techniques to mitigate the difficulties caused by reporting lags. At least annually, we evaluate and update our loss development and trending factor selections using cedent specific and industry data.

U.S. GAAP requires that IBNR reserves be based on the estimated ultimate cost of settling claims, including the effects of inflation and other social and economic factors, using past experience adjusted for current trends and any other factors that would modify past experience. IBNR reserves are generally calculated by subtracting paid losses and loss adjustment expenses and case reserves from estimated ultimate losses and loss adjustment expenses. IBNR reserves were 66% of total unpaid losses and loss adjustment expenses at December 31, 2020 compared to 65% at December 31, 2019.

The following table summarizes case reserves and IBNR reserves. The amounts in the following table exclude the unamortized portion of any fair value adjustments for unpaid losses and loss adjustment expenses assumed in conjunction with an acquisition and any adjustments to discount reserves.

(dollars in thousands)	Insurance			Reinsurance		Other underwriting		Program Services and other		Consolidated
December 31, 2020										
Case reserves	\$	2,917,179	\$	1,386,976	\$	51,591	\$	1,155,540		\$ 5,511,286
IBNR reserves		6,311,344		2,101,169		224,499		2,130,821	_	10,767,833
Total	\$	9,228,523	\$	3,488,145	\$	276,090	\$	3,286,361	(1)	\$ 16,279,119
December 31, 2019									•	
Case reserves	\$	2,597,273	\$	1,404,461	\$	127,639	\$	1,035,742		\$ 5,165,115
IBNR reserves		5,502,167		2,052,512		170,424		1,880,367	_	9,605,470
Total	\$	8,099,440	\$	3,456,973	\$	298,063	\$	2,916,109	(1)	\$ 14,770,585

⁽¹⁾ Substantially all of the premium written in our program services business is ceded, resulting in reinsurance recoverables on unpaid losses of \$3.3 billion and \$2.9 billion as of December 31, 2020 and 2019, respectively.

Each quarter, our actuaries prepare estimates of the ultimate liability for unpaid losses and loss adjustment expenses based on established actuarial methods. Management reviews these estimates, supplements the actuarial analyses with information provided by claims, underwriting and other operational personnel and determines its best estimate of loss reserves, which is recorded in our consolidated financial statements. Our procedures for determining the adequacy of loss reserves at the end of the year are substantially similar to the procedures applied at the end of each interim period.

Any adjustments to reserves resulting from our interim or year-end reviews, including changes in estimates, are recorded as a component of losses and loss adjustment expenses in the period of the change. Reserve changes that increase previous estimates of ultimate claims cost are referred to as unfavorable or adverse development, or reserve strengthening. Reserve changes that decrease previous estimates of ultimate claims cost are referred to as favorable development.

Program Services

For our program services business, case reserves are generally established based on reports received from the general agents or reinsurers with whom we do business. Our actuaries review the case loss reserve data received for sufficiency, consistency with historical data and for consistency with other programs we write that have similar characteristics. IBNR reserves are calculated using either our program experience or, where the program data is not credible, industry experience for similar products or lines of business. Substantially all of the premium written in our program services business is ceded and net reserves for unpaid losses and loss adjustment expenses as of December 31, 2020 and December 31, 2019 were \$8.3 million and \$2.2 million, respectively.

Underwriting

For our insurance operations, we are generally notified of insured losses by our insureds or their brokers. Based on this information, we establish case reserves by estimating the expected ultimate losses from the claim (including any administrative costs associated with settling the claim). Our claims personnel use their knowledge of the specific claim along with internal and external experts, including underwriters, actuaries and legal counsel, to estimate the expected ultimate losses.

For our reinsurance operations, case reserves are generally established based on reports received from ceding companies or their brokers. For excess of loss contracts, we are typically notified of insurance losses on specific contracts and record a case reserve for the estimated expected ultimate losses from the claim. For quota share contracts, we typically receive aggregated claims information and record a case reserve based on that information. As with insurance business, we evaluate this information and estimate the expected ultimate losses.

Our liabilities for unpaid losses and loss adjustment expenses can generally be categorized into two distinct groups, short-tail business and long-tail business. Short-tail business refers to lines of business, such as property, accident and health, automobile, watercraft and marine hull exposures, for which losses are usually known and paid shortly after the loss actually occurs. Long-tail business describes lines of business for which specific losses may not be known and reported for some period and losses take much longer to emerge. Given the time frame over which long-tail exposures are ultimately settled, there is greater uncertainty and volatility in these lines than in short-tail lines of business. Our long-tail coverages consist of most casualty lines, including professional liability, directors' and officers' liability, products liability, general and excess liability and excess and umbrella exposures, as well as workers' compensation insurance. Some factors that contribute to the uncertainty and volatility of long-tail casualty programs, and thus require a significant degree of judgment in the reserving process, include the inherent uncertainty as to the length of reporting and payment development patterns, the possibility of judicial interpretations or legislative changes, including changes in workers' compensation benefit laws, that might impact future loss experience relative to prior loss experience and the potential lack of comparability of the underlying data used in performing loss reserve analyses.

Our ultimate liability may be greater or less than current reserves. Changes in our estimated ultimate liability for loss reserves generally occur as a result of the emergence of unanticipated loss activity, the completion of specific actuarial or claims studies or changes in internal or external factors. We closely monitor new information on reported claims and use statistical analyses prepared by our actuaries to evaluate the adequacy of our recorded reserves. We are required to exercise considerable judgment when assessing the relative credibility of loss development trends. Our philosophy is to establish loss reserves that are more likely redundant than deficient. This means that we seek to establish loss reserves that will ultimately prove to be adequate. As a result, if new information or trends indicate an increase in frequency or severity of claims in excess of what we initially anticipated, we generally respond quickly and increase loss reserves. If, however, frequency or severity trends are more favorable than initially anticipated, we often wait to reduce our loss reserves until we can evaluate experience in additional periods to confirm the credibility of the trend. In addition, for long-tail lines of business, trends develop over longer

periods of time, and as a result, we give credibility to these trends more slowly than for short-tail or less volatile lines of business. As part of our acquisition of underwriting operations, to the extent the reserving philosophy of the acquired business is less conservative than our reserving philosophy, the post-acquisition loss reserves will be strengthened until total loss reserves are consistent with our target level of confidence.

In establishing our liabilities for unpaid losses and loss adjustment expenses, our actuaries estimate an ultimate loss ratio, by accident year or policy year, for each of our product lines with input from our underwriting and claims personnel. For product lines in which loss reserves are established on a policy year basis, we have developed a methodology to convert from policy year to accident year for financial reporting purposes. In estimating an ultimate loss ratio for a particular line of business, our actuaries may use one or more actuarial reserving methods and select from these a single point estimate. To varying degrees, these methods include detailed statistical analysis of past claim reporting, settlement activity, claim frequency and severity, policyholder loss experience, industry loss experience and changes in market conditions, policy forms and exposures. The actuarial methods we use include:

Initial Expected Loss Ratio Method – This method multiplies earned premiums by an expected loss ratio. The expected loss ratio is selected utilizing industry data, our historical data, frequency-severity and rate level forecasts and professional judgment.

Paid Loss Development – This method uses historical loss payment patterns to estimate future loss payment patterns. Our actuaries use the historical loss patterns to develop factors that are applied to current paid loss amounts to calculate expected ultimate losses.

Incurred Loss Development – This method uses historical loss reporting patterns to estimate future loss reporting patterns. Our actuaries use the historical loss patterns to develop factors that are applied to current reported losses to calculate expected ultimate losses.

Bornhuetter-Ferguson Paid Loss Development – This method divides the projection of ultimate losses into the portion that has already been paid and the portion that has yet to be paid. The portion that has yet to be paid is estimated as the product of three amounts: the premium earned for the exposure period, the expected loss ratio and the percentage of ultimate losses that are still unpaid. The expected loss ratio is selected by considering historical loss ratios, adjusted for any known changes in pricing, loss trends, adequacy of case reserves, changes in administrative practices and other relevant factors.

Bornhuetter-Ferguson Incurred Loss Development – This method is identical to the Bornhuetter-Ferguson paid loss development method, except that it uses the percentage of ultimate losses that are still unreported, instead of the percentage of ultimate losses that are still unpaid.

Frequency/Severity – Under this method, expected ultimate losses are equal to the product of the expected ultimate number of claims and the expected ultimate average cost per claim. Our actuaries use historical reporting patterns and severity patterns to develop factors that are applied to the current reported amounts to calculate expected ultimate losses.

Outstanding to IBNR Ratio Method – Under this method, IBNR is based on a detailed review of remaining open claims. This method assumes that the estimated future loss development is indicated by the current level of case reserves.

Other Methods – We cannot estimate losses from widespread catastrophic events, such as hurricanes and earthquakes, as well as pandemics, using the traditional actuarial methods previously described. In the initial months after a catastrophic event occurs, our actuaries estimate losses and loss adjustment expenses based on claims received to date, detailed policy and reinsurance contract level reviews, industry loss estimates and output from both industry and proprietary models, as well as analysis of our ceded reinsurance contracts. The availability of data from these procedures varies depending on the timing of the event relative to the point at which we develop our estimate. We also consider loss experience on historical events that may have similar characteristics to the underlying event. Due to the inherent uncertainty in estimating such losses, these estimates are subject to variability, which increases with the severity and complexity of the underlying event. As additional claims are reported and paid, and industry loss estimates are revised, we incorporate this new information into our analysis and adjust our estimate of ultimate losses and loss adjustment expenses.

Each actuarial method has its own set of assumptions and its own strengths and limitations, with no one method being better than the others in all situations. Our actuaries select the reserving methods that they believe will produce the most reliable estimates for the class of business being evaluated. Greater judgment may be required when we introduce new product lines or when there have been changes in claims handling practices, as the statistical data available may be insufficient. In these

instances, we may rely upon assumptions applied to similar lines of business, rely more heavily on industry experience, take into account changes in underwriting guidelines and risk selection or review the impact of changes in claims reserving practices with claims personnel. While we use our best judgment in establishing our estimate for loss reserves, applying different assumptions and variables could lead to significantly different loss reserve estimates.

A key assumption in most actuarial analyses is that past development patterns will repeat themselves in the future, absent a significant change in internal or external factors that influence the ultimate cost of our unpaid losses and loss adjustment expenses. Our estimates reflect implicit and explicit assumptions regarding the potential effects of external factors, including economic and social inflation, judicial decisions, changes in law, general economic conditions and recent trends in these factors. Our actuarial analyses are based on statistical analysis but also consist of reviewing internal factors that are difficult to analyze statistically, including underwriting and claims handling changes. In some of our markets, and where we act as a reinsurer, the timing and amount of information reported about underlying claims are in the control of third parties. This can also affect estimates and require re-estimation as new information becomes available.

Loss reserves are established at management's best estimate, which is generally higher than the corresponding actuarially calculated point estimate due to subjective factors where management's perspective may differ from that of the actuaries. The actuarial point estimate represents our actuaries' estimate of the most likely amount that will ultimately be paid to settle the losses that have occurred at a particular point in time; however, there is inherent uncertainty in the point estimate as it is the expected value in a range of possible reserve estimates. In some cases, actuarial analyses, which are based on statistical analysis, cannot fully incorporate all of the subjective factors that affect development of losses. In other cases, management's perspective of these more subjective factors may differ from the actuarial perspective. Subjective factors where management's perspective may differ from that of the actuaries include: the credibility and timeliness of claims information received from third parties, economic and social inflation, judicial decisions, changes in law, changes in underwriting or claims handling practices, general economic conditions, the risk of moral hazard and other current and developing trends within the insurance and reinsurance markets, including the effects of competition. As a result, the actuarially calculated point estimates for each of our lines of business represent starting points for management's quarterly review of loss reserves. Management also considers the range, or variability, of reasonably possible losses determined by our actuaries when establishing its best estimate for loss reserves. The actuarial ranges represent our actuaries' estimate of a likely lowest amount and likely highest amount that will ultimately be paid to settle the losses that have occurred at particular point in time. The range determinations are based on estimates and actuarial judgements and are intended to encompass reasonably likely changes in one or more of the factors that were used to determine the point estimates. Using statistical models, our actuaries establish high and low ends of a range of reasonable reserve estimates for each of our underwriting segments. Additionally, following an acquisition of insurance operations, to the extent the reserving philosophy of the acquired business is less conservative than our reserving philosophy, the percentage by which management's best estimate exceeds the actuarial point estimate will generally be lower until we build total loss reserves that are consistent with our historic level of confidence. Management's best estimate of net reserves for unpaid losses and loss adjustment expenses exceeded the actuarially calculated point estimate by \$587.4 million, or 5.9%, at December 31, 2020, compared to \$577.5 million, or 6.5%, at December 31, 2019.

The difference between management's best estimate and the actuarially calculated point estimate in both 2020 and 2019 is primarily associated with our long-tail business due to the subjective factors previously described that affect the development of losses and represent instances where management's perspectives may differ from those of our actuaries. Management has attributed less credibility than our actuaries to favorable trends experienced on our long-tail business and has not incorporated these favorable trends into its best estimate of ultimate losses to the same extent as the actuaries.

Loss frequency and loss severity are two key measures of loss activity that often result in adjustments to actuarial assumptions relative to ultimate loss reserve estimates. Loss frequency measures the number of claims per unit of insured exposure. When the number of newly reported claims is higher than anticipated, generally speaking, loss reserves are increased. Conversely, loss reserves are generally decreased when fewer claims are reported than expected. Loss severity measures the average size of a claim. When the average severity of reported claims is higher than originally estimated, loss reserves are typically increased. When the average claim size is lower than anticipated, loss reserves are typically decreased.

Our underwriting results in 2020 included \$606.4 million of favorable development on prior years' loss reserves compared to \$535.3 million in 2019. In connection with our quarterly reviews of loss reserves, the actuarial methods we used have exhibited a favorable trend, predominately for the 2016 to 2019 accident years, during 2020. This trend was observed using statistical analysis of actual loss experience for those years, particularly with regard to most of our long-tail books of business within the Insurance segment, which developed more favorably than we had expected. Additionally, as loss reserves are recorded at management's best estimate, which is generally higher than the corresponding actuarially calculated point estimate, the initial reserves established by management are more likely to be redundant than deficient. As actual losses continue to be

lower than anticipated, it has become more likely that the underwriting results will prove to be better than originally estimated. Additionally, as most actuarial methods rely upon historical reporting patterns, the favorable trends experienced on earlier accident years have resulted in a re-estimation of our ultimate incurred losses on more recent accident years. When we experience loss frequency or loss severity trends that are more favorable than we initially anticipated, we often evaluate the loss experience over a period of several years in order to assess the relative credibility of loss development trends. In both 2020 and 2019, based upon our evaluations of claims development patterns in our long-tail, and often volatile, lines of business, our actuaries reduced their estimates of ultimate losses. Management also gave greater credibility to the favorable trends experienced on earlier accident years and upon incorporating these favorable trends into its best estimate, we reduced prior years' loss reserves on more recent accident years accordingly. While we believe it is possible that there will be additional favorable development on prior years' loss reserves in 2021, we caution readers not to place undue reliance on this favorable trend.

Changes in prior years' loss reserves, including the trends and factors that impacted loss reserve development in 2020 and 2019 as well as further details regarding the historical development of reserves for losses and loss adjustment expenses and changes in methodologies and assumptions used to calculate reserves for unpaid losses and loss adjustment expense are discussed in further detail in note 9 of the notes to consolidated financial statements included under Item 8.

The following table summarizes our reserves for net unpaid losses and loss adjustment expenses and the actuarially established high and low ends of a range of reasonable reserve estimates at December 31, 2020. As described in note 9 of the notes to consolidated financial statements included under Item 8, unpaid losses and loss adjustment expenses attributable to acquisitions are recorded at fair value as of the acquisition date, which generally consists of the present value of the expected net loss and loss adjustment expense payments plus a risk premium. The net loss reserves presented in this table represent our estimated future payments for losses and loss adjustment expenses, whereas the reserves for unpaid losses and loss adjustment expenses included on the consolidated balance sheet include the unamortized portion of fair value adjustments recorded in conjunction with an acquisition.

(dollars in millions)	Net Loss serves Held	Actuarial Range ⁽¹⁾		Actuarial Range ⁽¹⁾	
Insurance	\$ 7,211.4	\$	6,314.9	\$	7,849.0
Reinsurance	3,104.8		2,421.8		3,556.5
Other underwriting	146.5		105.6		185.5

Due to the actuarial methods used to determine the separate ranges for each component of our business, it is not appropriate to aggregate the high or low ends of the separate ranges to determine the high and low ends of the actuarial range on a consolidated basis.

Undue reliance should not be placed on these ranges of estimates as they are only one of many points of reference used by management to determine its best estimate of ultimate losses. Further, actuarial ranges may not be a true reflection of the potential variability between loss reserves estimated at the balance sheet date and the ultimate cost of settling claims. Actuarial ranges are developed based on known events as of the valuation date, while ultimate losses are subject to events and circumstances that are unknown as of the valuation date.

Over the past two years, we have experienced favorable development on prior years' loss reserves of 6% of beginning of year net loss reserves. It is difficult for management to predict the duration and magnitude of an existing trend and, on a relative basis, it is even more difficult to predict the emergence of factors or trends that are unknown today but may have a material impact on loss reserve development. In assessing the likelihood of whether the favorable trends previously discussed will continue and whether other trends may develop, we believe that a reasonably likely movement in prior years' loss reserves during 2021 would range from favorable development of less than 1%, or \$100 million, to favorable development of approximately 6%, or \$650 million, of December 31, 2020 net loss reserves. See "Developments Related to COVID-19" for further discussion of factors related to the pandemic that could impact our net loss reserve estimates.

Life and Annuity Benefits

We have a run-off block of life and annuity reinsurance contracts which subject us to mortality, longevity and morbidity risks. The related reserves are compiled by our actuaries on a reinsurance contract-by-contract basis and are computed on a discounted basis using standard actuarial techniques and cash flow models. Since the development of our life and annuity reinsurance reserves is based upon cash flow projection models, we must make estimates and assumptions based on cedent experience, industry mortality tables, and expense and investment experience, including a provision for adverse deviation. The assumptions used to determine policy benefit reserves are generally locked-in for the life of the contract unless an unlocking

event occurs. We review the adequacy of reserves for life and annuity reinsurance benefits quarterly. To the extent existing policy reserves, together with the present value of future gross premiums and expected investment income earned thereon, are not adequate to cover the present value of future benefits, settlement and maintenance costs, the locked-in assumptions are revised to current best estimate assumptions and a charge to earnings for life and annuity benefits is recognized at that time. Life and annuity benefits are also adjusted to the extent unrealized gains on the investments supporting the policy benefit reserves would result in a reserve deficiency if those gains were realized.

Our consolidated balance sheets included reserves for life and annuity benefits of \$1.1 billion and \$1.0 billion at December 31, 2020 and 2019, respectively. During 2020 and 2019, we increased our reserves for life and annuity benefits by \$68.2 million and \$51.4 million, respectively, as a result of decreases in the market yield on the investment portfolio supporting the policy benefit reserves, and decreased the change in net unrealized holding gains included in other comprehensive income by corresponding amounts. As of December 31, 2020 and December 31, 2019, the cumulative adjustment to life and annuity benefits attributable to unrealized gains on the underlying investment portfolio totaled \$119.6 million and \$51.4 million, respectively.

Because of the assumptions and estimates used in establishing reserves for life and annuity benefit obligations and the long-term nature of these reinsurance contracts, the ultimate liability may be greater or less than the estimates. The average discount rate for the life and annuity benefit reserves was 2.3% as of December 31, 2020. The accretion of this discount is recognized in the statement of income and comprehensive income within services and other expenses. Invested assets and the related investment income that support the life and annuity reinsurance contracts are reported in the Investing segment. We expect the results from our life and annuity business will continue to reflect losses in future periods due to the accretion of the discount on the life and annuity benefit reserves, which are forecast to pay out over the next 40 to 50 years. Services and other revenues attributable to the life and annuity business represent ongoing premium adjustments on existing contracts.

Goodwill and Intangible Assets

Our consolidated balance sheet as of December 31, 2020 included goodwill and intangible assets of \$4.4 billion as follows:

		December 31, 2020								
(dollars in millions)	U	Underwriting		Markel Ventures		Other (1)	Total			
Goodwill	\$	895.5	\$	901.0	\$	808.1	\$	2,604.6		
Intangible assets		442.6		623.1		717.0		1,782.7		
Total	\$	1,338.1	\$	1,524.1	\$	1,525.1	\$	4,387.3		

⁽¹⁾ Amounts included in Other reflect our operations that are not included in a reportable segment, including our insurance-linked securities operations and our program services operations.

Goodwill and intangible assets are recorded as a result of business acquisitions. Goodwill represents the excess of the amount paid to acquire a business over the net fair value of assets acquired and liabilities assumed at the date of acquisition. Indefinite-lived and other intangible assets are recorded at fair value as of the acquisition date. The determination of the fair value of certain assets acquired, including goodwill and intangible assets, and liabilities assumed involves significant judgment and the use of valuation models and other estimates, which require assumptions that are inherently subjective. During the years ended December 31, 2020 and 2019, we recorded \$497.1 million and \$232.0 million, respectively, of goodwill and intangible assets in connection with acquisitions.

Intangible assets with definite lives are reviewed for impairment when events or circumstances indicate that their carrying value may not be recoverable. Goodwill and indefinite-lived intangible assets are tested for impairment annually, or when events or circumstances indicate that their carrying value may not be recoverable. A significant amount of judgment is required in performing impairment tests, including the optional assessment of qualitative factors for the annual impairment test, which is used to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. This assessment serves as a basis for determining whether it is necessary to perform a quantitative impairment test.

We completed our annual tests for impairment as of October 1, 2020 based upon results of operations through September 30, 2020. We elected to perform a qualitative assessment for certain reporting units and performed a quantitative assessment for other reporting units.

When performing our qualitative assessments, we considered macroeconomic factors such as industry conditions and market conditions, which, for some of our reporting units, reflected significant impacts attributable to the COVID-19 pandemic. We

also considered reporting unit-specific events, actual financial performance versus expectations and management's future business expectations, which, in some instances, were also affected by the impacts of the COVID-19 pandemic, as well as the amount by which the fair value of the reporting unit exceeded its carrying value at the date of the last quantitative assessment. As part of our qualitative assessment of recently acquired reporting units with material goodwill, we considered the fact that the businesses had been acquired in orderly transactions between market participants, and our purchase price represented fair value at acquisition. For those recent acquisitions for which we elected to perform a qualitative assessment, there were no events since acquisition that had a significant adverse impact on the fair value of these reporting units through the assessment date. Based on the results of our qualitative assessments, we believe it is more likely than not that the fair value of each of these reporting units exceeded its respective carrying amount as of the assessment date and December 31, 2020 and none of these reporting units are at risk of a material impairment of goodwill. We considered similar factors to determine if there were any indicators requiring an assessment of the recoverability of our definite lived intangible assets and concluded there were not. However, a longer than anticipated recovery or further deterioration in market conditions related to the general economy or the specific industries in which we operate, a sustained trend of weaker than anticipated financial performance within a reporting unit beyond that which we considered or included in our assessments, or an increase in the market-based weighted average cost of capital, among other factors, could significantly impact the impairment analysis and may result in future goodwill or intangible asset impairment charges.

For those reporting units for which we used a quantitative approach to assess goodwill for impairment, we estimated the fair value primarily using an income approach based on a discounted cash flow model. The cash flow projections used in the discounted cash flow model included management's best estimate of future growth and margins. The discount rates used to determine the fair value estimates were developed based on a capital asset pricing model using market-based inputs as well as an assessment of the inherent risk in projected future cash flows. The estimated fair value of each of our reporting units for which we performed a quantitative analysis significantly exceeded its respective carrying amount as of the assessment date, except as discussed below. As there were no significant events or changes in circumstances impacting our reporting units between the assessment date and December 31, 2020, we also believe the estimated fair value of each of these reporting units significantly exceeded its respective carrying amount as of December 31, 2020.

At December 31, 2020, the carrying value of our Nephila fund management reporting unit included goodwill of \$401.9 million. This Nephila reporting unit serves as an insurance and investment fund manager that offers a broad range of investment products, including insurance-linked securities, catastrophe bonds, insurance swaps and weather derivatives. Nephila receives management fees for these services based on the net asset value of the accounts managed and, for certain funds, incentive fees based on the annual performance of the funds managed. This reporting unit is a component of our Nephila operations, which were acquired in late 2018 and recorded at fair value at that time. Given the limited time since acquisition, its carrying value continues to closely approximate fair value, making our impairment assessment more sensitive to changes in assumptions used to calculate fair value. Since acquiring this business in 2018, investment performance in the broader ILS market has been adversely impacted by consecutive years of elevated catastrophe losses and uncertainty around potential COVID-19 loss exposures. These events, as well as recent volatility in the capital markets, also have impacted investor decisions around allocation of capital to ILS, which in turn have impacted our assumptions for capital raises and redemptions within the funds we manage. Our cash flow assumptions for the Nephila fund management reporting unit reflect management's best estimate of the reporting unit's future cash flows, based on information currently available, however, these assumptions are inherently uncertain, require a high degree of estimation and judgment and are subject to change depending on the outcome of future events. Changes to these assumptions or an increase in the market-based weighted average cost of capital could have an adverse impact on the fair value of the Nephila fund management reporting unit, which could result in an impairment of goodwill.

See the risk factor titled "Impairment in the value of our goodwill or other intangible assets could have a material adverse effect on our operating results and financial condition" within Item 1A Risk Factors for further discussion of risks associated with our goodwill and intangible assets.

Safe Harbor and Cautionary Statement

This report contains statements concerning or incorporating our expectations, assumptions, plans, objectives, future financial or operating performance and other statements that are not historical facts. These statements are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements may use words such as "anticipate," "believe," "estimate," "expect," "intend," "predict," "project" and similar expressions as they relate to us or our management.

There are risks and uncertainties that may cause actual results to differ materially from predicted results in forward-looking statements. Factors that may cause actual results to differ are often presented with the forward-looking statements themselves.

Additional factors that could cause actual results to differ from those predicted are set forth under Item 1 Business, Item 1A Risk Factors and Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations in this report or are included in the items listed below:

- current global economic, market and industry conditions, as well as significant volatility, uncertainty and disruption caused by the COVID-19 pandemic, including governmental, legislative, judicial or regulatory actions or developments affecting our businesses;
- our expectations about future results of our underwriting, investing, Markel Ventures and other operations are based on current knowledge and assume no significant man-made or natural catastrophes, no significant changes in products or personnel and no adverse changes in market conditions;
- the effect of cyclical trends on our underwriting, investing, Markel Ventures and other operations, including demand and pricing in the insurance, reinsurance and other markets in which we operate;
- actions by competitors, including the use of technology and innovation to simplify the customer experience, increase efficiencies, redesign products, alter models and effect other potentially disruptive changes in the insurance industry, and the effect of competition on market trends and pricing;
- our efforts to develop new products, expand in targeted markets or improve business processes and workflows may not be successful and may increase or create new risks (e.g., insufficient demand, change to risk exposures, distribution channel conflicts, execution risk, increased expenditures);
- the frequency and severity of man-made and natural catastrophes (including earthquakes, wildfires and weather-related catastrophes) may exceed expectations, are unpredictable and, in the case of wildfires and weather-related catastrophes, may be exacerbated if, as many forecast, changing conditions in the oceans and atmosphere result in increased hurricane, flood, drought or other adverse weather-related activity;
- we offer insurance and reinsurance coverage against terrorist acts in connection with some of our programs, and in other instances we are legally required to offer terrorism insurance; in both circumstances, we actively manage our exposure, but if there is a covered terrorist attack, we could sustain material losses;
- emerging claim and coverage issues, changing legal and social trends, and inherent uncertainties in the loss estimation process can adversely impact the adequacy of our loss reserves and our allowance for reinsurance recoverables;
- reinsurance reserves are subject to greater uncertainty than insurance reserves, primarily because of reliance upon the original underwriting decisions made by ceding companies and the longer lapse of time from the occurrence of loss events to their reporting to the reinsurer for ultimate resolution;
- inaccuracies (whether due to data error, human error or otherwise) in the various modeling techniques and data analytics (e.g., scenarios, predictive and stochastic modeling, and forecasting) we use to analyze and estimate exposures, loss trends and other risks associated with our insurance and insurance-linked securities businesses could cause us to misprice our products or fail to appropriately estimate the risks to which we are exposed;
- changes in the assumptions and estimates used in establishing reserves for our life and annuity reinsurance book (which is in runoff), for example, changes in assumptions and estimates of mortality, longevity, morbidity and interest rates, could result in material increases in our estimated loss reserves for such business;
- adverse developments in insurance coverage litigation or other legal or administrative proceedings could result in material increases in our estimates of loss reserves;
- initial estimates for catastrophe losses are often based on limited information, are dependent on broad assumptions about the nature and extent of losses, coverage, liability and reinsurance, and those losses may ultimately differ materially from our expectations;
- changes in the availability, costs, quality and providers of reinsurance coverage, which may impact our ability to write or continue to write certain lines of business or to mitigate the volatility of losses on our results of operations and financial condition;
- the ability or willingness of reinsurers to pay balances due may be adversely affected by industry and economic conditions, deterioration in reinsurer credit quality and coverage disputes, and collateral we hold, if any, may not be sufficient to cover a reinsurer's obligation to us;
- after the commutation of ceded reinsurance contracts, any subsequent adverse development in the re-assumed loss reserves will result in a charge to earnings;
- regulatory actions can impede our ability to charge adequate rates and efficiently allocate capital;

- general economic and market conditions and industry specific conditions, including extended economic recessions or expansions; prolonged periods of slow economic growth; inflation or deflation; fluctuations in foreign currency exchange rates, commodity and energy prices and interest rates; volatility in the credit and capital markets; and other factors;
- economic conditions, actual or potential defaults in corporate bonds, municipal bonds, mortgage-backed securities or
 sovereign debt obligations, volatility in interest and foreign currency exchange rates and changes in market value of
 concentrated investments can have a significant impact on the fair value of our fixed maturity securities and equity
 securities, as well as the carrying value of our other assets and liabilities, and this impact may be heightened by market
 volatility and our ability to mitigate our sensitivity to these changing conditions;
- economic conditions may adversely affect our access to capital and credit markets;
- the effects of government intervention, including material changes in the monetary policies of central banks, to address financial downturns and economic and currency concerns;
- the impacts that political and civil unrest and regional conflicts may have on our businesses and the markets they serve or that any disruptions in regional or worldwide economic conditions generally arising from these situations may have on our businesses, industries or investments;
- the impacts that health epidemics and pandemics, including the COVID-19 pandemic, as well as actions of local, state and federal authorities in response thereto, may have on our business operations and claims activity;
- the impact on our businesses in the event of a repeal, in part or in whole, or modification of U.S. health care reform legislation and regulations;
- changes in U.S. tax laws, regulations or interpretations, or in the tax laws, regulations or interpretations of other jurisdictions in which we operate, and adjustments we may make in our operations or tax strategies in response to those changes;
- a failure or security breach of enterprise information technology systems that we use or a failure to comply with data protection or privacy regulations;
- outsourced providers may perform poorly, breach their obligations to us or expose us to enhanced risks;
- our acquisitions may increase our operational and internal control risks for a period of time;
- we may not realize the contemplated benefits, including cost savings and synergies, of our acquisitions;
- any determination requiring the write-off of a significant portion of our goodwill and intangible assets;
- the failure or inadequacy of any methods we employ to manage our loss exposures;
- the loss of services of any executive officer or other key personnel could adversely impact one or more of our operations;
- the manner in which we manage our global operations through a network of business entities could result in inconsistent management, governance and oversight practices and make it difficult for us to implement strategic decisions and coordinate procedures;
- our substantial international operations and investments expose us to increased political, civil, operational and economic risks, including foreign currency exchange rate and credit risk;
- the political, legal, regulatory, financial, tax and general economic impacts, and other impacts we cannot anticipate, related to the United Kingdom's withdrawal from the European Union (Brexit), which could have adverse consequences for our businesses, particularly our London-based international insurance operations;
- our ability to obtain additional capital for our operations on terms favorable to us;
- our compliance, or failure to comply, with covenants and other requirements under our revolving credit facility, senior debt and other indebtedness and our preferred shares;
- our ability to maintain or raise third party capital for existing or new investment vehicles and risks related to our management of third party capital;
- the effectiveness of our procedures for compliance with existing and future guidelines, policies and legal and regulatory standards, rules, laws and regulations;
- the impact of economic and trade sanctions and embargo programs on our businesses, including instances in which the requirements and limitations applicable to the global operations of U.S. companies and their affiliates are more restrictive than, or conflict with, those applicable to non-U.S. companies and their affiliates;

- regulatory changes, or challenges by regulators, regarding the use of certain issuing carrier or fronting arrangements;
- our dependence on a limited number of brokers for a large portion of our revenues and third-party capital;
- adverse changes in our assigned financial strength, debt or preferred share ratings or outlook could adversely impact us, including our ability to attract and retain business, the amount of capital our insurance subsidiaries must hold and the availability and cost of capital;
- changes in the amount of statutory capital our insurance subsidiaries are required to hold, which can vary significantly and is based on many factors, some of which are outside our control;
- losses from litigation and regulatory investigations and actions; and
- a number of additional factors may adversely affect our Markel Ventures operations, and the markets they serve, and
 negatively impact their revenues and profitability, including, among others: adverse weather conditions, plant disease and
 other contaminants; changes in government support for education, healthcare and infrastructure projects; changes in
 capital spending levels; changes in the housing and commercial construction markets; liability for environmental matters;
 volatility in the market prices for their products; and volatility in commodity prices and interest and foreign currency
 exchange rates.

