2019
ANNUAL
REPORT

Making a difference.

Company Overview

Donegal Group Inc. is an insurance holding company that offers property and casualty insurance through its wholly owned insurance subsidiaries. Our Class A common stock and Class B common stock trade on the NASDAQ Global Select Market under the symbols DGICA and DGICB, respectively.

Our insurance subsidiaries and Donegal Mutual Insurance Company have interrelated operations and conduct business together as the Donegal Insurance Group. The Donegal Insurance Group, which is rated A (Excellent) by A.M. Best Company, offers commercial and personal insurance products through a network of independent insurance agencies in 24 states.

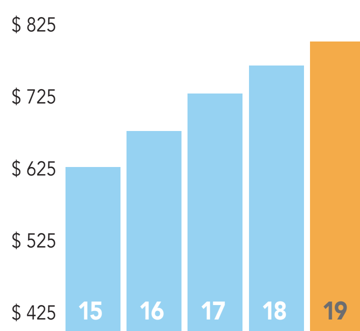
We are focused on several primary strategies, including growing profitably in commercial lines, improving our financial performance, leveraging technology to transform our business, strategically modernizing our business in order to achieve operational excellence and competing effectively to enhance our market position.

Together.

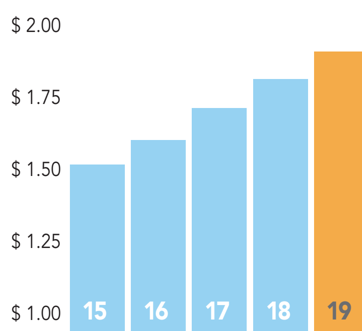
Financial Highlights

YEAR ENDED DECEMBER 31,	2019	2018	2017	2016	2015
INCOME STATEMENT DATA					
Premiums earned	$ 756,078,400	$ 741,290,873	$ 702,514,755	$ 656,204,797	$ 605,640,728
Investment income, net	29,514,955	26,907,656	23,527,304	22,632,730	20,949,698
Investment gains (losses)	21,984,617	(4,801,509)	5,705,255	2,525,575	1,934,424
Total revenues	812,451,471	771,828,320	739,026,537	688,423,020	636,387,263
Income (loss) before income tax expense (benefit)	57,081,030	(48,236,849)	12,114,462	41,328,407	27,592,268
Income tax expense (benefit)	9,929,286	(15,476,509)	4,998,362	10,527,270	6,602,235
Net income (loss)	47,151,744	(32,760,340)	7,116,100	30,801,137	20,990,033
Basic earnings (loss) per share - Class A	1.68	(1.18)	0.27	1.19	0.78
Diluted earnings (loss) per share - Class A	1.67	(1.18)	0.26	1.16	0.77
Cash dividends per share - Class A	0.58	0.57	0.56	0.55	0.54
Basic earnings (loss) per share - Class B	1.51	(1.09)	0.22	1.06	0.69
Diluted earnings (loss) per share - Class B	1.51	(1.09)	0.22	1.06	0.69
Cash dividends per share - Class B	0.51	0.50	0.49	0.48	0.47
BALANCE SHEET DATA AT YEAR END					
Total investments	$1,110,553,363	$1,030,798,566	$1,005,869,705	$ 945,519,655	$ 900,822,274
Total assets	1,923,161,131	1,832,078,267	1,737,919,778	1,623,131,037	1,537,834,415
Debt obligations	40,000,000	65,000,000	64,000,000	74,000,000	86,000,000
Stockholders' equity	451,015,519	398,869,901	448,696,104	438,615,320	408,388,568
Book value per share	15.67	14.05	15.95	16.21	15.66

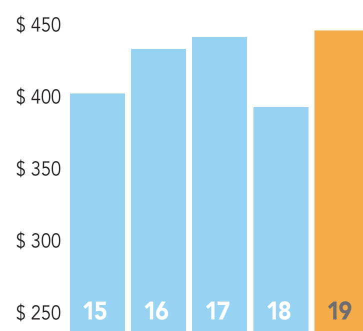
TOTAL REVENUES
[in millions]



TOTAL ASSETS
[in billions]



STOCKHOLDERS' EQUITY
[in millions]



Noteworthy Accomplishments

- Improved performance of all major lines of business within both commercial and personal insurance segments.
- Achieved continuing growth in our commercial lines of business, with 14.1% growth in annual net premiums earned in that segment.
- Commenced development of new personal lines products with advanced rating models and pricing segmentation for targeted deployment in 2021.
- Increased overall loss reserve strength, with favorable net development of reserves for claims occurring in prior years.
- Benefitted from favorable performance of our consolidated 2019 reinsurance program.
- Expanded our enterprise analytics and product development personnel and capabilities.
- Continued to build and expand strong relationships with our independent agents.
- Consolidated several insurance subsidiaries and two regional offices.
- Consummated the sale of Donegal Financial Services Corporation in March 2019, using proceeds to repay debt and enhance surplus of insurance subsidiaries to support future growth.
- Donegal Mutual legacy systems modernization project remains on schedule and on budget.

To Our Stockholders

Making a difference. Together.

The theme of this Annual Report highlights the benefits our insurance enterprise provides to our various stakeholders. We trace our roots to the formation of Donegal Mutual Insurance Company ("Donegal Mutual") in 1889. Our insurance subsidiaries conduct their business together with Donegal Mutual, marketing their complementary products as the Donegal Insurance Group. We enjoy a venerable heritage of making a difference for insured individuals and businesses – restoring property damaged by multiple perils, defraying medical costs to promote recovery from accidental injuries and generally protecting policyholders against financial loss. **At its essence, the product an insurance company sells is peace of mind.** Policyholders know that they can count on their insurance coverage to protect their assets or livelihood should the unexpected occur. That confidence allows them to live and work without fear of adverse financial consequences that might result from a multitude of risks we all encounter in our daily lives and routines.

We have assembled a talented team of insurance professionals who, along with a network of knowledgeable independent insurance agents, are making a difference – together – every day for those we protect in communities throughout our operating regions. We refined our mission statement during 2019 to read, "The Donegal Insurance Group will excel as a regional provider of insurance protection through our independent agents. We will deliver superior service and fulfill our commitment to customers to be there when it matters most." This mission reflects our mutual insurance company heritage, which has yielded a culture that focuses on providing security for our policyholders, agents and employees, who in turn support and strengthen their local communities.

We are pleased to report to you that our efforts are indeed making a difference.

An emphasis on responsive service is a vital differentiating factor for us in the competitive insurance marketplace, attracting quality insurance accounts that will generate favorable results and increase our financial strength, ultimately making a difference for you, our stockholders. We recognize that you expect to receive a return on your investment and, as we outlined to you in our letter last year, we implemented various strategic shifts and tactical actions with that specific objective in mind. Our team has been working diligently to execute on key strategies designed to improve our financial results and position Donegal Group for profitable future growth.

We outline our progress on the execution of those key strategies on the pages that follow.

BOOK VALUE PER SHARE GROWTH

COMMERCIAL LINES GROWTH

Improved Financial Performance

We were pleased that favorable operating results and investment gains during 2019 led to an 11.5 percent increase in book value per share to $15.67 at December 31, 2019, compared to $14.05 at December 31, 2018. Our current dividend yield ranks highly among our public insurance company peers, further contributing to a solid total return for our stockholders during the past year.

Net premiums earned increased 2.0 percent in 2019. While that growth rate was lower than we had targeted for the year, we continued to shift our business mix to a higher proportion of commercial business, where we believe we have greater opportunities to achieve profitable, sustainable long-term growth.

Net premiums earned within our commercial lines segment grew 14.1 percent in 2019, exceeding our expectations. Independent agents serve as trusted insurance advisers for the vast majority of commercial insurance customers throughout the regions we serve. Our strategic emphasis on commercial lines growth therefore aligns well with our commitment to distributing our products exclusively through independent agents. Our commercial lines generated a statutory combined ratio of 95.0 percent for 2019, comparing favorably to the 103.7 percent statutory combined ratio for 2018. We were generally pleased with the underwriting performance in our commercial lines segment, with the exception of lingering challenges in our commercial auto line of business. We attribute the favorable performance to fewer weather-related losses and lower frequency of workers' compensation losses, partially offset by commercial auto loss severity. While we were pleased to see improvement in our commercial auto performance compared to 2018, we are implementing additional premium rate increases and carefully underwriting new and renewal risks to address the profitability challenges this line of business has presented to us and our industry peers. Those challenges notwithstanding, we are excited about our prospects for profitable commercial lines growth.

The commercial lines growth was partially offset by an 8.1 percent decline in the net premiums earned within our personal lines segment. That decline reflected the impact of our exit from the personal lines markets in seven unprofitable states and lower new business writings than we projected, which were primarily due to pricing and underwriting actions we implemented in 2018 to restore rate adequacy.

We were pleased to see improved performance in our personal lines as a result of reducing exposures in areas prone to severe weather, as well as earning additional premiums from rate increases and reinsurance efficiencies. The 102.6 percent statutory combined ratio for our personal lines for 2019 demonstrates that, while the segment has not yet returned to our targeted level of profitability, we have made significant progress relative to the 114.4 percent statutory combined ratio for 2018. We are working to further stabilize our personal lines in 2020. We anticipate additional performance improvement as we pursue new business in favorable geographies and take prudent steps to retain well-performing accounts.

Total revenues increased 5.3 percent for 2019, reflecting growth in earned premiums we discussed above as well as net investment gains and higher investment income. Net investment gains of $22.0 million included a $12.7 million gain on the March 2019 sale of Donegal Financial Services Corporation, marking our exit from the banking business, with the remainder of the gains primarily related to an increase in the market value of equity securities we held at December 31, 2019. These gains compared favorably to net investment losses of $4.8 million for 2018, which we primarily attribute to the market-driven decrease in the value of equity securities we held at December 31, 2018. The premium growth and Donegal Financial Services Corporation sale proceeds contributed to an increase in invested assets, which resulted in higher investment income for 2019 as compared to 2018.

TOTAL REVENUES

Net favorable reserve development for losses incurred in prior accident years totaled $12.9 million for 2019, reducing the loss ratio by 1.7 percentage points. Our insurance subsidiaries experienced favorable development in their workers' compensation loss reserves, partially offset by modest unfavorable development in their commercial automobile and commercial multi-peril loss reserves. We were pleased to observe relative stability in loss reserves during 2019 after significantly strengthening loss reserves over the course of 2018 in response to our recognition of rising bodily injury loss severity trends.

Our insurance subsidiaries' combined ratio for 2019 was 99.5 percent, a significant improvement from the 2018 combined ratio of 110.1 percent. The improved underwriting results, net investment gains and higher investment income contributed to net income of $47.2 million, or $1.67 per diluted Class A share, for 2019, compared to a net loss of $32.8 million, or $1.18 per Class A share, for 2018.

Enhanced Enterprise Analytics – Utilizing Data to Support Pricing and Underwriting Decisions

We formally established an enterprise analytics function in early 2019, augmenting existing resources with experienced leadership and technical experts. It is our goal to further integrate data and analytics into strategy and decision-making at all levels of our organization. Our enterprise analytics team is responsible for core functions of ratemaking, predictive analytics, data governance and business intelligence. Embedded within those functions is the development and expansion of critical elements such as risk-based pricing segmentation, analytical innovation, predictive modeling solutions, formal data strategy development, performance monitoring and creation of reporting mechanisms. This talented group is already making a significant difference in many areas, and we look forward to the benefits we will realize as we strategically modernize our business and expand our use of data analytics to further support business strategy and decisions.

Product Development – Building New and Enhanced Products to Meet Evolving Customer Needs

We expanded our product development teams for both commercial and personal lines, adding experienced insurance professionals to accelerate the development of new and enhanced personal lines and commercial lines products. These teams, with substantial support from the enterprise analytics team, are working on the modernization of commercial lines products to ensure that we can continue to deliver solutions for the expanding needs of our commercial lines customers. They are also designing and developing new personal automobile and homeowner products that will incorporate state-of-the-art predictive modeling and pricing segmentation to leverage external data and enhance our ability to compete for profitable personal lines accounts. We expect to roll out these new personal lines products on a state-by-state basis in 2021.

Donegal Mutual Systems Modernization Project Update

Since the project began in October 2018, Donegal Mutual has made great strides toward the ultimate replacement of its remaining legacy systems that support our combined insurance operations. As we previously detailed, the project includes implementation of a new Guidewire policy administration system and integrated technology solutions that will enable enhanced data analytics and reporting capabilities. Donegal Mutual recently implemented the first release of the new software, and we are now issuing workers' compensation policies from the new system. The first release also included significant efforts related to the integration of multiple supporting applications with the new system. The project team's focus has now shifted to the second release of the new software,which will include six additional lines of business as well as a number of additional reporting and back office processing enhancements when it is scheduled for implementation in 2021. We have established defined milestones within this multi-year project, and we are pleased with the progress to date.

Reinsurance Consolidation

Donegal Mutual and our insurance subsidiaries participated in a combined third-party reinsurance program for 2019, resulting in substantial efficiencies compared to the multiple programs in place previously. In addition to the third-party reinsurance, Donegal Mutual provided underlying property catastrophe reinsurance coverage to each of our insurance subsidiaries to further protect against earnings volatility caused by severe weather events. The new program performed well in 2019, with premium savings exceeding additional losses our insurance subsidiaries retained. Donegal Mutual and our insurance subsidiaries renewed the reinsurance program for 2020 with modest changes in structure and overall pricing.

Utilization of Donegal Financial Services Corporation Sale Proceeds

As we announced in March 2019, Donegal Mutual and Donegal Group consummated the sale of Donegal Financial Services Corporation, exiting the banking business it entered in 2000 to allow us to concentrate fully on our insurance operations. We utilized the proceeds from the sale to fund quarterly dividends to our stockholders, repay outstanding debt of $25.0 million and contribute $17.0 million of surplus to our insurance subsidiaries to support future growth. Donegal Mutual will primarily utilize its share of the sale proceeds to fund its technology modernization project over the next few years.

Mountain States Insurance Group – Continuing Progress on This Future Growth Opportunity

We have endeavored to keep you informed about the progress Donegal Mutual has made in rehabilitating the operations of the Mountain States Insurance Group ("Mountain States"), which Donegal Mutual acquired in May 2017 and which represents an opportunity for additional future commercial growth for Donegal Group. Mountain States is actively attracting new commercial lines accounts that are similar in nature to the commercial accounts Donegal Mutual and our insurance subsidiaries are currently serving.

More importantly, Mountain States' results for 2019 represented significant improvement over its 2018 results and reflected the combined impact of re-underwriting efforts, operational efficiencies, reinsurance savings and favorable development of prior-year loss reserves. We plan to begin including Mountain States' premiums, losses and expenses in the pooling agreement between Donegal Mutual and our Atlantic States Insurance Company subsidiary beginning with policies effective in 2021.

Conclusion

Our three-year strategic plan emphasizes several primary strategies, which include growing profitably in commercial lines, improving our financial performance, leveraging technology to transform our business, strategically modernizing our business in order to achieve operational excellence and competing effectively to enhance our market position.

We extend our appreciation to the entire team of dedicated insurance professionals, support staff and independent agents who are committed to making a difference – together. It is truly a team effort. We are also sincerely grateful for the dedication and support of our stockholders. We remain fully committed to the successful execution of our business strategies with the ultimate goal of enhancing the value of your investment.

Kevin G. Burke
PRESIDENT AND 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, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _________________ to _________________

Commission file number 0-15341

DONEGAL GROUP INC.

(Exact name of registrant as specified in its charter)

Delaware	**23-2424711**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1195 River Road, Marietta, Pennsylvania	**17547**
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code: **(800) 877-0600**

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

Title of Each Class	Trading Symbols	Name of Each Exchange on Which Registered
Class A Common Stock, $.01 par value	**DGICA**	**The NASDAQ Global Select Market**
Class B Common Stock, $.01 par value	**DGICB**	**The NASDAQ Global Select Market**

Securities registered pursuant to Section 12(g) of the Act: None.

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☑. No ☐.

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

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

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

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

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

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter. $208,752,753.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date: 23,277,039 shares of Class A common stock and 5,576,775 shares of Class B common stock outstanding on March 2, 2020.

Documents Incorporated by Reference

The registrant incorporates by reference portions of the registrant's definitive proxy statement relating to registrant's annual meeting of stockholders to be held April 16, 2020 into Part III of this report.

DONEGAL GROUP INC.
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PART I

Item 1. Business.

Introduction

Donegal Group Inc., or DGI, is an insurance holding company whose insurance subsidiaries offer personal and commercial lines of property and casualty insurance to businesses and individuals in 20 Mid-Atlantic, Midwestern, New England and Southern states. As used in this Form 10-K Report, the terms "we," "us" and "our" refer to Donegal Group Inc. and its subsidiaries. Our Class A common stock and our Class B common stock trade on the NASDAQ Global Select Market under the symbols "DGICA" and "DGICB," respectively.

Donegal Mutual Insurance Company, or Donegal Mutual, organized us as an insurance holding company on August 26, 1986. At December 31, 2019, Donegal Mutual held approximately 43% of our outstanding Class A common stock and approximately 84% of our outstanding Class B common stock. Donegal Mutual's ownership provides Donegal Mutual with approximately 71% of the combined voting power of our outstanding shares of Class A common stock and our outstanding shares of Class B common stock. Our insurance subsidiaries and Donegal Mutual have interrelated operations due to an intercompany pooling agreement and other intercompany agreements and transactions we describe in Note 3 of the Notes to Consolidated Financial Statements. While maintaining the separate corporate existence of each company, our insurance subsidiaries and Donegal Mutual conduct business together as the Donegal Insurance Group. As such, Donegal Mutual and our insurance subsidiaries share the same business philosophy, the same management, the same employees and the same facilities and offer the same types of insurance products.

At December 31, 2019, we had three segments: our investment function, our commercial lines of insurance and our personal lines of insurance. We set forth financial information about these segments in Note 19 of the Notes to Consolidated Financial Statements. The commercial lines products of our insurance subsidiaries consist primarily of commercial automobile, commercial multi-peril and workers' compensation policies. The personal lines products of our insurance subsidiaries consist primarily of homeowners and private passenger automobile policies.

Our insurance subsidiaries and Donegal Mutual provide their policyholders with a selection of insurance products at competitive rates, while pursuing profitability by adhering to a strict underwriting discipline. Our insurance subsidiaries derive a substantial portion of their insurance business from smaller to mid-sized regional communities. We believe this focus provides our insurance subsidiaries with competitive advantages in terms of local market knowledge, marketing, underwriting, claims servicing and policyholder service. At the same time, we believe our insurance subsidiaries have cost advantages over many smaller regional insurers that result from economies of scale our insurance subsidiaries realize through centralized accounting, administrative, data processing, investment and other services.

We believe we have a substantial opportunity, as a well-capitalized regional insurance holding company with a solid business strategy, to grow profitably and compete effectively with larger national property and casualty insurers. Our downstream holding company structure, with Donegal Mutual holding approximately 71% of the combined voting power of our common stock, has proven its effectiveness and success over the 33 years of our existence. Over that time period, we have grown significantly in terms of revenue and financial strength, and the Donegal Insurance Group has developed an excellent reputation as a regional group of property and casualty insurers.

We have been an effective consolidator of smaller "main street" property and casualty insurance companies, and we pursue opportunities to acquire other insurance companies to expand our business in a given region. Since 1995, we have completed six acquisitions of property and casualty insurance companies or began to participate in their business through Donegal Mutual's entry into quota-share reinsurance agreements with them.

In July 2018, we consolidated the branch office operations of Peninsula into our home office operations to achieve economies of scale and enhance service levels for policyholders of Peninsula. We recorded a restructuring charge for employee termination costs associated with the Peninsula consolidation of approximately $1.9 million and paid approximately $1.5 million of these costs in 2018. We paid approximately $260,000 of these costs in 2019 and had an accrual of approximately $130,000 remaining at December 31, 2019. We entered into a definitive purchase agreement for the sale of Peninsula's branch office in 2018. The sale was completed in January 2019, and we received net proceeds of $1.2 million. We recorded an impairment charge of $1.1 million in other expenses in 2018 related to this real estate transaction and included the $1.2 million fair value of the real estate we held for sale in other assets at December 31, 2018.

We and Donegal Mutual sold Donegal Financial Services Corporation ("DFSC") to Northwest Bancshares, Inc. ("Northwest") on March 8, 2019, resulting in proceeds valued at approximately $85.8 million in a combination of cash and Northwest common stock. Immediately prior to the closing of the merger, DFSC paid a dividend of approximately $29.2 million to us and Donegal Mutual. As the owner of 48.2% of DFSC's common stock, we received a dividend payment from DFSC of approximately $14.1 million and consideration from Northwest that included a combination of cash in the amount of $20.5 million and Northwest common stock with a fair value at the closing date of $20.9 million. We recorded a gain of $12.7 million from the sale of DFSC in our results of operations during 2019. We sold the Northwest common stock that we received as part of the consideration during 2019. This transaction represented the culmination of a banking strategy that began with the formation of DFSC in 2000.

Effective December 1, 2019, our insurance subsidiaries Le Mars Insurance Company ("Le Mars") and Sheboygan Falls Insurance Company ("Sheboygan Falls") merged with and into Atlantic States (the "Mergers"). As a result of the Mergers, the separate corporate existences of Le Mars and Sheboygan Falls ceased and Atlantic States continued as the surviving insurance company. Atlantic States will place the business of Le Mars and Sheboygan Falls, as their policies renew subsequent to the effective date of the Mergers, into the underwriting pool.