Results from our underwriting, investing, Markel Ventures and other operations have been and will continue to be potentially materially affected by these factors. In addition, with respect to previously reported developments at Markel CATCo and the decision to place both the Markel CATCo Reinsurance Fund Ltd., a Bermuda exempted mutual fund company comprised of multiple segregated accounts, and Markel CATCo Re Ltd. (Markel CATCo Re) into run-off:

- the inquiries by the U.S. Department of Justice, U.S. Securities and Exchange Commission and Bermuda Monetary
 Authority into loss reserves recorded in late 2017 and early 2018 at Markel CATCo Re (the Markel CATCo
 Inquiries) may result in adverse findings, reputational damage, the imposition of sanctions, increased costs, litigation
 and other negative consequences; and
- management time and resources may be diverted to address the Markel CATCo Inquiries, as well as related litigation.

By making forward-looking statements, we do not intend to become obligated to publicly update or revise any such statements whether as a result of new information, future events or other changes. Readers are cautioned not to place undue reliance on any forward-looking statements, which speak only as at their dates.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk of economic losses due to adverse changes in the estimated fair value of a financial instrument as the result of changes in equity prices, interest rates, foreign currency exchange rates and commodity prices. Our consolidated balance sheets include assets and liabilities with estimated fair values that are subject to market risk. Our primary market risks have been equity price risk associated with investments in equity securities, interest rate risk associated with investments in fixed maturity securities and foreign currency exchange rate risk associated with our international operations. Some businesses within our Markel Ventures operations are exposed to commodity price risk resulting from changes in the price of raw materials, parts and other components necessary to manufacture products, however, this risk is not material to the Company. The operating results of these businesses could be adversely impacted should they be unable to obtain price increases from customers in response to significant increases in raw material, parts and other component prices.

The estimated fair value of our investment portfolio at December 31, 2020 was \$24.9 billion, 43% of which was invested in fixed maturity securities and 28% of which was invested in equity securities. At December 31, 2019, the estimated fair value of our investment portfolio was \$22.3 billion, 45% of which was invested in fixed maturity securities and 34% of which was invested in equity securities.

Our fixed maturity securities and equity securities are recorded at fair value, which is measured based upon quoted prices in active markets, if available. We determine fair value for these investments after considering various sources of information, including information provided by a third party pricing service. The pricing service provides prices for substantially all of our fixed maturity securities and equity securities. In determining fair value, we generally do not adjust the prices obtained from the pricing service. We obtain an understanding of the pricing service's valuation methodologies and related inputs, which include, but are not limited to, reported trades, benchmark yields, issuer spreads, bids, offers, duration, credit ratings, estimated cash flows and prepayment speeds. We validate prices provided by the pricing service by reviewing prices from other pricing sources and analyzing pricing data in certain instances.

Equity Price Risk

We invest a portion of shareholder funds in equity securities, which have historically produced higher long-term returns relative to fixed maturity securities. We seek to invest in profitable companies, with honest and talented management, that exhibit reinvestment opportunities and capital discipline, at reasonable prices. We intend to hold these investments over the long term and focus on long-term total investment return, understanding that gains or losses on investments may fluctuate from one period to the next. Changes in the fair value of equity securities are recognized in net income.

At December 31, 2020, our equity portfolio was concentrated in terms of the number of issuers and industries. Such concentrations can lead to higher levels of price volatility. At December 31, 2020, our ten largest equity holdings represented \$3.1 billion, or 44%, of the equity portfolio. Investments in the property and casualty insurance industry represented \$1.1 billion, or 15%, of our equity portfolio at December 31, 2020 and included a \$744.4 million investment in the common stock of Berkshire Hathaway Inc., a company whose subsidiaries engage in a number of diverse business activities in addition to insurance. We have investment guidelines that set limits on the equity holdings of our insurance subsidiaries.

The following table summarizes our equity price risk and shows the effect of a hypothetical 35% increase or decrease in market prices as of December 31, 2020 and 2019. The selected hypothetical changes do not indicate what could be the potential best or worst case scenarios.

(dollars in millions)	Estimated Fair Value	Hypothetical Price Change	Fair Hy	Estimated Value after ypothetical nge in Prices	Estimated Hypothetical Percentage Increase (Decrease) in Shareholders' Equity
As of December 31, 2020					<u> </u>
Equity securities	\$ 6,994	35% increase	\$	9,442	15.1 %
		35% decrease		4,546	(15.1)
As of December 31, 2019					
Equity securities	\$ 7,591	35% increase	\$	10,248	19.0 %
		35% decrease		4,934	(19.0)

Interest Rate Risk

Our fixed maturity investments and borrowings are subject to interest rate risk. Increases and decreases in interest rates typically result in decreases and increases, respectively, in the fair value of these financial instruments.

The majority of our investable assets come from premiums paid by policyholders. These funds are invested predominantly in high quality government, municipal and corporate bonds that generally match the duration and currency of our loss reserves. The fixed maturity portfolio, including short-term investments and cash and cash equivalents, has an average duration of 3.3 years and an average rating of "AA." See note 4(c) of the notes to consolidated financial statements included under Item 8 for disclosure of contractual maturity dates of our fixed maturity portfolio. The changes in the estimated fair value of the fixed maturity portfolio are presented as a component of shareholders' equity in accumulated other comprehensive income, net of taxes.

We work to manage the impact of interest rate fluctuations on our fixed maturity portfolio. The effective duration of the fixed maturity portfolio is managed with consideration given to the estimated duration of our liabilities. We have investment guidelines that limit the maximum duration and maturity of the fixed maturity portfolio.

We use a commercially available model to estimate the effect of interest rate risk on the fair values of our fixed maturity portfolio and borrowings. The model estimates the impact of interest rate changes on a wide range of factors including duration, prepayment, put options and call options. Fair values are estimated based on the net present value of cash flows, using a representative set of possible future interest rate scenarios. The model requires that numerous assumptions be made about the future. To the extent that any of the assumptions are invalid, incorrect estimates could result. The usefulness of a single point-in-time model is limited, as it is unable to accurately incorporate the full complexity of market interactions.

The following table summarizes our interest rate risk and shows the effect of hypothetical changes in interest rates as of December 31, 2020 and 2019. The selected hypothetical changes do not indicate what could be the potential best or worst case scenarios.

		Hypothetical Estimated -		Hypothetical Percentage Increase (Decrease) in			
(dollars in millions)	stimated air Value	Change in Interest Rates (bp=basis points)	Fair Value after Hypothetical Change in Interest Rates		Fair Value of Fixed Maturity Securities	Shareholders' Equity	
Fixed Maturity Securities							
As of December 31, 2020							
Total fixed maturity securities	\$ 10,682	200 bp decrease	\$	11,938	11.8 %	7.8 %	
		100 bp decrease		11,277	5.6	3.7	
		100 bp increase		10,128	(5.2)	(3.4)	
		200 bp increase		9,597	(10.2)	(6.7)	
As of December 31, 2019							
Total fixed maturity securities	\$ 9,971	200 bp decrease	\$	11,212	12.4 %	8.9 %	
		100 bp decrease		10,570	6.0	4.3	
		100 bp increase		9,407	(5.7)	(4.0)	
		200 bp increase		8,881	(10.9)	(7.8)	
Liabilities (1)							
As of December 31, 2020							
Borrowings	\$ 4,367	200 bp decrease	\$	5,727			
		100 bp decrease		4,975			
		100 bp increase		3,872			
		200 bp increase		3,464			
As of December 31, 2019							
Borrowings	\$ 3,907	200 bp decrease	\$	5,050			
		100 bp decrease		4,419			
		100 bp increase		3,486			
		200 bp increase		3,138			
(1)		_					

¹⁾ Changes in estimated fair value have no impact on shareholders' equity.

Foreign Currency Exchange Rate Risk

We have foreign currency exchange rate risk associated with certain of our assets and liabilities related to certain of our foreign operations. We manage this risk primarily by matching assets and liabilities in each foreign currency, other than non-monetary assets, as closely as possible. Our non-monetary assets primarily consist of goodwill and intangible assets, a portion of which are remeasured into the U.S. Dollar at historic exchange rates and are therefore not subject to foreign currency exchange rate risk. As of December 31, 2020 and December 31, 2019, the carrying value of goodwill and intangible assets that are subject to foreign currency exchange rate risk was \$119.1 million and \$123.0 million, respectively.

To assist with the matching of assets and liabilities in foreign currencies, we periodically purchase foreign currency forward contracts and we purchase or sell foreign currencies in the open market. Realized and unrealized gains and losses on our forward contracts are recorded in earnings. Our forward contracts generally have maturities of three months. At December 31, 2020 and 2019, substantially all of our monetary assets and liabilities denominated in foreign currencies were either matched or hedged.

At December 31, 2020 and 2019, 88% and 89%, respectively, of our invested assets were denominated in U.S. Dollars. At December 31, 2020 and 2019, 85% and 84%, respectively, of our reserves for unpaid losses and loss adjustment expenses and life and annuity benefits were denominated in U.S. Dollars. At those dates, the largest foreign currency denominated balances within both our invested assets and reserves for unpaid losses and loss adjustment expenses and life and annuity benefits were the Euro and British Pound Sterling.

Credit Risk

Fixed Maturity Investments

Credit risk exists within our fixed maturity portfolio from the potential for loss resulting from adverse changes in an issuer's ability to repay its debt obligations. We monitor our investment portfolio to ensure that credit risk does not exceed prudent levels. We have consistently invested in high credit quality, investment grade securities. Our fixed maturity portfolio has an average rating of "AA," with 98% rated "A" or better by at least one nationally recognized rating organization. Our policy is to invest in investment grade securities and to minimize investments in fixed maturity securities that are unrated or rated below investment grade. At December 31, 2020, less than 1% of our fixed maturity portfolio was unrated or rated below investment grade. Our fixed maturity portfolio includes securities issued with financial guaranty insurance. We purchase fixed maturity securities based on our assessment of the credit quality of the underlying assets without regard to insurance.

Our fixed maturity portfolio includes securities issued by foreign governments and non-sovereign foreign institutions. General concern exists about the financial difficulties facing certain foreign countries in light of the adverse economic conditions experienced over the past several years. We monitor developments in foreign countries, currencies and issuers that could pose risks to our fixed maturity portfolio, including ratings downgrades, political and financial changes and the widening of credit spreads. We believe that our fixed maturity portfolio is highly diversified and is comprised of high quality securities.

We obtain information from news services, rating agencies and various financial market participants to assess potential negative impacts on a country or company's financial risk profile. We analyze concentrations within our fixed maturity portfolio by country, currency and issuer, which allows us to assess our level of diversification with respect to these exposures, reduce troubled exposures should they occur and mitigate any future financial distress that these exposures could cause.

General concern exists about municipalities that experience financial difficulties during periods of adverse economic conditions. We manage the exposure to credit risk in our municipal bond portfolio by investing in high quality securities and by diversifying our holdings, which are typically either general obligation or revenue bonds related to essential products and services.

Reinsurance Recoverables

We have credit risk to the extent any of our reinsurers are unwilling or unable to meet their obligations under our ceded reinsurance agreements. Within our underwriting operations, our reinsurance recoverables balance for the ten largest reinsurers was \$1.6 billion at December 31, 2020, representing 60% of the total reinsurance recoverables, before considering allowances for credit losses. All of our ten largest reinsurers within our underwriting operations were rated "A" or better by A.M. Best. We were the beneficiary of letters of credit, trust accounts and funds withheld in the aggregate amount of \$473.2 million at December 31, 2020, collateralizing reinsurance recoverable balances due from these ten reinsurers.

Within our program services business, our reinsurance recoverables balance for the ten largest reinsurers was \$2.3 billion at December 31, 2020, representing 70% of the \$3.3 billion total reinsurance recoverables, before considering allowances for credit losses. Six of our ten largest reinsurers within our program services business were rated "A" or better by A.M. Best. We were the beneficiary of letters of credit, trust accounts and funds withheld in the aggregate amount of \$1.9 billion at December 31, 2020, collateralizing reinsurance recoverable balances due from these ten reinsurers, and \$2.8 billion for our total reinsurance recoverables balance. For reinsurers with a credit rating of lower than "A" we employ a stringent collateral monitoring program, under which the majority of the reinsurance recoverable balances are fully collateralized. These collateral requirements are regularly monitored by a credit committee within our program services operations. See note 10 of the notes to consolidated financial statements included under Item 8 for additional details about our reinsurance recoverables and exposures.

Within our underwriting operations, we attempt to minimize credit exposure to reinsurers through adherence to internal reinsurance guidelines. To participate in our reinsurance program, prospective companies generally must: (i) maintain an A.M. Best Company (Best) or Standard & Poor's (S&P) rating of "A" (excellent) or better; (ii) maintain minimum capital and surplus of \$500 million and (iii) provide collateral for recoverables in excess of an individually established amount. In addition, certain foreign reinsurers for our U.S. insurance operations must provide collateral equal to 100% of recoverables, with the exception of reinsurers who have been granted certified or authorized status by an insurance company's state of domicile. Our credit exposure to Lloyd's syndicates is managed through individual and aggregate exposure thresholds.

We monitor changes in the financial condition of each of our reinsurers, and we assess our concentration of credit risk on a regular basis. Within our program services business, we mitigate credit risk by either selecting well capitalized, highly rated authorized reinsurers or requiring that the reinsurer post substantial collateral to secure the reinsured risks, which in some instances, exceeds the related reinsurance recoverable. While we believe that net reinsurance recoverable balances are collectible, deterioration in reinsurers' ability to pay, or collection disputes, could adversely affect our operating cash flows, financial position and results of operations.

Impact of Inflation

Property and casualty insurance premiums are established before the amount of losses and loss adjustment expenses, or the extent to which inflation may affect such expenses, is known. Consequently, in establishing premiums, we attempt to anticipate the potential impact of inflation. We also consider inflation in the determination and review of reserves for losses and loss adjustment expenses and life and annuity benefits since portions of these reserves are expected to be paid over extended periods of time. This is especially true for our long-tailed lines of business. Although our life and annuity reinsurance business is in run-off, we must monitor the effect that inflation, among other things, has on the related reserves. We regularly complete loss recognition testing to ensure that held reserves are sufficient to meet our future claim obligations in the current investment environment.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM



To the Shareholders and Board of Directors Markel Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited Markel Corporation and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, the related consolidated statements of income (loss) and comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements), and our report dated February 19, 2021 expressed an unqualified opinion on those consolidated financial statements.

The Company acquired Lansing Building Products, LLC (Lansing) during 2020. Management excluded Lansing's internal control over financial reporting from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2020, associated with 2% of the Company's consolidated assets and 7% of the Company's consolidated operating revenues included in the consolidated financial statements as of and for the year ended December 31, 2020. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Lansing.

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.



Richmond, Virginia February 19, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM



To the Shareholders and Board of Directors Markel Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Markel Corporation and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of income (loss) and comprehensive income (loss), changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes (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, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 19, 2021 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 judgments. 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.

Estimation of the liability for unpaid losses and loss adjustment expenses for the Company's underwriting operations

As described in Note 9, the Company has recorded a liability for unpaid losses and loss adjustment expenses (loss reserves) of \$16.2 billion as of December 31, 2020. Of this amount, \$12.9 billion represents loss reserves for the Company's underwriting operations. The Company's actuaries use established actuarial methods and past development patterns to estimate ultimate losses to be paid. For its underwriting operations, loss reserves are established at the Company's best estimates, which incorporate the actuarial point estimates and are adjusted for certain subjective factors.

We identified the assessment of loss reserve estimation for the Company's underwriting operations as a critical audit matter because it involved significant measurement uncertainty. The assessment of actuarial methods and key assumptions used to estimate ultimate losses required specialized actuarial skills and subjective auditor judgment. Key assumptions included weighting of actuarial methods, expected loss ratios, and patterns and variability of loss development.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of internal controls over the Company's loss reserving process for its underwriting operations. This included controls over key assumptions and the determination of loss reserves. Additionally, we involved actuarial professionals with specialized skills and knowledge, who assisted in:

- assessing the Company's actuarial methodologies by comparing to generally accepted actuarial methodologies and evaluating the weighting of the methods based on common industry practice
- evaluating certain assumptions about future claims reporting and payment patterns used to determine the Company's actuarial point estimate for consistency with the Company's historical loss development and payment patterns
- developing independent actuarial estimates for certain product lines with long-tail loss reporting and payment
 patterns using the Company's underlying historical claims and policy data, as well as industry loss reporting and
 payment data for workers' compensation lines
- assessing the Company's actuarial analyses, including their methods and assumptions, for certain remaining product lines comprised of those with smaller balances or shorter tail loss reporting and payment patterns
- developing an independent range of consolidated loss reserves based on actuarial methods and assumptions and comparing those results to the Company's recorded reserves
- evaluating the movement of the Company's best estimate within our independently determined range of consolidated loss reserves between reporting periods.



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

Richmond, Virginia February 19, 2021

MARKEL CORPORATION AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

		December 31,				
		2020	2019			
LOCATION .		(dollars in	thou	isands)		
ASSETS						
Investments, at estimated fair value:						
Fixed maturity securities, available-for-sale (amortized cost of \$9,655,261 in 2020 and \$9,448,840 in 2019)	\$	10,681,734	\$	9,970,909		
Equity securities (cost of \$2,732,998 in 2020 and \$3,266,735 in 2019)		6,994,110		7,590,755		
Short-term investments, available-for-sale (estimated fair value approximates cost)		2,034,099		1,196,248		
Total Investments		19,709,943		18,757,912		
Cash and cash equivalents		4,341,736		3,072,807		
Restricted cash and cash equivalents		874,913		427,546		
Receivables		1,930,211		1,847,802		
Reinsurance recoverables		5,989,337		5,432,712		
Deferred policy acquisition costs		630,794		566,042		
Prepaid reinsurance premiums		1,451,858		1,415,857		
Goodwill		2,604,624		2,308,548		
Intangible assets		1,782,718		1,738,474		
Other assets		2,393,920		1,906,115		
Total Assets	\$	41,710,054	\$	37,473,815		
LIABILITIES AND EQUITY						
Unpaid losses and loss adjustment expenses	\$	16,222,376	\$	14,728,676		
Life and annuity benefits		1,069,986		985,729		
Unearned premiums		4,433,245		4,057,727		
Payables to insurance and reinsurance companies		493,470		406,720		
Senior long-term debt and other debt (estimated fair value of \$4,367,000 in 2020 and \$3,907,000 in 2019)		3,484,023		3,534,183		
Other liabilities		2,946,631		2,504,802		
Total Liabilities		28,649,731		26,217,837		
Redeemable noncontrolling interests		245,642		177,562		
Commitments and contingencies						
Shareholders' equity:						
Preferred stock		591,891		_		
Common stock		3,428,340		3,404,919		
Retained earnings		8,195,182		7,457,176		
Accumulated other comprehensive income		584,376		208,772		
Total Shareholders' Equity		12,799,789		11,070,867		
Noncontrolling interests		14,892		7,549		
Total Equity		12,814,681	_	11,078,416		
Total Liabilities and Equity	•	41,710,054	\$	37,473,815		

MARKEL CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF INCOME (LOSS) AND COMPREHENSIVE INCOME (LOSS)

CONSOLIDATED STATEMENTS OF INCOME (LOSS) AND				Ended December	`	,
		2020		2019		2018
		(dollars in	thous	ands, except per	shar	e data)
OPERATING REVENUES			_		_	
Earned premiums	\$	5,612,205	\$	5,049,793	\$	4,712,060
Net investment income		371,830		451,888		434,215
Net investment gains (losses)		617,979		1,601,722		(437,596)
Products revenues		1,439,515		1,609,586		1,497,523
Services and other revenues		1,693,537		813,202		635,083
Total Operating Revenues		9,735,066		9,526,191		6,841,285
OPERATING EXPENSES						
Losses and loss adjustment expenses		3,466,961		2,891,190		2,820,715
Underwriting, acquisition and insurance expenses		2,017,627		1,878,093		1,777,511
Products expenses		1,256,159		1,455,245		1,413,248
Services and other expenses		1,561,120		675,679		474,924
Amortization of intangible assets		159,315		148,638		115,930
Impairment of goodwill and intangible assets						199,198
Total Operating Expenses		8,461,182		7,048,845		6,801,526
Operating Income		1,273,884		2,477,346		39,759
Interest expense		(177,582))	(171,687)		(154,212)
Net foreign exchange gains (losses)		(95,853))	(2,265)		106,598
Loss on early extinguishment of debt		_		(17,586)		_
Income (Loss) Before Income Taxes		1,000,449		2,285,808		(7,855)
Income tax expense		(168,682))	(486,346)		(122,498)
Net Income (Loss)		831,767		1,799,462		(130,353)
Net (income) loss attributable to noncontrolling interests		(15,737))	(8,996)		2,173
Net Income (Loss) to Shareholders		816,030		1,790,466		(128,180)
Preferred stock dividends		(18,400))	_		_
Net Income (Loss) to Common Shareholders	\$	797,630	\$	1,790,466	\$	(128,180)
OTHER COMPREHENSIVE INCOME (LOSS)						
Change in net unrealized gains on available-for-sale investments, net of taxes:						
Net holding gains (losses) arising during the period	\$	356,159	\$	299,125	\$	(241,325)
Reclassification adjustments for net gains (losses) included in net income (loss)		(3,386))	(1,148)		7,849
Change in net unrealized gains on available-for-sale investments, net of taxes		352,773		297,977		(233,476)
Change in foreign currency translation adjustments, net of taxes		29,847		382		(16,495)
Change in net actuarial pension loss, net of taxes		(6,998))	5,042		2,341
Total Other Comprehensive Income (Loss)		375,622		303,401	_	(247,630)
Comprehensive Income (Loss)		1,207,389		2,102,863	_	(377,983)
Comprehensive (income) loss attributable to noncontrolling interests		(15,755))	(8,975)		2,213
Comprehensive (neome) toss attributable to honeomering mercels Comprehensive Income (Loss) to Shareholders	\$	1,191,634	\$	2,093,888	\$	(375,770)
NET INCOME (LOSS) PER COMMON SHARE						
Basic	\$	55.67	\$	129.25	\$	(9.55)
Diluted	<u>\$</u>	55.63	\$	129.07	\$	(9.55)
District	Ψ	33.03	Ψ	127.07	Ψ	(7.55)