Available Information

You may obtain our Annual Reports on Form 10-K, including this Form 10-K Report, our quarterly reports on Form 10-Q, our current reports on Form 8-K, our proxy statement and our other filings pursuant to the Securities Exchange Act of 1934, or the Exchange Act, without charge by viewing our website at www.donegalgroup.com. You may also view our Code of Business Conduct and Ethics and the charters of the executive committee, the audit committee, the compensation committee and the nominating committee of our board of directors on our website. Upon request to our corporate secretary, we will also provide printed copies of any of these documents to you without charge. We have provided the address of our website solely for the information of investors. We do not intend the reference to our website address to be an active link or to otherwise incorporate the contents of our website into this Form 10-K Report. In addition to our website, the Securities and Exchange Commission (the "SEC") maintains an Internet site at www.sec.gov that contains our reports, proxy and information statements and other information that we electronically file with, or furnish to, the SEC.

History and Organizational Structure

In the mid-1980's, Donegal Mutual, as a mutual insurance company, recognized the desirability of developing additional sources of capital and surplus so it could remain competitive and have the surplus to expand its business and ensure its long-term viability. Accordingly, Donegal Mutual determined to implement a downstream holding company structure as one of its business strategies. Thus, in 1986, Donegal Mutual formed us as a downstream holding company. After Donegal Mutual formed us, we in turn formed Atlantic States as our wholly owned property and casualty insurance company subsidiary.

In connection with the formation of Atlantic States and the establishment of our downstream insurance holding company system, Donegal Mutual and Atlantic States entered into a proportional reinsurance agreement, or pooling agreement, that became effective October 1, 1986. Under the pooling agreement, Donegal Mutual and Atlantic States pool substantially all of their respective premiums, losses and loss expenses to the reinsurance pool, and the reinsurance pool, acting through Donegal Mutual, then cedes a portion of the pooled business, currently 80%, to Atlantic States. Donegal Mutual and Atlantic States share the underwriting results in proportion to their respective participation in the underwriting pool.

Since we established Atlantic States in 1986, Donegal Mutual and our insurance subsidiaries have conducted business together as the Donegal Insurance Group. As the Donegal Insurance Group, Donegal Mutual and our insurance subsidiaries share a combined business plan to enhance market penetration and underwriting profitability objectives. We believe Donegal Mutual's majority interest in the combined voting power of our Class A common stock and of our Class B common stock fosters our ability to implement our business philosophies, enjoy management continuity, maintain superior employee relations and provide a stable environment within which we can grow our businesses.

The products Donegal Mutual and our insurance subsidiaries offer are generally complementary, which permits the Donegal Insurance Group to offer a broad range of products in a given market and to expand the Donegal Insurance Group's ability to service an entire personal lines or commercial lines account. Distinctions within the products Donegal Mutual and our insurance subsidiaries offer generally relate to specific risk profiles within similar classes of business, such as preferred tier products versus standard tier products. Donegal Mutual and we do not allocate all of the standard risk gradients to one company. As a result, the underwriting profitability of the business the individual companies write directly will vary. However, the underwriting pool homogenizes the risk characteristics of all business Donegal Mutual and Atlantic States write directly. We receive 80% of the results of the underwriting pool because Atlantic States has an 80% participation in the pool. The

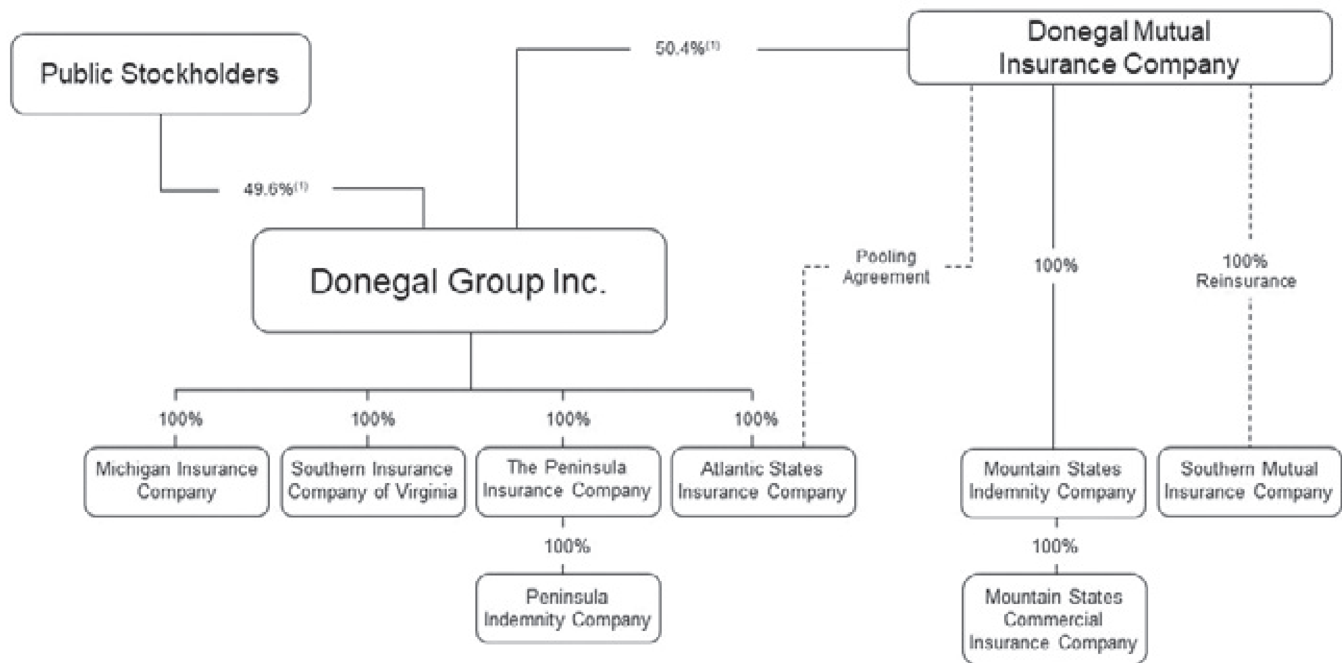
business Atlantic States derives from the underwriting pool represents a significant percentage of our total consolidated revenues. However, that percentage has gradually decreased over the past few years as we have acquired a number of other property and casualty insurance companies that do not participate in the underwriting pool.

As the capital of Atlantic States and our other insurance subsidiaries has increased, the underwriting capacity of our insurance subsidiaries has increased proportionately. The size of the underwriting pool has also increased substantially. Therefore, as we originally planned in the mid-1980s, Atlantic States has successfully raised the capital necessary to support the growth of its direct business as well as to accept increases in its allocation of business from the underwriting pool. The portion of the underwriting pool allocated to Atlantic States has increased from an initial allocation of 35% in 1986 to an 80% allocation since March 1, 2008. We do not anticipate any further change in the pooling agreement between Atlantic States and Donegal Mutual, including any change in the percentage participation of Atlantic States in the underwriting pool.

In addition to Atlantic States, our insurance subsidiaries are Southern Insurance Company of Virginia, or Southern, The Peninsula Insurance Company and its wholly owned subsidiary, Peninsula Indemnity Company, or collectively, Peninsula, and Michigan Insurance Company, or MICO. In addition, Donegal Mutual has a 100% quota-share reinsurance agreement with Southern Mutual Insurance Company, or Southern Mutual, and Donegal Mutual places its assumed business from Southern Mutual into the underwriting pool.

Donegal Mutual completed the merger of Mountain States Mutual Casualty Company, or Mountain States, with and into Donegal Mutual effective May 25, 2017. Donegal Mutual was the surviving company in the merger, and Mountain States' insurance subsidiaries, Mountain States Indemnity Company and Mountain States Commercial Insurance Company, became insurance subsidiaries of Donegal Mutual upon completion of the merger. Upon completion of the merger, Donegal Mutual assumed all of the policy obligations of Mountain States and began to market its products together with its insurance subsidiaries as the Mountain States Insurance Group in four Southwestern states. Donegal Mutual currently plans to place the business of the Mountain States Insurance Group into the underwriting pool beginning with policies effective in 2021. As a result, our consolidated financial results will exclude the results of Donegal Mutual's operations in those Southwestern states until Donegal Mutual places such business into the underwriting pool.

The following chart depicts our organizational structure, including all of our property and casualty insurance subsidiaries and affiliates:



(1) Because of the different relative voting power of our Class A common stock and our Class B common stock, our public stockholders hold approximately 29% of the combined voting power of our Class A common stock and our Class B common stock and Donegal Mutual holds approximately 71% of the combined voting power of our Class A common stock and our Class B common stock.

Relationship with Donegal Mutual

Donegal Mutual provides facilities, personnel and other services to us and our insurance subsidiaries. Donegal Mutual allocates certain related expenses to Atlantic States in relation to the relative participation of Donegal Mutual and Atlantic States in the underwriting pool they maintain. Our insurance subsidiaries other than Atlantic States reimburse Donegal Mutual for their respective personnel costs and bear their proportionate share of information services costs based on each subsidiaries' respective percentage of the total net premiums written of the Donegal Insurance Group. Charges for these services to Atlantic States and our other insurance subsidiaries totaled $134.1 million, $126.2 million and $125.0 million for 2019, 2018 and 2017, respectively.

Our insurance subsidiaries have various reinsurance arrangements with Donegal Mutual. These agreements include:

- a catastrophe reinsurance agreement with Atlantic States, MICO, Peninsula and Southern pursuant to which Donegal Mutual provides coverage for losses related to any catastrophic occurrence over a set retention of $2.0 million for each participating insurance subsidiary, with a combined retention of $5.0 million for a catastrophe involving a combination of participating insurance subsidiaries, up to the amount Donegal Mutual and our insurance subsidiaries retain under catastrophe reinsurance agreements with unaffiliated reinsurers; and

- quota-share reinsurance agreements with MICO and Peninsula.

The purpose of the catastrophe reinsurance agreement is to lessen the effects of an accumulation of losses arising from one event to levels that are appropriate given each subsidiary's size, underwriting profile and amount of surplus.

The purpose of the quota-share reinsurance agreement with Peninsula is to transfer to Donegal Mutual 100% of the premiums and losses related to the workers' compensation product line of Peninsula in certain states, which provides the availability of an additional workers' compensation tier for Donegal Mutual's commercial accounts. Donegal Mutual places its assumed business from Peninsula into the underwriting pool.

The purpose of the quota-share reinsurance agreement with MICO is to transfer to Donegal Mutual 25% of the premiums and losses related to MICO's business. Donegal Mutual places its assumed business from MICO into the underwriting pool.

We and Donegal Mutual have maintained a coordinating committee since our formation in 1986. The coordinating committee consists of two members of our board of directors, neither of whom is a member of Donegal Mutual's board of directors, and two members of Donegal Mutual's board of directors, neither of whom is a member of our board of directors. The purpose of the coordinating committee is to establish and maintain a process for an annual evaluation of the transactions between Donegal Mutual, our insurance subsidiaries and us. The coordinating committee considers the fairness of each intercompany transaction to Donegal Mutual and its policyholders and to us and our stockholders.

A new agreement or any change to a previously approved agreement must receive coordinating committee approval. The approval process for a new agreement between Donegal Mutual and us or one of our insurance subsidiaries or a change in such an agreement is as follows:

- both of our members on the coordinating committee must determine that the new agreement or the change in an existing agreement is fair and equitable to us and in the best interests of our stockholders;

- both of Donegal Mutual's members on the coordinating committee must determine that the new agreement or the change in an existing agreement is fair and equitable to Donegal Mutual and in the best interests of its policyholders;

- our board of directors must approve the new agreement or the change in an existing agreement; and

- Donegal Mutual's board of directors must approve the new agreement or the change in an existing agreement.

The coordinating committee also meets annually to review each existing agreement between Donegal Mutual and us or our insurance subsidiaries, including all reinsurance agreements between Donegal Mutual and our insurance subsidiaries. The purpose of this annual review is to examine the results of the agreements over the past year and, in the case of reinsurance agreements, over several years and to determine if the results of the existing agreements remain fair and equitable to us and our

stockholders and fair and equitable to Donegal Mutual and its policyholders or if Donegal Mutual and we should mutually agree to certain adjustments to the terms of the agreements. In the case of these reinsurance agreements, the annual adjustments typically relate to the reinsurance premiums, losses and reinstatement premiums. These agreements are ongoing in nature and will continue in effect throughout 2020 in the ordinary course of our business.

Our members on the coordinating committee, as of the date of this Form 10-K Report, are Robert S. Bolinger and Richard D. Wampler, II. Donegal Mutual's members on the coordinating committee as of such date are Michael W. Brubaker and Cyril J. Greenya. We refer to our proxy statement for our annual meeting of stockholders to be held on April 16, 2020 for further information about the members of the coordinating committee.

We believe our relationships with Donegal Mutual offer us and our insurance subsidiaries a number of competitive advantages, including the following:

- enabling our stable management, the consistent underwriting discipline of our insurance subsidiaries, external growth, long-term profitability and financial strength;

- creating operational and expense synergies from the combination of resources and integrated operations of Donegal Mutual and our insurance subsidiaries;

- producing more stable and uniform underwriting results for our insurance subsidiaries over extended periods of time than we could achieve without our relationship with Donegal Mutual;

- providing opportunities for growth because of the ability of Donegal Mutual to affiliate and enter into reinsurance agreements with, or otherwise acquire control of, mutual insurance companies and place the business it assumes into the underwriting pool; and

- providing Atlantic States with a significantly larger underwriting capacity because of the underwriting pool Donegal Mutual and Atlantic States have maintained since 1986.

In the first quarter of 2020, our board of directors and the board of directors of Donegal Mutual each undertook a review of the relationships between Donegal Mutual and DGI and determined that continuing the current relationships and the current corporate structure of Donegal Mutual and DGI is in the best interests of DGI and its various constituencies.

Business Strategy

Our strategy is designed to allow our insurance subsidiaries to achieve their longstanding goal of outperforming the United States property and casualty insurance industry in terms of profitability and service, thereby providing value to the policyholders of our insurance subsidiaries and, ultimately, providing value to our stockholders. The annual net premiums earned of our insurance subsidiaries have increased from $301.5 million in 2006 to $756.1 million in 2019, a compound annual growth rate of 7.3%.

The combined ratio of our insurance subsidiaries and that of the United States property and casualty insurance industry as computed using United States generally accepted accounting principles, or GAAP, and statutory accounting principles, or SAP, for the years 2015 through 2019 are shown in the following table:

	2019	2018	2017	2016	2015
Our GAAP combined ratio	99.5%	110.1%	103.0%	98.1%	99.0%
Our SAP combined ratio	98.7	109.4	101.7	96.8	97.4
Industry SAP combined ratio (1)	98.2	99.6	105.1	100.9	98.3

(1) As reported (projected for 2019) by A.M. Best Company.

We and Donegal Mutual believe we can continue to expand our insurance operations over time through organic growth and acquisitions of, or affiliations with, other insurance companies. We and Donegal Mutual have enhanced the performance of companies we have acquired, while leveraging the acquired companies' core strengths and local market knowledge to expand their operations. Our insurance subsidiaries and Donegal Mutual also seek to increase their premium base by making quality independent agency appointments, enhancing their competitive position within each agency, introducing new and enhanced insurance products and developing and maintaining automated systems to improve service, communications and efficiency.

A detailed review of our business strategies follows:

- ***Achieving underwriting profitability.***

Our insurance subsidiaries seek to achieve a combined ratio of less than 100%. We remain committed to achieving consistent underwriting profitability. Underwriting profitability is a fundamental component of our long-term financial strength because it allows our insurance subsidiaries to generate profits without relying exclusively on their investment income for profitability. Our insurance subsidiaries seek to enhance their underwriting results by:

- carefully selecting the product lines they underwrite;
- carefully selecting the individual risks they underwrite;
- minimizing their individual exposure to catastrophe-prone areas; and
- evaluating their claims history on a regular basis to ensure the adequacy of their underwriting guidelines and product pricing.

Our insurance subsidiaries have no material exposures to asbestos or environmental liabilities. Our insurance subsidiaries seek to provide more than one policy to a given personal lines or commercial lines customer because this “account selling” strategy diversifies their risk and has historically improved their underwriting results. Our insurance subsidiaries also use reinsurance to manage their exposure and limit their maximum net loss from large single risks or risks in concentrated areas.

- ***Pursuing profitable growth by organic expansion within the traditional operating territories of our insurance subsidiaries through developing and maintaining quality agency representation.***

Continued expansion of our insurance subsidiaries within their existing markets will be a key source of their continued premium growth, and maintaining an effective and growing network of independent agencies is integral to this expansion. Our insurance subsidiaries seek to be among the top three insurers within each of the independent agencies for the lines of business our insurance subsidiaries write by providing a consistent, competitive and stable market for their products. We believe that the consistency of the product offerings of our insurance subsidiaries enables our insurance subsidiaries to compete effectively for independent agents with other insurers whose product offerings may fluctuate based on industry conditions. Our insurance subsidiaries offer a competitive compensation program to their independent agents that rewards them for producing profitable growth for our insurance subsidiaries. Our insurance subsidiaries provide their independent agents with ongoing support to enable them to better attract and service customers, including:

- fully automated underwriting and policy issuance systems for commercial and personal lines of insurance;
- training programs;
- marketing support;
- availability of a service center that provides comprehensive service for our policyholders; and
- field visitations by marketing and underwriting personnel and senior management of our insurance subsidiaries.

Our insurance subsidiaries appoint independent agencies with a strong underwriting and growth track record. We believe that our insurance subsidiaries, by carefully selecting, motivating and supporting their independent agencies, will drive continued long-term growth.

- ***Acquiring property and casualty insurance companies to augment the organic growth of our insurance subsidiaries.***

We have been an effective consolidator of smaller “main street” property and casualty insurance companies, and we expect to continue to acquire other insurance companies to expand our business in a given region over time.

Since 1995, we have completed six acquisitions of property and casualty insurance companies or participated in their business through Donegal Mutual's entry into quota-share reinsurance agreements with them. We intend to continue our growth by pursuing affiliations and acquisitions that meet our criteria. Our primary criteria are:

- location in regions where our insurance subsidiaries are currently conducting business or that offer an attractive opportunity to conduct profitable business;
- a mix of business similar to the mix of business of our insurance subsidiaries;
- annual premium volume between $50.0 million to $100.0 million; and
- fair and reasonable transaction terms.

We believe that our relationship with Donegal Mutual assists us in pursuing affiliations with, and subsequent acquisitions of, mutual insurance companies because, through Donegal Mutual, we understand the concerns and issues that mutual insurance companies face. In particular, Donegal Mutual has had success affiliating with underperforming mutual insurance companies, and we have either acquired them following their conversion to a stock company or benefited from their underwriting results as a result of Donegal Mutual's entry into a 100% quota-share reinsurance agreement with them and placement of that assumed business into the pooling agreement. We have utilized our strengths and financial position to improve the operations of those underperforming insurance companies. We evaluate a number of areas for operational synergies when considering acquisitions, including product underwriting, expenses, the cost of reinsurance and technology.

We and Donegal Mutual have the ability to employ a number of acquisition and affiliation methods. Our prior acquisitions and affiliations have taken one of the following forms:

- purchase of all of the outstanding stock of a stock insurance company;
- purchase of a book of business;
- quota-share reinsurance transaction;
- merger of a mutual company into Donegal Mutual; or
- two-step acquisition of a mutual insurance company in which:
  - as the first step, Donegal Mutual purchases a surplus note from the mutual insurance company, Donegal Mutual enters into a services agreement with the mutual insurance company and Donegal Mutual's designees become a majority of the members of the board of directors of the mutual insurance company; and
  - as the second step, the mutual insurance company enters into a quota-share reinsurance agreement with Donegal Mutual or demutualizes, or converts, into a stock insurance company. Upon the demutualization or conversion, we purchase the surplus note from Donegal Mutual and exchange it for all of the stock of the stock insurance company resulting from the demutualization or conversion.

We believe that our ability to make direct acquisitions of stock insurance companies and to make indirect acquisitions of mutual insurance companies through a sponsored conversion or a quota-share reinsurance agreement provides us with flexibility that is a competitive advantage in making acquisitions. We also believe our historic record demonstrates our ability to acquire control of an underperforming insurance company, re-underwrite its book of business, reduce its cost structure and return it to sustained profitability.

While Donegal Mutual and we generally engage in preliminary discussions with potential direct or indirect acquisition candidates from time to time, neither Donegal Mutual nor we make any public disclosure regarding a proposed acquisition until Donegal Mutual or we have entered into a definitive acquisition agreement.