MARKEL CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	(dollars in thousands)	Preferred Stock	Common Stock	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity	Noncontrolling Interests	Total Equity	Redeemable Noncontrolling Interests
Commulative effect of adoption of ASU No. 2014-09, net of taxes 325	,								
Care Compacitation Care Care	Cumulative effect of adoption of ASU No. 2014-09, net of taxes	y —	\$5,561,654				— (2,307) —		
Manuary 1, 2018	of ASU No. 2016-01, net of			2,595,484	(2,595,484)	_	_	_	_
Net loss				(402,853)	402,853	_	_	_	_
Other comprehensive Loss	January 1, 2018		3,381,834	5,969,699	152,940	9,504,473	(2,567)	9,501,906	166,269
Comprehasive Loss Common stock Repurchase of common stock Restricted stock awards expensed Common stock Common sto	Net loss			(128,180)	_	(128,180)	(1,175)	(129,355)	(998)
Restricted stock awards expensed -	Other comprehensive loss			_	(247,590)	(247,590)	_	(247,590)	(40)
Restricted stock awards expensed -	Comprehensive Loss					(375,770)	(1,175)	(376,945)	(1,038)
Acquisition of Brahmin	Repurchase of common stock	_	_	(54,007)	_	(54,007)	_	(54,007)	
Acquisition of Nephila - - - - 23,392 23,392 - Adjustment of redeemable noncontrolling interests - - (4,828) - (4,828) - (4,828) 4,828 Purchase of noncontrolling interests - (4,986) - - (4,986) - (4,986) - (4,986) - (1,04) (1,05)		_	16,191	_	_	16,191	_	16,191	_
Adjustment of redeemable noncontrolling interests -	Acquisition of Brahmin	_	_	_	_	_	_	_	19,670
Adjustment of redeemable noncontrolling interests -	Acquisition of Nephila	_	_	_	_	_	23,392	23,392	_
Purchase of noncontrolling interest	Adjustment of redeemable								
interest — (4,986) — — (4,986) — (1,986) (7,104) Other — (46) (374) — (420) (1) (421) (8,563) December 31, 2018 — 3,322,993 5,782,310 (94,650) 9,080,653 19,649 9,100,302 174,662 Other comprehensive income (loss) — 1,790,466 — 1,790,466 (7,820) 1,782,646 16,816 Comprehensive income (loss) — — 303,422 303,422 — 303,422 (21) Comprehensive Income (Loss) — — — 2,093,888 (7,820) 2,086,068 16,795 Repurchase of common stock — — (116,307) — (116,307) — 116,000 — 16,000 — 16,000 — 16,000 — 16,000 — 16,000 — 11,005 (1,105) — 1,105 (1,105) — 1,105 (1,105) — 1,105	C	_	_	(4,828)	_	(4,828)	_	(4,828)	4,828
Other — (46) (374) — (420) (1) (421) (8,563) December 31, 2018 — 3,392,993 5,782,310 (94,650) 9,806,653 19,649 9,100,302 174,062 Other comprehensive income (loss) — 1,790,466 — 1,790,466 (7,820) 1,782,646 16,816 Comprehensive income (loss) — — 303,422 — 303,422 — 303,422 (21) Comprehensive Income (Loss) — — (116,307) — (116,307) — (116,307) — (116,307) — (116,307) — (116,307) — (116,307) — (116,307) — 16,000 — 16,000 — 16,000 — 16,000 — 16,000 — 16,000 — 16,000 — 11,005 — 11,105 — 11,105 — 11,105 — 11,105 — 11,105 — 11,105 — 11,105 <t< td=""><td></td><td>_</td><td>(4.986)</td><td>_</td><td>_</td><td>(4.986)</td><td>_</td><td>(4.986)</td><td>(7.104)</td></t<>		_	(4.986)	_	_	(4.986)	_	(4.986)	(7.104)
December 31, 2018 Contraction Contract	Other	_		(374)	_	` ' '	(1)		() /
Net income (loss)	December 31, 2018				(94.650)				
Other comprehensive income (loss)	, and the second		-,,		(* ·,···)		· · · · · · · · · · · · · · · · · · ·		
Comprehensive Income (Loss)	Other comprehensive income			_	303,422		_		ŕ
Repurchase of common stock Restricted stock awards expensed — (116,307) — (116,307) — (116,307) — (16,000) — Adjustment of stock awards expensed — 16,000 — 16,000 — 16,000 — Adjustment of Nephila purchase price allocation — — — (8,250) (8,250) — — Adjustment of redeemable noncontrolling interests — — 1,105 —									
Restricted stock awards expensed — 16,000 — 16,000 — 16,000 — Adjustment to Nephila purchase price allocation — — — — — — (8,250) (8,250) — — — Adjustment of redeemable noncontrolling interests — — — — — — 1,105	` '						(7,820)		16,795
Expensed		_	_	(116,307)	_	(116,307)	_	(116,307)	_
Description of the process of the purchase of noncontrolling interests - - -	expensed	_	16,000	_	_	16,000	_	16,000	_
noncontrolling interests — — 1,105 — 1,105 — 1,105 (1,105) Purchase of noncontrolling interests — (4,219) — — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,219) — (4,542) — (253) 3,970 3,717 (7,648) — — — 177,562 — — — 177,562 — <td>purchase price allocation</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>(8,250)</td> <td>(8,250)</td> <td>_</td>	purchase price allocation	_	_	_	_	_	(8,250)	(8,250)	_
interest — (4,219) — — (4,219) — (4,219) — (4,542) Other — 145 (398) — (253) 3,970 3,717 (7,648) December 31, 2019 — 3,404,919 7,457,176 208,772 11,070,867 7,549 11,078,416 177,562 Comulative effect of adoption of ASU No. 2016-13, net of taxes — (3,827) — (3,827) — (3,827) — (3,827) — — 50,827 — — (3,827) — — (3,827) —	noncontrolling interests	_	_	1,105	_	1,105	_	1,105	(1,105)
Other — 145 (398) — (253) 3,970 3,717 (7,648) December 31, 2019 — 3,404,919 7,457,176 208,772 11,070,867 7,549 11,078,416 177,562 Cumulative effect of adoption of ASU No. 2016-13, net of taxes (3,827) — (3,827) — (3,827) — (3,827) — January 1, 2020 — 3,404,919 7,453,349 208,772 11,067,040 7,549 11,074,589 177,562 Net income 816,030 — 816,030 3,226 819,256 12,511 Other comprehensive income — — 375,604 375,604 — 375,604 18 Comprehensive Income — — — 591,891 — — 591,891 — — 591,891 — — 591,891 — — 591,891 — — 591,891 — — 591,891 — — 66,832) — (26,832) —		_	(4 219)	_	_	(4 219)	_	(4 219)	(4 542)
December 31, 2019		_		(398)	_		3 970		
Cumulative effect of adoption of ASU No. 2016-13, net of taxes (3,827) — (375,604 — (3,827) — (3,827) — (2,828) — (2,832) — (2,832) — (2,832) — (2,832) — (2,832) — (2,832) — (2,832) — (2,832)					208 772				
taxes (3,827) — (3,256) 11,71,562 No.32 11,71,562 No.32 11,71,562 No.32 11,21,634 3,226 11,94,860 12,529 Issuance of preferred stock of preferred stock of preferred stock of preferred stock of common stock — (26,832) — (26,832) — (26,832) — (3,891) — (26,832) — (26,832) — (3,891) — (26,832) — (26,832) — (28,802) — (28,702) — (28,702) — (29,779) — (29,779) — (29,779) — (29,779) — (28,705) — (28,705) — (28,705)	Cumulative effect of adoption		5,404,717	7,437,170	200,772	11,070,007	7,549	11,070,410	177,302
Net income 816,030 — 816,030 3,226 819,256 12,511 Other comprehensive income — 375,604 375,604 — 375,604 18 Comprehensive Income Issuance of preferred stock 1,191,634 3,226 1,194,860 12,529 Issuance of preferred stock 591,891 — — 591,891 — 591,891 — Repurchase of common stock — — (26,832) — (26,832) — (26,832) — Preferred stock dividends — — (18,400) — (18,400) — (18,400) — (18,400) — 29,779 — 29,779 — 29,779 — 29,779 — 29,779 — — 43,566 Adjustment of redeemable noncontrolling interests — — (28,705) — (28,705) — (28,705) 28,705 Purchase of noncontrolling interest — (6,131) — (6,131) — (6,131) — (6,131)				(3,827)		(3,827)		(3,827)	
Other comprehensive income — 375,604 375,604 — 375,604 18 Comprehensive Income 1,191,634 3,226 1,194,860 12,529 Issuance of preferred stock 591,891 — — 591,891 — 591,891 — Repurchase of common stock — — (26,832) — (26,832) — (26,832) — Preferred stock dividends — — (18,400) — (18,400) — (18,400) — 29,779 — 29,779 — 29,779 — 29,779 — — 43,566 Adjustment of redeemable noncontrolling interests — — (28,705) — (28,705) — (28,705) 28,705 Purchase of noncontrolling interest — — (6,131) — — (6,131) — (6,131) — (6,131) — (6,131) — (6,131) — (6,691) — (6,131) — (6,691) — (6,131) —	January 1, 2020	_	3,404,919	7,453,349	208,772	11,067,040	7,549	11,074,589	177,562
Comprehensive Income 1,191,634 3,226 1,194,860 12,529 Issuance of preferred stock 591,891 — — 591,891 — 591,891 — Repurchase of common stock — — (26,832) — (26,832) — (26,832) — Preferred stock dividends — — (18,400) — (18,400) — (18,400) — Restricted stock awards expensed — 29,779 — 29,779 — 29,779 — 29,779 — 43,566 Adjustment of Lansing — — — — — 43,566 Adjustment of redeemable noncontrolling interests — — (28,705) — (28,705) — (28,705) 28,705 Purchase of noncontrolling interest — (6,131) — — (6,131) — (6,131) — (6,131) — (6,131) — (6,131) — (6,691)	Net income			816,030	_	816,030	3,226	819,256	12,511
Issuance of preferred stock 591,891 — — 591,891 — 591,891 — Repurchase of common stock — — (26,832) — (26,832) — Preferred stock dividends — — (18,400) — (18,400) — (18,400) — Restricted stock awards expensed — 29,779 — — 29,779 — 29,779 — — 43,566 Adjustment of redeemable noncontrolling interests — — (28,705) — (28,705) — (28,705) 28,705 Purchase of noncontrolling interest — — (6,131) — — (6,131) — (6,131) — (6,131) — (6,131) — (6,131) — (6,131) — (6,691) Other — (227) (260) — (487) 4,117 3,630 (9,691)	Other comprehensive income				375,604	375,604		375,604	18
Repurchase of common stock — — (26,832) — (26,832) — (26,832) — — Preferred stock dividends — — (18,400) — — (18,400) —	Comprehensive Income					1,191,634	3,226	1,194,860	12,529
Preferred stock dividends — — (18,400) — (18,400) — (18,400) — Restricted stock awards expensed — 29,779 — 29,779 — 29,779 — — — — — 43,566 — — — — — 43,566 — — — — 43,566 — — — — 43,566 — — — — 43,566 — — — — — 43,566 — — — — — — — 43,566 — <	Issuance of preferred stock	591,891	_	_	_	591,891	_	591,891	_
Restricted stock awards expensed — 29,779 — 29,779 — 29,779 — <	Repurchase of common stock	_	_	(26,832)	_	(26,832)	_	(26,832)	_
expensed — 29,779 — 29,779 — 29,779 — 43,566 Adjustment of redeemable noncontrolling interests — — (28,705) — (28,705) — (28,705) 28,705 Purchase of noncontrolling interest — (6,131) — — (6,131) — (6,131) — (6,131) — (7,029) Other — (227) (260) — (487) 4,117 3,630 (9,691)		_	_	(18,400)	_	(18,400)	_	(18,400)	_
Adjustment of redeemable noncontrolling interests — — (28,705) — (28,705) — (28,705) 28,705 Purchase of noncontrolling interest — (6,131) — — (6,131) — (6,131) — (6,131) — (7,029) Other — (227) (260) — (487) 4,117 3,630 (9,691)		_	29,779	_	_	29,779	_	29,779	_
noncontrolling interests — — (28,705) — (28,705) — (28,705) 28,705 Purchase of noncontrolling interest — (6,131) — — (6,131) — (6,131) — (6,131) — (7,029) Other — (227) (260) — (487) 4,117 3,630 (9,691)		_	_	_	_	_	_	_	43,566
interest $ (6,131)$ $ (6,131)$ $ (6,131)$ $(7,029)$ Other $ (227)$ (260) $ (487)$ $4,117$ $3,630$ $(9,691)$	noncontrolling interests	_	_	(28,705)	_	(28,705)	_	(28,705)	28,705
Other — (227) (260) — (487) 4,117 3,630 (9,691)		_	(6,131)	_	_	(6,131)	_	(6,131)	(7,029)
		_		(260)	_		4,117		
	December 31, 2020	\$ 591,891		\$8,195,182	\$ 584,376		\$ 14,892	\$12,814,681	

MARKEL CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,					
		2020	2019		2018	
		(dollars in thousand	s)		
OPERATING ACTIVITIES						
Net income (loss)	\$	831,767	\$ 1,799,462	\$	(130,353)	
Adjustments to reconcile net income (loss) to net cash provided by operating activities:						
Deferred income tax expense (benefit)		(2,733)	323,385		2,729	
Depreciation and amortization		307,069	269,239		227,846	
Net investment losses (gains)		(617,979)	(1,601,722)		437,596	
Net foreign exchange losses (gains)		95,853	2,265		(106,598)	
Impairment of goodwill and intangible assets		_			199,198	
Increase in receivables		(28,174)	(103,982)		(27,961)	
Increase in reinsurance recoverables		(549,654)	(209,971)		(434,809)	
Increase in deferred policy acquisition costs		(61,569)	(93,015)		(15,585)	
Increase in prepaid reinsurance premiums		(34,480)	(84,835)		(230,199)	
Increase in unpaid losses and loss adjustment expenses		1,383,430	436,234		733,605	
Decrease in life and annuity benefits		(44,651)	(52,159)		(50,541)	
Increase in unearned premiums		354,679	438,951		293,078	
Increase (decrease) in payables to insurance and reinsurance companies		76,586	65,460		(4,313)	
Increase (decrease) in income taxes payable Other		(70,277) 97,720	36,938 47,870		53,730 (54,566)	
Net Cash Provided By Operating Activities		1,737,587	1,274,120		892,857	
INVESTING ACTIVITIES		1 500 300	252.010		410 100	
Proceeds from sales of fixed maturity securities and equity securities		1,580,288	353,918		419,199	
Proceeds from maturities, calls and prepayments of fixed maturity securities	(642,135	772,336		551,808	
Cost of fixed maturity securities and equity securities purchased Net change in short-term investments	(1,322,218) (829,457)	(955,970) (95,867)		(1,545,913) 1,101,636	
Cost of equity method investments		(5,066)	(257,663)		(8,864)	
Additions to property and equipment		(3,000) $(101,301)$	(123,376)		(106,593)	
Acquisitions, net of cash acquired		(554,127)	(245,332)		(1,175,211)	
Other		77,998	16,795	,	(33,301)	
Net Cash Used By Investing Activities		(511,748)	(535,159)		(797,239)	
FINANCING ACTIVITIES		(611), 10)	(000,100)		(//,=5/)	
Additions to senior long-term debt and other debt		223,183	1,645,182		206,949	
Repayment of senior long-term debt and other debt		(275,996)	(1,103,674)		(289,199)	
Premiums and fees related to early extinguishment of debt		_	(27,073)			
Repurchases of common stock		(26,832)	(116,307)		(54,007)	
Issuance of preferred stock, net		591,891				
Dividends paid on preferred stock		(18,400)	_		_	
Other		(59,290)	(38,811)		(42,728)	
Net Cash Provided (Used) By Financing Activities		434,556	359,317		(178,985)	
Effect of foreign currency rate changes on cash, cash equivalents, restricted cash and restricted cash equivalents		55,901	5,643		(21,047)	
Increase (decrease) in cash, cash equivalents, restricted cash and restricted cash equivalents		1,716,296	1,103,921		(104,414)	
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of year		3,500,353	2,396,432		2,500,846	
CASH, CASH EQUIVALENTS, RESTRICTED CASH AND RESTRICTED CASH EQUIVALENTS AT END OF YEAR	\$	5,216,649	\$ 3,500,353	\$	2,396,432	

MARKEL CORPORATION AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

Markel Corporation is a diverse financial holding company serving a variety of niche markets. Markel Corporation's principal business markets and underwrites specialty insurance products. Through its wholly owned subsidiary, Markel Ventures, Inc. (Markel Ventures), Markel Corporation also owns interests in various businesses that operate outside of the specialty insurance marketplace. See note 2 for details regarding reportable segments.

- a) Basis of Presentation. The accompanying consolidated financial statements have been prepared in accordance with United States (U.S.) generally accepted accounting principles (GAAP) and include the accounts of Markel Corporation and its consolidated subsidiaries, as well as any variable interest entities (VIEs) that meet the requirements for consolidation (the Company). All significant intercompany balances and transactions have been eliminated in consolidation. The Company consolidates the results of its Markel Ventures subsidiaries on a one-month lag, with the exception of significant transactions or events that occur during the intervening period. Certain prior year amounts have been reclassified to conform to the current presentation.
- b) Use of Estimates. The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Management periodically reviews its estimates and assumptions. Quarterly reviews include evaluating the adequacy of reserves for unpaid losses and loss adjustment expenses, life and annuity reinsurance benefit reserves and contingencies. Estimates and assumptions for goodwill and intangible assets are reviewed in conjunction with an acquisition, and goodwill and indefinite-lived intangible assets are reassessed at least annually for impairment. Actual results may differ materially from the estimates and assumptions used in preparing the consolidated financial statements.
- c) Investments. Available-for-sale investments and equity securities are recorded at estimated fair value. Unrealized gains and losses on available-for-sale investments, net of income taxes, are included in other comprehensive income. Unrealized gains and losses on equity securities, net of income taxes, are included in net income.

The Company completes a detailed analysis each quarter to assess declines in the fair value of its available-for-sale investments. Effective January 1, 2020, the Company adopted Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, and related amendments, which created a new comprehensive credit losses standard, FASB Accounting Standards Codification (ASC) 326, *Financial Instruments—Credit Losses*. Upon adoption of ASC 326, any impairment losses on the Company's available-for-sale investments are recorded as an allowance, subject to reversal, rather than as a reduction in amortized cost, as was required under the previous other-than-temporary impairment (OTTI) model. In accordance with the provisions of ASU No. 2016-13, prior periods have not been restated. See note 1(w) for further discussion of the impact of adopting this standard.

Premiums and discounts are amortized or accreted over the lives of the related fixed maturity securities as an adjustment to the yield using the effective interest method. Dividend and interest income are recognized when earned. Accrued interest receivable is excluded from both the estimated fair value and the amortized cost basis of available-for-sale securities and included within other assets on the Company's consolidated balance sheets. Any uncollectible accrued interest receivable is written off in the period it is deemed uncollectible. Realized investment gains or losses on available-for-sale investments are included in net income. Realized gains or losses from sales of available-for-sale investments are derived using the first-in, first-out method on the trade date.

Investments accounted for under the equity method of accounting are recorded at cost within other assets on the consolidated balance sheets and subsequently increased or decreased by the Company's proportionate share of the net income or loss of the investee. The Company records its proportionate share of net income or loss of the investee in net investment income. The Company records its proportionate share of other comprehensive income or loss of the investee as a component of other comprehensive income. Dividends or other equity distributions in excess of the Company's cumulative equity in earnings of the investee are recorded as a reduction of the investment. The Company reviews equity method investments for impairment when events or circumstances indicate that a decline in the fair value of the investment below its carrying value is other-than-temporary.

See note 4 and note 5 for further details regarding the Company's investment portfolio.

- d) Cash and Cash Equivalents. The Company considers all investments with original maturities of 90 days or less to be cash equivalents. The carrying value of the Company's cash and cash equivalents approximates fair value.
- e) Restricted Cash and Cash Equivalents. Cash and cash equivalents that are restricted as to withdrawal or use are recorded as restricted cash and cash equivalents. The carrying value of the Company's restricted cash and cash equivalents approximates fair value.
- f) Receivables. Receivables include amounts receivable from agents, brokers and insureds, which represent premiums that are both currently due and amounts not yet due on insurance and reinsurance policies. Premiums for insurance policies are generally due at inception. Premiums for reinsurance policies generally become due over the period of coverage based on the policy terms. Changes in the estimate of reinsurance premiums written will result in an adjustment to premiums receivable in the period they are determined. Receivables also include amounts receivable from contracts with customers, which represent the Company's unconditional right to consideration for satisfying the performance obligations outlined in the contract.

The Company monitors credit risk associated with receivables, taking into consideration the fact that in certain instances in the Company's insurance operations credit risk may be reduced by the Company's right to offset loss obligations or unearned premiums against premiums receivable. An allowance is established for amounts deemed uncollectible and receivables are recorded net of this allowance. Following the adoption of ASC 326, as described in note 1(w), beginning January 1, 2020 the allowance is established for expected credit losses to be recognized over the life of the receivable. Any allowance for credit losses is charged to net income in the period the receivable is recorded and revised in subsequent periods to reflect changes in the Company's estimate of expected credit losses. The allowance for credit losses associated with the Company's receivables was \$24.2 million and \$18.7 million as of December 31, 2020 and 2019, respectively.

- g) Reinsurance Recoverables. Amounts recoverable from reinsurers are estimated in a manner consistent with the claim liability associated with the reinsured business. The Company evaluates the financial condition of its reinsurers and monitors concentration of credit risk to minimize its exposure to significant losses from individual reinsurers. To further reduce credit exposure on reinsurance recoverables, the Company has received collateral, including letters of credit and trust accounts, from certain reinsurers. Collateral related to these reinsurance agreements is available, without restriction, when the Company pays losses covered by the reinsurance agreements. An allowance is established for amounts deemed uncollectible and reinsurance recoverables are recorded net of this allowance. Following the adoption of ASC 326, as described in note 1(w), beginning January 1, 2020 the allowance is established for expected credit losses to be recognized over the life of the reinsurance recoverable. Any allowance for credit losses is charged to net income in the period the recoverable is recorded and revised in subsequent periods to reflect changes in the Company's estimate of expected credit losses. The allowance for credit losses associated with the Company's reinsurance recoverables was \$28.4 million and \$26.8 million as of December 31, 2020 and 2019, respectively.
- h) Deferred Policy Acquisition Costs. Costs directly related to the acquisition of insurance premiums are deferred and amortized over the related policy period, generally one year. The Company only defers acquisition costs incurred that are related directly to the successful acquisition of new or renewal insurance contracts, including commissions to agents and brokers and premium taxes. Commissions received related to reinsurance premiums ceded are netted against broker commissions in determining acquisition costs eligible for deferral. To the extent that future policy revenues on existing policies are not adequate to cover related costs and expenses, deferred policy acquisition costs are charged to earnings. The Company does not consider anticipated investment income in determining whether a premium deficiency exists. See note 2(a) and (e) for further details regarding policy acquisition costs.
- i) Goodwill and Intangible Assets. Goodwill and intangible assets are recorded as a result of business acquisitions. Goodwill represents the excess of the amount paid to acquire a business over the net fair value of assets acquired and liabilities assumed at the date of acquisition. Indefinite-lived and other intangible assets are recorded at fair value as of the acquisition date. The determination of the fair value of certain assets acquired and liabilities assumed involves significant judgment and the use of valuation models and other estimates, which require assumptions that are inherently subjective. Goodwill and indefinite-lived intangible assets are tested for impairment at least annually. The Company completes an annual test during the fourth quarter of each year based upon the results of operations through September 30. Intangible assets with definite lives are amortized using the straight-line method over their estimated useful lives, generally five to 20 years, and are reviewed for impairment when events or circumstances indicate that their carrying value may not be recoverable. See note 6 for further details regarding goodwill and intangible assets.
- **j) Property and Equipment.** Property and equipment is maintained primarily by certain of the Company's Markel Ventures businesses and is stated at cost less accumulated depreciation. Depreciation of property and equipment is calculated using the

straight-line method over the estimated useful lives of the respective assets. Property and equipment, net of accumulated depreciation, was \$632.0 million and \$588.6 million as of December 31, 2020 and 2019, respectively, and is included in other assets on the Company's consolidated balance sheets.

k) Leases. The present value of future lease payments for the Company's leases with terms greater than 12 months is included on the consolidated balance sheets as lease liabilities and right-of-use lease assets.

The Company's lease portfolio primarily consists of operating leases for real estate. Total expected lease payments are based on the lease payments specified in the contract and the stated term, including any options to extend or terminate that the Company is reasonably certain to exercise. The Company accounts for lease components and any associated non-lease components within a contract as a single lease component, and therefore allocates all of the expected lease payments to the lease component.

The lease liability, which represents the Company's contractual obligation to make lease payments, is calculated based on the present value of expected lease payments over the remaining lease term, discounted using the Company's collateralized incremental borrowing rate at the commencement date. The lease liability is then adjusted for any prepaid rent, lease incentives received or capitalized initial direct costs to determine the lease asset, which represents the Company's right to use the underlying asset for the lease term. Lease liabilities and lease assets are included in other liabilities and other assets, respectively, on the Company's consolidated balance sheets.

Total lease costs are primarily comprised of rental expense for operating leases, which is recognized on a straight line basis over the lease term. Rental expense attributable to the Company's underwriting operations is included in underwriting, acquisition and insurance expenses and rental expense attributable to the Company's other operations is included in products expenses and services and other expenses in the consolidated statements of income and comprehensive income. See note 7 for further details regarding leases.

- **I) Inventories.** Inventories are maintained at certain of the Company's Markel Ventures businesses and consist primarily of raw materials, work-in-process and finished goods. Inventories are generally valued using the first-in-first-out method and stated at the lower of cost or net realizable value. Inventories were \$412.6 million and \$303.1 million as of December 31, 2020 and 2019, respectively, and are included in other assets on the Company's consolidated balance sheets.
- m) Redeemable Noncontrolling Interests. The Company owns controlling interests in various companies through its Markel Ventures operations. In some cases, the Company has the option to acquire the remaining equity interests, and the remaining equity interests have the option to sell their interests to the Company, in the future. The redemption value of the remaining equity interests is generally based on the respective company's earnings in specified periods preceding the redemption date. The redeemable noncontrolling interests generally are or become redeemable through 2025.

The Company recognizes changes in the redemption value that exceed the carrying value of redeemable noncontrolling interests to retained earnings as if the balance sheet date was also the redemption date. Changes in the redemption value also result in an adjustment to net income to common shareholders in the calculation of basic and diluted net income per common share. See note 17 for further details regarding the calculation of basic and diluted net income per common share.

- n) Income Taxes. The Company records deferred income taxes to reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in years in which those temporary differences are expected to be recovered or settled. Deferred tax assets are reduced by a valuation allowance when management believes it is more likely than not that some, or all, of the deferred tax assets will not be realized. The Company recognizes the tax benefit from an uncertain tax position taken or expected to be taken in income tax returns only if it is more likely than not that the tax position will be sustained upon examination by tax authorities, based on the technical merits of the position. Tax positions that meet the more likely than not threshold are then measured using a probability weighted approach, whereby the largest amount of tax benefit that is greater than 50% likely of being realized upon ultimate settlement is recognized. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. See note 13 for further details regarding income taxes.
- o) Unpaid Losses and Loss Adjustment Expenses. Unpaid losses and loss adjustment expenses on the Company's property and casualty insurance business are based on evaluations of reported claims and estimates for losses and loss adjustment expenses incurred but not reported. Estimates for losses and loss adjustment expenses incurred but not reported are based on

reserve development studies, among other things. Recorded reserves are estimates, and the ultimate liability may be greater or less than the estimates. See note 9 for further details regarding unpaid losses and loss adjustment expenses.

p) Life and Annuity Benefits. The Company has a run-off block of life and annuity reinsurance contracts that subject the Company to mortality, longevity and morbidity risks. The assumptions used to determine policy benefit reserves are generally locked-in for the life of the contract unless an unlocking event occurs. To the extent existing policy reserves, together with the present value of future gross premiums and expected investment income earned thereon, are not adequate to cover the present value of future benefits, settlement and maintenance costs, the locked-in assumptions are revised to current best estimate assumptions and a charge to earnings for life and annuity benefits is recognized at that time. Because of the assumptions and estimates used in establishing reserves for life and annuity benefit obligations and the long-term nature of these reinsurance contracts, the ultimate liability may be greater or less than the estimates. Results attributable to the run-off of life and annuity reinsurance business are included in services and other revenues and services and other expenses in the Company's consolidated statements of income and comprehensive income. See note 11 for further details regarding life and annuity benefits.

q) Revenue Recognition.

Property and Casualty Premiums

Insurance premiums written are generally recorded at the inception of a policy and earned on a pro rata basis over the policy period, typically one year. The cost of reinsurance ceded is initially recorded as prepaid reinsurance premiums and is amortized over the reinsurance contract period in proportion to the amount of insurance protection provided. Premiums ceded are netted against premiums written. For multi-year contracts where insurance premiums are payable in annual installments, written premiums are recorded at the inception of the contract based on management's best estimate of total premiums to be received. For contracts where the cedent has the ability to unilaterally commute or cancel coverage within the term of the policy, premiums are generally recorded on an annual basis or up to the contract cancellation point. The remaining premiums are estimated and included as written at each successive anniversary date within the multi-year term.

Assumed reinsurance premiums are recorded at the inception of each contract based upon contract terms and information received from cedents and brokers and are earned on a pro rata basis over the coverage period, or for multi-year contracts, in proportion with the underlying risk exposure to the extent there is variability in the exposure through the coverage period. Changes in reinsurance premium estimates are expected and may result in significant adjustments in any period. These estimates change over time as additional information regarding changes in underlying exposures is obtained. Any subsequent differences arising on such estimates are recorded as premiums written in the period they are determined and are earned on a pro rata basis over the coverage period. The Company uses the periodic method to account for assumed reinsurance from foreign reinsurers. The Company's foreign reinsurers provide sufficient information to record foreign assumed business in the same manner as the Company records assumed business from U.S. reinsurers.

Certain contracts that the Company writes provide for reinstatement of coverage. Reinstatement premiums are the premiums for the restoration of the insurance or reinsurance limit of a contract to its full amount after a loss occurrence by the insured or reinsured. The Company accrues for reinstatement premiums resulting from losses recorded. Such accruals are based upon contractual terms and management judgment is involved with respect to the amount of losses recorded. Changes in estimates of losses recorded on contracts with reinstatement premium features will result in changes in reinstatement premiums based on contractual terms. Reinstatement premiums are recognized at the time losses are recorded and are generally earned on a pro rata basis over the coverage period.

Other Revenues

Other revenues primarily relate to the Company's Markel Ventures, insurance-linked securities (ILS) and program services operations and consist of revenues from the sale of products and services. Revenues are recognized when, or as, control of the promised goods or services is transferred to the Company's customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. Contracts with customers generally have an original term of one year or less. For contracts with customers that have an original term greater than one year, the Company recognizes revenue at the amount for which it has a right to invoice for the products delivered or services performed. Certain customers may receive volume rebates or credits for products and services, which are accounted for as variable consideration. The Company estimates these amounts based on the expected amount to be provided to the customer and reduces revenues recognized by a corresponding amount. The Company does not expect significant changes to its estimates of variable consideration over the term of the contracts.

Payment terms for products and services vary by the type of product or service offered and the location of the customer, and payment is typically received at or shortly after the point of sale. For certain products, the Company requires partial payment in the form of a deposit before the products are delivered to the customer, which is included in other liabilities on the Company's consolidated balance sheets.

Through its Markel Ventures operations, the Company has several different businesses that manufacture or produce a variety of products, including ornamental plants, equipment used in baking systems, over-the-road transportation equipment, portable dredges, residential homes and flooring for the trucking industry. Most of the Company's product revenues are recognized when the products are shipped to the customer or the products arrive at the agreed upon destination with the end customer. Some of the Company's contracts include multiple performance obligations. For such arrangements, revenues are allocated to each performance obligation based on the relative standalone selling price, which is derived from amounts stated in the contract.

Through its Markel Ventures operations, the Company also has several different businesses that provide various types of services, including distribution of exterior building products, fire protection and life safety services and consulting services. Service revenues are generally recognized over the term of the contracts based on hours incurred or as services are provided.

The Company's other revenues also include investment management fee income and managing general agent (MGA) commissions provided through our ILS operations. Investment management fee income is recognized over the period in which investment management services are provided and is calculated and recognized monthly based on the net asset value of the accounts managed. For certain accounts, the Company is also entitled to participate, on a fixed-percentage basis, in any net income generated in excess of an agreed-upon threshold as established by the underlying investment management agreements. In general, net income is calculated at the end of each calendar year and incentive fees are payable annually. Incentive fee income is recognized at the conclusion of the contractual performance period, when the uncertainty related to performance has been resolved. MGA commissions are based on the direct written premiums of the insurance contracts placed. Commissions received for these services are generally recognized when the related policy is written.

Program services fees, or ceding fees, received in exchange for providing access to the U.S. property and casualty insurance market are based on the gross premiums written on behalf of general agent and capacity provider clients. Ceding fees are earned in a manner consistent with the recognition of the gross premiums earned on the underlying insurance policies, generally on a pro rata basis over the terms of the underlying policies reinsured.

See note 8 for further details regarding products, services, and other revenues.

- r) Program Services. In connection with its program services business, the Company enters into contractual agreements with both producing general agents and reinsurers, whereby the general agents and reinsurers are typically obligated to each other for payment of insurance amounts, including premiums, commissions and losses. To the extent these funds are not the obligation of the Company and are settled directly between the general agent and the reinsurer, no receivables or payables are recorded for these amounts. All obligations of the Company's insurance subsidiaries owed to or on behalf of their policyholders are recorded by the Company and, to the extent appropriate, offsetting reinsurance recoverables are recorded.
- s) Foreign Currency Transactions. The U.S. Dollar is the Company's reporting currency and the primary functional currency of its foreign underwriting operations. The functional currencies of the Company's other foreign operations are the currencies of the primary economic environments in which the majority of their business is transacted.

Foreign currency transaction gains and losses are the result of exchange rate changes on transactions denominated in currencies other than the functional currency at each foreign entity. Monetary assets and liabilities are remeasured to the functional currency at current exchange rates, with resulting gains and losses included in net foreign exchange gains within net income. Non-monetary assets and liabilities are remeasured to the functional currency at historic exchange rates. Available-for-sale securities are recorded at fair value with resulting gains and losses, including the portion attributable to movements in exchange rates, included in the change in net unrealized gains on available-for-sale investments, net of taxes within other comprehensive income. While we attempt to naturally hedge our exposure to foreign currency fluctuations by matching assets and liabilities in the same currencies, there is a financial statement mismatch between the gains or losses recorded in net income related to insurance reserves denominated in non-functional currencies and the gains or losses recorded in other comprehensive income related to the available-for-sale securities held in non-functional currencies supporting the reserves.

Assets and liabilities of foreign operations denominated in a functional currency other than the U.S. Dollar are translated into the U.S. Dollar at current exchange rates, with resulting gains or losses included, net of taxes, in the change in foreign

currency translation adjustments within other comprehensive income. See note 18 for further details regarding the components of other comprehensive income.

- t) Comprehensive Income. Comprehensive income represents all changes in equity that result from recognized transactions and other economic events during the period. Other comprehensive income refers to revenues, expenses, gains and losses that under U.S. GAAP are included in comprehensive income but excluded from net income, such as unrealized gains or losses on available-for-sale investments, foreign currency translation adjustments and changes in net actuarial pension loss. See note 18 for further details regarding comprehensive income.
- **u) Net Income Per Common Share.** Basic net income per common share is computed by dividing adjusted net income to shareholders by the weighted average number of common shares outstanding during the year. Diluted net income per common share is computed by dividing adjusted net income to shareholders by the weighted average number of common shares and dilutive potential common shares outstanding during the year. See note 17 for further details regarding the calculation of basic and diluted net income per common share.
- v) Variable Interest Entities. The Company determines whether it has relationships with entities defined as VIEs in accordance with ASC 810, *Consolidation*. Under this guidance, a VIE is consolidated by the variable interest holder that is determined to be the primary beneficiary.