The following table highlights our and Donegal Mutual's history of insurance company acquisitions and affiliations since 1988:

Company Name	State of Domicile	Year Control Acquired	Method of Acquisition/Affiliation
Southern Mutual Insurance Company and now Southern Insurance Company of Virginia	Virginia	1984	Surplus note investment by Donegal Mutual in 1984; demutualization in 1988; acquisition of stock by us in 1988.
Pioneer Mutual Insurance Company and then Pioneer Insurance Company [1][2]	Ohio	1992	Surplus note investment by Donegal Mutual in 1992; demutualization in 1993; acquisition of stock by us in 1997.
Delaware Mutual Insurance Company and then Delaware Atlantic Insurance Company [1][2]	Delaware	1993	Surplus note investment by Donegal Mutual in 1993; demutualization in 1994; acquisition of stock by us in 1995.
Pioneer Mutual Insurance Company and then Pioneer Insurance Company [1][2]	New York	1995	Surplus note investment by Donegal Mutual in 1995; demutualization in 1998; acquisition of stock by us in 2001.
Southern Heritage Insurance Company [2]	Georgia	1998	Purchase of stock by us in 1998.
Le Mars Mutual Insurance Company of Iowa and then Le Mars Insurance Company [1][2]	Iowa	2002	Surplus note investment by Donegal Mutual in 2002; demutualization in 2004; acquisition of stock by us in 2004.
Peninsula Insurance Group	Maryland	2004	Purchase of stock by us in 2004.
Sheboygan Falls Mutual Insurance Company and then Sheboygan Falls Insurance Company [1][2]	Wisconsin	2007	Contribution note investment by Donegal Mutual in 2007; demutualization in 2008; acquisition of stock by us in 2008.
Southern Mutual Insurance Company [3]	Georgia	2009	Surplus note investment by Donegal Mutual and quota-share reinsurance in 2009.
Michigan Insurance Company	Michigan	2010	Purchase of stock by us and surplus note investment by Donegal Mutual in 2010.
Mountain States Mutual Casualty Company[4]	New Mexico	2017	Merger with and into Donegal Mutual in 2017

(1) Each of these acquisitions initially took the form of an affiliation with Donegal Mutual. Donegal Mutual provided surplus note financing to the insurance company, and, in connection with that financing, sufficient designees of Donegal Mutual were appointed so as to constitute a majority of the members of the board of directors of the insurance company. Donegal Mutual and the insurance company simultaneously entered into a services agreement whereby Donegal Mutual provided services to improve the operations of the insurance company. Once the insurance company's results of operations improved to the satisfaction of Donegal Mutual, Donegal Mutual sponsored the demutualization of the insurance company. Upon the consummation of the demutualization, Donegal Mutual converted the surplus note to capital stock of the newly demutualized insurance company. We then purchased all of the capital stock of the insurance company from Donegal Mutual and made an additional capital contribution in cash to provide adequate surplus to support the insurance company's planned premium growth.

(2) To reduce administrative and compliance costs and expenses, these subsidiaries subsequently merged into one of our existing insurance subsidiaries.

(3) Control acquired by Donegal Mutual.

(4) Donegal Mutual completed the merger of Mountain States with and into Donegal Mutual effective May 25, 2017. Donegal Mutual was the surviving company in the merger, and Mountain States' insurance subsidiaries, Mountain States Indemnity Company and Mountain States Commercial Insurance Company, became insurance subsidiaries of Donegal Mutual upon completion of the merger. Upon completion of the merger, Donegal Mutual assumed all of the policy obligations of Mountain States and began to market its products together with its insurance subsidiaries as the Mountain States Insurance Group in four Southwestern states. Donegal Mutual currently plans to place the business of the Mountain States Insurance Group into the underwriting pool beginning with policies effective in 2021. As a result, our consolidated financial results will exclude the results of Donegal Mutual's operations in those Southwestern states until Donegal Mutual places such business into the underwriting pool.

- ***Providing responsive and friendly customer and agent service to enable our insurance subsidiaries to attract new policyholders and retain existing policyholders.***

We believe that excellent policyholder service is important in attracting new policyholders and retaining existing policyholders. Our insurance subsidiaries work closely with their independent agents to provide a consistently responsive level of claims service, underwriting and customer support. Our insurance subsidiaries seek to respond expeditiously and effectively to address customer and independent agent inquiries in a number of ways, including:

- availability of a customer call center, secure website and mobile application for claims reporting;
- availability of a secure website and mobile application for access to policy information and documents, payment processing and other features;
- timely replies to information requests and policy submissions; and
- prompt responses to, and processing of, claims.

Our insurance subsidiaries periodically conduct policyholder surveys to evaluate the effectiveness of their service to policyholders. The management of our insurance subsidiaries meets on a regular basis with the personnel of the independent insurance agents our insurance subsidiaries appoint to seek service improvement recommendations, react to service issues and better understand local market conditions.

- ***Maintaining premium rate adequacy to enhance the underwriting results of our insurance subsidiaries, while maintaining their existing book of business and preserving their ability to write new business.***

Our insurance subsidiaries maintain discipline in their pricing by effecting rate increases to sustain or improve their underwriting results without unduly affecting their customer retention. In addition to appropriate pricing, our insurance subsidiaries seek to ensure that their premium rates are adequate relative to the amount of risk they insure. Our insurance subsidiaries review loss trends on a regular basis to identify changes in the frequency and severity of their claims and to assess the adequacy of their rates and underwriting standards. Our insurance subsidiaries also carefully monitor and audit the information they use to price their policies for the purpose of enabling them to receive an adequate level of premiums for the risk they assume. For example, our insurance subsidiaries audit the payroll data of their workers' compensation customers to verify that the assumptions used to price a particular policy were accurate. By implementing appropriate rate increases and understanding the risks our insurance subsidiaries agree to insure, our insurance subsidiaries seek to achieve consistent underwriting profitability.

- ***Focusing on expense controls and utilization of technology to increase the operating efficiency of our insurance subsidiaries.***

Our insurance subsidiaries maintain stringent expense controls under direct supervision of their senior management. We centralize the processing and administrative activities of our insurance subsidiaries to realize operating synergies and better expense control. Our insurance subsidiaries utilize technology to automate much of their underwriting and to facilitate agency and policyholder communications on an efficient, timely and cost-effective basis. Our insurance subsidiaries have increased their annual premium per employee, a measure of efficiency that our insurance subsidiaries use to evaluate their operations, from approximately $470,000 in 1999 to approximately $1.1 million in 2019.

Donegal Mutual and our insurance subsidiaries strive to maintain technology comparable to that of their larger competitors. "Ease of doing business" is an increasingly important component of an insurer's value to an independent agency. Our insurance subsidiaries provide fully automated underwriting and policy issuance systems that substantially ease data entry and facilitate the quoting and issuance of policies for the independent agents of our insurance subsidiaries. As a result, applications of the independent agents for our insurance subsidiaries can result in policy issuance without further re-entry of information. These systems also interface with the policy management systems of the independent agents of our insurance subsidiaries.

- ***Maintaining a conservative investment approach.***

Return on invested assets is an important element of the financial results of our insurance subsidiaries. The investment strategy of our insurance subsidiaries is to generate an appropriate amount of after-tax income on invested assets while minimizing credit risk through investments in high-quality securities. As a result, our insurance subsidiaries seek to invest a high percentage of their assets in diversified, highly rated and marketable fixed-maturity instruments. The fixed-maturity

portfolios of our insurance subsidiaries consist of both taxable and tax-exempt securities. Our insurance subsidiaries maintain a portion of their portfolios in short-term securities to provide liquidity for the payment of claims and operation of their respective businesses. Our insurance subsidiaries maintain a small percentage (5.0% at December 31, 2019) of their portfolios in equity securities.

Competition

The property and casualty insurance industry is highly competitive on the basis of both price and service. Numerous companies compete for business in the geographic areas where our insurance subsidiaries operate. Many of these other insurance companies are substantially larger and have greater financial resources than those of our insurance subsidiaries. In addition, because our insurance subsidiaries and Donegal Mutual market their respective insurance products exclusively through independent insurance agencies, most of which represent more than one insurance company, our insurance subsidiaries face competition within agencies, as well as competition to retain qualified independent agents.

Products and Underwriting

We report the results of our insurance operations in two segments: commercial lines of insurance and personal lines of insurance. The commercial lines our insurance subsidiaries write consist primarily of commercial automobile, commercial multi-peril and workers' compensation insurance. The personal lines our insurance subsidiaries write consist primarily of private passenger automobile and homeowners insurance. We describe these lines of insurance in greater detail below:

Commercial

- Commercial automobile — policies that provide protection against liability for bodily injury and property damage arising from automobile accidents and protection against loss from damage to automobiles owned by the insured.

- Commercial multi-peril — policies that provide protection to businesses against many perils, usually combining liability and physical damage coverages.

- Workers' compensation — policies employers purchase to provide benefits to employees for injuries sustained during employment. The workers' compensation laws of each state determine the extent of the coverage we provide.

Personal

- Private passenger automobile — policies that provide protection against liability for bodily injury and property damage arising from automobile accidents and protection against loss from damage to automobiles owned by the insured.

- Homeowners — policies that provide coverage for damage to residences and their contents from a broad range of perils, including fire, lightning, windstorm and theft. These policies also cover liability of the insured arising from injury to other persons or their property while on the insured's property and under other specified conditions.

In recent years, we have taken actions to shift our business mix to a higher proportion of commercial business, where we believe we have greater opportunities to achieve profitable, sustainable long-term growth. The following table sets forth the net premiums written of our insurance subsidiaries by line of insurance for the periods indicated:

	Year Ended December 31,					
	2019		2018		2017	
(dollars in thousands)	Amount	%	Amount	%	Amount	%
Commercial lines:						
Automobile	$ 122,142	16.2%	$ 108,123	14.5%	$ 99,333	13.6%
Workers' compensation	113,684	15.1	109,022	14.7	109,884	15.1
Commercial multi-peril	138,750	18.5	117,509	15.8	110,313	15.1
Other	30,303	4.0	15,241	2.0	9,586	1.3
Total commercial lines	404,879	53.8	349,895	47.0	329,116	45.1
Personal lines:						
Automobile	210,507	28.0	249,275	33.5	255,297	35.0
Homeowners	117,118	15.5	123,782	16.6	125,054	17.2
Other	20,097	2.7	21,064	2.9	19,672	2.7
Total personal lines	347,722	46.2	394,121	53.0	400,023	54.9
Total business	$ 752,601	100.0%	$ 744,016	100.0%	$ 729,139	100.0%

The commercial lines and personal lines underwriting departments of our insurance subsidiaries evaluate and select those risks that they believe will enable our insurance subsidiaries to achieve an underwriting profit. The underwriting departments have significant interaction with the independent agents regarding the underwriting philosophy and the underwriting guidelines of our insurance subsidiaries. Our underwriting personnel also assist in the development of quality products at competitive prices to promote growth and profitability.

We formally established an enterprise analytics function in early 2019. Our enterprise analytics team is responsible for core functions of ratemaking, predictive analytics, data governance and business intelligence. Those responsibilities include the development and expansion of risk-based pricing segmentation, analytical innovation, predictive modeling solutions, formal data strategies, performance monitoring and enhanced reporting mechanisms.

In order to achieve underwriting profitability on a consistent basis, our insurance subsidiaries:

- assess and select primarily standard and preferred risks;
- adhere to disciplined underwriting guidelines; and
- utilize various types of risk management and loss control services.

Our insurance subsidiaries also review their existing policies and accounts to determine whether those risks continue to meet their underwriting guidelines. If a given policy or account no longer meets those underwriting guidelines, our insurance subsidiaries will take appropriate action regarding that policy or account, including raising premium rates or non-renewing the policy to the extent applicable law permits.

As part of the effort of our insurance subsidiaries to maintain acceptable underwriting results, they conduct annual reviews of agencies that have failed to meet their underwriting profitability criteria. The review process includes an analysis of the underwriting and re-underwriting practices of the agency, the completeness and accuracy of the applications the agency submits, the adequacy of the training of the agency's staff and the agency's record of adherence to the underwriting guidelines and service standards of our insurance subsidiaries. Based on the results of this review process, the marketing and underwriting personnel of our insurance subsidiaries develop, together with the agency, a plan to improve its underwriting profitability. Our insurance subsidiaries monitor the agency's compliance with the plan and take other measures as required in the judgment of our insurance subsidiaries, including the termination to the extent applicable law permits of agencies that are unable to achieve acceptable underwriting profitability.

Distribution

Our insurance subsidiaries market their products primarily in the Mid-Atlantic, Midwestern, New England and Southern regions through approximately 2,400 independent insurance agencies. At December 31, 2019, the Donegal Insurance Group actively wrote business in 20 states (Alabama, Delaware, Georgia, Illinois, Indiana, Iowa, Maine, Maryland, Michigan, Nebraska, New Hampshire, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and Wisconsin). Donegal Mutual and its subsidiaries also write business in four Southwestern states (Colorado, New Mexico, Texas and Utah). Donegal Mutual currently excludes the business written in these four states from the pooling agreement between Donegal Mutual and Atlantic States. As a result, this business has no impact on our results of operations. We believe the relationships of our insurance subsidiaries with their independent agents are valuable in identifying, obtaining and retaining profitable business. Our insurance subsidiaries maintain a stringent agency selection procedure that emphasizes appointing agencies with proven marketing strategies for the development of profitable business, and our insurance subsidiaries only appoint agencies with a strong underwriting history and potential growth capabilities. Our insurance subsidiaries also regularly evaluate the independent agencies that represent them based on their profitability and performance in relation to the objectives of our insurance subsidiaries. Our insurance subsidiaries seek to be among the top three insurers within each of their agencies for the lines of business our insurance subsidiaries write.

The following table sets forth the percentage of direct premiums our insurance subsidiaries write, including 80% of the direct premiums Donegal Mutual and Atlantic States include in the underwriting pool, in each of the states where they conducted a significant portion of their business in 2019:

State	Percentage
Pennsylvania	35.3%
Michigan	15.8
Maryland	9.3
Georgia	8.0
Virginia	7.6
Delaware	6.2
Wisconsin	3.3
Ohio	3.1
Tennessee	2.2
Iowa	2.2
Other	7.0
Total	100.0%

Our insurance subsidiaries employ a number of policies and procedures that we believe enable them to attract, retain and motivate their independent agents. We believe that the consistency of the product offerings of our insurance subsidiaries enables our insurance subsidiaries to compete effectively for independent agents with other insurers whose product offerings may fluctuate based upon industry conditions. Our insurance subsidiaries have a competitive profit-sharing plan for their independent agents, consistent with applicable state laws and regulations, under which the independent agents may earn additional commissions based upon the volume of premiums produced and the profitability of the business our insurance subsidiaries receive from that agency.

Our insurance subsidiaries encourage their independent agents to focus on “account selling,” or serving all of a particular insured’s property and casualty insurance needs, which our insurance subsidiaries believe generally results in more favorable loss experience than covering a single risk for an individual insured.

Technology

Donegal Mutual owns the technology systems our insurance subsidiaries use. The technology systems consist primarily of an integrated central processing computer system, a series of server-based computer networks and various communication systems that allow the home office and branch offices of Donegal Mutual and our insurance subsidiaries to utilize the same systems for the processing of business. Donegal Mutual maintains backup facilities and systems at the office of one of our insurance subsidiaries and tests these backup facilities and systems on a regular basis. Our insurance subsidiaries bear their proportionate share of information services expenses based on their respective percentage of the total net premiums written of the Donegal Insurance Group during the preceding calendar year.

The business strategy of our insurance subsidiaries depends on the use, development and implementation of integrated technology systems. These systems enable our insurance subsidiaries to provide quality service to agents and policyholders by processing business in a timely and efficient manner, communicating and sharing data with agents, providing a variety of methods for the payment of premiums and allowing for the accumulation and analysis of information for the management of our insurance subsidiaries.

We believe the availability and use of these technology systems has resulted in improved service to agents and policyholders, increased efficiencies in processing the business of our insurance subsidiaries and lower operating costs. Key components of these integrated technology systems are the agency interface system, the automated underwriting and policy issuance systems, a claims processing system and an imaging system. The agency interface system provides our insurance subsidiaries with a high level of data sharing both to and from agents' systems and also provides agents with an integrated means of processing new business. The automated underwriting and policy issuance systems provide agents with the ability to generate underwritten quotes and automatically issue policies that meet the underwriting guidelines of our insurance subsidiaries with limited or no intervention by their personnel. The claims processing system allows our insurance subsidiaries to process claims efficiently and in an automated environment. The imaging system eliminates the need to handle paper files, while providing greater access to the same information by a variety of personnel. We believe our agency-facing technology systems compare favorably to those of many national property and casualty insurance carriers in terms of quality and service levels. In 2018, Donegal Mutual initiated a multi-year systems modernization project that will facilitate the replacement of its remaining legacy systems, streamline our business processes and workflows and enhance our data analytics and modeling capabilities. In February 2020, Donegal Mutual implemented the first release of new systems related to the project, and our insurance subsidiaries will issue workers' compensation policies from the new systems beginning with new policies effective in May 2020 and renewal policies effective in June 2020. Over the next several years, Donegal Mutual expects to implement new systems for the remaining lines of business Donegal Mutual and our insurance subsidiaries offer currently.

Claims

The management of claims is a critical component of the philosophy of our insurance subsidiaries to achieve underwriting profitability on a consistent basis and is fundamental to the successful operations of our insurance subsidiaries and their dedication to excellent service. Our senior claims management oversees the claims processing units of each of our insurance subsidiaries to assure consistency in the claims settlement process. The field office staff of our insurance subsidiaries receives support from home office technical, litigation, material damage, subrogation and medical audit personnel.

The claims departments of our insurance subsidiaries rigorously manage claims to assure that they settle legitimate claims quickly and fairly and that they identify questionable claims for defense. In the majority of cases, the personnel of our insurance subsidiaries, who have significant experience in the property and casualty insurance industry and know the service philosophy of our insurance subsidiaries, adjust claims. Our insurance subsidiaries provide various means of claims reporting on a 24-hours a day, seven-days a week basis, including toll-free numbers and electronic reporting through our website and mobile application. Our insurance subsidiaries strive to respond to notifications of claims promptly, generally within the day reported. Our insurance subsidiaries believe that, by responding promptly to claims, they provide quality customer service and minimize the ultimate cost of the claims. Our insurance subsidiaries engage independent adjusters as needed to handle claims in areas in which the volume of claims is not sufficient to justify the hiring of internal claims adjusters by our insurance subsidiaries. Our insurance subsidiaries also employ private adjusters and investigators, structural experts and various outside legal counsel to supplement their internal staff and to assist in the investigation of claims. Our insurance subsidiaries have a special investigative unit primarily staffed by former law enforcement officers that attempts to identify and prevent fraud and abuse and to investigate questionable claims.

The management of the claims departments of our insurance subsidiaries develops and implements policies and procedures for the establishment of adequate claim reserves. Our insurance subsidiaries employ an actuarial staff that regularly reviews their reserves for incurred but not reported claims. The management and staff of the claims departments resolve policy coverage issues, manage and process reinsurance recoveries and handle salvage and subrogation matters. The litigation and personal injury sections of our insurance subsidiaries manage all claims litigation. Branch office claims above certain thresholds require home office review and settlement authorization. Our insurance subsidiaries provide their claims adjusters reserving and settlement authority based upon their experience and demonstrated abilities. Larger or more complicated claims require consultation and approval of senior claims department management.

Liabilities for Losses and Loss Expenses

Liabilities for losses and loss expenses are estimates at a given point in time of the amounts an insurer expects to pay with respect to incurred policyholder claims based on facts and circumstances the insurer knows at that point in time. At the time of

establishing its estimates, an insurer recognizes that its ultimate liability for losses and loss expenses will exceed or be less than such estimates. Our insurance subsidiaries base their estimates of liabilities for losses and loss expenses on assumptions as to future loss trends, expected claims severity, judicial theories of liability and other factors. However, during the loss adjustment period, our insurance subsidiaries may learn additional facts regarding individual claims, and, consequently, it often becomes necessary for our insurance subsidiaries to refine and adjust their estimates for these liabilities. We reflect any adjustments to the liabilities for losses and loss expenses of our insurance subsidiaries in our consolidated results of operations in the period in which our insurance subsidiaries make adjustments to their estimates.

Our insurance subsidiaries maintain liabilities for the payment of losses and loss expenses with respect to both reported and unreported claims. Our insurance subsidiaries establish these liabilities for the purpose of covering the ultimate costs of settling all losses, including investigation and litigation costs. Our insurance subsidiaries base the amount of their liability for reported losses primarily upon a case-by-case evaluation of the type of risk involved, knowledge of the circumstances surrounding each claim and the insurance policy provisions relating to the type of loss the policyholder incurred. Our insurance subsidiaries determine the amount of their liability for unreported claims and loss expenses on the basis of historical information by line of insurance. Our insurance subsidiaries account for inflation in the reserving function through analysis of costs and trends and reviews of historical reserving results. Our insurance subsidiaries monitor their liabilities closely and recompute them periodically using new information on reported claims and a variety of statistical techniques. Our insurance subsidiaries do not discount their liabilities for losses and loss expenses.

Reserve estimates can change over time because of unexpected changes in assumptions related to our insurance subsidiaries' external environment and, to a lesser extent, assumptions related to our insurance subsidiaries' internal operations. For example, our insurance subsidiaries have experienced an increase in claims severity and a lengthening of the claim settlement periods on bodily injury claims during the past several years. These trend changes give rise to greater uncertainty as to the pattern of future loss settlements on bodily injury claims. Related uncertainties regarding future trends include the rate of plaintiff attorney involvement in claims and the cost of medical technologies and procedures. Assumptions related to our insurance subsidiaries' external environment include the absence of significant changes in tort law and the legal environment that increase liability exposure, consistency in judicial interpretations of insurance coverage and policy provisions and the rate of loss cost inflation. Internal assumptions include consistency in the recording of premium and loss statistics, consistency in the recording of claims, payment and case reserving methodology, accurate measurement of the impact of rate changes and changes in policy provisions, consistency in the quality and characteristics of business written within a given line of business and consistency in reinsurance coverage and collectability of reinsured losses, among other items. To the extent our insurance subsidiaries determine that underlying factors impacting their assumptions have changed, our insurance subsidiaries make adjustments in their reserves that they consider appropriate for such changes. Accordingly, our insurance subsidiaries' ultimate liability for unpaid losses and loss expenses will likely differ from the amount recorded at December 31, 2019. For every 1% change in our insurance subsidiaries' loss and loss expense reserves, net of reinsurance recoverable, the effect on our pre-tax results of operations would be approximately $5.1 million.