An entity in which the Company holds a variable interest is a VIE if any of the following conditions exist: (a) the total equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support, (b) as a group, the holders of equity investment at risk lack either the direct or indirect ability through voting rights or similar rights to make decisions about an entity's activities that most significantly impact the entity's economic performance or the obligation to absorb the expected losses or right to receive the expected residual returns, or (c) the voting rights of some investors are disproportionate to their obligation to absorb the expected losses of the entity, their rights to receive the expected residual returns of the entity, or both and substantially all of the entity's activities either involve or are conducted on behalf of an investor with disproportionately few voting rights.

The primary beneficiary is defined as the variable interest holder that is determined to have the controlling financial interest as a result of having both (a) the power to direct the activities of a VIE that most significantly impact the economic performance of the VIE and (b) 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 an entity is a VIE at the inception of its variable interest in the entity and upon the occurrence of certain reconsideration events. The Company continually reassesses whether it is the primary beneficiary of VIEs in which it holds a variable interest. See note 15 for further details regarding the Company's involvement with VIEs.

w) Recent Accounting Pronouncements.

Accounting Standards Adopted in 2020

Effective January 1, 2020, the Company adopted ASC 326, *Financial Instruments—Credit Losses*. This new standard replaced the incurred loss model used to measure impairment losses for financial assets measured at amortized cost with a current expected credit loss (CECL) model and also made changes to the impairment model for available-for-sale investments. Under the CECL model, allowances are established for expected credit losses to be recognized over the life of financial assets. Application of the CECL model impacted certain of the Company's financial assets, including its reinsurance recoverables and receivables. The CECL model did not impact the Company's investment portfolio, which is measured at fair value. However, ASC 326 replaced the OTTI model with an impairment allowance model, subject to reversal, for available-for-sale investments. As a result of adopting ASC 326, the Company increased its allowances for credit losses related to its reinsurance recoverables and receivables by \$3.8 million and \$1.0 million, respectively, which was recorded through a cumulative-effect adjustment to retained earnings as of January 1, 2020 (\$3.8 million, net of taxes). The Company continues to apply the previous guidance to 2019 and prior periods.

The following ASUs are relevant to the Company's operations and were adopted effective January 1, 2020. These ASUs did not have a material impact on the Company's financial position, results of operations or cash flows:

• ASU No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement

- ASU No. 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract
- ASU No. 2018-17, Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities

Accounting Standards Not Yet Adopted

In August 2018, the FASB issued ASU No. 2018-12, *Financial Services—Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts.* The FASB subsequently issued several ASUs as amendments to ASU No. 2018-12. The standard requires insurance entities with long duration contracts to: (1) review and, if there is a change, update the assumptions used to measure cash flows at least annually, as well as update the discount rate assumption at each reporting date; (2) measure all market risk benefits associated with deposit (or account balance) contracts at fair value; and (3) disclose liability rollforwards and information about significant inputs, judgments, assumptions and methods used in measurement, including changes thereto and the effect of those changes on measurement. ASU No. 2018-12 becomes effective for the Company during the first quarter of 2023. The standard will, among other things, impact the discount rate used in estimating reserves for the Company's life and annuity reinsurance portfolio, which is in runoff. Currently, the discount rate assumption is locked-in for the life of the contracts, unless there is a loss recognition event. The Company is currently evaluating ASU No. 2018-12 to determine the impact that adopting this standard will have on its consolidated financial statements.

The following ASUs are relevant to the Company's operations and are not yet effective. These ASUs are not expected to have a material impact on the Company's financial position, results of operations or cash flows:

- ASU No. 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes
- ASU No. 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting

2. Segment Reporting Disclosures

The chief operating decision maker reviews the Company's ongoing underwriting operations on a global basis in the following two segments: Insurance and Reinsurance. In determining how to allocate resources and assess the performance of its underwriting results, management considers many factors, including the nature of the insurance product sold, the type of account written and the type of customer served. The Insurance segment includes all direct business and facultative placements written within the Company's underwriting operations. The Reinsurance segment includes all treaty reinsurance written within the Company's underwriting operations. All investing activities related to the Company's insurance operations are included in the Investing segment.

The chief operating decision maker reviews and assesses Markel Ventures' performance in the aggregate, as a single operating segment. The Markel Ventures segment primarily consists of controlling interests in a diverse portfolio of businesses that operate in various industries.

The Company's other operations include the results of the Company's insurance-linked securities operations and program services business, as well as the results of its legal and professional consulting services. Other operations also include results for lines of business discontinued prior to, or in conjunction with, acquisitions, including development on asbestos and environmental loss reserves and results attributable to the run-off of life and annuity reinsurance business, which are monitored separately from the Company's ongoing underwriting operations. For purposes of segment reporting, none of these other operations are considered to be reportable segments.

Segment profit for each of the Company's underwriting segments is measured by underwriting profit. The property and casualty insurance industry commonly defines underwriting profit as earned premiums net of losses and loss adjustment expenses and underwriting, acquisition and insurance expenses. Underwriting profit does not replace operating income or net income computed in accordance with U.S. GAAP as a measure of profitability. Underwriting profit or loss provides a basis for management to evaluate the Company's underwriting performance. Segment profit for the Company's underwriting segments may also include other revenues and expenses that are attributable to the Company's underwriting operations that are not captured in underwriting profit. Segment profit for the Investing segment is measured by net investment income and net investment gains. Segment profit for the Markel Ventures segment is measured by operating income.

For management reporting purposes, the Company allocates assets to its underwriting operations and to its Investing and Markel Ventures segments and certain of its other operations, including its insurance-linked securities and program services

operations. Underwriting assets include assets attributed to the Company's Insurance and Reinsurance segments, discontinued underwriting lines of business, as well as assets that are not specifically allocated to the Company's other operations. Underwriting and investing assets are not allocated to the Company's underwriting segments since the Company does not manage its assets by underwriting segment. The Company does not allocate capital expenditures for long-lived assets to either of its underwriting segments for management reporting purposes.

a) The following tables summarize the Company's segment disclosures.

(dollars in thousands)	Insurance	Reinsurance	Investing		Markel Ventures (1)	Other (2)	Consolidated
Gross premium volume	\$ 6,029,024	\$1,130,923	\$		\$	\$ 2,106,718	\$ 9,266,665
Net written premiums	4,977,662	960,123		_	_	(5,547)	5,932,238
Earned premiums	4,688,448	929,348		_	_	(5,591)	5,612,205
Losses and loss adjustment expenses:							
Current accident year	(3,373,085)	(700,240)		_	_	_	(4,073,325)
Prior accident years	554,586	51,755		_	_	23	606,364
Amortization of policy acquisition costs	(988,668)	(240,493)		_	_	_	(1,229,161)
Other operating expenses	(712,280)	(74,379)			_	(1.807)	(788,466)

371,585

617,979

Year Ended December 31, 2020

(7,375)

338,338

245

1,439,515

1,355,199

127,617

371,830

617,979

1,439,515

1,693,537

(1,256,159)

(1,561,120)

(159,315)

(177,582)

(95,853)

Products expenses (1,256,159)Services and other expenses (41,461)(1,232,150)(287,509)Amortization of intangible assets (3) (52,572)(106,743)Segment profit (loss) 169,001 (75,470)989,564 (63,289)\$1,273,884 254,078 Interest expense Net foreign exchange losses

169,001

\$ 1,000,449 Income before income taxes U.S. GAAP combined ratio (4) NM (5) 96 % 104 % 98 %

(34,009)

Products expenses and services and other expenses for the Markel Ventures segment include depreciation expense of \$60.3 million for the year ended December 31, 2020.

(2) Other represents the total profit (loss) attributable to the Company's operations that are not included in a reportable segment as well as any amortization of intangible assets that is not allocated to a reportable segment. Amortization of intangible assets attributable to the Company's underwriting segments was \$41.9 million for the year ended December 31, 2020, however, the Company does not allocate amortization of intangible assets between the Insurance and Reinsurance segments.

(3) Segment profit for the Markel Ventures segment includes amortization of intangible assets attributable to Markel Ventures. Amortization of intangible assets is not allocated to the Company's Insurance and Reinsurance segments.

The U.S. GAAP combined ratio is a measure of underwriting performance and represents the relationship of incurred losses, loss adjustment expenses and underwriting, acquisition and insurance expenses to earned premiums.

NM - Ratio is not meaningful

Other operating expenses

Net investment income

Services and other revenues

Net investment gains

Products revenues

Underwriting profit (loss)

(dollars in thousands)	Insurance	Reinsurance	Investing	Markel Ventures (1)	Other (2)	Consolidated
Gross premium volume	\$5,320,253	\$1,114,153	\$ —	\$ —	\$ 2,345,565	\$ 8,779,971
Net written premiums	4,444,702	964,947	_	_	2,422	5,412,071
Earned premiums	4,144,073	903,587	_	_	2,133	5,049,793
Losses and loss adjustment expenses:	(2.720.071)	((05.470)				(2.42(.441)
Current accident year	(2,730,971)	(695,470)	_	_	9.250	(3,426,441)
Prior accident years	462,124	64,768	_	_	8,359	535,251
Amortization of policy acquisition costs	(860,917)	(239,579)	_	_	220	(1,100,496)
Other operating expenses	(704,531)	(73,305)			239	(777,597)
Underwriting profit (loss)	309,778	(39,999)	451 152		10,731	280,510
Net investment income	_	_	451,152	736	_	451,888
Net investment gains	_	_	1,601,722		_	1,601,722
Products revenues	_	_	_	1,609,586	_	1,609,586
Services and other revenues	_	_	_	444,698	368,504	813,202
Products expenses	_	_	_	(1,455,245)	_	(1,455,245)
Services and other expenses	_	_	_	(389,385)	(286,294)	(675,679)
Amortization of intangible assets (3)	_	_	_	(41,973)	(106,665)	(148,638)
Segment profit (loss)	\$ 309,778	\$ (39,999)	\$ 2,052,874	\$ 168,417	\$ (13,724)	\$ 2,477,346
Interest expense						(171,687)
Net foreign exchange losses						(2,265)
Loss on early extinguishment of debt						(17,586)
Income before income taxes						\$ 2,285,808
U.S. GAAP combined ratio (4)	93 %	104 %			<u>NM</u> (

Products expenses and services and other expenses for the Markel Ventures segment include depreciation expense of \$53.6 million for the year ended December 31, 2019.

Other represents the total profit (loss) attributable to the Company's operations that are not included in a reportable segment as well as any amortization of intangible assets that is not allocated to a reportable segment. Amortization of intangible assets attributable to the Company's underwriting segments was \$39.7 million for the year ended December 31, 2019, however, the Company does not allocate amortization of intangible assets between the Insurance and Reinsurance segments.

⁽³⁾ Segment profit for the Markel Ventures segment includes amortization of intangible assets attributable to Markel Ventures. Amortization of intangible assets is not allocated to the Company's Insurance and Reinsurance segments.

The U.S. GAAP combined ratio is a measure of underwriting performance and represents the relationship of incurred losses, loss adjustment expenses and underwriting, acquisition and insurance expenses to earned premiums.

⁽⁵⁾ NM - Ratio is not meaningful

(dollars in thousands)	Insurance	Reinsurance	Investing	Markel Ventures (1)	Other (2)	Consolidated
Gross premium volume	\$ 4,749,166	\$ 1,050,870	\$ —	<u>\$</u>	\$ 2,064,433	\$7,864,469
Net written premiums	3,904,773	882,285	_	_	520	4,787,578
Earned premiums	3,783,939	928,574	_	_	(453)	4,712,060
Losses and loss adjustment expenses:	(2.50(.055)	(555 (40)				(2.271 (22)
Current accident year	(2,596,057)	(775,642)	_	_	_	(3,371,699)
Prior accident years	502,260	42,982	_	_	5,742	550,984
Amortization of policy acquisition costs	(770,183)	(239,120)	_	_	_	(1,009,303)
Other operating expenses	(691,186)	(75,081)	_	_	(1,941)	(768,208)
Underwriting profit (loss)	228,773	(118,287)			3,348	113,834
Net investment income			433,702	513		434,215
Net investment losses	_	_	(437,596)	_	_	(437,596)
Products revenues	_	_	_	1,497,523	_	1,497,523
Services and other revenues	_	_	_	414,542	220,541	635,083
Products expenses	_	_	_	(1,413,248)	_	(1,413,248)
Services and other expenses	_	_	_	(366,739)	(108,185)	(474,924)
Amortization of intangible assets (3)	_	_	_	(40,208)	(75,722)	(115,930)
Impairment of goodwill and intangible assets		_	_	(14,904)	(184,294)	(199,198)
Segment profit (loss)	\$ 228,773	\$ (118,287)	\$ (3,894)	\$ 77,479	\$ (144,312)	\$ 39,759
. , ,	\$ 226,773	\$ (110,207)	\$ (3,894)	\$ 77,479	\$ (144,312)	
Interest expense						(154,212)
Net foreign exchange gains						106,598
Loss before income taxes						\$ (7,855)
U.S. GAAP combined ratio (4)	94 %	113 %			<u>NM</u> (5	98 %

Products expenses and services and other expenses for the Markel Ventures segment include depreciation expense of \$52.2 million for the year ended December 31, 2018.

Other represents the total profit (loss) attributable to the Company's operations that are not included in a reportable segment as well as any amortization of intangible assets that is not allocated to a reportable segment. Amortization of intangible assets attributable to the Company's underwriting segments was \$44.5 million for the year ended December 31, 2018, however, the Company does not allocate amortization of intangible assets between the Insurance and Reinsurance segments.

Segment profit for the Markel Ventures segment includes amortization of intangible assets attributable to Markel Ventures. Amortization of intangible assets is not allocated to the Company's Insurance and Reinsurance segments.

The U.S. GAAP combined ratio is a measure of underwriting performance and represents the relationship of incurred losses, loss adjustment expenses and underwriting, acquisition and insurance expenses to earned premiums.

⁽⁵⁾ NM - Ratio is not meaningful

b) The following table summarizes earned premiums by major product grouping.

	Years Ended December 31,							
(dollars in thousands)		2020		2019	2018			
Insurance segment:								
General liability	\$	1,261,411	\$	1,039,617	\$	889,543		
Professional liability		1,068,365		814,587		701,867		
Property		356,934		364,830		369,116		
Marine and energy		458,050		391,464		376,747		
Personal lines		405,210		378,522		374,543		
Programs		238,909		294,418		288,398		
Workers' compensation		338,186		349,770		329,690		
Other products		561,383		510,865		454,035		
Total Insurance		4,688,448		4,144,073		3,783,939		
Reinsurance segment:								
Property		191,968		201,486		233,195		
Casualty		441,599		408,368		360,739		
Specialty		295,781		293,733		334,640		
Total Reinsurance		929,348		903,587		928,574		
Other		(5,591)		2,133		(453)		
Total earned premiums	\$	5,612,205	\$	5,049,793	\$	4,712,060		

The Company does not manage products at this level of aggregation as it offers a diverse portfolio of products and manages these products in logical groupings within each underwriting segment.

c) During the years ended December 31, 2020, 2019 and 2018, 79%, 81% and 79%, respectively, of gross premiums written in the Company's underwriting segments were attributed to risks or cedents located in the United States. Substantially all of the gross premiums written in the Company's program services and other fronting businesses during 2020, 2019 and 2018 were attributed to risks located in the United States.

Most of the Company's gross written premiums are placed through insurance and reinsurance brokers. During the years ended December 31, 2020, 2019 and 2018, the Company's top two independent brokers accounted for 31%, 28% and 25% of gross premiums written in the Company's underwriting segments. During the years ended December 31, 2020, 2019 and 2018, the top two independent brokers accounted for 20%, 17% and 13%, respectively, of gross premiums written in the Insurance segment and 84%, 82% and 76%, respectively, of gross premiums written in the Reinsurance segment.

During the years ended December 31, 2020, 2019 and 2018, the portion of Markel Ventures segment revenues attributable to U.S. operations was 95%, 90%, and 88%, respectively.

d) The following table reconciles segment assets to the Company's consolidated balance sheets.

December 31,						
2020	2019					
\$ 24,781,946	\$ 22,129,633					
7,228,297	6,621,639					
3,636,060	2,550,835					
35,646,303	31,302,107					
6,063,751	6,171,708					
\$ 41,710,054	\$ 37,473,815					
	\$ 24,781,946 7,228,297 3,636,060 35,646,303 6,063,751					

e) The following table summarizes deferred policy acquisition costs, unearned premiums and unpaid losses and loss adjustment expenses.

(dollars in thousands)	Deferred Policy Acquisition Costs		Unearned Premiums	Unpaid Losses and oss Adjustment Expenses
December 31, 2020				
Insurance segment	\$ 454,723	\$	2,746,032	\$ 9,241,952
Reinsurance segment	176,071		708,855	3,417,973
Other underwriting	 		_	276,090
Total Underwriting	630,794		3,454,887	12,936,015
Program services and other	 		978,358	3,286,361
Total	\$ 630,794	\$	4,433,245	\$ 16,222,376
December 31, 2019				
Insurance segment	\$ 392,774	\$	2,356,875	\$ 8,119,046
Reinsurance segment	173,268		677,260	3,395,459
Other underwriting	 _		_	 298,062
Total Underwriting	 566,042		3,034,135	11,812,567
Program services and other	 		1,023,592	2,916,109
Total	\$ 566,042	\$	4,057,727	\$ 14,728,676

3. Acquisitions

Lansing Building Products, LLC

In April 2020, the Company acquired a controlling interest in Lansing Building Products, LLC, a supplier of exterior building products and materials to professional contractors throughout the U.S., which simultaneously acquired the distribution business of Harvey Building Products to enhance geographic reach and scale (together, Lansing), bringing the Company's ownership in Lansing to 91%. Under the terms of the acquisition agreement, the Company has the option to acquire the remaining equity interests and the remaining equity holders have the option to sell their interests to the Company in the future. The redemption value of the remaining equity interests is generally based on Lansing's earnings in specified periods preceding the redemption dates. Total consideration for both transactions was \$559.2 million, all of which was cash.

The purchase price was allocated to the acquired assets and liabilities of Lansing based on estimated fair value at the acquisition date. The Company recognized goodwill of \$287.1 million, which is primarily attributable to expected future earnings and cash flow potential of Lansing. The majority of the goodwill recognized is not deductible for income tax purposes. The Company also recognized other intangible assets of \$210.0 million, which included \$188.0 million of customer relationships and \$22.0 million of trade names, which are being amortized over a weighted average period of 16 years and 14 years, respectively. The Company also recognized redeemable noncontrolling interests of \$43.6 million. Results attributable to Lansing are included in the Company's Markel Ventures segment.

VSC Fire & Security, Inc.

In November 2019, the Company acquired VSC Fire & Security, Inc. (VSC), a provider of comprehensive fire protection, life safety, and low voltage solutions to retailers, commercial campuses, healthcare facilities, and government properties throughout the southeastern United States. Total consideration for the acquisition was \$225.0 million, which included cash of \$204.0 million. Total consideration also included the estimated fair value of contingent consideration the Company expects to pay in 2021 based on VSC's earnings, as defined in the purchase agreement.

As of December 31, 2019, the purchase price was preliminarily allocated to the acquired assets and liabilities of VSC based on estimated fair value at the acquisition date. During 2020, the Company completed the process of determining the fair value of the assets and liabilities acquired with VSC. The Company recognized goodwill of \$124.9 million, which is primarily attributable to expected future earnings and cash flow potential of VSC. All of the goodwill recognized is deductible for income tax purposes. The Company also recognized other intangible assets of \$64.5 million, which included \$48.0 million of customer relationships, \$14.0 million of trade names and \$2.5 million of other intangible assets, which are being amortized over a weighted average period of 12 years, 12 years and 8 years, respectively. Results attributable to VSC are included in the Company's Markel Ventures segment.

The Hagerty Group, LLC

In June 2019, the Company acquired a minority ownership interest in The Hagerty Group, LLC (Hagerty Group), a company that primarily operates as a managing general agent under the names Hagerty Insurance Agency and Hagerty Classic Marine Insurance Agency (collectively, Hagerty). Hagerty Group also includes Hagerty Re, a Bermuda Class 3 reinsurance company. Hagerty Group is a leading automotive lifestyle brand and provider of specialty insurance to automobile enthusiasts. Total consideration for the Company's investment was \$212.5 million. The Company's investment in Hagerty Group is accounted for under the equity method and is included in other assets on the Company's consolidated balance sheet.

Brahmin Leather Works, LLC

In October 2018, the Company acquired 90% of Brahmin Leather Works, LLC (Brahmin), a creator of fashion leather handbags. Total consideration for the acquisition was \$192.9 million, which included cash of \$172.3 million. Total consideration also included the estimated fair value of contingent consideration the Company expects to pay based on Brahmin's earnings, as defined in the purchase agreement, for the period of 2019 through 2021. Under the terms of the acquisition agreement, the Company has the option to acquire the remaining equity interests and the remaining equity holders have the option to sell their interests to the Company in the future. The redemption value of the remaining equity interests is generally based on Brahmin's earnings in specified periods preceding the redemption dates.

The purchase price was allocated to the acquired assets and liabilities of Brahmin based on estimated fair value at the acquisition date. The Company recognized goodwill of \$63.8 million, which is primarily attributable to expected future earnings and cash flow potential of Brahmin. The majority of the goodwill recognized is deductible for income tax purposes. The Company also recognized other intangible assets of \$93.3 million, which included \$57.0 million of customer relationships, \$35.0 million of trade names and \$1.3 million of other intangible assets, which are being amortized over a weighted average period of 16 years, 16 years and 8 years, respectively. The Company also recognized redeemable noncontrolling interests of \$19.6 million. Results attributable to Brahmin are included in the Company's Markel Ventures segment.

Nephila Holdings Ltd.

In November 2018, the Company acquired all of the outstanding shares of Nephila Holdings Ltd. (Nephila), a Bermuda-based investment fund manager offering a broad range of investment products, including insurance-linked securities, catastrophe bonds, insurance swaps and weather derivatives. Nephila generates revenue primarily through management and incentive fees. Total consideration for the acquisition was \$974.4 million, all of which was cash.

The purchase price was allocated to the acquired assets and liabilities of Nephila based on estimated fair values at the acquisition date. The Company recognized goodwill of \$434.2 million, which is primarily attributable to expected future earnings and cash flow potential of Nephila. None of the goodwill recognized is deductible for income tax purposes. The Company also recognized other intangible assets of \$551.0 million, which included \$468.0 million of investment management agreements, \$32.0 million of broker relationships, \$27.0 million of technology and \$24.0 million of trade names, which are being amortized over a weighted average period of 17 years, 12 years, 6 years and 14 years, respectively. The Company also recognized noncontrolling interests of \$15.1 million attributable to certain consolidated subsidiaries of Nephila that are not wholly-owned. Nephila operates as a separate business unit and its operating results are not included in a reportable segment.

4. Investments

a) The following tables summarize the Company's available-for-sale investments. Commercial and residential mortgage-backed securities include securities issued by U.S. government-sponsored enterprises and U.S. government agencies. The net unrealized holding gains in the tables below are presented before taxes and any adjustments related to life and annuity benefit reserves. See note 11.

December 31, 2020

		Decembe	тэі,	2020		
(dollars in thousands)	Amortized Cost	Gross Unrealized Holding Gains		Gross Unrealized Holding Losses		Estimated Fair Value
Fixed maturity securities:					_	
U.S. Treasury securities	\$ 580,716	\$ 9,091	\$	(507)	\$	589,300
U.S. government-sponsored enterprises	500,053	51,593		(92)		551,554
Obligations of states, municipalities and political subdivisions	3,903,292	386,784		(235)		4,289,841
Foreign governments	1,352,616	275,450		(57)		1,628,009
Commercial mortgage-backed securities	1,736,257	149,359		(34)		1,885,582
Residential mortgage-backed securities	811,732	58,742		(29)		870,445
Asset-backed securities	5,812	154		_		5,966
Corporate bonds	 764,783	 96,257		(3)	_	861,037
Total fixed maturity securities	9,655,261	1,027,430		(957)		10,681,734
Short-term investments	2,030,460	 3,645		(6)		2,034,099
Investments, available-for-sale	\$ 11,685,721	\$ 1,031,075	\$	(963)	\$	12,715,833
		December	r 31, 2			
(dollars in thousands)	Amortized Cost	Gross Unrealized Holding Gains		Gross Unrealized Holding Losses		Estimated Fair Value
Fixed maturity securities:		 Gums		20000		, 4140
U.S. Treasury securities	\$ 282,305	\$ 2,883	\$	(402)	\$	284,786
U.S. government-sponsored enterprises	318,831	23,949		(200)		342,580
Obligations of states, municipalities and political subdivisions	3,954,779	235,915		(812)		4,189,882
Foreign governments	1,415,639	135,763		(9,398)		1,542,004
Commercial mortgage-backed securities	1,761,777	57,450		(1,382)		1,817,845
Residential mortgage-backed securities	855,641	32,949		(517)		888,073
Asset-backed securities	11,042	28		(22)		11,048
	0.40.00.0	47,551		(1,686)		894,691
Corporate bonds	848,826	47,331		(1,000)		
Corporate bonds Total fixed maturity securities	9,448,840	 536,488		(14,419)		9,970,909
-						

b) The following tables summarize gross unrealized investment losses on available-for-sale investments by the length of time that securities have continuously been in an unrealized loss position.

						December	31, 2	020				
	Less than 12 months					12 months	nger	Total				
(dollars in thousands)		Estimated Fair Value		Gross Unrealized Holding Losses		Estimated Fair Value		Gross nrealized Holding Losses	Estimated Fair Value		U:	Gross nrealized Holding Losses
Fixed maturity securities:												
U.S. Treasury securities	\$	66,220	\$	(507)	\$	_	\$	_	\$	66,220	\$	(507)
U.S. government-sponsored enterprises		14,878		(92)		_		_		14,878		(92)
Obligations of states, municipalities and political subdivisions		28,037		(223)		2,960		(12)		30,997		(235)
Foreign governments		20,790		(57)		_		_		20,790		(57)
Commercial mortgage-backed securities		13,178		(26)		2,526		(8)		15,704		(34)
Residential mortgage-backed securities		3,345		(29)		_		_		3,345		(29)
Corporate bonds		92		(3)		_		_		92		(3)
Total fixed maturity securities		146,540		(937)		5,486		(20)		152,026		(957)
Short-term investments		349,978		(6)		_		_		349,978		(6)
Total	\$	496,518	\$	(943)	\$	5,486	\$	(20)	\$	502,004	\$	(963)

At December 31, 2020, the Company held 36 available-for-sale securities with a total estimated fair value of \$502.0 million and gross unrealized losses of \$963 thousand. Of these 36 securities, six securities had been in a continuous unrealized loss position for one year or longer and had a total estimated fair value of \$5.5 million and gross unrealized losses of \$20 thousand. The Company does not intend to sell or believe it will be required to sell these available-for-sale securities before recovery of their amortized cost.

						Decembe	r 31,	2019				
		Less than 12 months 12 months or longer										
(dollars in thousands)]	Estimated Fair Value		Gross Inrealized Holding Losses		Estimated Fair Value	Ţ	Gross Inrealized Holding Losses		Estimated Fair Value	τ	Gross Jnrealized Holding Losses
Fixed maturity securities:												
U.S. Treasury securities	\$	36,862	\$	(361)	\$	46,518	\$	(41)	\$	83,380	\$	(402)
U.S. government-sponsored enterprises		24,148		(197)		2,868		(3)		27,016		(200)
Obligations of states, municipalities and political subdivisions		127,836		(702)		6,830		(110)		134,666		(812)
Foreign governments		162,907		(3,393)		159,888		(6,005)		322,795		(9,398)
Commercial mortgage-backed securities		202,530		(1,126)		33,853		(256)		236,383		(1,382)
Residential mortgage-backed securities		11,706		(66)		58,162		(451)		69,868		(517)
Asset-backed securities		_				3,632		(22)		3,632		(22)
Corporate bonds		41,847		(1,287)		40,274		(399)		82,121		(1,686)
Total fixed maturity securities		607,836		(7,132)		352,025		(7,287)		959,861		(14,419)
Short-term investments		3,316		(60)						3,316		(60)
Total	\$	611,152	\$	(7,192)	\$	352,025	\$	(7,287)	\$	963,177	\$	(14,479)

At December 31, 2019, the Company held 201 securities with a total estimated fair value of \$963.2 million and gross unrealized losses of \$14.5 million. Of these 201 securities, 122 securities had been in a continuous unrealized loss position for one year or longer and had a total estimated fair value of \$352.0 million and gross unrealized losses of \$7.3 million.

Following the adoption of ASC 326, as described in note 1(w), beginning January 1, 2020 the Company completes a detailed analysis each quarter to assess whether the decline in the fair value of any investment below its cost basis is the result of a credit loss. All available-for-sale securities with unrealized losses are reviewed. The Company considers many factors in completing its quarterly review of securities with unrealized losses for credit-related impairment to determine whether a credit loss exists, including the extent to which fair value is below cost, the implied yield to maturity, rating downgrades of the security and whether or not the issuer has failed to make scheduled principal or interest payments. The Company also takes into consideration information about the financial condition of the issuer and industry factors that could negatively impact the capital markets.

If the decline in fair value of an available-for-sale security below its amortized cost is considered to be the result of a credit loss, the Company compares the estimated present value of the cash flows expected to be collected to the amortized cost of the security. The extent to which the estimated present value of the cash flows expected to be collected is less than the amortized cost of the security represents the credit loss. Any such amount is recorded as an allowance and recognized in net income. The allowance is limited to the difference between the fair value and the amortized cost of the security. Any remaining decline in fair value represents the non-credit portion of the impairment, which is recognized in other comprehensive income. The Company did not have an allowance for credit losses as of December 31, 2020.

As part of its quarterly analysis for impairment, the Company also considers whether it intends to sell an available-for-sale security or if it is more likely than not it will be required to sell the security before recovery of its amortized cost. In these instances, a decline in fair value is recognized in net income based on the fair value of the security at the time of assessment, resulting in a new cost basis for the security.

c) The amortized cost and estimated fair value of fixed maturity securities at December 31, 2020 are shown below by contractual maturity.

(dollars in thousands)		Amortized Cost				Estimated Fair Value
Due in one year or less	\$	383,330	\$	390,636		
Due after one year through five years		1,861,527		1,994,002		
Due after five years through ten years		2,348,671		2,592,111		
Due after ten years		2,507,932		2,942,992		
		7,101,460		7,919,741		
Commercial mortgage-backed securities		1,736,257		1,885,582		
Residential mortgage-backed securities		811,732		870,445		
Asset-backed securities		5,812		5,966		
Total fixed maturity securities	\$	9,655,261	\$	10,681,734		

Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without penalties, and the holders may have the right to put the securities back to the issuer. Based on expected maturities, the estimated average duration of fixed maturity securities at December 31, 2020 was 5.6 years.

d) The following table presents the components of net investment income.

	Years Ended December 31,								
(dollars in thousands)		2020		2019		2018			
Interest:									
Municipal bonds (tax-exempt)	\$	63,718	\$	71,351	\$	80,016			
Municipal bonds (taxable)		66,713		72,818		73,058			
Other taxable bonds		157,990		162,861		159,329			
Short-term investments, including overnight deposits		14,321		50,425		48,765			
Dividends on equity securities		89,303		100,222		90,840			
Income (loss) from equity method investments		(4,430)		4,368		(1,924)			
Other		434		5,338		881			
		388,049		467,383		450,965			
Investment expenses		(16,219)		(15,495)		(16,750)			
Net investment income	\$	371,830	\$	451,888	\$	434,215			

e) The following table presents the components of net investment gains (losses) and the change in net unrealized gains included in other comprehensive income (loss).

	Years Ended December 31,						
(dollars in thousands)	2020 2019					2018	
Fixed maturity securities:							
Realized gains	\$	12,582	\$	6,851	\$	4,221	
Realized losses		(8,473)		(2,848)		(5,768)	
Short-term investments:							
Realized gains		2,037		1,457		1,604	
Realized losses		(463)		(2,999)		(10,545)	
Cost-method investments:							
Realized gains		14,239				_	
Other investment losses		(5,142)		(3,943)		(1,486)	
Net realized investment gains (losses)		14,780		(1,482)		(11,974)	
Equity securities:							
Change in fair value of securities sold during the period		(470,008)		38,291		20,177	
Change in fair value of securities held at the end of the period		1,073,207		1,564,913		(445,799)	
Total change in fair value		603,199		1,603,204		(425,622)	
Net investment gains (losses)	\$	617,979	\$	1,601,722	\$	(437,596)	
Change in net unrealized gains included in other comprehensive income (loss):							
Fixed maturity securities	\$	507,903	\$	429,654	\$	(297,158)	
Short-term investments		2,344		3,626		(2,288)	
Adjustment for life and annuity benefit reserves (see note 11)		(68,158)		(51,390)			
Net increase (decrease)	\$	442,089	\$	381,890	\$	(299,446)	

f) Total restricted assets are included on the Company's consolidated balance sheets as follows.

	 Decen	iber 3	1,
(dollars in thousands)	2020		2019
Investments	\$ 4,217,230	\$	4,134,164
Restricted cash and cash equivalents	 874,913		427,546
Total	\$ 5,092,143	\$	4,561,710

The following table presents the components of restricted assets.

	Decemb					
(dollars in thousands)	2020		2020			2019
Assets held in trust or on deposit to support underwriting activities	\$	4,704,943	\$	4,155,621		
Assets pledged as security for letters of credit		387,200		406,089		
Total	\$	5,092,143	\$	4,561,710		

g) At December 31, 2020 and 2019, investments in securities issued by the U.S. Treasury, U.S. government agencies and U.S. government-sponsored enterprises were the only investments in any one issuer that exceeded 10% of shareholders' equity.

5. Fair Value Measurements

ASC 820, Fair Value Measurements and Disclosures, establishes a three-level hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure the assets or liabilities fall within different levels of the hierarchy, the classification is based on the lowest level input that is significant to the fair value measurement of the asset or liability.

Classification of assets and liabilities within the hierarchy considers the markets in which the assets and liabilities are traded and the reliability and transparency of the assumptions used to determine fair value. The hierarchy requires the use of observable market data when available. The levels of the hierarchy are defined as follows:

Level 1 - Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities traded in active markets.

Level 2 - Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability and market-corroborated inputs.

Level 3 - Inputs to the valuation methodology are unobservable for the asset or liability and are significant to the fair value measurement.

In accordance with ASC 820, the Company determines fair value based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company uses various methods, including the market, income and cost approaches. The Company uses valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. The following section describes the valuation methodologies used by the Company to measure assets and liabilities at fair value, including an indication of the level within the fair value hierarchy in which each asset or liability is generally classified.

Available-for-sale investments and equity securities. Available-for-sale investments and equity securities are recorded at fair value on a recurring basis. Available-for-sale investments include fixed maturity securities and short-term investments. Short-term investments include certificates of deposit, commercial paper, discount notes and treasury bills with original maturities of one year or less. Fair value for available-for-sale investments and equity securities are determined by the Company after considering various sources of information, including information provided by a third party pricing service. The pricing service provides prices for substantially all of the Company's fixed maturity securities and equity securities. In determining fair value, the Company generally does not adjust the prices obtained from the pricing service. The Company obtains an understanding of the pricing service's valuation methodologies and related inputs, which include, but are not limited to, reported trades, benchmark yields, issuer spreads, bids, offers, duration, credit ratings, estimated cash flows and prepayment

speeds. The Company validates prices provided by the pricing service by reviewing prices from other pricing sources and analyzing pricing data in certain instances.

The Company has evaluated the various types of securities in its investment portfolio to determine an appropriate fair value hierarchy level based upon trading activity and the observability of market inputs. Level 1 investments include those traded on an active exchange, such as the New York Stock Exchange. Level 2 investments include U.S. Treasury securities, U.S. government-sponsored enterprises, municipal bonds, foreign government bonds, commercial mortgage-backed securities, residential mortgage-backed securities, asset-backed securities and corporate debt securities. Level 3 investments include the Company's investments in certain insurance-linked securities funds managed by Markel CATCo Investment Management Ltd. (MCIM), a consolidated subsidiary, that are not traded on an active exchange, as further described and defined in note 15 (the Markel CATCo Funds), and are valued using unobservable inputs.

Fair value for available-for-sale investments and equity securities is measured based upon quoted prices in active markets, if available. Due to variations in trading volumes and the lack of quoted market prices, fixed maturity securities are classified as Level 2 investments. The fair value of fixed maturity securities is normally derived through recent reported trades for identical or similar securities, making adjustments through the reporting date based upon available market observable data previously described. If there are no recent reported trades, the fair value of fixed maturity securities may be derived through the use of matrix pricing or model processes, where future cash flow expectations are developed based upon collateral performance and discounted at an estimated market rate. Significant inputs used to determine the fair value of obligations of states, municipalities and political subdivisions, corporate bonds and obligations of foreign governments include reported trades, benchmark yields, issuer spreads, bids, offers, credit information and estimated cash flows. Significant inputs used to determine the fair value of commercial mortgage-backed securities, residential mortgage-backed securities and asset-backed securities include the type of underlying assets, benchmark yields, prepayment speeds, collateral information, tranche type and volatility, estimated cash flows, credit information, default rates, recovery rates, issuer spreads and the year of issue.

Due to the significance of unobservable inputs required in measuring the fair value of the Company's investments in the Markel CATCo Funds, these investments are classified as Level 3 within the fair value hierarchy. The fair value of the securities are derived using their reported net asset value (NAV) as the primary input, as well as other observable and unobservable inputs as deemed necessary by management. Management has obtained an understanding of the inputs, assumptions, process and controls used to determine NAV, which is calculated by an independent third party. Unobservable inputs to the NAV calculations include assumptions around premium earnings patterns and loss reserve estimates for the underlying securitized reinsurance contracts in which the Markel CATCo Funds invest. The determination of fair value of the securities also considers external market data, including the trading price relative to its NAV of CATCo Reinsurance Opportunities Fund Ltd., a comparable security traded on a market operated by the London Stock Exchange and on the Bermuda Stock Exchange. In July 2019, the Markel CATCo Funds were placed into run-off and capital is being returned to investors as it becomes available, the timing of which is impacted by contractual terms regarding release of collateral on the underlying securitized reinsurance contracts, as well as required regulatory approvals.

The Company's valuation policies and procedures for Level 3 investments are determined by management. Fair value measurements are analyzed quarterly to ensure the change in fair value from prior periods is reasonable relative to management's understanding of the underlying investments, recent market trends and external market data.

Senior long-term debt and other debt. Senior long-term debt and other debt is carried at amortized cost with the estimated fair value disclosed on the consolidated balance sheets. Senior long-term debt and other debt is classified as Level 2 within the fair value hierarchy due to variations in trading volumes and the lack of quoted market prices. Fair value for senior long-term debt and other debt is generally derived through recent reported trades for identical securities, making adjustments through the reporting date, if necessary, based upon available market observable data including U.S. Treasury securities and implied credit spreads. Significant inputs used to determine the fair value of senior long-term debt and other debt include reported trades, benchmark yields, issuer spreads, bids and offers.

The following tables present the balances of assets measured at fair value on a recurring basis by level within the fair value hierarchy.

			Decembe	ember 31, 2020				
(dollars in thousands)		Level 1	 Level 2		Level 3		Total	
Assets:								
Investments:								
Fixed maturity securities, available-for-sale:								
U.S. Treasury securities	\$	_	\$ 589,300	\$	_	\$	589,300	
U.S. government-sponsored enterprises		_	551,554		_		551,554	
Obligations of states, municipalities and political subdivisions			4,289,841				4,289,841	
Foreign governments		_	1,628,009		_		1,628,009	
Commercial mortgage-backed securities		_	1,885,582		_		1,885,582	
Residential mortgage-backed securities		_	870,445		_		870,445	
Asset-backed securities		_	5,966		_		5,966	
Corporate bonds		_	861,037		_		861,037	
Total fixed maturity securities, available-for-sale			 10,681,734			_	10,681,734	
Equity securities:			-,,-				-,, -	
Insurance, banks and other financial institutions		2,516,361	_		58,493		2,574,854	
Industrial, consumer and all other		4,419,256	_		_		4,419,256	
Total equity securities		6,935,617	 _		58,493		6,994,110	
Short-term investments, available-for-sale		1,922,459	111,640		_		2,034,099	
Total investments	\$	8,858,076	\$ 10,793,374	\$	58,493	\$	19,709,943	
(dollars in thousands)	_	Level 1	December Level 2	r 31,	2019 Level 3		Total	
(dollars in thousands) Assets:	_	Level 1		r 31,			Total	
	_	Level 1		r 31,			Total	
Assets: Investments: Fixed maturity securities, available-for-sale:	_	Level 1		r 31,			Total	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities	\$	Level 1	\$	r 31,		\$	Total 284,786	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises	\$	Level 1	\$ Level 2			\$		
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities	\$	Level 1	\$ Level 2 284,786			\$	284,786	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political	\$	Level 1	\$ 284,786 342,580			\$	284,786 342,580	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions	\$	Level 1	\$ 284,786 342,580 4,189,882			\$	284,786 342,580 4,189,882	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments	\$	Level 1	\$ 284,786 342,580 4,189,882 1,542,004			\$	284,786 342,580 4,189,882 1,542,004	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments Commercial mortgage-backed securities	\$	Level 1	\$ 284,786 342,580 4,189,882 1,542,004 1,817,845			\$	284,786 342,580 4,189,882 1,542,004 1,817,845	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments Commercial mortgage-backed securities Residential mortgage-backed securities	\$	Level 1 — — — — — — — — — — — — — — — — — —	\$ 284,786 342,580 4,189,882 1,542,004 1,817,845 888,073			\$	284,786 342,580 4,189,882 1,542,004 1,817,845 888,073	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments Commercial mortgage-backed securities Residential mortgage-backed securities Asset-backed securities	\$	Level 1	\$ 284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048			\$	284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments Commercial mortgage-backed securities Residential mortgage-backed securities Asset-backed securities Corporate bonds	\$	Level 1	\$ 284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691			\$	284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments Commercial mortgage-backed securities Residential mortgage-backed securities Asset-backed securities Corporate bonds Total fixed maturity securities, available-for-sale	\$	Level 1	\$ 284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691			\$	284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments Commercial mortgage-backed securities Residential mortgage-backed securities Asset-backed securities Corporate bonds Total fixed maturity securities, available-for-sale Equity securities: Insurance, banks and other financial institutions Industrial, consumer and all other	\$		\$ 284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691		Level 3 — — — — — — — 45,992 —	\$	284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691 9,970,909 2,509,182 5,081,573	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments Commercial mortgage-backed securities Residential mortgage-backed securities Asset-backed securities Corporate bonds Total fixed maturity securities, available-for-sale Equity securities: Insurance, banks and other financial institutions Industrial, consumer and all other Total equity securities	\$	2,463,190 5,081,573 7,544,763	\$ 284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691 9,970,909		Level 3	\$	284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691 9,970,909 2,509,182 5,081,573 7,590,755	
Assets: Investments: Fixed maturity securities, available-for-sale: U.S. Treasury securities U.S. government-sponsored enterprises Obligations of states, municipalities and political subdivisions Foreign governments Commercial mortgage-backed securities Residential mortgage-backed securities Asset-backed securities Corporate bonds Total fixed maturity securities, available-for-sale Equity securities: Insurance, banks and other financial institutions Industrial, consumer and all other	\$		\$ 284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691		Level 3 — — — — — — — 45,992 —	\$	284,786 342,580 4,189,882 1,542,004 1,817,845 888,073 11,048 894,691 9,970,909 2,509,182 5,081,573	

The following table summarizes changes in Level 3 investments measured at fair value on a recurring basis, all of which are attributed to the Company's investments in the Markel CATCo Funds.

(dollars in thousands)	 2020	 2019
Equity securities, beginning of period	\$ 45,992	\$ 53,728
Purchases	90,000	500
Sales	(73,902)	(9,448)
Net investment gains (losses) on Level 3 investments	 (3,597)	1,212
Equity securities, end of period	\$ 58,493	\$ 45,992

In connection with the run-off of one of the Markel CATCo Funds and to facilitate the return of capital to third party investors, the Company invested \$90.0 million in that fund effective January 1, 2020. This investment replaced collateral previously provided by other investors for risk exposures within the underlying reinsurance contracts in which the fund is invested related to loss events that occur after December 31, 2019 and through the expiration of the reinsurance contracts, all of which either had expired or were commuted as of June 30, 2020. Underwriting results for the 2020 loss exposures on these contracts are attributed to the Company through its investment in that fund.

Sales for the years ended December 31, 2020 and 2019 reflect the return of capital in connection with the run-off of the Markel CATCo Funds and the sale of the Company's investment in the Markel Diversified Fund in December 2020.

Except as disclosed in note 3, the Company did not have any assets or liabilities measured at fair value on a non-recurring basis during the years ended December 31, 2020 and 2019.

6. Goodwill and Intangible Assets

The following table presents a rollforward of the components of goodwill by reportable segment.

(dollars in thousands)	Insurance		Reinsurance		Markel Ventures		Other ⁽¹⁾		Total
January 1, 2019	\$	770,184	\$	122,745	\$	497,338	\$	847,708	\$ 2,237,975
Acquisitions (see note 3)						118,878			118,878
Foreign currency movements and other adjustments (2)		1,263				(9,439)		(40,129)	(48,305)
December 31, 2019 (3)	\$	771,447	\$	122,745	\$	606,777	\$	807,579	\$ 2,308,548
Acquisitions (see note 3)		_		_		287,097		_	287,097
Foreign currency movements and other adjustments (2)		1,253		_		7,171		555	8,979
December 31, 2020 (3)	\$	772,700	\$	122,745	\$	901,045	\$	808,134	\$ 2,604,624

- (1) Amounts included in Other reflect the Company's operations that are not included in a reportable segment.
- Foreign currency movements and other adjustments includes adjustments to goodwill resulting from changes to the preliminary purchase price allocation, if any, for acquisitions that occurred in the prior year.
- (3) As of December 31, 2020 and 2019, goodwill was net of accumulated impairment losses of \$139.2 million, of which \$91.9 million was in Other and \$47.3 million was in Markel Ventures.

There was no impairment of goodwill during 2020 or 2019. See note 1 for further details regarding impairment testing.

During 2018, the Company recorded a goodwill and intangible asset impairment charge at MCIM totaling \$179.0 million. As a result of governmental inquiries into the Company's Markel CATCo operations in late 2017 and early 2018, the Company performed an assessment of the recoverability of goodwill and intangible assets at the MCIM reporting unit as of December 31, 2018. As a result of the assessment, the Company reduced the carrying value of the goodwill and intangible assets of the MCIM reporting unit to zero, which resulted in a goodwill impairment charge of \$91.9 million and an intangible asset impairment charge of \$87.1 million, both of which were recorded to impairment of goodwill and intangible assets in the consolidated statement of loss and comprehensive loss for the year ended December 31, 2018. Both the Markel CATCo Funds and Markel CATCo Re were subsequently placed into run-off. See note 19 for further details on matters related to the Company's Markel CATCo operations.

The following table presents a rollforward of net intangible assets by reportable segment.

(dollars in thousands)	Un	derwriting ⁽¹⁾	Mai	rkel Ventures	Other ⁽²⁾	Total
January 1, 2019	\$	489,088	\$	431,457	\$ 805,651	\$ 1,726,196
Acquisitions (see note 3)		41,506		71,629	_	113,135
Amortization of intangible assets		(39,667)		(41,973)	(66,998)	(148,638)
Foreign currency movements and other adjustments (3)		(6,767)		12,009	42,539	47,781
December 31, 2019	\$	484,160	\$	473,122	\$ 781,192	\$ 1,738,474
Acquisitions (see note 3)		_		210,000	_	210,000
Amortization of intangible assets		(41,906)		(52,572)	(64,837)	(159,315)
Foreign currency movements and other adjustments (3)		385		(7,430)	604	(6,441)
December 31, 2020	\$	442,639	\$	623,120	\$ 716,959	\$ 1,782,718

Amounts included in Underwriting reflect the intangible assets associated with the Company's underwriting segments, which are not allocated between the Insurance and Reinsurance segments.

Amortization of intangible assets is estimated to be \$159.0 million for 2021, \$155.5 million for 2022, \$153.7 million for 2023, \$151.7 million for 2024 and \$145.1 million for 2025. Indefinite-lived intangible assets were \$92.4 million at both December 31, 2020 and 2019.

For the year ended December 31, 2020, the Company acquired \$210.0 million of intangible assets, all of which is amortizable over a weighted average period of 16 years. These definite-lived intangible assets acquired during 2020 include customer relationships and trade names, which are expected to be amortized over a weighted average period of 16 years and 14 years, respectively.

The following table presents the components of intangible assets.

	December 31,									
		20	020		2019					
(dollars in thousands)	Gross Carrying Amount		Accumulated Amortization		Gross Carrying Amount			Accumulated Amortization		
Customer relationships	\$	1,203,128	\$	(340,424)	\$	1,021,427	\$	(267,580)		
Investment management agreements		468,000		(62,911)		468,000		(33,345)		
Broker relationships		207,360		(99,719)		206,249		(89,234)		
Trade names		231,177		(85,610)		208,959		(68,961)		
Technology		113,202		(71,888)		113,389		(60,611)		
Agent relationships		92,000		(22,489)		92,000		(16,355)		
Insurance licenses		74,333		_		74,635		_		
Renewal rights		21,449		(20,616)		21,449		(19,366)		
Other		152,635		(76,909)		151,978		(64,160)		
Total	\$	2,563,284	\$	(780,566)	\$	2,358,086	\$	(619,612)		

7. Leases

The Company's leases primarily consist of operating leases for real estate and have remaining terms of up to 22 years. Total lease costs for operating leases were \$94.4 million and \$62.7 million for the years ended December 31, 2020 and 2019, respectively. Total rental expense was \$52.9 million for the year ended December 31, 2018, which was prior to adoption of FASB ASU 2016-02, *Leases (Topic 842)*.

⁽²⁾ Amounts included in Other reflect the Company's operations that are not included in a reportable segment.

⁽³⁾ Foreign currency movements and other adjustments include adjustments to intangible assets resulting from changes to the preliminary purchase price allocation, if any, for acquisitions that occurred in the prior year.

The following table summarizes details for the Company's operating leases recorded on the consolidated balance sheet.

		nber .	oer 31,		
(dollars in thousands)		2020		2019	
Right-of-use lease assets	\$	528,418	\$	232,717	
Lease liabilities	\$	565,249	\$	262,139	
Weighted average remaining lease term		12.1 years		8.5 years	
Weighted average discount rate		3.0 %		3.3 %	

The following table summarizes maturities of the Company's operating lease liabilities as of December 31, 2020, which reconciles to total lease liabilities included in other liabilities on the Company's consolidated balance sheet.

Years Ending December 31,	-	dollars in housands)
2021	\$	90,311
2022		78,953
2023		68,871
2024		59,137
2025		48,738
2026 and thereafter		286,035
Total lease payments		632,045
Less imputed interest		(66,796)
Total operating lease liabilities	\$	565,249

8. Products, Services and Other Revenues

The amount of revenues from contracts with customers for the years ended December 31, 2020, 2019 and 2018 was \$2.9 billion, \$2.2 billion and \$1.9 billion, respectively.

The following table presents revenues from contracts with customers by segment and type, all of which are included in products revenues and services and other revenues in the consolidated statements of income (loss) and comprehensive income (loss).

	Years Ended December 31,										
		2020			2019		2018				
(dollars in thousands)	Markel Ventures	Other	Total	Markel Ventures	Other	Total	Markel Ventures	Other	Total		
Products	\$ 1,396,706	\$ —	\$ 1,396,706	\$1,558,265	\$ —	\$ 1,558,265	\$1,452,332	\$ —	\$ 1,452,332		
Services	1,295,734	116,476	1,412,210	392,680	97,447	490,127	367,572	33,236	400,808		
Investment management		117,193	117,193		150,864	150,864		91,527	91,527		
Total revenues from contracts with customers	2,692,440	233,669	2,926,109	1,950,945	248,311	2,199,256	1,819,904	124,763	1,944,667		
Program services and other fronting	_	102,989	102,989	_	116,376	116,376	_	94,118	94,118		
Other	102,274	1,680	103,954	103,339	3,817	107,156	92,161	1,660	93,821		
Total	\$ 2,794,714	\$ 338,338	\$ 3,133,052	\$2,054,284	\$ 368,504	\$ 2,422,788	\$1,912,065	\$ 220,541	\$ 2,132,606		

Receivables from contracts with customers were \$406.4 million and \$263.9 million as of December 31, 2020 and 2019, respectively.

9. Unpaid Losses and Loss Adjustment Expenses

a) The following table presents a reconciliation of consolidated beginning and ending reserves for losses and loss adjustment expenses.

	Years Ended December 31,							
(dollars in thousands)		2020		2019		2018		
Net reserves for losses and loss adjustment expenses, beginning of year	\$	9,475,261	\$	9,214,443	\$	8,964,945		
Effect of foreign currency rate changes on beginning of year balance		68,368		18,857		(69,119)		
Effect of adoption of ASC 326 (see note 1)		3,849						
Adjusted net reserves for losses and loss adjustment expenses, beginning of year		9,547,478		9,233,300		8,895,826		
Incurred losses and loss adjustment expenses:								
Current accident year		4,073,325		3,426,441		3,371,699		
Prior accident years		(606,414)		(535,307)		(551,040)		
Total incurred losses and loss adjustment expenses		3,466,911		2,891,134		2,820,659		
Payments:								
Current accident year		749,887		671,208		666,515		
Prior accident years		1,779,980		1,979,032		1,835,027		
Total payments		2,529,867		2,650,240		2,501,542		
Effect of foreign currency rate changes on current year activity		1,195		1,067		(500)		
Net reserves for losses and loss adjustment expenses, end of year		10,485,717		9,475,261		9,214,443		
Reinsurance recoverables on unpaid losses		5,736,659		5,253,415		5,062,036		
Gross reserves for losses and loss adjustment expenses, end of year	\$	16,222,376	\$	14,728,676	\$	14,276,479		

COVID-19 Losses

In 2020, underwriting results included \$358.3 million of net losses and loss adjustment expenses attributed to the COVID-19 pandemic, including \$343.3 million for which COVID-19 was identified as the proximate, or direct, cause of loss. These losses and loss adjustment expenses were net of ceded losses of \$106.2 million.

Both the gross and net loss estimates for direct losses attributed to COVID-19 represent the Company's best estimates as of December 31, 2020 based upon information currently available. The Company's estimates for these direct losses and loss adjustment expenses are based on reported claims, detailed policy level reviews and reviews of in-force assumed reinsurance contracts for potential exposures, as well as analysis of ceded reinsurance contracts. These estimates also consider analysis provided by brokers and claims counsel and the results of recent judicial rulings. There are no recent historical events with similar characteristics to COVID-19, and therefore the Company has no past loss experience on which to base its estimates. Additionally, the economic and social impacts of the pandemic continue to evolve.

Significant assumptions on which the Company's estimates of reserves for direct COVID-19 losses and loss adjustment expenses are based include:

- the scope of coverage provided under the Company's policies, particularly those that provide for business interruption coverage;
- coverage provided under the Company's ceded reinsurance contracts;
- the expected duration of the disruption caused by the COVID-19 pandemic; and
- the ability of insureds to mitigate some or all of their losses.

The Company's estimates continue to be based on broad assumptions about coverage, liability and reinsurance. Additionally, there has been significant litigation involving the handling of business interruption claims associated with COVID-19, and in certain instances, assessing the validity of policy exclusions for pandemics and interpreting policy terms to determine coverage for pandemics. Such matters have been, and are expected to continue to be, subject to judicial review and also may be subject to other government action. A test case of a sample of business interruption coverages for policies written in the United Kingdom, which do not have the same exclusions as policies commonly written in the U.S., concluded in the third quarter of

2020 with the court's judgment finding mostly in favor of policyholders. This ruling was subsequently upheld by the United Kingdom supreme court. This ruling was most impactful to certain estimates in the Company's Reinsurance segment, resulting in an increase in the Company's estimate of losses and loss adjustment expenses on certain treaties following an increase in estimated losses by the respective cedents on the treaties. The Company's estimates at December 31, 2020 also reflect additional data gathered through increased claims reporting and a change in expectation of the duration of the pandemic.

While the Company believes the net reserves for losses and loss adjustment expenses for COVID-19 as of December 31, 2020 are adequate based on information currently available, the Company will continue to closely monitor reported claims, government actions, judicial decisions and changes in the levels of worldwide social disruption and economic activity arising from the pandemic and will adjust the estimates of gross and net losses as new information becomes available. Such adjustments to the Company's reserves for COVID-19 losses and loss adjustment expenses may be material to the Company's results of operations, financial condition and cash flows. See note 20 for details regarding other potential loss exposures arising from the pandemic.

Catastrophe Losses

In 2020, underwriting results also included \$168.9 million of underwriting loss from Hurricanes Isaias, Laura, Sally, Delta and Zeta, as well as wildfires in the western U.S. and the derecho in Iowa (2020 Catastrophes). The underwriting loss on the 2020 Catastrophes was comprised of \$172.2 million of net losses and loss adjustment expenses partially offset by \$3.4 million of net assumed reinstatement premiums. These losses and loss adjustment expenses were net of ceded losses of \$125.7 million.

In 2019, underwriting results included \$100.4 million of underwriting loss from Hurricane Dorian and Typhoons Faxai and Hagibis (2019 Catastrophes). The underwriting loss on the 2019 Catastrophes was comprised of \$114.0 million of net losses and loss adjustment expenses partially offset by \$13.6 million of net assumed reinstatement premiums. The net losses and loss adjustment expenses on the 2019 Catastrophe for the year ended December 31, 2019 were net of ceded losses of \$62.5 million.

In 2018, underwriting results included \$287.3 million of underwriting loss from Hurricanes Florence and Michael, Typhoon Jebi and wildfires in California (2018 Catastrophes). The underwriting loss on the 2018 Catastrophes was comprised of \$292.8 million of net losses and loss adjustment expenses partially offset by \$5.4 million of net assumed reinstatement premiums. The net losses and loss adjustment expenses on the 2018 Catastrophes for the year ended December 31, 2018 were net of ceded losses of \$244.1 million.

b) Reserving Methodology

The Company uses a variety of techniques to establish the liabilities for unpaid losses and loss adjustment expenses based upon estimates of the ultimate amounts payable. The Company maintains reserves for specific claims incurred and reported (case reserves) and reserves for claims incurred but not reported (IBNR reserves), which include expected development on reported claims. The Company does not discount its reserves for losses and loss adjustment expenses to reflect estimated present value, except for reserves held for a runoff book of U.K. motor business. Additionally, reserves assumed in connection with an acquisition are recorded at fair value at the acquisition date. The fair value adjustment includes an adjustment to reflect the acquired reserves for losses and loss adjustment expenses at present value plus a risk premium, the net of which is amortized to losses and loss adjustment expenses within the consolidated statements of income.

As of any balance sheet date, all claims have not yet been reported, and some claims may not be reported for many years. As a result, the liability for unpaid losses and loss adjustment expenses includes significant estimates for incurred but not reported claims.

There is normally a time lag between when a loss event occurs and when it is actually reported to the Company. The actuarial methods that the Company uses to estimate losses have been designed to address the lag in loss reporting as well as the delay in obtaining information that would allow the Company to more accurately estimate future payments. There is also a time lag between cedents establishing case reserves and re-estimating their reserves, and notifying the Company of the new or revised case reserves. As a result, the reporting lag is more pronounced in reinsurance contracts than in the insurance contracts due to the reliance on ceding companies to report their claims. On reinsurance transactions, the reporting lag will generally be 60 to 90 days after the end of a reporting period, but can be longer in some cases. Based on the experience of the Company's actuaries and management, loss development factors and trending techniques are selected to mitigate the difficulties caused by reporting lags. The loss development and trending factor selections are evaluated at least annually and updated using cedent specific and industry data.

IBNR reserves are based on the estimated ultimate cost of settling claims, including the effects of inflation and other social and economic factors, using past experience adjusted for current trends and any other factors that would modify past experience. IBNR reserves are generally calculated by subtracting paid losses and loss adjustment expenses and case reserves from estimated ultimate losses and loss adjustment expenses. IBNR reserves were 66% of total unpaid losses and loss adjustment expenses at December 31, 2020 compared to 65% at December 31, 2019.

In establishing liabilities for unpaid losses and loss adjustment expenses, the Company's actuaries estimate an ultimate loss ratio, by accident year or policy year, for each product line with input from underwriting and claims personnel. For product lines in which loss reserves are established on a policy year basis, the Company has developed a methodology to convert from policy year to accident year for financial reporting purposes. In estimating an ultimate loss ratio for a particular line of business, the actuaries may use one or more actuarial reserving methods and select from these a single point estimate. To varying degrees, these methods include detailed statistical analysis of past claim reporting, settlement activity, claim frequency and severity, policyholder loss experience, industry loss experience and changes in market conditions, policy forms and exposures. Greater judgment may be required when new product lines are introduced or when there have been changes in claims handling practices, as the statistical data available may be insufficient. These estimates also reflect implicit and explicit assumptions regarding the potential effects of external factors, including economic and social inflation, judicial decisions, changes in law, general economic conditions and recent trends in these factors. Management believes the process of evaluating past experience, adjusted for the effects of current developments and anticipated trends, is an appropriate basis for predicting future events.