The establishment of appropriate liabilities is an inherently uncertain process and we can provide no assurance that our insurance subsidiaries' ultimate liability will not exceed our insurance subsidiaries' loss and loss expense reserves and have an adverse effect on our results of operations and financial condition. Furthermore, we cannot predict the timing, frequency and extent of adjustments to our insurance subsidiaries' estimated future liabilities, because the historical conditions and events that serve as a basis for our insurance subsidiaries' estimates of ultimate claim costs may change. As is the case for substantially all property and casualty insurance companies, our insurance subsidiaries have found it necessary in the past to increase their estimated future liabilities for losses and loss expenses in certain periods and, in other periods, their estimated future liabilities for losses and loss expenses have exceeded their actual liabilities for losses and loss expenses. Changes in our insurance subsidiaries' estimates of their liability for losses and loss expenses generally reflect actual payments and their evaluation of information received subsequent to the prior reporting period. Our insurance subsidiaries recognized a (decrease) increase in their liability for losses and loss expenses of prior years of ($12.9 million), $35.6 million and $6.6 million in 2019, 2018 and 2017, respectively. Our insurance subsidiaries made no significant changes in their reserving philosophy or claims management personnel, and they have made no significant offsetting changes in estimates that increased or decreased their loss and loss expense reserves in those years. The 2019 development represented 2.7% of the December 31, 2018 net carried reserves and resulted primarily from lower-than-expected severity in the workers' compensation line of business, partially offset by higher-than-expected severity in the commercial automobile and commercial multi-peril lines of business, for accident years prior to 2019. The majority of the 2019 development related to decreases in the liability for losses and loss expenses of prior years for Atlantic States and Michigan. The 2018 development represented 9.3% of the December 31, 2017 net carried reserves and resulted primarily from higher-than-expected severity in the commercial multi-peril, personal automobile and commercial automobile lines of business, offset by lower-than-expected severity in the workers' compensation line of business, for accident years prior to 2018. The majority of the 2018 development related to increases in the liability for losses and loss expenses of prior years for Atlantic States and Southern. During 2018, our insurance subsidiaries received new information on previously-

reported commercial automobile and personal automobile claims that led our insurance subsidiaries to conclude that their prior actuarial assumptions did not fully anticipate recent changes in severity and reporting trends. Our insurance subsidiaries have encountered increasing difficulties in projecting the ultimate severity of automobile losses over recent accident years, which our insurance subsidiaries attribute to worsening litigation trends and an increased delay in the reporting to our insurance subsidiaries of information with respect to the severity of claims. As a result, our insurance subsidiaries' actuaries increased their projections of the ultimate cost of our insurance subsidiaries' prior-year personal automobile and commercial automobile losses, and our insurance subsidiaries added $17.7 million to their reserves for personal automobile and $20.8 million to their reserves for commercial automobile for accident years prior to 2018. The 2017 development represented 1.9% of the December 31, 2016 net carried reserves and resulted primarily from higher-than-expected severity in the commercial multi-peril, personal automobile and commercial automobile lines of business, offset by lower-than-expected severity in the workers' compensation line of business, for accident years prior to 2017. The majority of the 2017 development related to increases in the liability for losses and loss expenses of prior years for Atlantic States and Peninsula.

Excluding the impact of severe weather events, our insurance subsidiaries have noted stable amounts in the number of claims incurred and the number of claims outstanding at period ends relative to their premium base in recent years across most of their lines of business. However, the amount of the average claim outstanding has increased gradually over the past several years due to various factors such as rising medical loss costs and increased litigation trends. We have also experienced a general slowing of settlement rates in litigated claims. Our insurance subsidiaries could have to make further adjustments to their estimates in the future. However, on the basis of our insurance subsidiaries' internal procedures, which analyze, among other things, their prior assumptions, their experience with similar cases and historical trends such as reserving patterns, loss payments, pending levels of unpaid claims and product mix, as well as court decisions, economic conditions and public attitudes, we believe that our insurance subsidiaries have made adequate provision for their liability for losses and loss expenses.

Atlantic States' participation in the pool with Donegal Mutual exposes Atlantic States to adverse loss development on the business of Donegal Mutual that the pool includes. However, pooled business represents the predominant percentage of the net underwriting activity of both companies, and Donegal Mutual and Atlantic States share proportionately any adverse risk development relating to the pooled business. The business in the pool is homogeneous and each company has a pro-rata share of the entire pool. Since the predominant percentage of the business of Atlantic States and Donegal Mutual is pooled and the results shared by each company according to its participation level under the terms of the pooling agreement, the intent of the underwriting pool is to produce a more uniform and stable underwriting result from year to year for each company than either would experience individually and to spread the risk of loss between the companies.

Donegal Mutual and our insurance subsidiaries operate together as the Donegal Insurance Group and share a combined business plan designed to achieve market penetration and underwriting profitability objectives. The products our insurance subsidiaries and Donegal Mutual offer are generally complementary, thereby allowing Donegal Insurance Group to offer a broader range of products to a given market and to expand Donegal Insurance Group's ability to service an entire personal lines or commercial lines account. Distinctions within the products of Donegal Mutual and our insurance subsidiaries generally relate to specific risk profiles targeted within similar classes of business, such as preferred tier products compared to standard tier products, but we do not allocate all of the standard risk gradients to one company. Therefore, the underwriting profitability of the business the individual companies write directly will vary.

Differences between liabilities reported in our financial statements prepared on a GAAP basis and our insurance subsidiaries' financial statements prepared on a SAP basis result from anticipating salvage and subrogation recoveries for GAAP but not for SAP. These differences amounted to $20.2 million, $20.0 million and $18.0 million at December 31, 2019, 2018 and 2017, respectively.

The following table sets forth a reconciliation of the beginning and ending GAAP net liability of our insurance subsidiaries for unpaid losses and loss expenses for the periods indicated:

(in thousands)	Year Ended December 31, 2019	2018	2017
Gross liability for unpaid losses and loss expenses at beginning of year	$ 814,665	$ 676,672	$ 606,665
Less reinsurance recoverable	339,267	293,271	259,147
Net liability for unpaid losses and loss expenses at beginning of year	475,398	383,401	347,518
Provision for net losses and loss expenses for claims incurred in the current year	519,320	540,827	480,647
Change in provision for estimated net losses and loss expenses for claims incurred in prior years	(12,932)	35,631	6,621
Total incurred	506,388	576,458	487,268
Net losses and loss expense payments for claims incurred during:			
The current year	278,924	308,578	288,380
Prior years	195,956	175,883	163,005
Total paid	474,880	484,461	451,385
Net liability for unpaid losses and loss expenses at end of year	506,906	475,398	383,401
Plus reinsurance recoverable	362,768	339,267	293,271
Gross liability for unpaid losses and loss expenses at end of year	$ 869,674	$ 814,665	$ 676,672

The following table sets forth the development of the liability for net unpaid losses and loss expenses of our insurance subsidiaries from 2009 to 2019. Loss data in the table includes business Atlantic States received from the underwriting pool.

"Net liability at end of year for unpaid losses and loss expenses" sets forth the estimated liability for net unpaid losses and loss expenses recorded at the balance sheet date for each of the indicated years. This liability represents the estimated amount of net losses and loss expenses for claims arising in the current and all prior years that are unpaid at the balance sheet date, including losses incurred but not reported.

The "Net liability re-estimated as of" portion of the table shows the re-estimated amount of the previously recorded liability based on experience for each succeeding year. The estimate increases or decreases as payments are made and more information becomes known about the severity of the remaining unpaid claims. For example, the 2009 liability has developed a deficiency after ten years because we expect the re-estimated net losses and loss expenses to be $419,000 more than the estimated liability we initially established in 2009 of $180.3 million.

The "Cumulative deficiency (excess)" shows the cumulative deficiency or excess at December 31, 2019 of the liability estimate shown on the top line of the corresponding column. A deficiency in liability means that the liability established in prior years was less than the amount of actual payments and currently re-estimated remaining unpaid liability. An excess in liability means that the liability established in prior years exceeded the amount of actual payments and currently re-estimated unpaid liability remaining.

The "Cumulative amount of liability paid through" portion of the table shows the cumulative net losses and loss expense payments made in succeeding years for net losses incurred prior to the balance sheet date. For example, the 2009 column indicates that at December 31, 2019 payments equal to $177.4 million of the currently re-estimated ultimate liability for net losses and loss expenses of $180.7 million had been made.

Amounts shown in the 2010 column of the table include information for MICO for all accident years prior to 2010.

(in thousands)	Year Ended December 31, 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Net liability at end of year for unpaid losses and loss expenses	$180,262	$217,896	$243,015	$250,936	$265,605	$292,301	$322,054	$347,518	$383,401	$475,398	$506,906
Net liability re-estimated as of:											
One year later	177,377	217,728	250,611	261,294	280,074	299,501	325,043	354,139	419,032	462,466	
Two years later	177,741	217,355	255,612	268,877	281,782	299,919	329,115	375,741	413,535		
Three years later	178,403	218,449	257,349	270,473	281,666	304,855	338,118	376,060			
Four years later	179,909	218,514	256,460	270,794	284,429	307,840	339,228				
Five years later	179,961	218,202	255,660	271,954	285,130	310,354					
Six years later	179,858	217,430	256,388	272,553	287,439						
Seven years later	179,996	217,703	257,132	274,111							
Eight years later	180,130	218,173	257,935								
Nine years later	180,487	218,603									
Ten years later	180,681										
Cumulative deficiency (excess)	419	707	14,920	23,175	21,834	18,053	17,174	28,542	30,134	(12,932)	
Cumulative amount of liability paid through:											
One year later	$ 84,565	$ 96,202	$119,074	$126,677	$131,766	$131,779	$149,746	$163,005	$175,883	$195,956	
Two years later	123,204	148,140	181,288	191,208	194,169	206,637	228,506	250,678	276,331		
Three years later	147,165	178,073	217,138	225,956	233,371	251,654	274,235	306,338			
Four years later	161,363	195,948	234,392	245,094	255,451	274,248	300,715				
Five years later	169,452	203,633	241,538	254,502	265,841	287,178					
Six years later	173,153	206,731	245,774	259,437	272,431						
Seven years later	174,376	209,527	248,195	263,386							
Eight years later	175,662	210,982	250,272								
Nine years later	176,514	212,340									
Ten years later	177,433										

(in thousands)	Year Ended December 31, 2011	2012	2013	2014	2015	2016	2017	2018	2019
Gross liability at end of year	$442,408	$458,827	$495,619	$538,258	$578,205	$606,665	$676,672	$814,665	$869,674
Reinsurance recoverable	199,393	207,891	230,014	245,957	256,151	259,147	293,271	339,266	362,768
Net liability at end of year	243,015	250,936	265,605	292,301	322,054	347,518	383,401	475,398	506,906
Gross re-estimated liability	515,334	511,331	536,133	584,517	615,168	664,526	742,616	846,081	
Re-estimated recoverable	257,399	237,220	248,694	274,163	275,940	288,466	329,081	383,615	
Net re-estimated liability	257,935	274,111	287,439	310,354	339,228	376,060	413,535	462,466	
Gross cumulative deficiency (excess)	72,926	52,504	40,514	46,259	36,963	57,861	65,944	31,416	

Third-Party Reinsurance

Our insurance subsidiaries and Donegal Mutual purchase certain third-party reinsurance on a combined basis. Our insurance subsidiaries use several different reinsurers, all of which, consistent with the requirements of our insurance subsidiaries and Donegal Mutual, have an A.M. Best rating of A- (Excellent) or better or, with respect to foreign reinsurers, have a financial condition that, in the opinion of our management, is equivalent to a company with at least an A- (Excellent) rating from A.M. Best.

The external reinsurance our insurance subsidiaries and Donegal Mutual purchased for 2019 included:

- excess of loss reinsurance, under which the losses of Donegal Mutual and our insurance subsidiaries were automatically reinsured, through a series of contracts, over a set retention; and

- catastrophe reinsurance, under which Donegal Mutual and our insurance subsidiaries recovered, through a series of reinsurance agreements, 100% of an accumulation of many losses resulting from a single event, including natural disasters, over a set retention of $10.0 million and after exceeding an annual aggregate deductible of $1.2 million up to aggregate losses of $190.0 million per occurrence.

For property insurance, our insurance subsidiaries had excess of loss treaties that provided for coverage of $34.0 million per loss over a set retention of $1.0 million. For liability insurance, our insurance subsidiaries had excess of loss treaties that provide for coverage of $58.0 million per occurrence over a set retention of $2.0 million. For workers' compensation insurance, our insurance subsidiaries had excess of loss treaties that provided for coverage of $13.0 million on any one life over a set retention of $2.0 million.

Our insurance subsidiaries and Donegal Mutual also purchased facultative reinsurance to cover certain exposures, including property exposures that exceeded the limits provided by their respective treaty reinsurance.

Investments

At December 31, 2019, 99.8% of all debt securities our insurance subsidiaries held had an investment-grade rating. The investment portfolios of our insurance subsidiaries did not contain any mortgage loans or any non-performing assets at December 31, 2019.

The following table shows the composition of the debt securities (at carrying value) in the investment portfolios of our insurance subsidiaries, excluding short-term investments, by rating at December 31, 2019:

(dollars in thousands)	December 31, 2019	
Rating(1)	Amount	Percent
U.S. Treasury and U.S. agency securities(2)	$ 463,974	44.6%
Aaa or AAA	26,154	2.5
Aa or AA	212,877	20.4
A	171,822	16.5
BBB	164,217	15.8
B	2,002	0.2
Total	$ 1,041,046	100.0%

(1) Ratings assigned by Moody's Investors Services, Inc. or Standard & Poor's Corporation.
(2) Includes mortgage-backed securities of $361.7 million.

Our insurance subsidiaries invest in both taxable and tax-exempt securities as part of their strategy to maximize after-tax income. Tax-exempt securities made up approximately 18.7%, 19.7% and 24.3% of the fixed-maturity securities in the combined investment portfolios of our insurance subsidiaries at December 31, 2019, 2018 and 2017, respectively.

The following table shows the classification of our investments and the investments of our insurance subsidiaries at December 31, 2019, 2018 and 2017 (at carrying value):

	December 31,					
	2019		2018		2017	
(dollars in thousands)	Amount	Percent of Total	Amount	Percent of Total	Amount	Percent of Total
Fixed maturities[1]:						
Held to maturity:						
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 82,916	7.5%	$ 76,223	7.4%	$ 71,736	7.1%
Obligations of states and political subdivisions	204,634	18.4	159,292	15.5	137,581	13.7
Corporate securities	156,399	14.1	127,010	12.3	108,025	10.7
Mortgage-backed securities	32,145	2.9	40,274	3.9	49,313	4.9
Total held to maturity	476,094	42.9	402,799	39.1	366,655	36.4
Available for sale:						
U.S. Treasury securities and obligations of U.S. government corporations and agencies	19,364	1.7	44,210	4.3	44,049	4.4
Obligations of states and political subdivisions	56,796	5.1	75,216	7.3	132,117	13.1
Corporate securities	159,244	14.3	137,833	13.4	105,740	10.5
Mortgage-backed securities	329,548	29.7	269,299	26.1	257,040	25.6
Total available for sale	564,952	50.8	526,558	51.1	538,946	53.6
Total fixed maturities	1,041,046	93.7	929,357	90.2	905,601	90.0
Equity securities[2]	55,477	5.0	43,667	4.2	50,445	5.0
Investment in affiliate[3]	—	—	41,026	4.0	38,774	3.9
Short-term investments[4]	14,030	1.3	16,749	1.6	11,050	1.1
Total investments	$1,110,553	100.0%	$1,030,799	100.0%	$1,005,870	100.0%

(1) We refer to Notes 1 and 4 to our Consolidated Financial Statements. We value those fixed maturities we classify as held to maturity at amortized cost; we value those fixed maturities we classify as available for sale at fair value. The total fair value of fixed maturities we classified as held to maturity was $500.3 million at December 31, 2019, $405.0 million at December 31, 2018 and $380.5 million at December 31, 2017. The amortized cost of fixed maturities we classified as available for sale was $556.8 million at December 31, 2019, $535.1 million at December 31, 2018 and $538.4 million at December 31, 2017.

(2) We value equity securities at fair value. The total cost of equity securities was $43.4 million at December 31, 2019, $40.9 million at December 31, 2018 and $44.2 million at December 31, 2017.

(3) We valued our investment in our affiliate at cost, adjusted for our share of earnings and losses of our affiliate as well as changes in equity of our affiliate due to unrealized gains and losses.

(4) We value short-term investments at cost, which approximates fair value.

The following table sets forth the maturities (at carrying value) in the fixed maturity portfolio of our insurance subsidiaries at December 31, 2019, 2018 and 2017:

	December 31,					
	2019		2018		2017	
(dollars in thousands)	Amount	Percent of Total	Amount	Percent of Total	Amount	Percent of Total
Due in[1]:						
One year or less	$ 29,209	2.8%	$ 39,282	4.2%	$ 53,826	6.0%
Over one year through three years	71,738	6.9	74,773	8.1	74,140	8.2
Over three years through five years	93,982	9.0	84,987	9.1	82,476	9.1
Over five years through ten years	297,836	28.6	256,267	27.6	221,904	24.5
Over ten years through fifteen years	116,368	11.2	117,875	12.7	131,531	14.5
Over fifteen years	70,220	6.8	46,600	5.0	35,371	3.9
Mortgage-backed securities	361,693	34.7	309,573	33.3	306,353	33.8
	$1,041,046	100.0%	$ 929,357	100.0%	$ 905,601	100.0%

(1) Based on stated maturity dates with no prepayment assumptions. Actual maturities will differ because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

As shown above, our insurance subsidiaries held investments in mortgage-backed securities having a carrying value of $361.7 million at December 31, 2019. The mortgage-backed securities consist primarily of investments in governmental agency balloon pools with stated maturities between one and 38 years. The stated maturities of these investments limit the exposure of our insurance subsidiaries to extension risk in the event that interest rates rise and prepayments decline. Our insurance subsidiaries perform an analysis of the underlying loans when evaluating a mortgage-backed security for purchase, and they select those securities that they believe will provide a return that properly reflects the prepayment risk associated with the underlying loans.

The following table sets forth the investment results of our insurance subsidiaries for the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
(dollars in thousands)	2019	2018	2017
Invested assets[1]	$ 1,070,676	$ 1,018,334	$ 975,695
Investment income[2]	29,515	26,908	23,527
Average yield	2.8%	2.6%	2.4%
Average tax-equivalent yield	2.9	2.8	2.8

(1) Average of the aggregate invested amounts at the beginning and end of the period.
(2) Investment income is net of investment expenses and does not include investment gains or losses or provision for income taxes.

A.M. Best Rating

Donegal Mutual and our insurance subsidiaries have an A.M. Best rating of A (Excellent), based upon the respective current financial condition and historical statutory results of operations of Donegal Mutual and our insurance subsidiaries. We believe that the A.M. Best rating of Donegal Mutual and our insurance subsidiaries is an important factor in their marketing of their products to their agents and customers. A.M. Best's ratings are industry ratings based on a comparative analysis of the financial condition and operating performance of insurance companies. A.M. Best's classifications are A++ and A+ (Superior), A and A- (Excellent), B++ and B+ (Good), B and B- (Fair), C++ and C+ (Marginal), C and C- (Weak), D (Poor), E (Under Regulatory Supervision), F (Liquidation) and S (Suspended). A.M. Best bases its ratings upon factors relevant to the payment of claims of policyholders and are not directed toward the protection of investors in insurance companies. According to A.M. Best, the "Excellent" rating that the Donegal Insurance Group maintains is assigned to those companies that, in A.M. Best's opinion, have an excellent ability to meet their ongoing insurance obligations.

Regulation

The supervision and regulation of insurance companies consists primarily of the laws and regulations of the various states in which the insurance companies transact business, with the primary regulatory authority being the insurance regulatory authorities in the state of domicile of the insurance company. Such supervision and regulation relate to numerous aspects of an insurance company's business and financial condition. The primary purpose of such supervision and regulation is the protection of policyholders. The authority of the state insurance departments includes the establishment of standards of solvency that insurers must meet and maintain, the licensing of insurers and insurance agents to do business, the nature of, and limitations on, investments, premium rates for property and casualty insurance, the provisions that insurers must make for current losses and future liabilities, the deposit of securities for the benefit of policyholders, the approval of policy forms, notice requirements for the cancellation of policies and the approval of certain changes in control. State insurance departments also conduct periodic examinations of the affairs of insurance companies and require the filing of annual and other reports relating to the financial condition of insurance companies.

In addition to state-imposed insurance laws and regulations, the National Association of Insurance Commissioners, or the NAIC, maintains a risk-based capital system, or RBC, for assessing the adequacy of the statutory capital and surplus of insurance companies that augments the states' current fixed dollar minimum capital requirements for insurance companies. At December 31, 2019, our insurance subsidiaries and Donegal Mutual each exceeded by a substantial margin the minimum levels of statutory capital the RBC rules require.

Generally, every state has guaranty fund laws under which insurers licensed to do business in that state can be assessed on the basis of premiums written by the insurer in that state in order to fund policyholder liabilities of insolvent insurance companies. Under these laws in general, an insurer is subject to assessment, depending upon its market share of a given line of business, to assist in the payment of policyholder claims against insolvent insurers. Our insurance subsidiaries and Donegal Mutual have made accruals for their portion of assessments related to such insolvencies based upon the most current information furnished by the guaranty associations.

We are part of an insurance holding company system of which Donegal Mutual is the ultimate controlling person. All of the states in which our insurance companies and Donegal Mutual maintain a domicile have legislation that regulates insurance holding company systems. Each insurance company in the insurance holding company system must register with the insurance supervisory agency of its state of domicile and furnish information concerning the operations of companies within the insurance holding company system that may materially affect the operations, management or financial condition of the insurers within the system. Pursuant to these laws, the respective insurance departments in which our subsidiaries and Donegal Mutual maintain a domicile may examine our insurance subsidiaries or Donegal Mutual at any time, require disclosure of material transactions by the holding company with another member of the insurance holding company system and require prior notice or prior approval of certain transactions, such as "extraordinary dividends" from the insurance subsidiaries to the holding company. We have insurance subsidiaries domiciled in Maryland, Michigan, Pennsylvania and Virginia.