Estimates for losses from widespread catastrophic events are based on claims received to date, detailed policy and reinsurance contract level reviews, industry loss estimates and output from both industry and proprietary models, as well as analysis of our ceded reinsurance contracts. The Company also considers loss experience on historical events that may have similar characteristics to the underlying event. Due to the inherent uncertainty in estimating such losses, these estimates are subject to variability, which increases with the severity and complexity of the underlying event. As additional claims are reported and paid, and industry loss estimates are revised, the Company incorporates this new information into its analysis and adjusts its estimate of ultimate losses and loss adjustment expenses. For example, both the gross and net losses on the 2020, 2019 and 2018 Catastrophes as of December 31, 2020 represent the Company's best estimates based upon information currently available. For the 2020 Catastrophes, these estimates are still dependent on broad assumptions about coverage, liability and reinsurance. While the Company believes the reserves for the 2020, 2019 and 2018 Catastrophes as of December 31, 2020 are adequate, it continues to closely monitor reported claims and will adjust estimates of gross and net losses as new information becomes available.

Loss reserves are established at management's best estimate, which is generally higher than the corresponding actuarially calculated point estimate. The actuarial point estimate represents the actuaries' estimate of the most likely amount that will ultimately be paid to settle the losses that have occurred at a particular point in time; however, there is inherent uncertainty in the point estimate as it is the expected value in a range of possible reserve estimates. In some cases, actuarial analyses, which are based on statistical analysis, cannot fully incorporate all of the subjective factors that affect development of losses. In other cases, management's perspective of these more subjective factors may differ from the actuarial perspective. Subjective factors where management's perspective may differ from that of the actuaries include: the credibility and timeliness of claims information received from third parties, economic and social inflation, judicial decisions, changes in law, changes in underwriting or claims handling practices, general economic conditions, the risk of moral hazard and other current and developing trends within the insurance and reinsurance markets, including the effects of competition. As a result, the actuarially calculated point estimates for each of the Company's lines of business represents starting points for management's quarterly review of loss reserves.

Inherent in the Company's reserving practices is the desire to establish loss reserves that are more likely redundant than deficient. As such, the Company seeks to establish loss reserves that will ultimately prove to be adequate. As part of the Company's acquisition of insurance operations, to the extent the reserving philosophy of the acquired business differs from the Company's reserving philosophy, the post-acquisition loss reserves will be strengthened until total loss reserves are consistent with the Company's target level of confidence. Furthermore, the Company's philosophy is to price its insurance products to make an underwriting profit. Management continually attempts to improve its loss estimation process by refining its ability to analyze loss development patterns, claim payments and other information, but uncertainty remains regarding the potential for adverse development of estimated ultimate liabilities.

The Company's ultimate liability may be greater or less than current reserves. Changes in the Company's estimated ultimate liability for loss reserves generally occur as a result of the emergence of unanticipated loss activity, the completion of specific actuarial or claims studies or changes in internal or external factors that impact the assumptions used to derive the Company's estimates. The Company closely monitors new information on reported claims and uses statistical analyses prepared by its actuaries to evaluate the adequacy of recorded reserves. Management exercises judgment when assessing the relative credibility of loss development trends.

Management currently believes the Company's gross and net reserves are adequate. However, there is no precise method for evaluating the impact of any significant factor on the adequacy of reserves, and actual results will differ from original estimates.

c) Prior Accident Year Loss Development

The following tables summarize, by segment, the product lines with the most significant changes in prior accident years' loss reserves for the years ended December 31, 2020, 2019 and 2018, along with the corresponding accident years and the trends and factors that impacted management's best estimate of ultimate losses and loss adjustment expenses on underlying products in each of these product lines. The Company does not estimate losses at this level of aggregation as it offers a diverse portfolio of products and manages these products in logical groupings within each underwriting segment. As a result of the trends and factors described in the following tables, the Company's actuaries adjusted their estimates of the ultimate liability for unpaid losses and loss adjustment expenses. Additionally, for those product lines with favorable development on prior accident years' loss reserves, management has now given more credibility to the favorable trends observed by the Company's actuaries and after also incorporating these favorable trends into its best estimate, reduced prior years' loss reserves accordingly.

	Year Ended December 31, 2020									
(dollars in millions)	Dev	Loss velopment	Accident Years with Most Significant Development	Trends and Factors Impacting Loss Estimates						
Insurance segment:										
General liability	\$	(131.8)	Several	More favorable claims experience than originally anticipated across several subproduct lines						
Professional liability		(128.9)	Several	More favorable claims experience than originally anticipated across several subproduct lines						
Workers' compensation		(92.3)	2017 to 2019	Lower loss severity than originally anticipated						
Marine and energy		(46.0)	2016 to 2019	Lower than expected frequency of claims						
Other products		(155.6)								
Total Insurance		(554.6)								
Reinsurance segment:		_								
Property		(68.4)	2017 to 2019	Lower than expected severity of claims						
Public entity		34.4	2016 to 2019	Higher than expected frequency and severity of claims						
				Recognition of additional exposure due to net favorable premium adjustments and higher than expected loss severity and claims						
Professional liability		21.0	2016 to 2019	frequency						
Other products		(38.8)								
Total Reinsurance		(51.8)								
Total decrease	\$	(606.4)								

Year Ended December 31, 2019

(dollars in millions)	Loss Development	Accident Years with Most Significant Development	Trends and Factors Impacting Loss Estimates
Insurance segment:			
General liability	\$ (161.4)	2015 to 2018	Lower loss severity than originally anticipated
Workers' compensation	(108.4)	2016 to 2018	Lower loss severity than originally anticipated and a net decrease in open claims
Professional liability	(61.8)	2017 and 2018	Lower than expected case incurred losses and a decrease in the frequency of large losses Lower than expected loss severity and claims
Marine and energy	(43.7)	2017 and 2018	frequency
Other products	(86.8)		
Total Insurance	(462.1)		
Reinsurance segment:			
Property	(29.6)	2016 and 2017	Lower than expected incurred and paid losses on reported claims
Whole account	(26.2)	2010 and prior	Lower than expected incurred and paid losses on reported claims
Other products	(9.0)	Zoro unu prior	on reperior commo
Total Reinsurance	(64.8)		
Net other prior years' development	(8.4)		
Total decrease	\$ (535.3)		
		Accident Years with	ecember 31, 2018
(dollars in millions)	Loss Development	Most Significant Development	Trends and Factors Impacting Loss Estimates
Insurance segment:			
General liability	\$ (143.0)	2012 to 2017	Lower than expected claims frequency
Workers' compensation	(100.1)	2013 to 2017	Lower loss severity than originally anticipated and a net decrease in open claims
Marine and energy	(70.7)	2017 and 2018	Favorable development on 2017 catastrophe events and lower than expected development on known claims
Professional liability	` /	2016 and 2017	Lower than expected case incurred losses
Other products	(120.0)	2010 and 2017	Lower than expected case medited losses
Total Insurance	(502.3)		
Reinsurance segment:	(302.3)		
Remsurance segment.			Lower than expected incurred and paid losses
Credit and surety	(23.9)	Several	on reported claims
Marine and energy	(18.0)	2012 to 2016	Lower than expected loss severity and claims frequency
Professional liability - medical	(19.5)	2009 to 2013	Lower loss severity than originally anticipated and a decrease in frequency of claims
Professional liability - other	35.7	Several	Adverse claims activity
Other products	(17.3)		
Total Reinsurance	(17.8)		
Total Reliisurance	(43.0)		
Net other prior years' development			

d) Historic Loss Development

The following tables present undiscounted loss development information, by accident year, for the Company's Insurance and Reinsurance segments, including cumulative incurred and paid losses and allocated loss adjustment expenses, net of reinsurance, as well as the corresponding amount of IBNR reserves as of December 31, 2020. This level of disaggregation is consistent with how the Company analyzes loss reserves for both internal and external reporting purposes. The loss development information for the years ended December 31, 2012 through 2019 is presented as supplementary information. Incurred losses in both our Insurance and Reinsurance segments generally remain outstanding more than nine years; however, data prior to 2012 is not practically available by segment as a result of a change in the Company's reportable segments in 2014. Additionally, reserves for the Company's international operations are determined on a policy year basis and historical data prior to 2012 does not exist by accident year. All amounts included in the following tables related to transactions denominated in a foreign currency have been translated into U.S. Dollars using the exchange rates in effect at December 31, 2020.

The difference between the segment loss development implied by the tables for the year ended December 31, 2020 and actual losses and loss adjustment expenses on prior accident years for the Insurance and Reinsurance segments for the year ended December 31, 2020 is primarily attributed to the fact that amounts presented in these tables exclude amounts attributed to the 2011 and prior accident years. Favorable development on 2011 and prior accident years for the year ended December 31, 2020 totaled \$78.1 million for the Insurance segment and \$38.5 million for the Reinsurance segment.

The remaining difference between the segment loss development implied by the tables for the year ended December 31, 2020 and actual losses and loss adjustment expenses on prior accident years is attributed to the fact that amounts presented in these tables exclude unallocated loss adjustment expenses and exclude amounts attributable to reserve discounting and fair value adjustments recorded in conjunction with acquisitions, as well as differences in the presentation of foreign currency movements, as previously described, none of which are material to the Insurance or Reinsurance segments.

The Insurance segment table that follows also includes claim frequency information, by accident year. The Company defines a claim as a single claim incident, per policy, which may include multiple claimants and multiple coverages on a single policy. Claim counts include claims closed without a payment as well as claims where the Company is monitoring to determine if an exposure exists, even if a reserve has not been established.

All of the business contained within the Company's Reinsurance segment represents treaty business that is assumed from other insurance or reinsurance companies, for which the Company does not have access to the underlying claim counts. Further, this business includes both quota share and excess of loss treaty reinsurance, through which only a portion of each reported claim results in losses to the Company. As such, the Company has excluded claim count information from the Reinsurance segment disclosures.

In 2013, the Company completed the acquisition of Alterra Capital Holdings Limited (Alterra), the results of which are included in both of the Company's reportable segments. Ultimate incurred losses and loss adjustment expenses, net of reinsurance as of December 31, 2013 include outstanding liabilities for losses and loss adjustment expenses of Alterra as of the acquisition date, by accident year, and not in any prior periods. Pre-acquisition data is not available by segment and accident year due in part to the impact of significant intercompany reinsurance contracts. Additionally, Alterra reserves were historically determined on a policy year basis and pre-acquisition data does not exist in a format that can be used to determine accident year. Following the acquisition, ongoing business attributable to Alterra was integrated with the Company's other insurance operations and is not separately tracked.

Insurance Segment

	UI	timate Incu	rred Losses		ted Loss Adj	justment Ex	penses, Net	of Reinsura	nce As of	Incurred- but-Not- Reported Liabilities,	Cumulative Number of Reported Claims
(dollars in millions)				As of Dec	cember 31,				December 31,	Net of Reinsurance	<u>(in</u>
Accident Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	Decemb	oer 31, 2020
2012	\$ 1,382.5	\$ 1,623.6	\$ 1,502.6	\$ 1,439.8	\$ 1,406.4	\$ 1,373.3	\$ 1,359.7	\$ 1,339.2	\$ 1,327.3	\$ 68.	129
2013		1,750.6	1,709.8	1,539.0	1,474.2	1,426.8	1,380.4	1,338.0	1,312.5	87.	7 90
2014			1,876.5	1,711.9	1,644.4	1,585.3	1,537.0	1,515.9	1,488.1	112.	5 82
2015				1,798.9	1,727.3	1,604.8	1,549.6	1,518.7	1,485.7	140.	6 88
2016					1,886.0	1,882.9	1,779.8	1,724.6	1,697.0	179.	5 96
2017						2,344.2	2,214.0	2,092.7	2,032.5	263.	5 132
2018							2,470.6	2,368.9	2,241.2	573.	6 184
2019								2,599.0	2,459.5	999.	3 211
2020									3,235.7	2,157.	3 157
Total									\$17,279.5		

Total of

	Cumulative Paid Losses and Allocated Loss Adjustment Expenses, Net of Reinsura										ıce		
								Unau	ıdited				As of
							Α	s of Dec	cember 31,				December 31,
Accident Year		2012		2013		2014		2015	2016	2017	2018	2019	2020
2012	\$	234.6	\$	571.2	\$	785.2	\$	944.3	\$ 1,060.9	\$ 1,126.2	\$ 1,160.7	\$ 1,188.2	\$ 1,211.0
2013				272.8		574.5		783.8	955.6	1,044.6	1,108.1	1,132.2	1,155.1
2014						333.8		663.0	901.8	1,071.0	1,177.4	1,262.8	1,306.1
2015								324.2	669.4	882.2	1,047.2	1,158.7	1,228.1
2016									373.8	757.4	988.7	1,175.9	1,282.1
2017										440.6	997.7	1,294.5	1,484.3
2018											497.8	1,034.1	1,308.8
2019												531.1	1,008.0
2020													577.9
Total													\$10,561.4
All outstanding liabilities for unpaid losses and loss adjustment expenses before 2012, net of reinsurance											246.0		
Total liabilities for unpaid losses and loss adjustment expenses, net of reinsurance											\$ 6,964.1		

Ultimate incurred losses and allocated loss adjustment expenses as of December 31, 2013 for the Insurance segment include \$257.9 million and \$314.4 million of losses and loss adjustment expenses on the 2012 and 2013 accident years, respectively, attributable to Alterra. Cumulative paid losses and allocated loss adjustment expenses as of December 31, 2013 include \$36.8 million and \$29.5 million of paid losses and allocated loss adjustment expenses on the 2012 and 2013 accident years, respectively, attributable to the acquired Alterra reserves and post-acquisition Alterra business. Cumulative paid losses and allocated loss adjustment expenses and cumulative reported claims for the 2012 and 2013 accident years exclude any claims paid or closed prior to the acquisition.

Variability in claim counts is primarily attributable to claim counts associated with a personal lines product with high claim frequency and low claim severity. Cumulative reported claims for the 2012, 2013, 2017, 2018, 2019 and 2020 accident years include 66 thousand, 17 thousand, 24 thousand, 54 thousand, 89 thousand and 44 thousand, respectively, of claim counts associated with this product. The Company did not write this business from 2014 to 2016. The related net incurred losses and allocated loss adjustment expenses are not material to the Insurance segment.

(dollars in millions)	 Ul	tim	ate Incu	rrec	l Losses	Unau	ıdite	ed	ustı	nent Ex	pen	ses, Net	of F	Reinsura	As of ecember 31,	In b R Li	otal of curred- ut-Not- eported abilities, Net of insurance
Accident Year	 2012		2013		2014	2015		2016		2017		2018		2019	 2020	D	ecember 1, 2020
2012	\$ 73.5	\$	555.8	\$	513.0	\$ 490.6	\$	460.5	\$	459.3	\$	451.1	\$	448.2	\$ 443.5	\$	28.3
2013			594.3		586.0	552.1		538.5		549.5		512.3		494.2	496.4		36.6
2014					579.0	565.1		536.8		583.8		561.9		538.0	522.0		70.8
2015						530.7		517.0		536.2		527.2		515.7	510.5		121.9
2016								518.9		529.5		527.8		526.3	535.8		89.0
2017										906.1		938.1		943.0	944.1		207.9
2018												760.0		795.1	788.6		256.6
2019														681.7	695.7		354.2
2020															687.4		511.4
Total															\$ 5,624.0		

Total of

	Cumulative Paid Losses and Allocated Loss Adjustment Expenses, Net of Reinsuran											ıce					
								Unaı	ıdite	ed							As of
	As of December 31,														ecember 31,		
Accident Year	2	012		2013		2014		2015		2016		2017	2018		2019		2020
2012	\$	4.2	\$	65.1	\$	130.0	\$	185.4	\$	233.4	\$	266.0	\$ 291.4	\$	311.6	\$	329.3
2013				71.9		157.4		211.6		270.7		303.8	334.1		353.4		369.3
2014						98.5		158.5		225.4		272.9	310.3		344.8		363.5
2015								63.9		133.4		206.8	258.1		305.9		331.5
2016										79.8		170.9	242.2		299.0		351.6
2017												157.6	359.4		481.6		564.1
2018													87.5		259.8		364.1
2019															54.2		182.6
2020																	95.2
Total																\$	2,951.2
All outstanding liabilities for unpaid losses and loss adjustment expenses before 2012, net of reinsurance													476.3				
Total liabilities for unpaid losses and loss adjustment expenses, net of reinsurance												\$	3,149.1				

Ultimate incurred losses and allocated loss adjustment expenses as of December 31, 2013 for the Reinsurance segment include \$480.1 million and \$543.4 million of losses and loss adjustment expenses on the 2012 and 2013 accident years, respectively, attributable to Alterra. Cumulative paid losses and allocated loss adjustment expenses as of December 31, 2013 include \$53.2 million and \$69.5 million of paid losses and allocated loss adjustment expenses on the 2012 and 2013 accident years, respectively, attributable to the acquired Alterra reserves and post-acquisition Alterra business. Cumulative paid losses and allocated loss adjustment expenses for the 2012 and 2013 accident years exclude any claims paid prior to the acquisition.

The following table presents supplementary information about average historical claims duration as of December 31, 2020 based on the cumulative incurred and paid losses and allocated loss adjustment expenses presented above.

		Average Annual Percentage Payout of Incurred Losses by Age (in Years), Net of Reinsurance												
<u>Unaudited</u>	1	2	3	4	5	6	7	8	9					
Insurance	20.9 %	23.4 %	14.7 %	11.3 %	7.3 %	5.0 %	2.4 %	1.9 %	1.7 %					
Reinsurance	12.4 %	16.8 %	13.2 %	10.5 %	8.8 %	6.3 %	4.4 %	3.9 %	4.0 %					

The following table reconciles the net incurred and paid loss development tables to the liability for losses and loss adjustment expenses on the consolidated balance sheet.

(dollars in thousands)	Dec	ember 31, 2020
Net outstanding liabilities		
Insurance segment	\$	6,964,146
Reinsurance segment		3,149,115
Other underwriting		121,697
Program services and other		8,254
Liabilities for unpaid losses and loss adjustment expenses, net of reinsurance		10,243,212
Reinsurance recoverable on unpaid losses		
Insurance segment		2,010,817
Reinsurance segment		305,507
Other underwriting		143,856
Program services and other		3,276,479
Total reinsurance recoverable on unpaid losses		5,736,659
Unallocated loss adjustment expenses		299,000
Unamortized discount, net of acquisition fair value adjustments, included in unpaid losses and loss		
adjustment expenses		(56,495)
		242,505
Total gross liability for unpaid losses and loss adjustment expenses	\$	16,222,376

e) The Company has exposure to asbestos and environmental (A&E) claims primarily resulting from policies written by acquired insurance operations before their acquisition by the Company. The Company's exposure to A&E claims originated from umbrella, excess and commercial general liability insurance policies and assumed reinsurance contracts that were written on an occurrence basis from the 1970s to mid-1980s. Exposure also originated from claims-made policies that were designed to cover environmental risks provided that all other terms and conditions of the policy were met. A&E claims include property damage and clean-up costs related to pollution, as well as personal injury allegedly arising from exposure to hazardous materials. Development on A&E loss reserves is monitored separately from the Company's ongoing underwriting operations and is not included in a reportable segment.

At December 31, 2020, A&E reserves were \$219.7 million and \$65.5 million on a gross and net basis, respectively. At December 31, 2019, A&E reserves were \$234.2 million and \$74.4 million on a gross and net basis, respectively.

The Company's reserves for losses and loss adjustment expenses related to A&E exposures represent management's best estimate of ultimate settlement values based on statistical analysis of these reserves by the Company's actuaries. A&E exposures are subject to significant uncertainty due to potential loss severity and frequency resulting from the uncertain and unfavorable legal climate. A&E reserves could be subject to increases in the future, however, management believes the Company's gross and net A&E reserves at December 31, 2020 are adequate.

10. Reinsurance

In reinsurance and retrocession transactions, an insurance or reinsurance company transfers, or cedes, all or part of its exposure in return for a premium. The ceding of insurance does not legally discharge the Company from its primary liability for the full amount of the policies, and the Company will be required to pay the loss and bear collection risk if the reinsurer fails to meet its obligations under the reinsurance or retrocessional agreement. A credit risk exists with ceded reinsurance to the extent that any reinsurer is unable to meet the obligations assumed under the reinsurance or retrocessional contracts. Allowances are established for credit losses expected to be recognized over the life of the reinsurance recoverables.

Within its underwriting operations, the Company uses reinsurance and retrocessional reinsurance to manage its net retention on individual risks and overall exposure to losses while providing it with the ability to offer policies with sufficient limits to meet policyholder needs.

Within the Company's underwriting operations, at December 31, 2020 and 2019, balances recoverable from the ten largest reinsurers, by group, represented 60% and 62%, respectively, of reinsurance recoverables before considering reinsurance allowances and collateral. At December 31, 2020, the largest reinsurance balance was due from Fairfax Financial Group and represented 9% of reinsurance recoverables before considering reinsurance allowances and collateral.

Within its program services business, the Company generally enters into 100% quota share reinsurance agreements whereby the Company cedes to the capacity provider (reinsurer) substantially all of its gross liability under all policies issued by and on behalf of the Company by the general agent. However, there are certain programs that contain limits on the reinsurers' obligations to the Company that expose the Company to underwriting risk, including loss ratio caps, exclusions of the credit risk of producers and aggregate reinsurance limits that the Company believes are unlikely to be exceeded. The Company also remains exposed to the credit risk of the reinsurer, or the risk that one of its reinsurers becomes insolvent or otherwise unable or unwilling to pay policyholder claims. This credit risk is generally mitigated by either selecting well capitalized, highly rated authorized capacity providers or requiring that the capacity provider post substantial collateral to secure the reinsured risks.

Within the Company's program services business, at December 31, 2020 and 2019, balances recoverable from the ten largest reinsurers, by group, represented 70% and 71%, respectively, of reinsurance recoverables before considering reinsurance allowances and collateral. At December 31, 2020, the largest reinsurance balance was due from Fosun International Holdings Ltd. and represented 18% of reinsurance recoverables before considering reinsurance allowances and collateral.

The following tables summarize the effect of reinsurance and retrocessional reinsurance on premiums written and earned.

	Year Ended December 31, 2020									
(dollars in thousands)	Direct		Assumed		Ceded	Net Premiums				
Underwriting:										
Written	\$ 5,715,038	\$	1,444,967	\$	(1,222,390)	\$	5,937,615			
Earned	\$ 5,357,888	\$	1,394,239	\$	(1,134,501)	\$	5,617,626			
Program services and other:										
Written	2,038,743		67,917		(2,112,037)		(5,377)			
Earned	2,084,888		74,847		(2,165,156)		(5,421)			
Consolidated:										
Written	\$ 7,753,781	\$	1,512,884	\$	(3,334,427)	\$	5,932,238			
Earned	\$ 7,442,776	\$	1,469,086	\$	(3,299,657)	\$	5,612,205			
							-			
			Year Ended De	cemb	er 31, 2019					
(dollars in thousands)	 Direct		Assumed		Ceded	N	Net Premiums			
Underwriting:										
Written	\$ 5,084,641	\$	1,349,686	\$	(1,024,097)	\$	5,410,230			
Earned	\$ 4,767,836	\$	1,289,375	\$	(1,008,970)	\$	5,048,241			
Program services and other:										
Written	2,256,747		88,897		(2,343,803)		1,841			
Earned	2,194,671		78,778		(2,271,897)		1,552			
Consolidated:										
Written	\$ 7,341,388	\$	1,438,583	\$	(3,367,900)	\$	5,412,071			
Earned	\$ 6,962,507	\$	1,368,153	\$	(3,280,867)	\$	5,049,793			

		Year Ended December 31, 2018									
(dollars in thousands)		Direct		Assumed		Ceded	N	Vet Premiums			
Underwriting:											
Written	\$	4,562,256	\$	1,236,740	\$	(1,013,406)	\$	4,785,590			
Earned	\$	4,384,562	\$	1,291,032	\$	(964,549)	\$	4,711,045			
Program services and other:											
Written		2,022,548		42,925		(2,063,485)		1,988			
Earned		1,850,656		28,581		(1,878,222)		1,015			
Consolidated:											
Written	\$	6,584,804	\$	1,279,665	\$	(3,076,891)	\$	4,787,578			
Earned	\$	6,235,218	\$	1,319,613	\$	(2,842,771)	\$	4,712,060			

Substantially all of the premium written and earned in the Company's program services and other fronting operations for the years ended December 31, 2020, 2019 and 2018 was ceded. The percentage of consolidated ceded earned premiums to gross earned premiums was 37%, 39% and 38% for the years ended December 31, 2020, 2019 and 2018, respectively. The percentage of consolidated assumed earned premiums to net earned premiums was 26%, 27% and 28% for the years ended December 31, 2020, 2019 and 2018, respectively.

Substantially all of the incurred losses and loss adjustment expenses in the Company's program services and other fronting operations, which totaled \$1.6 billion for the years ended December 31, 2020 and 2019, were ceded.

The following table summarizes the effect of reinsurance and retrocessional reinsurance on losses and loss adjustment expenses in the Company's underwriting operations.

	 Years ended December 31,								
(dollars in thousands)	 2020		2019		2018				
Gross	\$ 4,189,948	\$	3,447,186	\$	3,530,790				
Ceded	 (722,619)		(556,618)		(710,568)				
Net losses and loss adjustment expenses	\$ 3,467,329	\$	2,890,568	\$	2,820,222				

11. Life and Annuity Benefits

The following table presents life and annuity benefits.

	 December 31,				
(dollars in thousands)	 2020		2019		
Life	\$ 125,856	\$	125,094		
Annuities	900,298		813,476		
Accident and health	43,832		47,159		
Total	\$ 1,069,986	\$	985,729		

Life and annuity benefits are compiled on a reinsurance contract-by-contract basis and are discounted using standard actuarial techniques and cash flow models. Since the development of the life and annuity reinsurance reserves is based upon cash flow projection models, the Company must make estimates and assumptions based on cedent experience, industry mortality tables, and expense and investment experience, including a provision for adverse deviation. The assumptions used to determine policy benefit reserves are generally locked-in for the life of the contract unless an unlocking event occurs. Loss recognition testing is performed to determine if existing policy benefit reserves, together with the present value of future gross premiums and expected investment income earned thereon, are adequate to cover the present value of future benefits, settlement and maintenance costs. If the existing policy benefit reserves are not sufficient, the locked-in assumptions are revised to current best estimate assumptions and a charge to earnings for life and annuity benefits is recognized at that time.

Life and annuity benefits are also adjusted to the extent unrealized gains on the investments supporting the policy benefit reserves would result in a reserve deficiency if those gains were realized. During 2020 and 2019, the Company increased life

and annuity benefits by \$68.2 million and \$51.4 million, respectively, as a result of decreases in the market yield on the investment portfolio supporting the policy benefit reserves, and decreased the change in net unrealized holding gains included in other comprehensive income by corresponding amounts. No adjustment was required for the year ended December 31, 2018. As of December 31, 2020 and December 31, 2019, the cumulative adjustment to life and annuity benefits attributable to unrealized gains on the underlying investment portfolio totaled \$119.6 million and \$51.4 million, respectively.

Because of the assumptions and estimates used in establishing the Company's reserves for life and annuity benefit obligations and the long-term nature of these reinsurance contracts, the ultimate liability may be greater or less than the estimates. The average discount rate for the life and annuity benefit reserves was 2.3% as of December 31, 2020.

As of December 31, 2020, the largest life and annuity benefits reserve for a single contract was 33.9% of the total.

None of the annuities included in life and annuity benefits on the consolidated balance sheets are subject to discretionary withdrawal.

12. Senior Long-Term Debt and Other Debt

The following table summarizes the Company's senior long-term debt and other debt.

	Dec	1,	
(dollars in thousands)	2020		2019
4.90% unsecured senior notes, due July 1, 2022, interest payable semi-annually, net of unamortized discount of \$432 in 2020 and \$705 in 2019	\$ 349,49	3 \$	349,181
3.625% unsecured senior notes, due March 30, 2023, interest payable semi-annually, net of unamortized discount of \$452 in 2020 and \$653 in 2019	249,46	4	249,226
3.50% unsecured senior notes, due November 1, 2027, interest payable semi-annually, net of unamortized discount of \$1,729 in 2020 and \$2,013 in 2019	297,76)	297,402
3.35% unsecured senior notes, due September 17, 2029, interest payable semi-annually, net of unamortized discount of \$2,163 in 2020 and \$2,410 in 2019	297,40	4	297,125
7.35% unsecured senior notes, due August 15, 2034, interest payable semi-annually, net of unamortized discount of \$937 in 2020 and \$1,005 in 2019	128,85)	128,788
5.0% unsecured senior notes, due March 30, 2043, interest payable semi-annually, net of unamortized discount of \$4,983 in 2020 and \$5,207 in 2019	244,74	2	244,505
5.0% unsecured senior notes, due April 5, 2046, interest payable semi-annually, net of unamortized discount of \$6,177 in 2020 and \$6,421 in 2019	493,03	5	492,761
4.30% unsecured senior notes, due November 1, 2047, interest payable semi-annually, net of unamortized discount of \$3,973 in 2020 and \$4,126 in 2019	295,33	3	295,154
5.0% unsecured senior notes, due May 20, 2049, interest payable semi-annually, net of unamortized discount of \$7,422 in 2020 and \$7,684 in 2019	591,31	5	591,010
4.15% unsecured senior notes, due September 17, 2050, interest payable semi-annually, net of unamortized discount of \$5,272 in 2020 and \$5,449 in 2019	493,93	5	493,759
Other debt, at various interest rates ranging from 1.7% to 6.1%	42,66	3	95,272
Senior long-term debt and other debt	\$ 3,484,02	3 \$	3,534,183

In May 2019, the Company issued \$600 million of 5.0% unsecured senior notes due May 20, 2049. Net proceeds to the Company were \$592.2 million, before expenses. In September 2019, the Company used a portion of these proceeds to repay its 7.125% unsecured senior notes due September 30, 2019 (\$234.8 million aggregate principal outstanding at December 31, 2019).

In September 2019, the Company issued \$300 million of 3.35% unsecured senior notes due September 17, 2029 and \$500 million of 4.15% unsecured senior notes due September 17, 2050. Net proceeds to the Company were \$297.5 million and \$494.5 million, respectively, before expenses. The Company used a portion of these proceeds to purchase \$125.2 million of principal on its 6.25% unsecured senior notes due September 30, 2020 (2020 Notes) and \$97.8 million of principal on its 5.35% unsecured senior notes due June 1, 2021 (2021 Notes) through a tender offer at a total purchase price of \$130.1 million and \$103.0 million, respectively.

In October 2019, the Company used a portion of the remaining proceeds from the September 2019 issuances to redeem the remaining outstanding balance of \$224.8 million on its 2020 Notes and \$152.2 million on its 2021 Notes for a total purchase price of \$233.4 million and \$160.2 million, respectively. In connection with the September 2019 tender offer and purchase

described above and the October 2019 redemption, the Company recognized a loss on early extinguishment of debt of \$17.6 million during 2019.