The Pennsylvania Insurance Holding Companies Act, which generally applies to Donegal Mutual, us and our insurance subsidiaries, requires that all transactions within an insurance holding company system to which an insurer is a party must be fair and reasonable and that any charges or fees for services performed must be reasonable. Any management agreement, service agreement, cost sharing arrangement and material reinsurance agreement must be filed with the Pennsylvania Insurance Department, or the Department, and is subject to the Department's review. We have filed with the Department the pooling agreement between Donegal Mutual and Atlantic States that established the underwriting pool and all material agreements between Donegal Mutual and our insurance subsidiaries.

Approval of the applicable insurance commissioner is also required prior to consummation of transactions affecting the control of an insurer. In virtually all states, including the states where our insurance subsidiaries are domiciled, the acquisition of 10% or more of the outstanding capital stock of an insurer or its holding company or the intent to acquire such an interest creates a rebuttable presumption of a change in control. Pursuant to an order issued in April 2003, the Department approved Donegal Mutual's ownership of up to 70% of our outstanding Class A common stock and Donegal Mutual's ownership of up to 100% of our outstanding Class B common stock.

Our insurance subsidiaries have the legal obligation under state insurance laws to participate in involuntary insurance programs for automobile insurance, as well as other property and casualty insurance lines, in the states in which they conduct business. These programs include joint underwriting associations, assigned risk plans, fair access to insurance requirements plans, reinsurance facilities, windstorm plans and tornado plans. Legislation establishing these programs requires all companies that write lines covered by these programs to provide coverage, either directly or through reinsurance, for insureds who are unable to obtain insurance in the voluntary market. The legislation creating these programs usually allocates a pro rata portion

of risks attributable to such insureds to each company on the basis of the direct premiums it has written in that state or the number of automobiles it insures in that state. Generally, state law requires participation in these programs as a condition to obtaining a certificate of authority. Our loss ratio on insurance we write under these involuntary programs has traditionally been significantly greater than our loss ratio on insurance we voluntarily write in those states.

Regulatory requirements, including RBC requirements, may impact our insurance subsidiaries' ability to pay dividends. The amount of statutory capital and surplus necessary for our insurance subsidiaries to satisfy regulatory requirements, including RBC requirements, was not significant in relation to our insurance subsidiaries' statutory capital and surplus at December 31, 2019. Generally, the maximum amount that one of our insurance subsidiaries may pay to us as ordinary dividends during any year after notice to, but without prior approval of, the insurance commissioner of its domiciliary state is limited to a stated percentage of that subsidiary's statutory capital and surplus at December 31 of the preceding fiscal year or the net income of that subsidiary for its preceding fiscal year. Our insurance subsidiaries paid dividends to us of $4.0 million, $11.0 million and $13.0 million in 2019, 2018 and 2017, respectively. At December 31, 2019, the amount of ordinary dividends our insurance subsidiaries could pay to us during 2020, without the prior approval of their respective domiciliary insurance commissioners, is shown in the following table.

Name of Insurance Subsidiary	Ordinary Dividend Amount
Atlantic States	$ 25,903,087
MICO	6,576,859
Peninsula	1,983,678
Southern	5,440,557
Total	$ 39,904,181

Donegal Mutual Insurance Company

Donegal Mutual organized as a mutual fire insurance company in Pennsylvania in 1889. At December 31, 2019, Donegal Mutual had admitted assets of $635.6 million and policyholders' surplus of $303.7 million. At December 31, 2019, Donegal Mutual had total liabilities of $331.9 million, including reserves for net losses and loss expenses of $162.2 million and unearned premiums of $78.0 million. Donegal Mutual's investment portfolio of $397.3 million at December 31, 2019 consisted primarily of investment-grade bonds of $184.8 million and its investment in our Class A common stock and our Class B common stock. At December 31, 2019, Donegal Mutual owned 9,851,025 shares, or approximately 43%, of our Class A common stock, which Donegal Mutual carried on its books at $128.9 million, and 4,654,339 shares, or approximately 84%, of our Class B common stock, which Donegal Mutual carried on its books at $60.9 million. We present Donegal Mutual's financial information in accordance with SAP as the NAIC Accounting Practices and Procedures Manual requires. Donegal Mutual does not, nor is it required to, prepare financial statements in accordance with GAAP.

Cautionary Statement Regarding Forward-Looking Statements

This Form 10-K Report and the documents we incorporate by reference in this Form 10-K Report contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include certain discussions relating to underwriting, premium and investment income volumes, business strategies, reserves, profitability and business relationships and our other business activities during 2019 and beyond. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expect," "plan," "intend," "anticipate," "believe," "estimate," "objective," "project," "predict," "potential," "goal" and similar expressions. These forward-looking statements reflect our current views about future events and our current assumptions, and are subject to known and unknown risks and uncertainties that may cause our results, performance or achievements to differ materially from those we anticipate or imply by our forward-looking statements. We cannot control or predict many of the factors that could determine our future financial condition or results of operations. Such factors may include those we describe under "Risk Factors." The forward-looking statements contained in this Form 10-K Report reflect our views and assumptions only as of the date of this Form 10-K Report. Except as required by law, we do not intend to update, and we assume no responsibility for updating, any forward-looking statements we have made. We qualify all of our forward-looking statements by these cautionary statements.

Item 1A. Risk Factors.

Risk Factors

Risks Relating to the Property and Casualty Insurance Industry

Industry trends, such as increased litigation against the insurance industry and individual insurers, the willingness of courts to expand covered causes of loss, rising jury awards, escalating medical costs, increasing loss frequency due to distracted driving and other factors, increasing loss severity and adverse weather conditions may contribute to increased costs and result in ultimate loss settlements that exceed the reserves of our insurance subsidiaries.

Loss severity in the property and casualty insurance industry has increased in recent years, principally driven by larger court judgments, higher jury awards and increasing medical and automobile repair costs. The industry has also experienced increases in the frequency of automobile losses due to distracted driving, increases in miles driven due to lower fuel costs, lower unemployment rates and other factors. In addition, many classes of complainants have brought legal actions and proceedings that tend to increase the size of judgments. The propensity of policyholders and third-party claimants to litigate and the willingness of courts to expand causes of loss and the size of awards, to eliminate exclusions and to increase coverage limits may result in ultimate settlements of current and future losses that exceed the loss reserves of our insurance subsidiaries.

Our insurance subsidiaries are subject to catastrophe losses and losses from other severe weather events, which are unpredictable and may adversely affect our results of operations, liquidity and financial condition.

Our property and casualty insurance operations expose us to claims arising from catastrophic events affecting multiple policyholders. Such catastrophic events consist of various natural disasters, including, but not limited to, hurricanes, tropical storms, tornadoes, windstorms, hailstorms, fires and wildfires, landslides, earthquakes, severe winter weather events and man-made disasters such as terrorist attacks, explosions and infrastructure failures. Historically, our insurance subsidiaries have experienced weather-related losses from hurricanes and tropical storms in Mid-Atlantic and Southern states, tornadoes and hailstorms in Mid-Atlantic, Midwestern and Southern states and severe winter weather events in Mid-Atlantic, Midwestern and New England states.

Losses from catastrophic events are a function of both the extent of our insurance subsidiaries' exposures, the frequency and severity of the events themselves and the level of reinsurance coverage our insurance subsidiaries purchase. Our ability to appropriately manage catastrophe risk depends partially on catastrophe models, which may be affected by inaccurate or incomplete data, the uncertainty of the frequency and severity of future events and the uncertain impact of climate change. The underwriting results of our insurance subsidiaries are subject to weather and other conditions that may adversely affect our financial condition, liquidity or results of operations. Because the occurrence and severity of catastrophes are inherently unpredictable and may vary significantly from year to year and region to region, our historical results of operations may not be indicative of our future results of operations. Our insurance subsidiaries seek to reduce their exposure to catastrophe losses through their underwriting strategies and their purchase of catastrophe reinsurance. Nevertheless, reinsurance may prove inadequate under certain circumstances.

The increased frequency and severity of weather-related catastrophes and other losses, such as from wildfires, incurred by the industry in 2019 and in prior years may be indicative of changing weather patterns as a result of climate change. While the emerging science regarding climate change and its connection to extreme weather events continues to be subject to debate, climate change, to the extent it produces rising temperatures and changes in weather patterns, could impact the frequency and severity of weather events and wildfires and thus impact the affordability and availability of catastrophe reinsurance coverage for our insurance subsidiaries. In particular, increased weather-related catastrophes in the states in which our insurance subsidiaries operate would lead to higher overall losses if they were unable to offset such losses through pricing actions.

Our insurance subsidiaries must establish premium rates and loss and loss expense reserves from forecasts of the ultimate costs they expect will arise from risks underwritten during the policy period, and the profitability of our insurance subsidiaries could be adversely affected if their premium rates or reserves are insufficient to satisfy their ultimate costs.

One of the distinguishing features of the property and casualty insurance industry is that it prices its products before it knows its costs, since insurers generally establish their premium rates before they know the amount of losses they will incur. Accordingly, our insurance subsidiaries establish premium rates from forecasts of the ultimate costs they expect to arise from risks they have underwritten during the policy period. These premium rates may not be sufficient to cover the ultimate losses our insurance subsidiaries incur. Further, our insurance subsidiaries must establish reserves for losses and loss expenses as balance sheet liabilities based upon estimates involving actuarial and statistical projections at a given time of what our

insurance subsidiaries expect their ultimate liability to be. Significant periods of time often elapse between the occurrence of an insured loss, the reporting of the loss and the settlement of that loss. It is possible that our insurance subsidiaries' ultimate liability could exceed these estimates because of the future development of known losses, the existence of losses that have occurred but are currently unreported and larger than historical settlements of pending and unreported claims. The process of estimating reserves is inherently judgmental and can be influenced by a number of factors, including the following:

- trends in claim frequency and severity;
- changes in operations;
- emerging economic and social trends;
- inflation; and
- changes in the regulatory and litigation environments.

If our insurance subsidiaries determine that their reserves are insufficient to cover their ultimate liability, they will increase their reserves. An increase in reserves results in an increase in losses and a reduction in net income for the period in which our insurance subsidiaries recognize a deficiency in reserves. Accordingly, an increase in reserves may adversely impact the business, liquidity, financial condition and results of operations of our insurance subsidiaries.

The financial results of our insurance subsidiaries depend primarily on their ability to underwrite risks effectively and to charge adequate rates to policyholders.

The financial condition, cash flows and results of operations of our insurance subsidiaries depend on their ability to underwrite and set rates accurately for a full spectrum of risks across a number of lines of insurance. Rate adequacy is necessary to generate sufficient premium to pay losses, loss adjustment expenses and underwriting expenses and to realize a profit.

The ability to underwrite and set rates effectively is subject to a number of risks and uncertainties, including:

- the availability of sufficient, reliable data;
- the ability to conduct a complete and accurate analysis of available data;
- the ability to recognize in a timely manner changes in trends and to project both the severity and frequency of losses with reasonable accuracy;
- uncertainties generally inherent in estimates and assumptions;
- the ability to project changes in certain operating expense levels with reasonable certainty;
- the development, selection and application of appropriate rating formulae or other pricing methodologies;
- the use of modeling tools to assist with correctly and consistently achieving the intended results in underwriting and pricing;
- the ability to innovate with new pricing strategies and the success of those innovations on implementation;
- the ability to secure regulatory approval of premium rates on an adequate and timely basis;
- the ability to predict policyholder retention accurately;
- unanticipated court decisions, legislation or regulatory action;
- unanticipated changes in our claim settlement practices;
- changes in driving patterns for auto exposures;

- changes in weather patterns for property exposures;
- changes in the medical sector of the economy;
- unanticipated changes in auto repair costs, auto parts prices and used car prices;
- the impact of emerging technologies, including driver assistance technologies and autonomous vehicles, on pricing, insurance coverages and loss costs;
- the impact of inflation and other factors on the cost of construction materials and labor;
- the ability to monitor property concentration in catastrophe-prone areas, such as hurricane, earthquake and wind/hail regions; and
- the general state of the economy in the states in which our insurance subsidiaries operate.

Such risks may result in our insurance subsidiaries basing their premium rates on inadequate or inaccurate data or inappropriate assumptions or methodologies and may cause our estimates of future changes in the frequency or severity of claims to be incorrect. As a result, our insurance subsidiaries could underprice risks, which would negatively affect our margins, or our insurance subsidiaries could overprice risks, which could reduce their premium volume and competitiveness. In either event, underpricing or overpricing risks could adversely impact our operating results, financial condition and cash flows.

The pace of innovation within the insurance industry is rapidly increasing, and our insurance subsidiaries may be unable to effectively implement new technologies and anticipate changes in customer preferences and insurance needs, which could put our insurance subsidiaries at a competitive disadvantage and adversely affect their future profitability.

Innovation, recent technological developments, changing customer demographics and preferences and emerging technologies are greatly impacting the insurance industry. Our insurance subsidiaries compete with much larger insurers that are focused on implementing technology and innovative solutions to select and price risks, enhance the experience of their customers and improve their operations. If our insurance subsidiaries are unable to anticipate changes in customer expectations and keep pace with the technological changes their competitors implement, our insurance subsidiaries may not be able to attract and maintain quality accounts, adequately price risks or operate as efficiently as their competitors. In addition, emerging technologies such as autonomous vehicles, driver-assistance and accident avoidance features on vehicles, sensor technology and other forms of automation may reduce the future need for, or decrease the future pricing of, the insurance products our insurance subsidiaries offer.

Loss or significant restriction of the use of credit scoring in the pricing and underwriting of the personal lines insurance products by our insurance subsidiaries could adversely affect their future profitability.

Our insurance subsidiaries use credit scoring as a factor in making risk selection and pricing decisions for personal lines insurance products where allowed by state law. Recently, some consumer groups and regulators have questioned whether the use of credit scoring unfairly discriminates against people with low incomes, minority groups and the elderly. These consumer groups and regulators often call for the prohibition or restriction on the use of credit scoring in underwriting and pricing. Laws or regulations enacted in a number of states that significantly curtail the use of credit scoring in the underwriting process could reduce the future profitability of our insurance subsidiaries.

Changes in applicable insurance laws or regulations or changes in the way insurance regulators administer those laws or regulations could adversely affect the operating environment of our insurance subsidiaries and increase their exposure to loss or put them at a competitive disadvantage.

Property and casualty insurers are subject to extensive supervision in their domiciliary states and in the states in which they do business. This regulatory oversight includes matters relating to:

- licensing and examination;
- approval of premium rates;
- market conduct;

- policy forms;
- limitations on the nature and amount of certain investments;
- claims practices;
- mandated participation in involuntary markets and guaranty funds;
- reserve adequacy;
- insurer solvency;
- transactions between affiliates;
- the amount of dividends that insurers may pay; and
- restrictions on underwriting standards.

Such regulation and supervision are primarily for the benefit and protection of policyholders rather than stockholders. For instance, our insurance subsidiaries are subject to involuntary participation in specified markets in various states in which they operate and the premium rates our insurance subsidiaries may charge do not always correspond with the underlying costs of providing that coverage.

The NAIC and state insurance regulators re-examine existing laws and regulations from time to time, specifically focusing on areas such as:

- insurance company investments;
- issues relating to the solvency of insurance companies;
- risk-based capital guidelines;
- restrictions on the terms and conditions included in insurance policies;
- certain methods of accounting;
- reserves for unearned premiums, losses and other purposes;
- the values at which insurance companies may carry investment securities and the definition of other-than-temporary impairment of investment securities; and
- interpretations of existing laws and the development of new laws.

Changes in state laws and regulations, as well as changes in the way state regulators view related-party transactions in particular, could change the operating environment of our insurance subsidiaries and have an adverse effect on their business.

Insurance companies are subject to assessments, based on their market share in a given line of business, to assist in the payment of unpaid claims and related costs of insolvent insurance companies. Such assessments could adversely affect the financial condition of our insurance subsidiaries.

Our insurance subsidiaries are subject to assessments pursuant to the guaranty fund laws of the various states in which they conduct business. Generally, under these laws, our insurance subsidiaries can be assessed, depending upon the market share of our insurance subsidiaries in a given line of insurance business, to assist in the payment of unpaid claims and related costs of insolvent insurance companies in those states. For example, our insurance subsidiaries were assessed approximately $800,000 in 2018 pursuant to the guaranty fund laws of Pennsylvania to assist in the payment of unpaid claims and related costs of insolvent insurance companies in that state. We cannot predict the number and magnitude of future insurance company failures in the states in which our insurance subsidiaries conduct business, but future assessments could adversely affect the business, financial condition and results of operations of our insurance subsidiaries.

Risks Relating to Us and Our Business

Donegal Mutual is our controlling stockholder. Donegal Mutual and its directors and executive officers have potential conflicts of interest between the best interests of our stockholders and the best interests of the policyholders of Donegal Mutual.

Donegal Mutual controls the election of all of the members of our board of directors. Six of the eleven members of our board of directors are also directors of Donegal Mutual. Donegal Mutual and we share the same executive officers. These common directors and executive officers have a fiduciary duty to our stockholders and also have a fiduciary duty to the policyholders of Donegal Mutual. Among the potential conflicts of interest that could arise from these separate fiduciary duties are the following:

- We and Donegal Mutual periodically review the percentage participation of Atlantic States and Donegal Mutual in the underwriting pool that Donegal Mutual and Atlantic States have maintained since 1986;

- Our insurance subsidiaries and Donegal Mutual annually review and then establish the terms of certain reinsurance agreements between our insurance subsidiaries and Donegal Mutual. Our objective, over the long-term, is for these agreements to have approximately an equal balance between payments and recoveries;

- We and Donegal Mutual periodically allocate certain shared expenses among ourselves and our insurance subsidiaries in accordance with various inter-company expense-sharing agreements; and

- We and our insurance subsidiaries may enter into other transactions or contractual relationships with Donegal Mutual.

Donegal Mutual has sufficient voting power to determine the outcome of substantially all matters submitted to our stockholders for approval.

Each share of our Class A common stock has one-tenth of a vote per share and generally votes as a single class with our Class B common stock. Each share of our Class B common stock has one vote per share and generally votes as a single class with our Class A common stock. Donegal Mutual has the right to vote approximately 71% of the combined voting power of our Class A common stock and our Class B common stock and has sufficient voting control to and has acted to:

- elect all of the members of our board of directors, who determine our management and policies; and

- control the outcome of any corporate transaction or other matter submitted to a vote of our stockholders for approval, including mergers or other acquisition proposals and the sale of all or substantially all of our assets, in each case regardless of how all of our stockholders other than Donegal Mutual vote their shares.

The interests of Donegal Mutual in maintaining this greater-than-majority voting control of us may have an adverse effect on the price of our Class A common stock and the price of our Class B common stock because of the absence of any potential "takeover" premium and may, therefore, be inconsistent with the interests of our stockholders other than Donegal Mutual.

Donegal Mutual's majority voting control of us, certain provisions of our certificate of incorporation and by-laws and certain provisions of Delaware law make it remote that anyone could acquire actual control of us unless Donegal Mutual were in favor of another person's acquisition of control of us.

Donegal Mutual's majority voting control of us, certain anti-takeover provisions in our certificate of incorporation and by-laws and certain provisions of the Delaware General Corporation Law, or the DGCL, could delay or prevent the removal of members of our board of directors and could make a merger, tender offer or proxy contest involving us more expensive as well as unlikely to succeed, even if such events were in the best interests of our stockholders other than Donegal Mutual. These factors could also discourage a third party from attempting to acquire control of us. In particular, our certificate of incorporation and by-laws include the following anti-takeover provisions:

- our board of directors is classified into three classes, so that our stockholders elect only one-third of the members of our board of directors each year;

- our stockholders may remove our directors only for cause;

- our stockholders may not take stockholder action except at an annual or special meeting of our stockholders;

- the request of stockholders holding at least 20% of the combined voting power of our Class A common stock and our Class B common stock is required for a stockholder to call a special meeting of our stockholders;
- our by-laws require that stockholders provide advance notice to us to nominate candidates for election to our board of directors or to propose any other item of stockholder business at a stockholders' meeting;
- we do not permit cumulative voting rights in the election of our directors;
- our certificate of incorporation does not provide for preemptive rights in connection with any issuance of securities by us; and
- our board of directors may issue, without stockholder approval unless otherwise required by law, preferred stock with such terms as our board of directors may determine.

We have authorized preferred stock that we could issue without stockholder approval to make it more difficult for a third party to acquire us.

We have 2.0 million authorized shares of preferred stock that we could issue in one or more series without further stockholder approval, unless the DGCL or the rules of the NASDAQ Global Select Market otherwise require, and upon such terms and conditions, and having such rights, privileges and preferences, as our board of directors may determine. Our potential issuance of preferred stock may make it more difficult for a third party to acquire control of us.

Because we are an insurance holding company, no person can acquire or seek to acquire a 10% or greater interest in us without first obtaining approval of the insurance commissioners of the states of domicile of each of our insurance subsidiaries.

We own insurance subsidiaries domiciled in the states of Maryland, Michigan, Pennsylvania and Virginia, and Donegal Mutual owns or controls insurance companies domiciled in Georgia and New Mexico. The insurance laws of each of these states provide that no person can acquire or seek to acquire a 10% or greater interest in us without first filing specified information with the insurance commissioners of those states and obtaining the prior approval of the proposed acquisition of a 10% or greater interest in us by each of the state insurance commissioners based on statutory standards designed to protect the safety and soundness of us and our insurance subsidiaries.

Our insurance subsidiaries currently conduct business in a limited number of states, with a concentration of business in Pennsylvania, Michigan, Maryland, Georgia and Virginia. Any single catastrophe occurrence or other condition affecting losses in these states could adversely affect the results of operations of our insurance subsidiaries.

Our insurance subsidiaries conduct business in 20 states located primarily in the Mid-Atlantic, Midwestern, New England and Southern states. A substantial portion of their business consists of private passenger and commercial automobile, homeowners, commercial multi-peril and workers' compensation insurance in Pennsylvania, Michigan, Maryland, Georgia and Virginia. While our insurance subsidiaries and Donegal Mutual actively manage their respective exposure to catastrophes through their underwriting processes and the purchase of reinsurance, a single catastrophic occurrence, destructive weather pattern, general economic trend, terrorist attack, regulatory development or other condition affecting one or more of the states in which our insurance subsidiaries conduct substantial business could materially adversely affect their business, financial condition and results of operations. Common catastrophic events include hurricanes, earthquakes, tornadoes, wind and hail storms, fires, explosions and severe winter storms.

If the independent agents who market the products of our insurance subsidiaries do not maintain their current levels of premium writing with us, fail to comply with established underwriting guidelines of our insurance subsidiaries or otherwise inappropriately market the products of our insurance subsidiaries, the business, financial condition and results of operations of our insurance subsidiaries could be adversely affected.

Our insurance subsidiaries market their insurance products solely through a network of approximately 2,400 independent insurance agencies. This agency distribution system is one of the most important components of the competitive profile of our insurance subsidiaries. As a result, our insurance subsidiaries depend to a material extent upon their independent agents, each of whom has the authority to bind one or more of our insurance subsidiaries to insurance coverage. To the extent that such independent agents' marketing efforts fail to result in the maintenance of their current levels of volume and quality or they bind our insurance subsidiaries to unacceptable insurance risks, fail to comply with the established underwriting guidelines of our

insurance subsidiaries or otherwise inappropriately market the products of our insurance subsidiaries, the business, financial condition and results of operations of our insurance subsidiaries could suffer.

The business of our insurance subsidiaries may not continue to grow and may be materially adversely affected if our insurance subsidiaries cannot retain existing, and attract new, independent agents or if insurance consumers increase their use of insurance marketing systems other than independent agents.

Our insurance subsidiaries' ability to retain existing, and to attract new, independent agents is essential to the continued growth of the business of our insurance subsidiaries. If independent agents find it easier to do business with the competitors of our insurance subsidiaries, our insurance subsidiaries could find it difficult to retain their existing business or to attract new business. While our insurance subsidiaries believe they maintain good relationships with the independent agents they have appointed, our insurance subsidiaries cannot be certain that these independent agents will continue to sell the products of our insurance subsidiaries to the consumers these independent agents represent. Some of the factors that could adversely affect the ability of our insurance subsidiaries to retain existing, and attract new, independent agents include:

- the significant competition among insurance companies to attract independent agents;
- the labor-intensive and time-consuming process of selecting new independent agents;
- the insistence of our insurance subsidiaries that independent agents adhere to certain standards;
- the ability of our insurance subsidiaries to pay competitive and attractive commissions, bonuses and other incentives to independent agents; and
- the ongoing consolidation of independent agencies, which may result in the acquisition of independent agencies from which our insurance subsidiaries currently receive business by larger entities with which our insurance subsidiaries do not have business relationships.

While our insurance subsidiaries sell insurance to policyholders solely through their network of independent agencies, many competitors of our insurance subsidiaries sell insurance through a variety of delivery methods, including independent agencies, captive agencies, the Internet and direct sales. To the extent that current and potential policyholders change their marketing system preference, the business, financial condition and results of operations of our insurance subsidiaries may be adversely affected.

We are dependent on dividends from our insurance subsidiaries for the payment of our operating expenses, our debt service and dividends to our stockholders; however, there are regulatory restrictions and business considerations that may limit the amount of dividends our insurance subsidiaries may pay to us.

As a holding company, we rely primarily on dividends from our insurance subsidiaries as a source of funds to meet our corporate obligations and to pay dividends to our stockholders. The amount of dividends our insurance subsidiaries can pay to us is subject to regulatory restrictions and depends on the amount of surplus our insurance subsidiaries maintain. From time to time, the NAIC and various state insurance regulators consider modifying the method of determining the amount of dividends that an insurance company may pay without prior regulatory approval. The maximum amount of ordinary dividends that our insurance subsidiaries can pay to us in 2020 without prior regulatory approval is approximately $39.9 million. Other business and regulatory considerations, such as the impact of dividends on surplus that could affect the ratings of our insurance subsidiaries, competitive conditions, RBC requirements, the investment results of our insurance subsidiaries and the amount of premiums that our insurance subsidiaries write could also adversely impact the ability of our insurance subsidiaries to pay dividends to us.

If A.M. Best downgrades the rating it has assigned to Donegal Mutual or any of our insurance subsidiaries, it would adversely affect their competitive position.

Industry ratings are a factor in establishing and maintaining the competitive position of insurance companies. A.M. Best, an industry-accepted source of insurance company financial strength ratings, rates Donegal Mutual and our insurance subsidiaries. A.M. Best ratings provide an independent opinion of an insurance company's financial health and its ability to meet its obligations to its policyholders. We believe that the financial strength rating of A.M. Best is material to the operations of Donegal Mutual and our insurance subsidiaries. For example, certain lenders require customers to purchase insurance from an insurance carrier that has received an A.M. Best rating that exceeds a certain level. Currently, Donegal Mutual and our insurance subsidiaries each have an A (Excellent) rating from A.M. Best. In February 2019, A.M. Best revised its rating outlook

from stable to negative as a result of the decline in the operating performance of Donegal Mutual and our insurance subsidiaries in 2017 and 2018. In March 2020, A.M. Best affirmed its A (Excellent) ratings of Donegal Mutual and our insurance subsidiaries. However, if A.M. Best were to downgrade the rating of Donegal Mutual or any of our insurance subsidiaries, it would adversely affect the competitive position of Donegal Mutual or that insurance subsidiary and make it more difficult for it to market its products and retain its existing policyholders.

Our strategy to grow in part through acquisitions of smaller insurance companies exposes us to risks that could adversely affect our results of operations and financial condition.

The affiliation with, and acquisition of, smaller, and often undercapitalized, insurance companies involves risks that could adversely affect our results of operations and financial condition. The risks associated with these affiliations and acquisitions include:

- the potential inadequacy of reserves for losses and loss expenses of the other insurer;
- the need to supplement management of the other insurer with additional experienced personnel;
- conditions imposed by regulatory agencies that make the realization of cost-savings through integration of the operations of the other insurer with our operations more difficult;
- the need of the other insurer for additional capital that we did not anticipate at the time of the acquisition or affiliation; and
- the use of more of our management's time in improving the operations of the other insurer than we originally anticipated.

If we cannot obtain sufficient capital to fund the organic growth of our insurance subsidiaries and to make acquisitions, we may not be able to expand our business.

Our strategy is to expand our business through the organic growth of our insurance subsidiaries and through our strategic acquisitions of regional insurance companies. Our insurance subsidiaries may require additional capital in the future to support this strategy. If we cannot obtain sufficient capital on satisfactory terms and conditions, we may not be able to expand the business of our insurance subsidiaries or to make future acquisitions. Our ability to obtain additional financing will depend on a number of factors, many of which are beyond our control. For example, we may not be able to obtain additional debt or equity financing because we or our insurance subsidiaries may already have substantial debt at the time, because we or our insurance subsidiaries do not have sufficient cash flow to service or repay our existing or additional debt or because financial institutions are not making financing available. In addition, any equity capital we obtain in the future could be dilutive to our existing stockholders.

Competition within the property and casualty insurance industry may adversely impact the revenues and profit margins of our insurance subsidiaries.

The property and casualty insurance industry is intensely competitive. Competition can be based on many factors, including:

- the perceived financial strength of the insurer;
- premium rates;
- policy terms and conditions;
- policyholder service;
- reputation; and
- experience.

Our insurance subsidiaries compete with many regional and national property and casualty insurance companies, including direct sellers of insurance products, insurers having their own agency organizations and other insurers represented by

independent agents. Many of these insurers have greater capital than our insurance subsidiaries, have substantially greater financial, technical and operating resources and have equal or higher ratings from A.M. Best than our insurance subsidiaries. In addition, our competitors may become increasingly better capitalized in the future as the property and casualty insurance industry continues to consolidate.

The greater capitalization of many of the competitors of our insurance subsidiaries enables them to operate with lower profit margins and, therefore, allows them to market their products more aggressively, to take advantage more quickly of new marketing opportunities and to offer lower premium rates. In addition to established insurers, our insurance subsidiaries compete with a growing number of start-ups, some of which have received substantial infusions of capital, that seek to disrupt traditional business platforms and distribution channels. Our insurance subsidiaries may not be able to maintain their current competitive position in the markets in which they operate if their competitors offer prices for their products that are lower than the prices our insurance subsidiaries are prepared to offer. Moreover, if these competitors lower the price of their products and our insurance subsidiaries meet their pricing, the profit margins and revenues of our insurance subsidiaries may decrease and their ratios of claims and expenses to premiums may increase. All of these factors could materially adversely affect the financial condition and results of operations of our insurance subsidiaries and their A.M. Best ratings.

Because the investment portfolios of our insurance subsidiaries consist primarily of fixed-income securities, their investment income and the fair value of their investment portfolios could decrease as a result of a number of factors.

Our insurance subsidiaries invest the premiums they receive from their policyholders and maintain investment portfolios that consist primarily of fixed-income securities. The effective management of these investment portfolios is an important component of the profitability of our insurance subsidiaries. Our insurance subsidiaries derive a significant portion of their operating income from the income they receive on their invested assets. A number of factors may affect the quality and/or yield of their investment portfolios, including the general economic and business environment, government monetary policy, changes in the credit quality of the issuers of the fixed-income securities our insurance subsidiaries own, changes in market conditions and regulatory changes. The fixed-income securities our insurance subsidiaries own consist primarily of securities issued by domestic entities that are backed either by the credit or collateral of the underlying issuer. Factors such as an economic downturn, disruption in the credit market or the availability of credit, a regulatory change pertaining to a particular issuer's industry, a significant deterioration in the cash flows of the issuer or a change in the issuer's marketplace may adversely affect the ability of our insurance subsidiaries to collect principal and interest from the issuer in which they invest.

The investments of our insurance subsidiaries are also subject to risk resulting from interest rate fluctuations. Increasing interest rates or a widening in the spread between interest rates available on U.S. Treasury securities and corporate debt or asset-backed securities, for example, will typically have an adverse impact on the market values of fixed-rate securities. If interest rates remain at historically low levels, our insurance subsidiaries will generally have a lower overall rate of return on investments of cash their operations generate. In addition, in the event of the call or maturity of investments in a low interest rate environment, our insurance subsidiaries may not be able to reinvest the proceeds in securities with comparable interest rates. Changes in interest rates may reduce both the profitability and the return on the invested capital of our insurance subsidiaries.

We and our insurance subsidiaries depend on key personnel. The loss of any member of our executive management or the senior management of our insurance subsidiaries could negatively affect the continuation of our business strategies and achievement of our growth objectives.

The loss of, or failure to attract, key personnel could significantly impede our financial plans, growth, marketing and other objectives and those of our insurance subsidiaries. The continued success of our insurance subsidiaries depends to a substantial extent on the ability and experience of their senior management. Our insurance subsidiaries and we believe that our future success is dependent on our ability to attract and retain additional skilled and qualified personnel and to expand, train and manage our employees. We and Donegal Mutual have two to three-year automatically-renewing employment agreements with our senior officers, including all of our named executive officers.

The reinsurance agreements on which our insurance subsidiaries rely do not relieve our insurance subsidiaries from their primary liability to their policyholders, and our insurance subsidiaries face a risk of non-payment from their reinsurers as well as the non-availability of reinsurance in the future.

Our insurance subsidiaries rely on reinsurance agreements to limit their maximum net loss from large single catastrophic risks or excess of loss risks in areas where our insurance subsidiaries may have a concentration of policyholders. Reinsurance also enables our insurance subsidiaries to increase their capacity to write insurance because it has the effect of leveraging the surplus of our insurance subsidiaries. Although the reinsurance our insurance subsidiaries maintain provides that the reinsurer is

liable to them for any reinsured losses, the reinsurance agreements do not generally relieve our insurance subsidiaries from their primary liability to their policyholders if the reinsurer fails to pay the reinsurance claims of our insurance subsidiaries. To the extent that a reinsurer is unable to pay losses for which it is liable to our insurance subsidiaries, our insurance subsidiaries remain liable for such losses. At December 31, 2019, our insurance subsidiaries had approximately $141.0 million of reinsurance receivables from third-party reinsurers relating to paid and unpaid losses. Any insolvency or inability of these reinsurers to make timely payments to our insurance subsidiaries under the terms of their reinsurance agreements would adversely affect the results of operations of our insurance subsidiaries.

Michigan law requires MICO to provide unlimited lifetime medical benefits under the personal injury protection, or PIP, coverage of the personal automobile and commercial automobile policies it writes in the State of Michigan. Michigan law also requires MICO to be a member of the Michigan Catastrophic Claims Association, or MCCA, in order to write automobile insurance. The MCCA receives funding through assessments that its members collect from policyholders in the state and provides reinsurance for PIP claims that exceed a set retention. At December 31, 2019, MICO had approximately $70.4 million of reinsurance receivables from MCCA relating to paid and unpaid losses. The MCCA has generated significant operating deficits in recent years. Although we currently consider the risk to be remote, should the MCCA be unable to fulfill its payment obligations to MICO in the future, MICO's financial condition and results of operations could be adversely affected.

In addition, our insurance subsidiaries face a risk of the non-availability of reinsurance or an increase in reinsurance costs that could adversely affect their ability to write business or their results of operations. Market conditions beyond the control of our insurance subsidiaries, such as the amount of surplus in the reinsurance market and the frequency and severity of natural and man-made catastrophes, affect both the availability and the cost of the reinsurance our insurance subsidiaries purchase. If our insurance subsidiaries cannot maintain their current level of reinsurance or purchase new reinsurance protection in amounts that our insurance subsidiaries consider sufficient, our insurance subsidiaries would either have to accept an increase in their net risk retention or reduce their insurance writings, either of which could adversely affect them.

The growth and profitability of our insurance subsidiaries depend, in part, on the effective maintenance and ongoing development of Donegal Mutual's information technology systems, and the allocation of related costs to our insurance subsidiaries may adversely impact their profitability.

Our insurance subsidiaries utilize Donegal Mutual's information technology systems to conduct their insurance business, including policy quoting and issuance, claims processing, processing of incoming premium payments and other important functions. As a result, the ability of our insurance subsidiaries to grow their business and conduct profitable operations depends on Donegal Mutual's ability to maintain its existing information technology systems and to develop new technology systems that will support the business of Donegal Mutual and our insurance subsidiaries in a cost-efficient manner and provide information technology capabilities equivalent to those of our competitors. The allocation among our insurance subsidiaries and Donegal Mutual of the costs of developing and maintaining Donegal Mutual's information technology systems may impact adversely our insurance subsidiaries' expense ratio and underwriting profitability, and such costs may exceed Donegal Mutual's and our expectations.

Donegal Mutual is currently in the midst of a multi-year effort to modernize certain of its key infrastructure and applications systems. These new systems are intended to provide various benefits to Donegal Mutual and our insurance subsidiaries, including streamlined workflows and business processes, service enhancements for their agents and policyholders, opportunities to implement new product models and innovative business solutions, greater utilization of data analytics and operational efficiencies. Our insurance subsidiaries will issue workers' compensation policies from the new systems beginning with new policies effective in May 2020 and renewal policies effective in June 2020. Over the next several years, Donegal Mutual expects to implement new systems for the remaining lines of business Donegal Mutual and our insurance subsidiaries offer currently. Even with Donegal Mutual's and our best planning and efforts and the involvement of third-party experts, Donegal Mutual may not complete the implementation of these new systems within its planned time frames or budget. Further, Donegal Mutual's information technology systems may not deliver the benefits Donegal Mutual and we expect and may fail to keep pace with our competitors' information technology systems. As a result, Donegal Mutual and our insurance subsidiaries may not have the ability to grow their business and meet their profitability objectives.

The disruption or failure of Donegal Mutual's information technology systems or the compromise of the security of those systems that results in the theft or misuse of confidential information could materially impact adversely the business of Donegal Mutual and our insurance subsidiaries.

Our insurance subsidiaries' business operations depend significantly upon the availability and successful operation of Donegal Mutual's information technology systems. In addition, in the normal course of their operations, Donegal Mutual and our insurance subsidiaries collect, utilize and maintain confidential information regarding individuals and businesses. While

Donegal Mutual has established various security measures to protect its information technology systems and confidential data, unanticipated computer viruses, malware, power outages, unauthorized access or other cyberattacks could disrupt those systems or result in the misappropriation or loss of confidential data. Donegal Mutual could experience technology system failures or other outages that would impact the availability of its information technology systems. Donegal Mutual has experienced brief disruptions of systems in the past, including those systems that allow underwriting and processing of new policies. Disruption in the availability of Donegal Mutual's information technology systems could impact the ability of Donegal Mutual and our insurance subsidiaries to underwrite and process their policies timely, process and settle claims promptly and provide expected levels of customer service to agents and policyholders.

While Donegal Mutual has identified threats to the security of its information technology systems, Donegal Mutual and we are unaware of any significant breach of the security measures Donegal Mutual maintains. A significant breach of the security of Donegal Mutual's information technology systems that results in the misappropriation or misuse of confidential information could damage the business reputation of Donegal Mutual and our insurance subsidiaries and could expose Donegal Mutual and our insurance subsidiaries to litigation. The financial impact to Donegal Mutual, us and our insurance subsidiaries of a significant breach could be material.

Risks Relating to Our Common Stock

The price of our common stock may be adversely affected by its low trading volume.

Our Class A common stock and our Class B common stock have limited liquidity. Reported average daily trading volume for our Class A common stock and our Class B common stock for the year ended December 31, 2019 was approximately 19,970 shares and approximately 349 shares, respectively. This limited liquidity could subject our shares of Class A common stock and our shares of Class B common stock to greater price volatility.

Donegal Mutual's majority voting control of our stock, anti-takeover provisions of our certificate of incorporation and by-laws and certain state laws make it unlikely anyone could acquire control of us unless Donegal Mutual were in favor of the acquisition of control.

Donegal Mutual's ownership of our Class A common stock and Class B common stock, certain anti-takeover provisions of our certificate of incorporation and by-laws, certain provisions of Delaware law and the insurance laws and regulations of Georgia, Maryland, Michigan, New Mexico, Pennsylvania and Virginia could delay or prevent the removal of members of our board of directors and could make it more difficult for a merger, tender offer or proxy contest involving us to succeed, even if our stockholders other than Donegal Mutual believed any of such events would be beneficial to them. These factors could also discourage a third party from attempting to acquire control of us. The classification of our board of directors could also have the effect of delaying or preventing a change in our control.

In addition, we have 2,000,000 authorized shares of preferred stock that we could issue in one or more series without stockholder approval, to the extent applicable law permits, and upon such terms and conditions, and having such rights, privileges and preferences, as our board of directors may determine. Our ability to issue preferred stock could make it difficult for a third party to acquire us. We have no current plans to issue any preferred stock.

Item 1B. Unresolved Staff Comments.

We have no unresolved written comments from the Securities and Exchange Commission staff regarding our filings under the Exchange Act.

Item 2. Properties.

We and our insurance subsidiaries share administrative headquarters with Donegal Mutual in a building in Marietta, Pennsylvania that Donegal Mutual owns. Donegal Mutual charges us and our insurance subsidiaries for an appropriate portion of the building expenses under an inter-company allocation agreement. The Marietta headquarters has approximately 270,000 square feet of office space. Southern owns a facility of approximately 10,000 square feet in Glen Allen, Virginia. Atlantic States owns a facility of approximately 25,500 square feet in Le Mars, Iowa and a facility of approximately 8,800 square feet in Sheboygan Falls, Wisconsin.

Item 3. Legal Proceedings.