The Company's 7.35% unsecured senior notes due August 15, 2034 are not redeemable. The Company's other unsecured senior notes are redeemable by the Company at any time, subject to payment of a make-whole premium to the noteholders. None of the Company's senior long-term debt is subject to any sinking fund requirements.

The Company's other debt is primarily associated with its subsidiaries and includes \$42.7 million and \$70.4 million associated with its Markel Ventures subsidiaries as of December 31, 2020 and 2019, respectively. The Markel Ventures debt is non-recourse to the holding company and generally is secured by the assets of those subsidiaries. ParkLand, a subsidiary of the Company, has formed subsidiaries for the purpose of acquiring and financing real estate (the real estate subsidiaries). The assets of certain real estate subsidiaries, which are not material to the Company, are consolidated in accordance with U.S. GAAP but are not available to satisfy the debt and other obligations of the Company or any affiliates other than those real estate subsidiaries.

The estimated fair value of the Company's senior long-term debt and other debt was \$4.4 billion and \$3.9 billion at December 31, 2020 and 2019, respectively.

The following table summarizes the future principal payments due at maturity on senior long-term debt and other debt as of December 31, 2020.

Years Ending December 31,	 (dollars in thousands)
2021	\$ 36,493
2022	356,128
2023	250,360
2024	
2025	_
2026 and thereafter	 2,879,847
Total principal payments	\$ 3,522,828
Net unamortized discount	(33,541)
Net unamortized debt issuance costs	 (5,264)
Senior long-term debt and other debt	\$ 3,484,023

In April 2019, the Company entered into a credit agreement for a new revolving credit facility, which provides up to \$300 million of capacity for future acquisitions, investments and stock repurchases, and for other working capital and general corporate purposes. At the Company's discretion, up to \$200 million of the total capacity may be used for letters of credit. The Company may increase the capacity of the facility by up to \$200 million subject to obtaining commitments for the increase and certain other terms and conditions. The Company pays interest on balances outstanding under the facility and a utilization fee for letters of credit issued under the facility. The Company also pays a commitment fee (0.20% at December 31, 2020) on the unused portion of the facility based on the Company's leverage ratio as calculated under the credit agreement. The credit agreement includes financial covenants that require that the Company not exceed a maximum leverage ratio and maintain a minimum amount of consolidated net worth, as well as other customary covenants and events of default. This facility replaced the Company's previous \$300 million revolving credit facility and is scheduled to expire in April 2024. There were no borrowings outstanding on the Company's credit facility as of December 31, 2020 and 2019.

At December 31, 2020, the Company was in compliance with all covenants contained in its revolving credit facility. To the extent that the Company is not in compliance with its covenants, the Company's access to the revolving credit facility could be restricted.

The Company paid \$178.2 million, \$169.7 million and \$155.4 million in interest on its senior long-term debt and other debt during the years ended December 31, 2020, 2019 and 2018, respectively.

13. Income Taxes

Income (loss) before income taxes includes the following components.

	Years Ended December 31,							
(dollars in thousands)		2020		2019		2018		
Domestic operations	\$	1,003,714	\$	1,664,762	\$	99,373		
Foreign operations		(3,265)		621,046		(107,228)		
Income (loss) before income taxes	\$	1,000,449	\$	2,285,808	\$	(7,855)		
Income tax expense includes the following components.								
		Ye	ars E	nded December	31,			
(dollars in thousands)		2020		2019		2018		
Current:								
Domestic	\$	167,099	\$	139,597	\$	77,936		
Foreign		4,316		23,364		41,833		
Total current tax expense		171,415		162,961		119,769		
Deferred:								
Domestic		(9,972)		217,928		(77,255)		
Foreign		7,239		105,457		79,984		
Total deferred tax expense (benefit)		(2,733)		323,385		2,729		
Income tax expense	\$	168,682	\$	486,346	\$	122,498		

Foreign income tax expense includes U.S. income tax expense on foreign operations, including the Company's U.K. and Bermuda-based operations, certain of which have elected to be taxed as domestic corporations for U.S. tax purposes. State income tax expense is not material to the consolidated financial statements.

The Company made net income tax payments of \$241.7 million, \$128.2 million and \$63.1 million in 2020, 2019 and 2018, respectively. Income taxes payable were \$17.2 million and \$64.1 million at December 31, 2020 and 2019, respectively, and were included in other liabilities on the consolidated balance sheets. Income taxes receivable were \$26.1 million and \$6.3 million at December 31, 2020 and 2019, respectively, and were included in other assets on the consolidated balance sheets.

In 2018, the Company decided to elect to treat its two most significant U.K. subsidiaries as domestic corporations for U.S. tax purposes. As a result, the earnings and profits from those subsidiaries are no longer considered to be indefinitely reinvested, and during 2018, the Company recorded a one-time deferred tax charge of \$103.3 million related to the book and tax basis differences attributable to those subsidiaries. For subsidiaries the Company has not elected to treat as domestic corporations for U.S. tax purposes, the Company is subject to the U.S. Global Intangible Low Taxes Income (GILTI) tax. The Company recognizes the impact of the GILTI tax as incurred, and therefore has not recorded deferred taxes on the temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases. For the years ended December 31, 2020, 2019 and 2018, GILTI tax was not material to the consolidated financial statements.

The following table presents a reconciliation of income taxes computed using the U.S. corporate tax rate to the Company's income tax expense.

	Years Ended December 31,					
(dollars in thousands)	2020		2019		2018	
Income taxes at U.S. corporate tax rate	\$ 210,093	\$	480,020	\$	(1,650)	
Increase (decrease) resulting from:						
Nondeductible (deductible) losses on certain foreign investments	(38,666)		_		26,552	
Tax-exempt investment income	(16,415)		(18,430)		(18,927)	
Foreign operations	6,500		14,718		4,951	
Change in tax status of U.K. subsidiaries	_		(6,658)		103,281	
Other	7,170		16,696		8,291	
Income tax expense	\$ 168,682	\$	486,346	\$	122,498	
Effective tax rate	17 %	<u> </u>	21 %		NM (1)	

⁽¹⁾ NM - Ratio is not meaningful

The following table presents the components of domestic and foreign deferred tax assets and liabilities.

	December 31,			
(dollars in thousands)		2020		2019
Assets:				
Unpaid losses and loss adjustment expenses	\$	192,755	\$	163,522
Lease liabilities		135,104		55,362
Unearned premiums recognized for income tax purposes		116,714		102,020
Life and annuity benefits		108,825		84,890
Accrued incentive compensation		30,374		35,132
Net operating loss carryforwards		27,341		39,429
Tax credit carryforwards		15,885		47,233
Other differences between financial reporting and tax bases		63,840		52,604
Total gross deferred tax assets		690,838		580,192
Less valuation allowance		(24,396)		(45,544)
Total gross deferred tax assets, net of allowance		666,442		534,648
Liabilities:				
Investments		1,102,476		996,543
Goodwill and other intangible assets		173,059		134,573
Right-of-use lease assets		127,391		49,583
Deferred policy acquisition costs		118,581		113,243
Other differences between financial reporting and tax bases		131,070		101,426
Total gross deferred tax liabilities		1,652,577		1,395,368
Net deferred tax liability	\$	986,135	\$	860,720

As of December 31, 2020 and 2019, the Company's consolidated balance sheets included net deferred tax liabilities of \$990.1 million and \$883.0 million, respectively, in other liabilities and net deferred tax assets of \$3.9 million and \$22.3 million, respectively, in other assets.

At December 31, 2020, the Company had tax credit carryforwards of \$15.9 million, all of which the Company expects to utilize before expiration. The earliest any of these credits will expire is 2029.

At December 31, 2020, the Company also had net operating losses of \$25.8 million that can be used to offset future taxable income in the U.S. The Company's ability to use the majority of these losses expires between the years 2029 and 2037. At

December 31, 2020, certain branch operations in Europe and a wholly owned subsidiary in Brazil had net operating losses of \$72.8 million that can be used to offset future income in their local jurisdictions. The Company's ability to use \$26.7 million of these losses expires between the years 2021 and 2027. The remaining losses are not subject to expiration. As discussed below, the deferred tax assets related to losses at certain of the Company's subsidiaries and branches are offset by valuation allowances.

At December 31, 2020, the Company had total gross deferred tax assets of \$690.8 million. The Company has a valuation allowance of \$24.4 million to offset gross deferred tax assets primarily attributable to cumulative net operating losses at certain of the Company's subsidiaries and branches. The Company believes that it is more likely than not that it will realize the remaining \$666.4 million of gross deferred tax assets through generating taxable income or the reversal of existing temporary differences attributable to the gross deferred tax liabilities.

At December 31, 2020, the Company did not have any material unrecognized tax benefits. The Company does not anticipate any changes in unrecognized tax benefits during 2021 that would have a material impact on the Company's income tax provision.

The Company is subject to income tax in the U.S. and in foreign jurisdictions. The Internal Revenue Service is currently examining the Company's 2017 U.S. federal income tax return. The Company believes its income tax liabilities were adequate as of December 31, 2020, however, these liabilities could be adjusted as a result of this examination. With few exceptions, the Company is no longer subject to income tax examination by tax authorities for years ended before January 1, 2017.

14. Employee Benefit Plans

- a) The Company maintains defined contribution plans for employees of its U.S. insurance operations in accordance with Section 401(k) of the U.S. Internal Revenue Code of 1986. Employees of the Company's Markel Ventures subsidiaries are provided post-retirement benefits under separate defined contribution plans. The Company also provides various defined contribution plans for employees of its international insurance and other operations, which are in line with local market terms and conditions of employment. Expenses relating to the Company's defined contribution plans were \$48.6 million, \$42.4 million and \$41.8 million in 2020, 2019 and 2018, respectively.
- b) The Terra Nova Pension Plan is a defined benefit plan that covers certain employees in the Company's international insurance operations who meet the eligibility conditions set out in the plan. The plan has been closed to new participants since 2001, and employees have not accrued benefits for future service in the plan since April 2012. The projected benefit obligations of the Terra Nova Pension Plan as of December 31, 2020 and 2019 were \$220.5 million and \$191.4 million, respectively, and the related fair value of plan assets was \$242.3 million and \$216.9 million, respectively. The corresponding net asset for pension benefits, also referred to as the funded status of the plan, at December 31, 2020 and 2019 was included in other assets on the Company's consolidated balance sheets.

15. Variable Interest Entities

MCIM, a wholly-owned consolidated subsidiary of the Company, is an insurance-linked securities investment fund manager and reinsurance manager headquartered in Bermuda. Results attributable to MCIM are not included in a reportable segment.

MCIM serves as the insurance manager for Markel CATCo Re, a Bermuda Class 3 reinsurance company, and as the investment manager for Markel CATCo Reinsurance Fund Ltd., a Bermuda exempted mutual fund company comprised of multiple segregated accounts (Markel CATCo Funds). The Markel CATCo Funds issue multiple classes of nonvoting, redeemable preference shares to investors and the Markel CATCo Funds are primarily invested in nonvoting preference shares of Markel CATCo Re. The underwriting results of Markel CATCo Re are attributed to the Markel CATCo Funds through those nonvoting preference shares. Voting shares in Markel CATCo Reinsurance Fund Ltd. and Markel CATCo Re are held by MCIM.

The Markel CATCo Funds and Markel CATCo Re are considered VIEs, as their preference shareholders have no voting rights. MCIM has the power to direct the activities that most significantly impact the economic performance of these entities, but does not have a variable interest in any of the entities. With the exception of an investment in one of the Markel CATCo Funds (\$58.5 million and \$26.8 million at December 31, 2020 and 2019, respectively), the Company's involvement is generally limited to that of an investment or insurance manager, receiving fees that are at market and commensurate with the level of effort required. The Company is not the primary beneficiary of the Markel CATCo Funds or Markel CATCo Re and therefore does not consolidate these entities. As of December 31, 2019, the Company was also the sole investor in another one

of the Markel CATCo Funds and consolidated that fund as its primary beneficiary but did not have a variable interest in that fund at December 31, 2020. See note 5 for additional details on the Company's investments in the Markel CATCo Funds.

The Company's exposure to risk from unconsolidated Markel CATCo Funds and Markel CATCo Re is generally limited to its investment and any earned but uncollected fees. The Company has not issued any investment performance guarantees to these VIEs or their investors. As of December 31, 2020 and 2019, net assets under management of MCIM for unconsolidated VIEs were \$929.2 million and \$2.7 billion, respectively.

In July 2019, both the Markel CATCo Funds and Markel CATCo Re were placed into run-off, and MCIM is returning capital to investors as it becomes available. See note 19 for further details regarding developments within the Company's Markel CATCo operations.

16. Related Party Transactions

The Company engages in certain related party transactions in the normal course of business at arm's length.

Insurance-Linked Securities

Within the Company's insurance-linked securities operations, the Company provides investment and insurance management services through MCIM and Nephila. See note 15 for details regarding operations conducted through MCIM. Nephila serves as the investment manager to several Bermuda, Ireland and U.S. based private funds (the Nephila Funds). To provide access for the Nephila Funds to the insurance, reinsurance and weather markets, Nephila also provides managing general agent services and acts as an insurance manager to certain Bermuda Class 3 and 3A reinsurance companies and Lloyd's Syndicate 2357 (Syndicate 2357) (collectively, the Nephila Reinsurers). The Company receives management fees for investment and insurance management services provided through its insurance-linked securities operations based on the net asset value of the accounts managed, and, for certain funds, incentive fees based on the annual performance of the funds managed. Nephila also receives commissions from the Nephila Reinsurers, which are based on the direct written premiums of the insurance contracts placed. For the years ended December 31, 2020, 2019 and 2018, total revenues from the Company's insurance-linked securities operations were \$212.3 million, \$225.6 million and \$91.5 million, respectively, of which \$177.8 million, \$200.8 million and \$90.6 million, respectively, were attributed to unconsolidated entities managed by Nephila and MCIM.

Within the Company's program services business, the Company has a program with Nephila through which the Company writes insurance policies that are ceded to Syndicate 2357 and certain other Nephila Reinsurers. Through this arrangement, Nephila utilizes certain of the Company's licensed insurance companies to write U.S. catastrophe exposed property risk that is then ceded to Nephila Reinsurers. For the years ended December 31, 2020, 2019 and 2018, gross premiums written through the Company's program with Nephila were \$412.4 million, \$425.0 million and \$322.1 million, respectively, all of which were ceded to Nephila Reinsurers. As of December 31, 2020 and 2019, reinsurance recoverables on the consolidated balance sheets included \$353.8 million and \$238.8 million, respectively, due from Nephila Reinsurers. Under this program, the Company bears underwriting risk for annual aggregate agreement year losses in excess of a limit the Company believes is unlikely to be exceeded. To the extent losses under this program exceed the prescribed limit, the Company is obligated to pay such losses to the cedents without recourse to the Nephila Reinsurers. While the Company believes losses under this program are unlikely, those losses, if incurred, could be material to the Company's consolidated results of operations and financial condition.

The Company has also entered into other assumed and ceded reinsurance transactions with the Nephila Reinsurers in the normal course of business, which are not material to the Company's consolidated financial statements.

The Hagerty Group, LLC

In June 2019, the Company acquired a minority ownership interest in Hagerty Group. See note 3. Essentia Insurance Company (Essentia), one of the Company's insurance subsidiaries, is the exclusive insurance underwriter for Hagerty in the U.S., and a portion of this insurance is ceded to Hagerty Re. For the years ended December 31, 2020 and 2019, gross written premiums attributable to Hagerty written on Essentia were \$506.7 million and \$422.1 million, respectively, of which \$239.3 million and \$202.1 million, respectively, were ceded to Hagerty Re.

17. Shareholders' Equity

a) The Company has 50,000,000 shares of no par value common stock authorized. The following table presents a rollforward of changes in common shares issued and outstanding.

	Years Ended D	December 31,
(in thousands)	2020	2019
Issued and outstanding common shares, beginning of year	13,794	13,888
Issuance of common shares	13	16
Repurchase of common shares	(24)	(110)
Issued and outstanding common shares, end of year	13,783	13,794

- b) The Company also has 10,000,000 shares of no par value preferred stock authorized, of which 600,000 shares were issued and outstanding at December 31, 2020. In May 2020, the Company issued 600,000 6.00% Fixed-Rate Reset Non-Cumulative Series A preferred shares, with no par value and a liquidation preference of \$1,000 per share, for an aggregate initial purchase price of \$600 million. Net proceeds of the Series A preferred shares offering, after deducting the underwriting discount and offering expenses, was \$591.9 million. Preferred stock and related additional paid-in capital are included in preferred stock on the Company's consolidated balance sheet. The Company has the option to redeem the Series A preferred shares:
 - in whole but not in part, at any time, within 90 days after the occurrence of a "rating agency event," at \$1,020 per Series A preferred share, plus accrued and unpaid dividends,
 - in whole but not in part, at any time, within 90 days after the occurrence of a "regulatory capital event" at \$1,000 per Series A preferred share, plus accrued and unpaid dividends, or
 - in whole or in part, on June 1, 2025, or every fifth anniversary of that date, at \$1,000 per Series A preferred share, plus accrued and unpaid dividends.

A "rating agency event" means that any nationally recognized statistical rating organization that publishes a rating for the Company amends, clarifies or changes the criteria it uses to assign equity credit to securities like the Series A preferred shares, which results in shortening the length of time that the Series A preferred shares are assigned a particular level of equity credit or in the lowering of the equity credit assigned to the preferred shares.

A "regulatory capital event" means that the Company becomes subject to capital adequacy supervision by a capital regulator and determines that, under such capital adequacy guidelines, the liquidation preference amount of the Series A preferred shares would not qualify as capital.

The Series A preferred shares rank senior to the Company's common stock with respect to the payment of dividends and liquidation rights. Holders of the Series A preferred shares are entitled to receive non-cumulative cash dividends, when, as and if declared by the Board of Directors, from the original issue date, semi-annually in arrears on the first day of June and December of each year. The Company accrues dividends when they are declared by the Board of Directors. To the extent declared, these dividends will accrue, on the liquidation preference of \$1,000 per share, at a fixed annual rate of 6.00% from the original issue date to June 1, 2025. After June 1, 2025, the dividend rate will reset every five years and accrue at an annual rate equal to the five-year U.S. Treasury Rate as of two business days prior to the reset date, plus 5.662%. Dividends will not be cumulative and will not be mandatory. Accordingly, if dividends are not declared for any dividend period, then dividends for that dividend period will not accrue and will not be payable.

In 2020, total dividends declared and paid on Series A preferred stock were \$18.4 million, or \$30.67 per share.

c) The following table presents net income (loss) per common share and diluted net income (loss) per common share.

	Years Ended December 31,						
(in thousands, except per share amounts)	2020		2019			2018	
Net income (loss) to common shareholders	\$	797,630	\$	1,790,466	\$	(128,180)	
Adjustment of redeemable noncontrolling interests		(28,705)		1,105		(4,828)	
Adjusted net income (loss) to common shareholders	\$	768,925	\$	1,791,571	\$	(133,008)	
Basic common shares outstanding Dilutive potential common shares from restricted stock units and restricted		13,811		13,861		13,923	
stock (1)(2)		12		20			
Diluted common shares outstanding		13,823		13,881		13,923	
Basic net income (loss) per common share	\$	55.67	\$	129.25	\$	(9.55)	
Diluted net income (loss) per common share (1)	\$	55.63	\$	129.07	\$	(9.55)	
Diluted common shares outstanding Basic net income (loss) per common share	\$ \$	13,823	\$	13,881 129.25	\$	(9.55)	

The impact of restricted stock units and restricted stock of 25 thousand shares was excluded from the computation of diluted earnings per share for the year ended December 31, 2018 because the effect would have been anti-dilutive.

18. Other Comprehensive Income

Other comprehensive income includes changes in net unrealized gains on available-for-sale investments, which is comprised of net holding gains arising during the period, changes in unrealized other-than-temporary impairment losses, if any, and reclassification adjustments for net realized gains included in net income. Other comprehensive income also includes changes in foreign currency translation adjustments and changes in net actuarial pension loss. The following table presents the change in accumulated other comprehensive income (loss) by component, net of noncontrolling interests.

	(realized Gains ailable-for-	г :	NI.		
(dollars in thousands)		nvestments	Foreign Currency		t Actuarial nsion Loss	Total
December 31, 2017	\$ 2,	,477,973	\$ (74,003)	\$	(58,399)	\$ 2,345,571
Cumulative effect of adoption of ASU No. 2016-01	(2,	,597,976)	2,492		_	 (2,595,484)
Cumulative effect of adoption of ASU No. 2018-02		401,539	1,314			402,853
January 1, 2018		281,536	(70,197)		(58,399)	152,940
Total other comprehensive income (loss) before income taxes	((299,446)	(14,932)		2,963	 (311,415)
Income tax (expense) benefit		65,970	 (1,523)		(622)	63,825
Total other comprehensive income (loss)	((233,476)	(16,455)		2,341	 (247,590)
December 31, 2018	\$	48,060	\$ (86,652)	\$	(56,058)	\$ (94,650)
Total other comprehensive income before income taxes		381,890	403		6,390	388,683
Income tax expense		(83,913)	 		(1,348)	(85,261)
Total other comprehensive income		297,977	403		5,042	303,422
December 31, 2019	\$	346,037	\$ (86,249)	\$	(51,016)	\$ 208,772
Total other comprehensive income (loss) before income taxes		442,089	29,829		(8,849)	463,069
Income tax (expense) benefit		(89,316)	 		1,851	(87,465)
Total other comprehensive income (loss)		352,773	29,829		(6,998)	375,604
December 31, 2020	\$	698,810	\$ (56,420)	\$	(58,014)	\$ 584,376

Effective January 1, 2018, the Company adopted ASU No. 2016-01, Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities, and as a result, equity securities are no longer classified as available-for-sale with unrealized gains and losses recognized in other comprehensive income. Rather, changes in the fair value of equity securities are now recognized in net income. Upon adoption of this ASU, cumulative net unrealized

⁽²⁾ The Company has an equity incentive compensation plan that provides for grants and awards of restricted stock units to employees as a performance retention or hiring incentive. The plan also provides for awards of restricted stock to non-employee directors. At December 31, 2020, there were 179,565 shares available for future awards under the Company's equity incentive compensation plan.

gains on equity securities of \$2.6 billion, net of deferred income taxes, were reclassified from accumulated other comprehensive income into retained earnings.

Effective January 1, 2018, the Company adopted ASU No. 2018-02, *Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, which provided an option to reclassify tax effects remaining in accumulated other comprehensive income as a result of the Tax Cuts and Jobs Act to retained earnings. As a result of adopting the ASU, the Company reclassified \$402.9 million of previously recognized deferred taxes from accumulated other comprehensive income into retained earnings.

19. Commitments and Contingencies

a) Late in the fourth quarter of 2018, the Company was contacted by and received inquiries from the U.S. Department of Justice, U.S. Securities and Exchange Commission and Bermuda Monetary Authority (collectively, Governmental Authorities) into loss reserves recorded in late 2017 and early 2018 at Markel CATCo Re (the Markel CATCo Inquiries), an unconsolidated subsidiary managed by MCIM. As a result, the Company engaged outside counsel to conduct an internal review.

The internal review was completed in April 2019 and found no evidence that MCIM personnel acted in bad faith in exercising business judgment in the setting of reserves and making related disclosures during late 2017 and early 2018. The Company's outside counsel has met with the Governmental Authorities and reported the findings from the internal review. The Company cannot currently predict the duration, scope or result of the Markel CATCo Inquiries.

The Markel CATCo Inquiries, as well as other matters related to or arising from the Markel CATCo Inquiries, including matters of which the Company is currently unaware, could result in additional claims, litigation, investigations, enforcement actions or proceedings. For example, additional litigation may be filed by investors in the Markel CATCo Funds. The Company also could become subject to increased regulatory scrutiny, investigations or proceedings in any of the jurisdictions where it operates. If any regulatory authority takes action against the Company or the Company enters into an agreement to settle a matter, the Company may incur sanctions or be required to pay substantial fines or implement remedial measures that could prove costly or disruptive to its businesses and operations. Costs associated with the Company's internal review, including legal and investigation costs, as well as legal costs incurred in connection with any existing or future litigation, are being expensed as incurred.

An unfavorable outcome in one or more of these matters, and others the Company cannot anticipate, could have a material adverse effect on the Company's results of operations and financial condition. In addition, the Company may take further steps to mitigate potential risks or liabilities that may arise from the Markel CATCo Inquiries and related developments and some of those steps may have a material impact on the Company's results of operations or financial condition. Even if an unfavorable outcome does not materialize, these matters, and actions the Company may take in response, could have an adverse impact on the Company's reputation and result in substantial expense and disruption.

- b) In 2019, the Company established Lodgepine Capital Management Limited (Lodgepine), a new retrocessional insurance-linked securities fund manager in Bermuda. Lodgepine's initial product offering will be Lodgepine Fund Limited, a property catastrophe retrocessional investment fund, and subject to certain conditions, the Company has committed to invest up to \$100 million in Lodgepine Fund Limited.
- c) On March 11, 2020, COVID-19, a novel coronavirus outbreak, was declared a pandemic by the World Health Organization. See note 20 for further details regarding potential impacts of COVID-19 on the Company's business.
- **d)** Contingencies arise in the normal course of the Company's operations and are not expected to have a material impact on the Company's financial condition or results of operations.

20. Developments Related to COVID-19

The COVID-19 pandemic has caused unprecedented social and economic disruption, increased volatility of capital markets and intervention by various governments and central banks around the world, the effects of which have impacted almost all of the Company's operations during 2020. The Company cannot reasonably estimate the extent or duration of the impacts of the pandemic; however, further potential impacts of the pandemic on the Company's results of operations, financial condition and cash flows, including those described below, could be material.

Significant volatility in the equity markets arising from economic uncertainty following the onset of the COVID-19 pandemic resulted in a significant decline in the fair value of the Company's equity portfolio in the first quarter of 2020. Although this decline was more than offset by subsequent increases in the fair value of our equity portfolio attributable to net favorable market value movements during the rest of the year, future declines in the Company's investment portfolio are possible.

As described in note 9, the Company's underwriting results for the year ended December 31, 2020 included \$343.3 million of net losses and loss adjustment expenses directly attributed to COVID-19 and assumptions used to develop this estimate are inherently uncertain and subject to a wide range of variability. The Company also has underwriting exposure to loss impacts that are indirectly related to the COVID-19 pandemic and associated with a broader range of coverages, including coverages within the Company's trade credit, professional liability and workers' compensation product lines, among others, as well as certain of the Company's reinsurance product lines. Underwriting results for the year ended December 31, 2020 included \$15.0 million of net losses and loss adjustment expenses indirectly attributed to the COVID-19 pandemic on the Company's trade credit product line within the Insurance segment; however, the Company does not believe any other significant indirect losses have been incurred. Business closures, reduced recreational activity and lower gross receipts, revenues and payrolls of insureds, among other things, also may impact the Company's premium volume and the economic impacts of the pandemic on the Company's insureds also may subject it to increased credit risk. A significant decline in economic activity also could impact premium volume within the Company's program services operations, which may result in a reduction in fee income.

Within the Company's Markel Ventures operations, many of the Company's businesses experienced decreased demand for their products and services as a result of the pandemic. While demand for products and services at most of the Company's impacted business have begun to recover, since the social and economic disruption caused by the pandemic is ongoing, the Company expects that revenues from its Markel Ventures operations will continue to be impacted, and these impacts may continue to be material. In certain cases, revenue declines also could result in ongoing cash and working capital constraints and could impact the companies' liquidity and their ability to comply with debt covenants.

Within the Company's insurance-linked securities operations, investment losses attributed to COVID-19 within the investment funds managed by the Company were not significant; however, uncertainty around potential COVID-19 loss exposures has reduced, and may further reduce, the net asset value on which the Company's management fees are based. Volatility in the capital markets and investor uncertainty regarding insurance industry exposure to COVID-19 also has impacted, and may continue to impact, the Company's ability to raise additional third party capital for the funds it manages. The Company also has experienced, and may continue to experience, higher than anticipated investor redemptions from the funds.

Loss of revenues in the Company's underwriting, Markel Ventures, insurance-linked securities or other operations also could impact the carrying value of the Company's goodwill and intangible assets and, with respect to its Markel Ventures operations, inventory and other long-lived assets, which may become impaired. As detailed in note 6, the Company's consolidated balance sheet as of December 31, 2020 included goodwill and intangible assets of \$4.4 billion. The Company completed its annual tests for goodwill and indefinite-lived intangible asset impairment as of October 1, 2020 based upon results of operations through September 30, 2020. Based on the results of these tests, as well as analysis of the impacts of COVID-19 on definite-lived intangible assets, the Company determined none of its goodwill or intangible assets were impaired. However, delayed recovery or further deterioration in market conditions related to the general economy and the specific industries in which the Company operates, a sustained trend of weaker than anticipated financial performance within a reporting unit, or an increase in the market-based weighted average cost of capital, among other factors, could significantly impact the impairment analysis and may result in future goodwill or intangible asset impairment charges that, if incurred, could have a material adverse effect on the Company's financial condition and results of operations.

21. Statutory Financial Information

a) The following table summarizes statutory capital and surplus for the Company's insurance subsidiaries.

	December 31,						
(dollars in thousands)		2020		2019			
United States	\$	3,967,112	\$	3,673,216			
United Kingdom	\$	635,382	\$	638,864			
Bermuda	\$	1,905,070	\$	1,604,184			
Other	\$	103,828	\$	70,746			

As of December 31, 2020, the Company's actual statutory capital and surplus significantly exceeded the regulatory requirements. As a result, the amount of statutory capital and surplus necessary to satisfy regulatory requirements is not significant in relation to actual statutory capital and surplus.

The following table summarizes statutory net income (loss) for the Company's insurance subsidiaries.

	Years Ended December 31,							
(dollars in thousands)	2020			2019		2018		
United States	\$	616,135	\$	419,396	\$	414,957		
United Kingdom	\$	(25,776)	\$	108,759	\$	40,203		
Bermuda	\$	228,740	\$	447,479	\$	(131,411)		
Other	\$	(4,628)	\$	(4,499)	\$	(5,193)		

The Solvency II Directive (Solvency II) that governs the calculation of statutory capital and surplus for the Company's U.K. and German insurance subsidiaries does not provide requirements for the calculation of net income. Amounts presented in the table above for the Company's U.K. and German insurance subsidiaries, in which the amount attributable to Germany is included in Other, have been calculated in accordance with U.K. and German GAAP, respectively.

United States

The laws of the domicile states of the Company's U.S. insurance subsidiaries govern the amount of dividends that may be paid to the Company. Generally, statutes in the domicile states of the Company's U.S. insurance subsidiaries require prior approval for payment of extraordinary, as opposed to ordinary, dividends. As of December 31, 2020, the Company's U.S. insurance subsidiaries could pay up to \$670.5 million to the holding company during the following 12 months under the ordinary dividend regulations.