Our insurance subsidiaries are parties to routine litigation that arises in the ordinary course of their insurance business. We believe that the resolution of these lawsuits will not have a material adverse effect on the financial condition or results of operations of our insurance subsidiaries.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

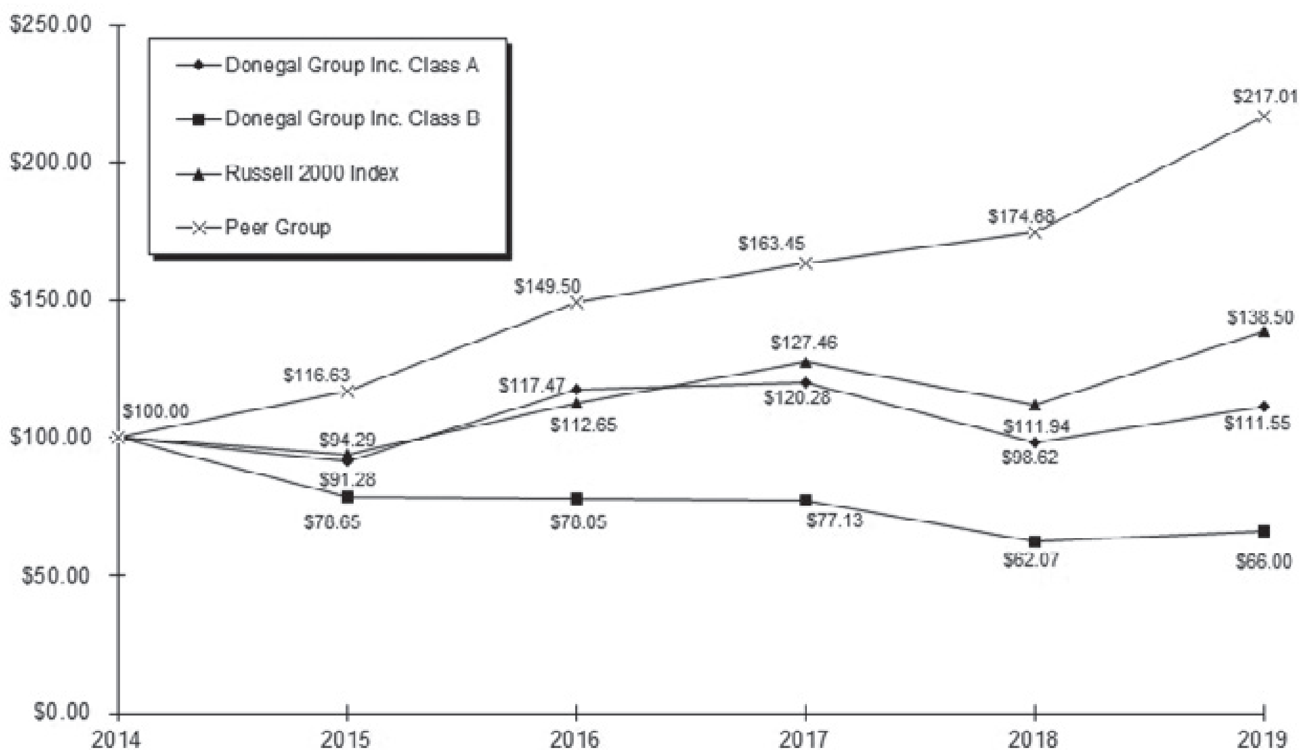
Our Class A common stock and Class B common stock trade on the NASDAQ Global Select Market under the symbols "DGICA" and "DGICB," respectively.

At the close of business on March 2, 2020, we had approximately 1,768 holders of record of our Class A common stock and approximately 257 holders of record of our Class B common stock.

We declared dividends of $0.58 per share on our Class A common stock and $0.51 per share on our Class B common stock in 2019, compared to $0.57 per share on our Class A common stock and $0.50 per share on our Class B common stock in 2018.

Stock Performance Chart.

The following graph provides an indicator of cumulative total stockholder returns on our Class A common stock and our Class B common stock for the period beginning on December 31, 2014 and ending on December 31, 2019, compared to the Russell 2000 Index and a peer group comprised of seven property and casualty insurance companies over the same period. The peer group consists of Cincinnati Financial Corp., Hanover Insurance, Horace Mann Educators, Selective Insurance Group Inc., State Auto Financial Corp. and United Fire and Casualty Co. The graph shows the change in value of an initial $100 investment on December 31, 2014, assuming reinvestment of all dividends.



	2014	2015	2016	2017	2018	2019
Donegal Group Inc. Class A	$100.00	$91.28	$117.47	$120.28	$98.62	$111.55
Donegal Group Inc. Class B	100.00	78.65	78.05	77.13	62.07	66.00
Russell 2000 Index	100.00	94.29	112.65	127.46	111.94	138.50
Peer Group	100.00	116.63	149.50	163.45	174.68	217.01

Value Line, Inc. prepared the foregoing performance graph and data. The performance graph and accompanying data shall not be deemed "filed" as part of this Form 10-K Report for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities of that section and should not be deemed incorporated by reference into any other filing we make under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent we specifically incorporate the performance graph and accompanying data by reference into such filing.

Item 6. Selected Financial Data.

Year Ended December 31,	2019	2018	2017	2016	2015
Income Statement Data					
Premiums earned	$ 756,078,400	$ 741,290,873	$ 702,514,755	$ 656,204,797	$ 605,640,728
Investment income, net	29,514,955	26,907,656	23,527,304	22,632,730	20,949,698
Investment gains (losses)	21,984,617	(4,801,509)	5,705,255	2,525,575	1,934,424
Total revenues	812,451,471	771,828,320	739,026,537	688,423,020	636,387,263
Income (loss) before income tax expense (benefit)	57,081,030	(48,236,849)	12,114,462	41,328,407	27,592,268
Income tax expense (benefit)	9,929,286	(15,476,509)	4,998,362	10,527,270	6,602,235
Net income (loss)	47,151,744	(32,760,340)	7,116,100	30,801,137	20,990,033
Basic earnings (loss) per share - Class A	1.68	(1.18)	0.27	1.19	0.78
Diluted earnings (loss) per share - Class A	1.67	(1.18)	0.26	1.16	0.77
Cash dividends per share - Class A	0.58	0.57	0.56	0.55	0.54
Basic earnings (loss) per share - Class B	1.51	(1.09)	0.22	1.06	0.69
Diluted earnings (loss) per share - Class B	1.51	(1.09)	0.22	1.06	0.69
Cash dividends per share - Class B	0.51	0.50	0.49	0.48	0.47
Balance Sheet Data at Year End					
Total investments	$1,110,553,363	$1,030,798,566	$1,005,869,705	$ 945,519,655	$ 900,822,274
Total assets	1,923,161,131	1,832,078,267	1,737,919,778	1,623,131,037	1,537,834,415
Debt obligations	40,000,000	65,000,000	64,000,000	74,000,000	86,000,000
Stockholders’ equity	451,015,519	398,869,901	448,696,104	438,615,320	408,388,568
Book value per share	15.67	14.05	15.95	16.21	15.66

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

Overview

Donegal Mutual Insurance Company ("Donegal Mutual") organized us as an insurance holding company on August 26, 1986. See "Business - History and Organizational Structure" for more information. Our insurance subsidiaries, Atlantic States Insurance Company ("Atlantic States"), Southern Insurance Company of Virginia ("Southern"), The Peninsula Insurance Company and Peninsula Indemnity Company (collectively, "Peninsula"), and Michigan Insurance Company ("MICO") write personal and commercial lines of property and casualty coverages exclusively through a network of independent insurance agents in certain Mid-Atlantic, Midwest, New England and Southern states. The personal lines products of our insurance subsidiaries consist primarily of homeowners and private passenger automobile policies. The commercial lines products of our insurance subsidiaries consist primarily of commercial automobile, commercial multi-peril and workers' compensation policies.

During 2018, we and Donegal Mutual implemented a number of actions to improve our financial results and enhance our operations in the future. Those actions included implementing premium rate increases in many of our operating states and business lines, strengthening our loss reserves in response to changing loss reporting and litigation trends, entering into a transfer agreement to facilitate an orderly exit from the personal lines markets in seven states where we projected continuing underwriting losses, consolidating a regional branch office into our home office, consolidating our reinsurance program for 2019 and initiating a multi-year systems modernization project.

We and Donegal Mutual Insurance Company sold Donegal Financial Services Corporation ("DFSC") to Northwest Bancshares, Inc. ("Northwest") on March 8, 2019, resulting in proceeds valued at approximately $85.8 million in a combination of cash and Northwest common stock. Immediately prior to the closing of the merger, DFSC paid a dividend of approximately $29.2 million to us and Donegal Mutual. As the owner of 48.2% of DFSC's common stock, we received a dividend payment from DFSC of approximately $14.1 million and consideration from Northwest valued at approximately $41.4 million. We recorded a gain of $12.7 million from the sale of DFSC in our results of operations during 2019. We sold the Northwest common stock that we received as part of the consideration during 2019. This transaction represented the culmination of a banking strategy that began with the formation of DFSC in 2000.

At December 31, 2019, Donegal Mutual held approximately 43% of our outstanding Class A common stock and approximately 84% of our outstanding Class B common stock. This ownership provides Donegal Mutual with approximately 71% of the combined voting power of our outstanding shares of Class A common stock and our outstanding shares of Class B common stock.

Donegal Mutual and Atlantic States entered into a proportional reinsurance agreement, or pooling agreement, effective October 1, 1986. Under this pooling agreement, Donegal Mutual and Atlantic States pool and then share proportionately substantially all of their respective premiums, losses and expenses. Atlantic States' participation in the pool has been 80% since March 1, 2008. The operations of our insurance subsidiaries and Donegal Mutual are interrelated due to the pooling agreement and other factors. While maintaining the separate corporate existence of each company, our insurance subsidiaries and Donegal Mutual conduct business together as the Donegal Insurance Group. As such, Donegal Mutual and our insurance subsidiaries share the same business philosophy, the same management, the same employees and the same facilities and offer the same types of insurance products. See "Business - History and Organizational Structure" for more information regarding the pooling agreement and other transactions with our affiliates.

In July 2013, our board of directors authorized a share repurchase program pursuant to which we have the authority to purchase up to 500,000 additional shares of our Class A common stock at prices prevailing from time to time in the open market subject to the provisions of the SEC Rule 10b-18 and in privately negotiated transactions. We did not purchase any shares of our Class A common stock under this program during 2019 or 2018. We have purchased a total of 57,658 shares of our Class A common stock under this program from its inception through December 31, 2019.

Critical Accounting Policies and Estimates

We combine our financial statements with those of our insurance subsidiaries and present them on a consolidated basis in accordance with GAAP.

Our insurance subsidiaries make estimates and assumptions that can have a significant effect on amounts and disclosures we report in our financial statements. The most significant estimates relate to the reserves of our insurance subsidiaries for property and casualty insurance unpaid losses and loss expenses. While we believe our estimates and the estimates of our insurance subsidiaries are appropriate, the ultimate amounts may differ from the estimates we provided. We regularly review

our methods for making these estimates, and we reflect any adjustment we consider necessary in our results of operations for the period in which we make an adjustment.

Liability for Losses and Loss Expenses

Liabilities for losses and loss expenses are estimates at a given point in time of the amounts an insurer expects to pay with respect to incurred policyholder claims based on facts and circumstances the insurer knows at that point in time. At the time of establishing its estimates, an insurer recognizes that its ultimate liability for losses and loss expenses will exceed or be less than such estimates. Our insurance subsidiaries base their estimates of liabilities for losses and loss expenses on assumptions as to future loss trends, expected claims severity, judicial theories of liability and other factors. However, during the loss adjustment period, our insurance subsidiaries may learn additional facts regarding individual claims, and, consequently, it often becomes necessary for our insurance subsidiaries to refine and adjust their estimates for these liabilities. We reflect any adjustments to the liabilities for losses and loss expenses of our insurance subsidiaries in our consolidated results of operations in the period in which our insurance subsidiaries make adjustments to their estimates.

Our insurance subsidiaries maintain liabilities for the payment of losses and loss expenses with respect to both reported and unreported claims. Our insurance subsidiaries establish these liabilities for the purpose of covering the ultimate costs of settling all losses, including investigation and litigation costs. Our insurance subsidiaries base the amount of their liability for reported losses primarily upon a case-by-case evaluation of the type of risk involved, knowledge of the circumstances surrounding each claim and the insurance policy provisions relating to the type of loss the policyholder incurred. Our insurance subsidiaries determine the amount of their liability for unreported claims and loss expenses on the basis of historical information by line of insurance. Our insurance subsidiaries account for inflation in the reserving function through analysis of costs and trends and reviews of historical reserving results. Our insurance subsidiaries monitor their liabilities closely and recompute them periodically using new information on reported claims and a variety of statistical techniques. Our insurance subsidiaries do not discount their liabilities for losses and loss expenses.

Reserve estimates can change over time because of unexpected changes in assumptions related to our insurance subsidiaries' external environment and, to a lesser extent, assumptions related to our insurance subsidiaries' internal operations. For example, our insurance subsidiaries have experienced an increase in claims severity and a lengthening of the claim settlement periods on bodily injury claims during the past several years. These trend changes give rise to greater uncertainty as to the pattern of future loss settlements on bodily injury claims. Related uncertainties regarding future trends include the rate of plaintiff attorney involvement in claims and the cost of medical technologies and procedures. Assumptions related to our insurance subsidiaries' external environment include the absence of significant changes in tort law and the legal environment that increase liability exposure, consistency in judicial interpretations of insurance coverage and policy provisions and the rate of loss cost inflation. Internal assumptions include consistency in the recording of premium and loss statistics, consistency in the recording of claims, payment and case reserving methodology, accurate measurement of the impact of rate changes and changes in policy provisions, consistency in the quality and characteristics of business written within a given line of business and consistency in reinsurance coverage and collectability of reinsured losses, among other items. To the extent our insurance subsidiaries determine that underlying factors impacting their assumptions have changed, our insurance subsidiaries make adjustments in their reserves that they consider appropriate for such changes. Accordingly, our insurance subsidiaries' ultimate liability for unpaid losses and loss expenses will likely differ from the amount recorded at December 31, 2019. For every 1% change in our insurance subsidiaries' loss and loss expense reserves, net of reinsurance recoverable, the effect on our pre-tax results of operations would be approximately $5.1 million.

The establishment of appropriate liabilities is an inherently uncertain process and we can provide no assurance that our insurance subsidiaries' ultimate liability will not exceed our insurance subsidiaries' loss and loss expense reserves and have an adverse effect on our results of operations and financial condition. Furthermore, we cannot predict the timing, frequency and extent of adjustments to our insurance subsidiaries' estimated future liabilities, because the historical conditions and events that serve as a basis for our insurance subsidiaries' estimates of ultimate claim costs may change. As is the case for substantially all property and casualty insurance companies, our insurance subsidiaries have found it necessary in the past to increase their estimated future liabilities for losses and loss expenses in certain periods and, in other periods, their estimated future liabilities for losses and loss expenses have exceeded their actual liabilities for losses and loss expenses. Changes in our insurance subsidiaries' estimates of their liability for losses and loss expenses generally reflect actual payments and their evaluation of information received subsequent to the prior reporting period.

Our insurance subsidiaries recognized a (decrease) increase in their liability for losses and loss expenses of prior years of ($12.9 million), $35.6 million and $6.6 million in 2019, 2018 and 2017, respectively. Our insurance subsidiaries made no significant changes in their reserving philosophy or claims management personnel, and they have made no significant offsetting changes in estimates that increased or decreased their loss and loss expense reserves in those years. The 2019 development

represented 2.7% of the December 31, 2018 net carried reserves and resulted primarily from lower-than-expected severity in the workers' compensation line of business, partially offset by higher-than-expected severity in the commercial automobile and commercial multi-peril lines of business, for accident years prior to 2019. The majority of the 2019 development related to decreases in the liability for losses and loss expenses of prior years for Atlantic States and Michigan. The 2018 development represented 9.3% of the December 31, 2017 net carried reserves and resulted primarily from higher-than-expected severity in the commercial multi-peril, personal automobile and commercial automobile lines of business, offset by lower-than-expected severity in the workers' compensation line of business, for accident years prior to 2018. The majority of the 2018 development related to increases in the liability for losses and loss expenses of prior years for Atlantic States and Southern. During 2018, our insurance subsidiaries received new information on previously-reported commercial automobile and personal automobile claims that led our insurance subsidiaries to conclude that their prior actuarial assumptions did not fully anticipate recent changes in severity and reporting trends. Our insurance subsidiaries have encountered increasing difficulties in projecting the ultimate severity of automobile losses over recent accident years, which our insurance subsidiaries attribute to worsening litigation trends and an increased delay in the reporting to our insurance subsidiaries of information with respect to the severity of claims. As a result, our insurance subsidiaries' actuaries increased their projections of the ultimate cost of our insurance subsidiaries' prior-year personal automobile and commercial automobile losses, and our insurance subsidiaries added $17.7 million to their reserves for personal automobile and $20.8 million to their reserves for commercial automobile for accident years prior to 2018. The 2017 development represented 1.9% of the December 31, 2016 net carried reserves and resulted primarily from higher-than-expected severity in the commercial multi-peril, personal automobile and commercial automobile lines of business, offset by lower-than-expected severity in the workers' compensation line of business, for accident years prior to 2017. The majority of the 2017 development related to increases in the liability for losses and loss expenses of prior years for Atlantic States and Peninsula.

Excluding the impact of severe weather events, our insurance subsidiaries have noted stable amounts in the number of claims incurred and the number of claims outstanding at period ends relative to their premium base in recent years across most of their lines of business. However, the amount of the average claim outstanding has increased gradually over the past several years due to various factors such as rising medical loss costs and increased litigation trends. We have also experienced a general slowing of settlement rates in litigated claims. Our insurance subsidiaries could have to make further adjustments to their estimates in the future. However, on the basis of our insurance subsidiaries' internal procedures, which analyze, among other things, their prior assumptions, their experience with similar cases and historical trends such as reserving patterns, loss payments, pending levels of unpaid claims and product mix, as well as court decisions, economic conditions and public attitudes, we believe that our insurance subsidiaries have made adequate provision for their liability for losses and loss expenses.

Atlantic States' participation in the pool with Donegal Mutual exposes Atlantic States to adverse loss development on the business of Donegal Mutual that the pool includes. However, pooled business represents the predominant percentage of the net underwriting activity of both companies, and Donegal Mutual and Atlantic States share proportionately any adverse risk development relating to the pooled business. The business in the pool is homogeneous and each company has a pro-rata share of the entire pool. Since the predominant percentage of the business of Atlantic States and Donegal Mutual is pooled and the results shared by each company according to its participation level under the terms of the pooling agreement, the intent of the underwriting pool is to produce a more uniform and stable underwriting result from year to year for each company than either would experience individually and to spread the risk of loss between the companies.

Donegal Mutual and our insurance subsidiaries operate together as the Donegal Insurance Group and share a combined business plan designed to achieve market penetration and underwriting profitability objectives. The products our insurance subsidiaries and Donegal Mutual offer are generally complementary, thereby allowing Donegal Insurance Group to offer a broader range of products to a given market and to expand Donegal Insurance Group's ability to service an entire personal lines or commercial lines account. Distinctions within the products of Donegal Mutual and our insurance subsidiaries generally relate to specific risk profiles targeted within similar classes of business, such as preferred tier products compared to standard tier products, but we do not allocate all of the standard risk gradients to one company. Therefore, the underwriting profitability of the business the individual companies write directly will vary. However, because the pool homogenizes the risk characteristics of the predominant percentage of the business Donegal Mutual and Atlantic States write directly and each company shares the underwriting results according to each company's participation percentage, each company realizes its percentage share of the underwriting results of the pool.

Our insurance subsidiaries' liability for losses and loss expenses by major line of business at December 31, 2019 and 2018 consisted of the following:

	2019	2018
	(in thousands)	
Commercial lines:		
Automobile	$ 126,224	$ 106,734
Workers' compensation	109,060	109,512
Commercial multi-peril	102,424	85,937
Other	9,115	5,207
Total commercial lines	346,823	307,390
Personal lines:		
Automobile	132,191	144,788
Homeowners	23,494	18,374
Other	4,398	4,846
Total personal lines	160,083	168,008
Total commercial and personal lines	506,906	475,398
Plus reinsurance recoverable	362,768	339,267
Total liability for losses and loss expenses	$ 869,674	$ 814,665

We have evaluated the effect on our insurance subsidiaries' loss and loss expense reserves and our stockholders' equity in the event of reasonably likely changes in the variables we consider in establishing loss and loss expense reserves. We established the range of reasonably likely changes based on a review of changes in accident year development by line of business and applied it to our insurance subsidiaries' loss reserves as a whole. The selected range does not necessarily indicate what could be the potential best or worst case or the most-likely scenario. The following table sets forth the effect on our insurance subsidiaries' loss and loss expense reserves and our stockholders' equity in the event of reasonably likely changes in the variables considered in establishing loss and loss expense reserves:

Change in Loss and Loss Expense Reserves Net of Reinsurance	Adjusted Loss and Loss Expense Reserves Net of Reinsurance at December 31, 2019	Percentage Change in Equity at December 31, 2019(1)	Adjusted Loss and Loss Expense Reserves Net of Reinsurance at December 31, 2018	Percentage Change in Equity at December 31, 2018(1)
		(dollars in thousands)		
-10.0%	$456,215	8.9%	$427,858	9.4%
-7.5	468,888	6.7	439,743	7.1
-5.0	481,561	4.4	451,628	4.7
-2.5	494,233	2.2	463,513	2.4
Base	506,906	—	475,398	—
2.5	519,579	-2.2	487,283	-2.4
5.0	532,251	-4.4	499,168	-4.7
7.5	544,924	-6.7	511,053	-7.1
10.0	557,597	-8.9	522,938	-9.4

(1) Net of income tax effect.

Our insurance subsidiaries base their reserves for unpaid losses and loss expenses on current trends in loss and loss expense development and reflect their best estimates for future amounts needed to pay losses and loss expenses with respect to incurred events currently known to them plus incurred but not reported ("IBNR") claims. Our insurance subsidiaries develop their reserve estimates based on an assessment of known facts and circumstances, review of historical loss settlement patterns, estimates of trends in claims severity, frequency, legal and regulatory changes and other assumptions. Our insurance

subsidiaries consistently apply actuarial loss reserving techniques and assumptions, which rely on historical information as adjusted to reflect current conditions, including consideration of recent case reserve activity. Our insurance subsidiaries use the most-likely number their actuaries determine. For the year ended December 31, 2019, the actuaries developed a range from a low of $468.8 million to a high of $548.1 million and with a most-likely number of $506.9 million. The actuaries' range of estimates for commercial lines in 2019 was $320.8 million to $375.0 million, and the actuaries selected the most-likely number of $346.8 million. The actuaries' range of estimates for personal lines in 2019 was $148.0 million to $173.1 million, and the actuaries selected the most-likely number of $160.1 million. For the year ended December 31, 2018, the actuaries developed a range from a low of $436.1 million to a high of $518.3 million and with a most-likely number of $475.4 million. The actuaries' range of estimates for commercial lines in 2018 was $282.0 million to $335.0 million, and the actuaries selected the most-likely number of $307.4 million. The actuaries' range of estimates for personal lines in 2018 was $154.0 million to $183.2 million, and the actuaries selected the most-likely number of $168.0 million.