In converting from U.S. statutory accounting principles to U.S. GAAP, typical adjustments include deferral of policy acquisition costs, differences in the calculation of deferred income taxes and the inclusion of net unrealized gains or losses relating to fixed maturity securities in shareholders' equity. The Company does not use any permitted statutory accounting practices that are different from prescribed statutory accounting practices which impact statutory capital and surplus.

United Kingdom

The Company's U.K. insurance subsidiary, Markel International Insurance Company Limited (MIICL), and its Lloyd's of London (Lloyd's) managing agent, Markel Syndicate Management Limited (MSM), are authorized by the Prudential Regulation Authority (PRA) and regulated by both the PRA and the Financial Conduct Authority (FCA). The PRA oversees compliance with established periodic auditing and reporting requirements, minimum solvency margins and individual capital assessment requirements under Solvency II and imposes dividend restrictions, while both the PRA and the FCA oversee compliance with risk assessment reviews and various other requirements. MIICL is required to give advance notice to the PRA for any transaction or proposed transaction with a connected or related person. MSM is required to satisfy the solvency requirements of Lloyd's. In addition, the Company's U.K. subsidiaries must comply with the United Kingdom Companies Act of 2006, which provides that dividends may only be paid out of profits available for that purpose. Earnings of the Company's U.K. insurance subsidiaries are available for distribution to the holding company to the extent not otherwise restricted.

Bermuda

The Company's Bermuda insurance subsidiary, Markel Bermuda Limited (MBL), is subject to enhanced capital requirements in addition to minimum solvency and liquidity requirements. The enhanced capital requirement is determined by reference to a risk-based capital model that determines a control threshold for statutory capital and surplus by taking into account the risk characteristics of different aspects of the insurer's business. At December 31, 2020, MBL satisfied both the enhanced capital requirements and the minimum solvency and liquidity requirements.

Under the Bermuda Insurance Act, MBL is prohibited from paying or declaring dividends during a fiscal year if it is in breach of its enhanced capital requirement, solvency margin or minimum liquidity ratio or if the declaration or payment of the dividend would cause a breach of those requirements. If an insurer fails to meet its solvency margin or minimum liquidity ratio on the last day of any financial year, it is prohibited from declaring or paying any dividends during the next financial year without the approval of the Bermuda Monetary Authority (BMA). Further, MBL is prohibited from declaring or paying, in any financial year, dividends of more than 25% of its total statutory capital and surplus as set forth in its previous year's statutory balance sheet unless at least seven days before payment of those dividends it files with the BMA an affidavit stating that it will continue to meet its solvency margin and minimum liquidity ratio. MBL must obtain the BMA's prior approval for a reduction by 15% or more of the total statutory capital as set forth in its previous year's financial statements. In addition, as a long-term insurer, MBL may not declare or pay a dividend to any person other than a policyholder unless the value of the assets in its long-term business fund, as certified by MBL's approved actuary, exceeds the liabilities of its long-term business. The amount of the dividend cannot exceed the aggregate of that excess and any other funds legally available for the payment of the dividend. As of December 31, 2020, MBL could pay up to \$476.3 million to the holding company during the following 12 months without making any additional filings with the BMA.

Other Jurisdictions

The Company's other foreign subsidiaries, including its German insurance subsidiary, are subject to capital and solvency requirements in their respective jurisdictions of domicile.

b) Lloyd's sets the corporate members' required capital annually based on each syndicates' business plans, rating environment, reserving environment and input arising from Lloyd's discussions with, among others, regulatory and rating agencies. Such required capital is referred to as Funds at Lloyd's (FAL), and comprises cash and investments. The amount of cash and investments held as FAL as of December 31, 2020 was \$1.1 billion. Of this amount, \$374.8 million was provided by the holding company and is not available for general use by the Company. The remaining amount, provided by the Company's insurance subsidiaries, is not available for distribution to the holding company. The Company's corporate member may also be required to maintain funds under the control of Lloyd's in excess of its capital requirements and such funds also may not be available for distribution to the holding company.

22. Markel Corporation (Parent Company Only) Financial Information

The following parent company only condensed financial information reflects the financial position, results of operations and cash flows of Markel Corporation.

CONDENSED BALANCE SHEETS

	December 31,			
		2020		2019
	(dollars in thousands)			isands)
ASSETS				
Investments, at estimated fair value:				
Fixed maturity securities, available-for-sale (amortized cost of \$248,206 in 2020 and \$658,557 in 2019)	\$	274,297	\$	676,307
Equity securities (cost of \$1,307,230 in 2020 and \$1,487,478 in 2019)		1,817,068		1,831,333
Short-term investments, available-for-sale (estimated fair value approximates cost)		1,249,970		724,558
Total Investments		3,341,335		3,232,198
Cash and cash equivalents		657,539		737,072
Restricted cash and cash equivalents		65,971		1,077
Receivables		14,737		19,846
Investments in consolidated subsidiaries		12,259,007		12,239,086
Notes receivable from subsidiaries		85,756		60,111
Income taxes receivable		37,505		2,170
Other assets		364,403		347,023
Total Assets	\$	16,826,253	\$	16,638,583
LIABILITIES AND SHAREHOLDERS' EQUITY				
Senior long-term debt	\$	3,441,355	\$	3,438,910
Notes payable to subsidiaries (1)		317,753		1,835,000
Income taxes payable		_		18,270
Net deferred tax liability		170,270		129,835
Other liabilities		97,086		145,701
Total Liabilities		4,026,464		5,567,716
Shareholders' equity:				
Preferred stock		591,891		
Common stock		3,428,340		3,404,919
Retained earnings		8,195,182		7,457,176
Accumulated other comprehensive income		584,376		208,772
Total Shareholders' Equity		12,799,789	_	11,070,867
Total Liabilities and Shareholders' Equity	\$	16,826,253	\$	16,638,583

In December 2018, Markel Corporation purchased Markel Global Reinsurance Company, an indirectly owned subsidiary of Markel Corporation, from Alterra USA Holdings Limited (Alterra USA), another indirectly owned subsidiary of Markel Corporation, by issuing a \$1.4 billion note payable to Alterra USA. In March 2020, Alterra USA made a non-cash distribution of capital to Markel Corporation of \$1.4 billion that satisfied the obligation under the note payable.

CONDENSED STATEMENTS OF INCOME (LOSS) AND COMPREHENSIVE INCOME (LOSS)

	Years Ended December 31,					
		2020		2019		2018
REVENUES			(dolla	ars in thousands,)	
Net investment income	\$	18,026	\$	48,845	\$	32,631
Dividends on common stock of consolidated subsidiaries	Ф	466,244	Ф	,	Ф	
		400,244		863,335		749,171
Net investment gains (losses):						
Net realized investment gains (losses), including other-than-temporary impairment losses		27,774		3,848		(3,341)
Change in fair value of equity securities		82,389		293,296		(110,356)
Net investment gains (losses)		110,163		297,144		(113,697)
Total Revenues		594,433		1,209,324		668,105
EXPENSES						
Services and other expenses		1,025		6,436		6,532
Interest expense		187,562		219,082		145,681
Net foreign exchange losses (gains)		6,823		3,973		(3,391)
Loss on early extinguishment of debt		_		13,656		
Total Expenses		195,410		243,147		148,822
Income Before Equity in Undistributed Earnings of Consolidated Subsidiaries and Income Taxes		399,023		966,177		519,283
Equity in undistributed earnings (losses) of consolidated subsidiaries		400,289		851,337		(696,045)
Income tax (expense) benefit		16,718		(27,048)		48,582
Net Income (Loss) to Shareholders		816,030		1,790,466		(128,180)
Preferred stock dividends		(18,400)		, , , <u> </u>		_
Net Income (Loss) to Common Shareholders	\$	797,630	\$	1,790,466	\$	(128,180)
OTHER COMPREHENSIVE INCOME (LOSS) TO SHAREHOLDERS		,				
Change in net unrealized gains on available-for-sale investments, net of taxes:						
Net holding gains (losses) arising during the period	\$	21,482	\$	14,016	\$	(1,492)
Consolidated subsidiaries' net holding gains (losses) arising during the period		334,677		285,109		(239,833)
Reclassification adjustments for net gains (losses) included in net income (loss) to shareholders		(14,937)		(4,591)		2,564
Consolidated subsidiaries' reclassification adjustments for net gains (losses) included in net income (loss) to shareholders		11,551		3,443		5,285
Change in net unrealized gains on available-for-sale investments, net of taxes	•	352,773		297,977		(233,476)
Consolidated subsidiaries' change in foreign currency translation adjustments, net of taxes		29,829		403		(16,455)
Consolidated subsidiaries' change in net actuarial pension loss, net of taxes		(6,998)		5,042		2,341
Total Other Comprehensive Income (Loss) to Shareholders		375,604		303,422		(247,590)
Comprehensive Income (Loss) to Shareholders	\$	1,191,634	\$	2,093,888	\$	(375,770)
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CONDENSED STATEMENTS OF CASH FLOWS

	Years Ended December 31,					
	2020			2019		2018
			(doll	ars in thousands)		
OPERATING ACTIVITIES		04 (020	Φ.	1 500 466	Φ.	(120 100)
Net income (loss) to shareholders	\$	816,030	\$	1,790,466	\$	(128,180)
Adjustments to reconcile net income (loss) to shareholders to net cash provided (used) by operating activities		(708,162)		(1,530,940)		3,637
Net Cash Provided (Used) By Operating Activities		107,868		259,526		(124,543)
INVESTING ACTIVITIES						
Proceeds from sales of fixed maturity securities and equity securities Proceeds from maturities, calls and prepayments of fixed maturity		557,088		326,564		204,478
securities		39,051		41,673		34,560
Cost of fixed maturity securities and equity securities purchased		(90,459)		(82,332)		(26,336)
Net change in short-term investments		(522,666)		(236,251)		930,876
Return of capital from subsidiaries		15,164		14,865		12,712
Decrease (increase) in notes receivable due from subsidiaries		(25,000)		100,000		(20,000)
Capital contributions to subsidiaries		(605,426)		(413,148)		(103,133)
Acquisitions, net of cash acquired						(972,619)
Cost of equity method investments		(4,917)		(213,100)		(4,917)
Other		17,984		6,719		(8,652)
Net Cash Provided (Used) By Investing Activities		(619,181)		(455,010)		46,969
FINANCING ACTIVITIES						
Additions to senior long-term debt		_		1,384,182		_
Increase (decrease) in notes payable to subsidiaries		(50,000)		(99,839)		47,105
Repayment of senior long-term debt		_		(484,811)		_
Premiums and fees related to early extinguishment of debt		_		(13,248)		_
Repurchases of common stock		(26,832)		(116,307)		(54,007)
Issuance of preferred stock, net		591,891				_
Dividends paid on preferred stock		(18,400)		_		_
Other		15		(2,564)		(70)
Net Cash Provided (Used) By Financing Activities		496,674		667,413		(6,972)
Increase (decrease) in cash, cash equivalents, restricted cash and restricted cash equivalents		(14,639)		471,929		(84,546)
Cash, cash equivalents, restricted cash and restricted cash equivalents at beginning of year		738,149		266,220		350,766
CASH, CASH EQUIVALENTS, RESTRICTED CASH AND RESTRICTED CASH EQUIVALENTS AT END OF YEAR	\$	723,510	\$	738,149	\$	266,220

23. Quarterly Financial Information (unaudited)

The following table presents the unaudited quarterly results of consolidated operations for 2020, 2019 and 2018.

	Quarters Ended								
(dollars in thousands, except per share amounts)		Mar. 31		June 30		Sept. 30		Dec. 31	
2020									
Operating revenues	\$	335,666	\$	3,132,015	\$	2,911,735	\$	3,355,650	
Net income (loss)		(1,401,376)		931,671		454,043		847,429	
Net income (loss) to common shareholders		(1,405,763)		921,768		452,726		828,899	
Comprehensive income (loss) to shareholders		(1,352,809)		1,092,393		520,089		931,961	
Net income (loss) per common share:									
Basic	\$	(100.60)	\$	65.81	\$	31.07	\$	59.44	
Diluted	\$	(100.60)	\$	65.75	\$	31.03	\$	59.33	
2019									
Operating revenues	\$	2,472,488	\$	2,439,116	\$	2,033,058	\$	2,581,529	
Net income		577,513		506,483		203,953		511,513	
Net income to common shareholders		576,427		497,298		205,637		511,104	
Comprehensive income to shareholders		732,245		623,330		250,069		488,244	
Net income per common share:									
Basic	\$	42.81	\$	36.10	\$	13.97	\$	36.34	
Diluted	\$	42.76	\$	36.07	\$	13.95	\$	36.26	
2018									
Operating revenues	\$	1,575,471	\$	1,987,013	\$	2,235,949	\$	1,042,852	
Net income (loss)		(65,594)		279,587		409,028		(753,374)	
Net income (loss) to common shareholders		(64,306)		278,231		409,438		(751,543)	
Comprehensive income (loss) to shareholders		(174,839)		164,336		315,106		(680,373)	
Net income (loss) per common share:									
Basic	\$	(4.25)	\$	20.01	\$	28.56	\$	(53.88)	
Diluted	\$	(4.25)	\$	19.97	\$	28.50	\$	(53.88)	

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of December 31, 2020, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (Disclosure Controls), as defined under Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 (Exchange Act). This evaluation was conducted under the supervision and with the participation of our management, including the Co-Principal Executive Officers (Co-PEOs) and the Principal Financial Officer (PFO).

Based upon this evaluation, the Co-PEOs and PFO concluded that effective Disclosure Controls were in place to ensure that the information required to be disclosed in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

Management's Report On Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our 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.

Management does not expect that its internal control over financial reporting will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. The design of any system of internal control over financial reporting also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Under the supervision and with the participation of management, including the Co-PEOs and the PFO, we evaluated the effectiveness of our internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation, we have concluded that we maintained effective internal control over financial reporting as of December 31, 2020.

In conducting our evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2020, we excluded internal control over financial reporting associated with Lansing Building Products, LLC (Lansing), which was acquired in April 2020. Lansing's operations represented 2% of our consolidated assets as of December 31, 2020 and 7% of our consolidated operating revenues for the year then ended.

KPMG LLP, our independent registered public accounting firm, has issued an attestation report on the effectiveness of our internal control over financial reporting as of December 31, 2020, which is included in Item 8 Financial Statements and Supplementary Data.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the fourth quarter of 2020 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART III

Except for the information set forth under "Information About Our Executive Officers" in Part I, the information required by Part III (Items 10, 11, 12, 13 and 14) will be incorporated by reference from the Company's Proxy Statement for its 2021 Annual Meeting of Shareholders pursuant to instructions G(1) and G(3) of the General Instructions to Form 10-K.

PART IV

Item 15. EXHIBIT AND FINANCIAL STATEMENT SCHEDULES

(a) 1. Financial Statements

The following consolidated financial statements, as well as the Reports of Independent Registered Public Accounting Firm, are included in Item 8.

	Page Number
Reports of Independent Registered Public Accounting Firm	10K - 70
Consolidated Balance Sheets—December 31, 2020 and 2019	10K - 74
Consolidated Statements of Income (Loss) and Comprehensive Income (Loss)—Years Ended December 31, 2020, 2019 and 2018	10K - 75
Consolidated Statements of Changes in Equity—Years Ended December 31, 2020, 2019 and 2018	10K - 76
Consolidated Statements of Cash Flows—Years Ended December 31, 2020, 2019 and 2018	10K - 77
Notes to Consolidated Financial Statements	10K - 78

Other schedules are omitted because they are not required, information therein is not applicable, or is reflected in the consolidated financial statements or notes to consolidated financial statements.

(b) Exhibits

See Exhibit Index.

EXHIBIT INDEX

Exhibit No.	Document Description
3.1(a)	Amended and Restated Articles of Incorporation (incorporated by reference from Exhibit 3.1 in the Registrant's report on Form 8-K filed with the Commission May 13, 2011)
3.1(b)	Articles of Amendment to the Amended and Restated Articles of Incorporation (incorporated by reference from Exhibit 3.1 in the Registrant's report on Form 8-K filed with the Commission May 27, 2020)
3.2	Bylaws, as amended and restated May 11, 2020 (incorporated by reference from Exhibit 3.2 in the Registrant's report on Form 10-Q filed with the Commission for the quarter ended June 30, 2020)
4.1	Description of Registrant's Securities**
4.2(a)	Indenture dated as of June 5, 2001 between Markel Corporation and The Chase Manhattan Bank, as Trustee (incorporated by reference from Exhibit 4.1 in the Registrant's report on Form 8-K filed with the Commission June 5, 2001)
4.2(b)	Form of Third Supplemental Indenture dated as of August 13, 2004 between Markel Corporation and JPMorgan Chase Bank (formerly known as The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.2 in the Registrant's report on Form 8-K filed with the Commission August 11, 2004)
4.2(c)	Form of Seventh Supplemental Indenture dated as of July 2, 2012 between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.2 in the Registrant's report on Form 8-K filed with the Commission June 29, 2012)
4.2(d)	Form of Eighth Supplemental Indenture dated as of March 8, 2013 between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.2 in the Registrant's report on Form 8-K filed with the Commission March 7, 2013)
4.2(e)	Form of Ninth Supplemental Indenture dated as of March 8, 2013 between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.3 in the Registrant's report on Form 8-K filed with the Commission March 7, 2013)
4.2(f)	Form of Tenth Supplemental Indenture dated as of April 5, 2016 between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.2 in the Registrant's report on Form 8-K filed with the Commission March 31, 2016)
4.2(g)	Eleventh Supplemental Indenture dated as of November 2, 2017 between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.2 in the Registrant's report on Form 8-K filed with the Commission November 2, 2017)
4.2(h)	Twelfth Supplemental Indenture dated as of November 2, 2017 between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.3 in the Registrant's report on Form 8-K filed with the Commission November 2, 2017)
4.2(i)	Thirteenth Supplemental Indenture, dated as of May 20, 2019, between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.2 in the Registrant's report on Form 8-K filed with the Commission May 20, 2019)
4.2(j)	Fourteenth Supplemental Indenture, dated as of September 17, 2019, between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.2 in the Registrant's report on Form 8-K filed with the Commission September 17, 2019)
4.2(k)	Fifteenth Supplemental Indenture, dated as of September 17, 2019, between Markel Corporation and The Bank of New York Mellon (as successor to The Chase Manhattan Bank), as Trustee, including form of the securities as Exhibit A (incorporated by reference from Exhibit 4.3 in the Registrant's report on Form 8-K filed with the Commission September 17, 2019)

The registrant hereby agrees to furnish to the Securities and Exchange Commission, upon request, a copy of all other instruments defining the rights of holders of long-term debt of the registrant and its subsidiaries.

Exhibit No.	Document Description	
10.1(a)	Credit Agreement, dated as of April 10, 2019, among Markel Corporation, Markel Bermuda Limited, Markel Global Reinsurance Company, Alterra Finance LLC, the lenders party from time to time thereto, and Wells Fargo Bank, National Association, as administrative agent (incorporated by reference from Exhibit 10.1 in the Registrant's report on Form 8-K filed with the Commission April 12, 2019)	
10.1(b)	First Amendment to Credit Agreement, dated as of December 13, 2019, among Markel Corporation, Markel Bermuda Limited, Markel Global Reinsurance Company, Alterra Finance LLC and Wells Fargo National Association (incorporated by reference from Exhibit 10.1(b) in the Registrant's Report on Form 10-K filed with the Commission for the year ended December 31, 2019)	
10.2	Form of Amended and Restated Employment Agreement with Anthony F. Markel (incorporated by reference from Exhibit 10.4 in the Registrant's report on Form 10-K filed with the Commission for the year ended December 31, 2008)*	
10.3(a)	Amended and Restated Employment Agreement with Steven A. Markel (incorporated by reference from Exhibit 10.1 in the Registrant's report on Form 10-Q filed with the Commission for the quarter ended September 30, 2015)*	
10.3(b)	Amendment dated as of December 31, 2017 to Amended and Restated Employment Agreement with Steven A. Markel (incorporated by reference from Exhibit 10.6 in the Registrant's report on Form 10-K filed with the Commission for the year ended December 31, 2017)*	
10.4	Employment Agreement, dated June 28, 2018, between Markel Corporation and Robert C. Cox (incorporated by reference from Exhibit 10.1 in the Registrant's report on Form 8-K filed with the Commission July 12, 2018)*	
10.5	Amended and Restated Form of Executive Employment Agreement with Bradley J. Kiscaden and Linda V. Schreiner (incorporated by reference from Exhibit 10.1 in the Registrant's report on Form 8-K filed with the Commission August 21, 2018)*	
10.6	Amended and Restated Executive Employment Agreement, dated as of August 15, 2018, between Markel Corporation and Thomas S. Gayner (incorporated by reference from Exhibit 10.2 in the Registrant's report on Form 8-K filed with the Commission August 21, 2018)*	
10.7	Amended and Restated Executive Employment Agreement, dated as of August 15, 2018, between Markel Corporation and Richard R. Whitt, III (incorporated by reference from Exhibit 10.3 in the Registrant's report on Form 8-K filed with the Commission August 21, 2018)*	
10.8	Executive Employment Agreement, dated as of August 15, 2018, between Markel Corporation and Jeremy A. Noble (incorporated by reference from Exhibit 10.4 in the Registrant's report on Form 8-K filed with the Commission August 21, 2018)*	
10.9	Amended and Restated Executive Employment Agreement, dated as of March 24, 2019, between Markel Corporation and Richard R. Grinnan* **	
10.10(a)	Markel Corporation Voluntary Deferral Plan (incorporated by reference from Exhibit 10.14 in the Registrant's report on Form 10-K filed with the Commission for the year ended December 31, 2015)*	
10.10(b)	Amendment to Markel Corporation Voluntary Deferral Plan (incorporated by reference from Exhibit 10.20 in the Registrant's report on Form 10-K filed with the Commission for the year ended December 31, 2018)*	
10.10(c)	Amendment to Markel Corporation Voluntary Deferral Plan (incorporated by reference from Exhibit 10.1 in the Registrant's report on Form 10-Q filed with the Commission for the quarter ended September 30, 2019)*	
10.11(a)	Markel Corporation Omnibus Incentive Plan (incorporated by reference from Appendix B in the Registrant's Proxy Statement and Definitive 14A filed with the Commission April 2, 2003)*	
10.11(b)	May 2010 Restricted Stock Units Deferral Election Form (incorporated by reference from Exhibit 10.2 in the Registrant's report on Form 10-Q filed with the Commission for the quarter ended June 30, 2010)*	
10.12(a)	Markel Corporation 2012 Equity Incentive Compensation Plan (incorporated by reference from Appendix A in the Registrant's Proxy Statement and Definitive 14A filed with the Commission March 16, 2012)*	
10.12(b)	Restricted Stock Units Deferral Election Form for the 2012 Equity Incentive Compensation Plan (incorporated by reference from Exhibit 10.24 in the Registrant's report on Form 10-K filed with the Commission for the year ended December 31, 2012)*	
10.13	Markel Corporation Executive Bonus Plan, as amended and restated May 14, 2018 (incorporated by reference from Exhibit 10.1 in the Registrant's report on Form 10-Q filed with the Commission for the quarter ended June 30, 2018)*	

10.14(a)	2016 Equity Incentive Compensation Plan (incorporated by reference from Exhibit 10.1 in the Registrant's report on Form 8-K filed with the Commission May 19, 2016)*
10.14(b)	Form of Performance-Based (Graded Vesting) Restricted Stock Unit Award Agreement for Executive Officers for the 2016 Equity Incentive Compensation Plan (incorporated by reference from Exhibit 10.2 in the Registrant's report on Form 10-Q filed with the Commission for the quarter ended March 31, 2018)*
10.14(c)	Form of Performance-Based (Cliff Vesting) Restricted Stock Unit Award Agreement for Executive Officers (revised 2019) for the 2016 Equity Incentive Compensation Plan (incorporated by reference from Exhibit 10.5 in the Registrant's report on Form 10-Q filed with the Commission for the quarter ended March 31, 2019)*
10.14(d)	Form of Performance-Based Restricted Stock Unit Award Agreement for Executive Officers for the 2016 Equity Incentive Compensation Plan (incorporated by reference from Exhibit 10.15(i) in the Registrant's report on Form 10-K filed with the Commission for the year ended December 31, 2019)*
10.14(e)	Form of Restricted Stock Award Agreement for Outside Directors for the 2016 Equity Incentive Compensation Plan (incorporated by reference from Exhibit 10.2 in the Registrant's report on Form 10-Q filed with the Commission for the quarter ended June 30, 2020)*
10.15	Markel Corporation 2020 Employee Stock Purchase Plan (incorporated by reference from Exhibit 10.1 in the Registrant's report on Form 8-K filed with the Commission May 15, 2020)*
21	Certain Subsidiaries of Markel Corporation**
23	Consent of KPMG LLP**
31.1	Certification of Co-Principal Executive Officer Pursuant to Rule 13a-14(a)/ 15d-14(a)**
31.2	Certification of Co-Principal Executive Officer Pursuant to Rule 13a-14(a)/ 15d-14(a)**
31.3	Certification of Principal Financial Officer Pursuant to Rule 13a-14(a)/ 15d-14(a)**
32.1	Certification furnished Pursuant to 18 U.S.C. Section 1350**
101	The following consolidated financial statements from Markel Corporation's Annual Report on Form 10-K for the year ended December 31, 2020, filed on February 19, 2021, formatted in Inline XBRL: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Income (Loss) and Comprehensive Income (Loss), (iii) Consolidated Statements of Changes in Equity, (iv) Consolidated Statements of Cash Flows and (v) Notes to Consolidated Financial Statements.**
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

Indicates management contract or compensatory plan or arrangement Filed with this report

^{**}

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MARKEL CORPORATION

/s/ Thomas S. Gayner	/s/ Richard R. Whitt, III	/s/ Jeremy A. Noble
Thomas S. Gayner	Richard R. Whitt, III	Jeremy A. Noble
Co-Chief Executive Officer (Co-Principal Executive Officer)	Co-Chief Executive Officer (Co-Principal Executive Officer) February 19, 2021	Senior Vice President and Chief Financial Officer
February 19, 2021		(Principal Financial Officer) February 19, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signatures	<u>Title</u>	<u>Date</u>
/s/ Steven A. Markel	Chairman of the Board	February 19, 2021
Steven A. Markel	-	
/s/ Thomas S. Gayner	Director, Co-Chief Executive Officer	February 19, 2021
Thomas S. Gayner	(Co-Principal Executive Officer)	
/s/ Richard R. Whitt, III	Director, Co-Chief Executive Officer	February 19, 2021
Richard R. Whitt, III	(Co-Principal Executive Officer)	
/s/ Jeremy A. Noble	Senior Vice President and Chief Financial Officer	February 19, 2021
Jeremy A. Noble	(Principal Financial Officer)	
/s/ Oscar Guerrero	Chief Accounting Officer	February 19, 2021
Oscar Guerrero	(Principal Accounting Officer)	
/s/ Mark M. Besca	Director	February 19, 2021
Mark M. Besca		
/s/ K. Bruce Connell	Director	February 19, 2021
K. Bruce Connell		
/s/ Stewart M. Kasen	Director	February 19, 2021
Stewart M. Kasen		
/s/ Diane Leopold	Director	February 19, 2021
Diane Leopold		
/s/ Lemuel E. Lewis	Director	February 19, 2021
Lemuel E. Lewis		
/s/ Anthony F. Markel	Director	February 19, 2021
Anthony F. Markel		
/s/ Darrell D. Martin	Director	February 19, 2021
Darrell D. Martin		
/s/ Harold L. Morrison, Jr.	Director	February 19, 2021
Harold L. Morrison, Jr.		
/s/ Michael O'Reilly	Director	February 19, 2021
Michael O'Reilly		
/s/ A. Lynne Puckett	Director	February 19, 2021
A. Lynne Puckett		

Directors

Steven A. Markel

Chairman of the Board

Mark M. Besca

Retired Leader of Long-Term Value and Stakeholder Capitalism initiative,

New York Office Managing Partner and a Lead and Senior Advisory Partner of Fortune 500 companies EY (formerly Ernst & Young, LLP)

K. Bruce Connell

Retired Executive Vice President and Group Chief Underwriting Officer

XL Capital Ltd.

Thomas S. Gayner

Co-Chief Executive Officer

Stewart M. Kasen

Retired President and Chief Executive Officer

S&K Famous Brands, Inc.

Diane Leopold

Executive Vice President and Chief Operating Officer

Dominion Energy

Lemuel E. Lewis

Retired Executive Vice President and Chief Financial Officer

Landmark Communications, Inc.

Anthony F. Markel

Retired Vice Chairman, President and Chief Operating Officer

Markel Corporation

Darrell D. Martin

Retired Executive Vice President and Chief Financial Officer

Markel Corporation

Harold L. Morrison, Jr.

Retired Senior Vice President, Chubb Group and

Division President, Field Operations, North America Insurance

Chubb Insurance Company

Michael O'Reilly

Retired Vice Chairman and Chief Financial Officer

The Chubb Corporation

A. Lynne Puckett

Senior Vice President and General Counsel

Celanese Corporation

Richard R. Whitt, III

Co-Chief Executive Officer

MARKEL CORPORATION

Headquarters

Glen Allen, VA

Insurance

Asia Pacific

Dubai, United Arab Emirates · Hong Kong · Labuan, Malaysia · Mumbai, India · Shanghai, China · Singapore · Tokyo, Japan

Bermuda

Hamilton

Canada

Montreal · Toronto · Vancouver

Europe

Barcelona, Spain · Berlin, Germany · Dublin, Ireland · Madrid, Spain · Munich, Germany · Pierrefitte-en-Auge, France · Rotterdam, Netherlands · Stockholm, Sweden

Latin America

Bogotá, Colombia · Buenos Aires, Argentina · Rio de Janeiro, Brazil

United Kingdom

Birmingham, England · Bristol, England · Leeds, England · London, England · Manchester, England · Rugby, England · Sheffield, England

United States

Atlanta, GA · Austin, TX · Birmingham, AL · Chicago, IL · Dallas-Fort Worth, TX · Denver, CO · Glen Allen, VA · Hawley, PA · Houston, TX · Las Vegas, NV · Los Angeles, CA · Milwaukee, WI · Nashville, TN · New York, NY · Omaha, NE · Portland, OR · Providence, RI · Red Bank, NJ · San Antonio, TX · San Diego, CA · San Francisco, CA · Scottsdale, AZ · Summit, NJ · Tampa, FL · Vancouver, WA · Warrenton, VA

Markel Ventures

Europe

Gorinchem, Netherlands

United States

Ashland, VA · Baltimore, MD · Bethlehem, PA · Cape Girardeau, MO · Fairfield, NJ · Fairhaven, MA · Gainesville, GA · Glen Allen, VA · Miami, FL · Reading, PA · Richmond, VA · Temple, TX · West Conshohocken, PA