Our insurance subsidiaries seek to enhance their underwriting results by carefully selecting the product lines they underwrite. For personal lines products, our insurance subsidiaries insure standard and preferred risks in private passenger automobile and homeowners lines. For commercial lines products, the commercial risks that our insurance subsidiaries primarily insure are business offices, wholesalers, service providers, contractors, artisans and light manufacturing operations. Our insurance subsidiaries have limited exposure to asbestos and other environmental liabilities. Our insurance subsidiaries write no medical malpractice liability risks. Through the consistent application of this disciplined underwriting philosophy, our insurance subsidiaries have avoided many of the "long-tail" issues other insurance companies have faced. We consider workers' compensation to be a "long-tail" line of business, in that workers' compensation claims tend to be settled over a longer time frame than those in the other lines of business of our insurance subsidiaries.

The following table presents 2019 and 2018 claim count and payment amount information for workers' compensation. Workers' compensation losses primarily consist of indemnity and medical costs for injured workers.

	For the Year Ended December 31,	
(dollars in thousands)	2019	2018
Number of claims pending, beginning of period	2,902	2,906
Number of claims reported	6,868	6,475
Number of claims settled or dismissed	6,756	6,479
Number of claims pending, end of period	3,014	2,902
Losses paid	$ 42,043	$ 43,129
Loss expenses paid	8,885	9,226

Management Evaluation of Operating Results

Despite challenging insurance market conditions, increasing casualty loss severity trends and unusually adverse weather conditions that affected our results in recent years, our operating results improved significantly in 2019 compared to 2018. We believe that the corrective measures and strategic initiatives we implemented in 2018 and 2019 have positioned us well for 2020 and beyond.

Because our insurance subsidiaries do not prepare GAAP financial statements, we evaluate the performance of our commercial lines and personal lines segments utilizing statutory accounting practices ("SAP"), which include financial measures that reflect the growth trends and underwriting results of our insurance subsidiaries.

We use the following financial data to monitor and evaluate our operating results:

	Year Ended December 31,		
(in thousands)	2019	2018	2017
Net premiums written:			
Commercial lines:			
Automobile	$ 122,142	$ 108,123	$ 99,333
Workers' compensation	113,684	109,022	109,884
Commercial multi-peril	138,750	117,509	110,313
Other	30,303	15,241	9,586
Total commercial lines	404,879	349,895	329,116
Personal lines:			
Automobile	210,507	249,275	255,297
Homeowners	117,118	123,782	125,054
Other	20,097	21,064	19,672
Total personal lines	347,722	394,121	400,023
Total net premiums written	$ 752,601	$ 744,016	$ 729,139
Components of combined ratio:			
Loss ratio	67.0%	77.8%	69.4%
Expense ratio	31.3	31.6	32.9
Dividend ratio	1.2	0.7	0.7
Combined ratio	99.5%	110.1%	103.0%
Revenues:			
Premiums earned:			
Commercial lines	$ 385,465	$ 337,924	$ 318,391
Personal lines	370,613	403,367	384,124
Total premiums earned	756,078	741,291	702,515
Net investment income	29,515	26,908	23,527
Investment gains (losses)	21,985	(4,802)	5,705
Equity in earnings of DFSC	295	2,694	1,622
Other	4,578	5,737	5,658
Total revenues	$ 812,451	$ 771,828	$ 739,027

(in thousands)	Year Ended December 31, 2019	2018	2017
Components of net income:			
Underwriting income (loss):			
Commercial lines	$ 8,404	$ (22,059)	$ 13,263
Personal lines	(1,617)	(53,590)	(39,042)
SAP underwriting income (loss)	6,787	(75,649)	(25,779)
GAAP adjustments	(3,079)	894	4,408
GAAP underwriting income (loss)	3,708	(74,755)	(21,371)
Net investment income	29,515	26,908	23,527
Investment gains (losses)	21,985	(4,802)	5,705
Equity in earnings of DFSC	295	2,694	1,622
Other	1,578	1,718	2,631
Income (loss) before income tax expense (benefit)	57,081	(48,237)	12,114
Income tax expense (benefit)	9,929	(15,477)	4,998
Net income (loss)	$ 47,152	$ (32,760)	$ 7,116

Non-GAAP Information

We prepare our consolidated financial statements on the basis of GAAP. Our insurance subsidiaries also prepare financial statements based on SAP. SAP financial measures are considered non-GAAP financial measures under applicable SEC rules because the SAP financial measures include or exclude certain items that the most comparable GAAP financial measures do not ordinarily include or exclude. Our calculation of non-GAAP financial measures may differ from similar measures other companies use. As a result, investors should exercise caution when comparing our non-GAAP financial measures to the non-GAAP financial measures other companies use. The SAP financial measures we utilize are net premiums written and statutory combined ratio.

Net Premiums Written

We define net premiums written as the amount of full-term premiums our insurance subsidiaries record for policies effective within a given period less premiums our insurance subsidiaries cede to reinsurers. Net premiums earned is the most comparable GAAP financial measure to net premiums written. Net premiums earned represent the sum of the amount of net premiums written and the change in net unearned premiums during a given period. Our insurance subsidiaries earn premiums and recognize them as revenue over the terms of their policies, which are one year or less in duration. Therefore, increases or decreases in net premiums earned generally reflect increases or decreases in net premiums written in the preceding 12-month period compared to the comparable period one year earlier.

The following table provides a reconciliation of our net premiums earned to our net premiums written for 2019, 2018 and 2017:

	Year Ended December 31, 2019	2018	2017
Net premiums earned	$ 756,078,400	$ 741,290,873	$ 702,514,755
Change in net unearned premiums	(3,477,111)	2,724,931	26,624,163
Net premiums written	$ 752,601,289	$ 744,015,804	$ 729,138,918

The decrease in the change in net unearned premiums for 2019 and 2018 compared to 2017 reflects lower growth in net premiums written during 2019 and 2018, which we attribute primarily to net attrition in our personal lines segment that resulted from increased pricing on renewal policies and underwriting measures our insurance subsidiaries implemented to slow new policy growth.

Statutory Combined Ratio

The combined ratio is a standard measurement of underwriting profitability for an insurance company. The combined ratio does not reflect investment income, net investment gains or losses, federal income taxes or other non-operating income or expense. A combined ratio of less than 100% generally indicates underwriting profitability.

The statutory combined ratio is a non-GAAP financial measure that is based upon amounts determined under SAP. We calculate our statutory combined ratio as the sum of:

- the statutory loss ratio, which is the ratio of calendar-year net incurred losses and loss expenses to net premiums earned;
- the statutory expense ratio, which is the ratio of expenses incurred for net commissions, premium taxes and underwriting expenses to net premiums written; and
- the statutory dividend ratio, which is the ratio of dividends to holders of workers' compensation policies to net premiums earned.

The calculation of our statutory combined ratio differs from the calculation of our GAAP combined ratio. In calculating our GAAP combined ratio, we do not deduct installment payment fees from incurred expenses, and we base the expense ratio on net premiums earned instead of net premiums written. Differences between our GAAP loss ratio and our statutory loss ratio result from anticipating salvage and subrogation recoveries for our GAAP loss ratio but not for our statutory loss ratio.

The following table presents comparative details with respect to our GAAP and statutory combined ratios for the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
GAAP Combined Ratios (Total Lines)			
Loss ratio (non-weather)	60.9%	69.0%	61.1%
Loss ratio (weather-related)	6.1	8.8	8.3
Expense ratio	31.3	31.6	32.9
Dividend ratio	1.2	0.7	0.7
Combined ratio	99.5%	110.1%	103.0%
Statutory Combined Ratios			
Commercial lines:			
Automobile	117.4%	133.3%	115.0%
Workers' compensation	78.5	86.6	79.0
Commercial multi-peril	93.7	98.1	96.7
Other	72.6	54.6	10.2
Total commercial lines	95.0	103.8	93.6
Personal lines:			
Automobile	105.7	117.4	109.3
Homeowners	101.2	110.5	109.9
Other	73.2	96.4	90.8
Total personal lines	102.6	114.1	108.5
Total commercial and personal lines	98.7	109.4	101.7

Results of Operations

YEAR ENDED DECEMBER 31, 2019 COMPARED TO YEAR ENDED DECEMBER 31, 2018

Net Premiums Earned

Our insurance subsidiaries' net premiums earned increased to $756.1 million for 2019, an increase of $14.8 million, or 2.0%, over 2018, reflecting increases in commercial premiums written during 2018 and 2019. Our insurance subsidiaries earn premiums and recognize them as income over the terms of the policies they issue. Such terms are generally one year or less in duration. Therefore, increases or decreases in net premiums earned generally reflect increases or decreases in net premiums written in the preceding twelve-month period compared to the same period one year earlier.

Net Premiums Written

Our insurance subsidiaries' 2019 net premiums written increased 1.2% to $752.6 million, compared to $744.0 million for 2018. We attribute the increase primarily to the impact of premium rate increases and an increase in the writing of new accounts in commercial lines of business. Commercial lines net premiums written increased $47.8 million, or 13.4%, for 2019 compared to 2018. Personal lines net premiums written decreased $39.2 million, or 10.1%, for 2019 compared to 2018. We attribute the decrease in personal lines primarily to net attrition as a result of underwriting measures our insurance subsidiaries have implemented to slow new policy growth and increased pricing on renewal policies, as well as the previously announced non-renewal of unprofitable personal lines business in seven states that began in February 2019, partially offset by premium rate increases our insurance subsidiaries have implemented over the past five quarters and lower reinsurance premiums.

Investment Income

For 2019, our net investment income increased to $29.5 million, an increase of $2.6 million, or 9.7%, over 2018. We attribute the increase primarily to an increase in average invested assets.

Net Investment Gains (Losses)

Our net investment gains (losses) in 2019 and 2018 were $22.0 million and ($4.8 million), respectively. The net investment gains for 2019 included $12.7 million from the sale of DFSC and $8.9 million related to unrealized gains within our equity securities portfolio. The net investment losses for 2018 were primarily related to a decrease in the market value of the equity securities we held at December 31, 2018. We did not recognize any impairment losses during 2019 or 2018.

Losses and Loss Expenses

Our insurance subsidiaries' loss ratio, which is the ratio of incurred losses and loss expenses to premiums earned, was 67.0% in 2019, compared to 77.8% in 2018. Our insurance subsidiaries' commercial lines loss ratio decreased to 63.0% in 2019, compared to 72.9% in 2018. This decrease resulted primarily from the commercial automobile loss ratio decreasing to 86.2% in 2019, compared to 101.9% in 2018, and the commercial multi-peril loss ratio decreasing to 63.1% in 2019, compared to 67.0% in 2018. The personal lines loss ratio was 71.1% in 2019, compared to 81.8% in 2018. Our insurance subsidiaries experienced favorable loss reserve development of approximately $12.9 million, or 1.7 percentage points of the loss ratio, during 2019 in their reserves for prior accident years, compared to unfavorable loss reserve development of approximately $35.6 million, or 4.8 percentage points of the loss ratio, during 2018. The favorable loss reserve development in 2019 resulted primarily from lower-than-expected severity in the workers' compensation line of business, partially offset by higher-than-expected severity in the commercial automobile and commercial multi-peril lines of business, for accident years prior to 2019. Weather-related losses of $46.1 million, or 6.1 percentage points of the loss ratio, for 2019 decreased from $65.0 million, or 8.8 percentage points of the loss ratio, for 2018.

Underwriting Expenses

Our insurance subsidiaries' expense ratio, which is the ratio of policy acquisition and other underwriting expenses to premiums earned, was 31.3% in 2019, compared to 31.6% in 2018. We attribute the modest decrease to expense savings that were largely offset by higher underwriting-based incentive compensation in 2019.

Policyholder Dividends

Our insurance subsidiaries pay policyholder dividends primarily on workers' compensation policies on a sliding scale based on the profitability of a given policy. We attribute the increase in dividends incurred for 2019 compared to 2018 to growth and profitability of the workers' compensation line of business over the respective periods to which the dividends applied. We also partially attribute the increase to growth in workers' compensation writings in Wisconsin, a state in which our insurance subsidiaries and their competitors pay a higher rate of dividends compared to other states and where such dividends are not dependent on the profitability of a given policy.

Combined Ratio

Our insurance subsidiaries' combined ratio was 99.5% and 110.1% in 2019 and 2018, respectively. The combined ratio represents the sum of the loss ratio, the expense ratio and the dividend ratio, which is the ratio of workers' compensation policy dividends incurred to premiums earned. We attribute the decrease in our combined ratio primarily to the decrease in our loss ratio.

Interest Expense

Our interest expense in 2019 decreased to $1.6 million, compared to $2.3 million in 2018. We attribute the decrease to lower average borrowings under our lines of credit during 2019 compared to 2018.

Income Taxes

Our income tax expense was $9.9 million for 2019, compared to an income tax benefit of $15.5 million for 2018. Our effective tax rate was 17.4% for 2019. Our income tax expense for 2019 included Pennsylvania state income taxes of $825,000 that were related to the gain we realized on the sale of DFSC in 2019. Our 2018 income tax benefit reflected our anticipation of an estimated carryback of our taxable loss in 2018 to prior tax years.

Net Income (Loss) and Earnings (Loss) Per Share

Our net income in 2019 was $47.2 million, or $1.67 per share of Class A common stock on a diluted basis and $1.51 per share of Class B common stock, compared to a net loss of $32.8 million, or $1.18 per share of Class A common stock and $1.09 per share of Class B common stock, in 2018. We had 23.2 million and 22.8 million Class A shares outstanding at December 31, 2019 and 2018, respectively. We had 5.6 million Class B shares outstanding for both periods. There are no outstanding securities that dilute our shares of Class B common stock.

Book Value Per Share

Our stockholders' equity increased by $52.1 million in 2019 as a result of our net income and net unrealized gains within our available-for-sale fixed maturity investments. Our book value per share increased to $15.67 at December 31, 2019, compared to $14.05 a year earlier.

YEAR ENDED DECEMBER 31, 2018 COMPARED TO YEAR ENDED DECEMBER 31, 2017

Net Premiums Earned

Our insurance subsidiaries' net premiums earned increased to $741.3 million for 2018, an increase of $38.8 million, or 5.5%, over 2017, reflecting increases in net premiums written during 2017 and 2018. Our insurance subsidiaries earn premiums and recognize them as income over the terms of the policies they issue. Such terms are generally one year or less in duration. Therefore, increases or decreases in net premiums earned generally reflect increases or decreases in net premiums written in the preceding twelve-month period compared to the same period one year earlier.

Net Premiums Written

Our insurance subsidiaries' 2018 net premiums written increased 2.0% to $744.0 million, compared to $729.1 million for 2017. We attribute the increase primarily to the impact of premium rate increases and an increase in the writing of new accounts in commercial lines of business. Commercial lines net premiums written increased $20.8 million, or 6.3%, for 2018 compared to 2017. Personal lines net premiums written decreased $5.9 million, or 1.5%, for 2018 compared to 2017. We

attribute the decrease in personal lines primarily to net attrition that resulted from increased pricing on renewal policies and underwriting measures our insurance subsidiaries implemented to slow new policy growth.

Investment Income

For 2018, our net investment income increased to $26.9 million, an increase of $3.4 million, or 14.4%, over 2017. We attribute the increase primarily to an increase in average invested assets.

Net Investment (Losses) Gains

Our net investment (losses) gains in 2018 and 2017 were ($4.8 million) and $5.7 million, respectively. The net investment losses for 2018 were primarily related to a decrease in the market value of the equity securities we held at December 31, 2018. We adopted new accounting guidance effective January 1, 2018 that requires us to measure equity investments at fair value and recognize changes in fair value in our results of operations. The net investment gains for 2017 resulted primarily from strategic sales of equity securities within our investment portfolio and unrealized gains within a limited partnership that invests in equity securities. We did not recognize any impairment losses during 2018 or 2017.

Equity in Earnings of DFSC

Our equity in the earnings of DFSC in 2018 and 2017 was $2.7 million and $1.6 million, respectively. We attribute the increase in DFSC's earnings primarily to higher net interest income related to loan portfolio growth that DFSC achieved during 2018.

Losses and Loss Expenses

Our insurance subsidiaries' loss ratio, which is the ratio of incurred losses and loss expenses to premiums earned, was 77.8% in 2018, compared to 69.4% in 2017. Our insurance subsidiaries' commercial lines loss ratio increased to 72.9% in 2018, compared to 62.0% in 2017. This increase resulted primarily from the commercial automobile loss ratio increasing to 101.9% in 2018, compared to 80.3% in 2017, and the commercial multi-peril loss ratio increasing to 67.0% in 2018, compared to 64.6% in 2017. The personal lines loss ratio was 81.8% in 2018 compared to 75.5% in 2017. Our insurance subsidiaries experienced unfavorable loss reserve development of approximately $35.6 million during 2018 in their reserves for prior accident years, compared to approximately $6.6 million during 2017. The unfavorable loss reserve development resulted primarily from higher-than-expected severity in the commercial multi-peril, personal automobile and commercial automobile lines of business, offset by lower-than-expected severity in the workers' compensation line of business.

Underwriting Expenses

Our insurance subsidiaries' expense ratio, which is the ratio of policy acquisition and other underwriting expenses to premiums earned, was 31.6% in 2018, compared to 32.9% in 2017. We attribute the decrease to lower underwriting-based incentive compensation in 2018.

Combined Ratio

Our insurance subsidiaries' combined ratio was 110.1% and 103.0% in 2018 and 2017, respectively. The combined ratio represents the sum of the loss ratio, the expense ratio and the dividend ratio, which is the ratio of workers' compensation policy dividends incurred to premiums earned. We attribute the increase in our combined ratio primarily to the increase in our loss ratio.

Interest Expense

Our interest expense in 2018 increased to $2.3 million, compared to $1.6 million in 2017. We attribute the increase to higher interest rates in effect during 2018 compared to 2017.

Income Taxes

Our income tax benefit was $15.5 million in 2018, compared to income tax expense of $5.0 million in 2017. Our 2018 income tax benefit reflected our anticipation of an estimated carryback of our taxable loss in 2018 to prior tax years. Our 2017 income tax expense reflected additional tax expense of $4.8 million in 2017 related to the revaluation of our net deferred tax assets pursuant to the Tax Cuts and Jobs Act (the "TCJA").

Net (Loss) Income and (Loss) Earnings Per Share

Our net loss in 2018 was $32.8 million, or $1.18 per share of Class A common stock and $1.09 per share of Class B common stock, compared to net income of $7.1 million, or $0.26 per share of Class A common stock on a diluted basis and $0.22 per share of Class B common stock, in 2017. We had 22.8 million and 22.6 million Class A shares outstanding at December 31, 2018 and 2017, respectively. We had 5.6 million Class B shares outstanding for both periods. There are no outstanding securities that dilute our shares of Class B common stock.

Book Value Per Share

Our stockholders' equity decreased by $49.8 million in 2018 as a result of our net loss, net unrealized losses within our available-for-sale fixed maturity investments and dividends we declared to our stockholders during the year. Our book value per share decreased to $14.05 at December 31, 2018, compared to $15.95 a year earlier.

Financial Condition

Liquidity and Capital Resources

Liquidity is a measure of an entity's ability to secure enough cash to meet its contractual obligations and operating needs as they arise. Our major sources of funds from operations are the net cash flows generated from our insurance subsidiaries' underwriting results, investment income and maturing investments.

We have historically generated sufficient net positive cash flow from our operations to fund our commitments and build our investment portfolio, thereby increasing future investment returns. The pooling agreement with Donegal Mutual historically has been cash flow positive because of the profitability of the underwriting pool. Because we settle the pool monthly, our cash flows are substantially similar to the cash flows that would result from the underwriting of direct business. We maintain a high degree of liquidity in our investment portfolio in the form of marketable fixed maturities, equity securities and short-term investments. We structure our fixed-maturity investment portfolio following a "laddering" approach so that projected cash flows from investment income and principal maturities are evenly distributed from a timing perspective. This laddering approach provides an additional measure of liquidity to meet our obligations and the obligations of our insurance subsidiaries should an unexpected variation occur in the future. Net cash flows provided by operating activities in 2019, 2018 and 2017 were $76.4 million, $63.8 million and $81.0 million, respectively.

In March 2019, we terminated our previous credit agreement with Manufacturers and Traders Trust Company ("M&T") and entered into a new credit agreement with M&T. The new credit agreement relates to a $30.0 million unsecured revolving line of credit. The line of credit expires in July 2020. At December 31, 2019, we had no outstanding borrowings from M&T and had the ability to borrow up to $30.0 million at interest rates equal to M&T's current prime rate or the then-current LIBOR rate plus 2.25%. We pay a fee of 0.15% per annum on the loan commitment amount regardless of usage. The credit agreement requires our compliance with certain covenants. These covenants include minimum levels of our net worth, leverage ratio, statutory surplus and the A.M. Best ratings of our insurance subsidiaries. In addition, Atlantic States has guaranteed our payment obligations under the new credit agreement. We complied with all of the requirements of the credit agreement, including all covenants, as of the filing date of this Form 10-K Report.

Atlantic States is a member of the FHLB of Pittsburgh. Through its membership, Atlantic States has the ability to issue debt to the FHLB of Pittsburgh in exchange for cash advances. In August 2019, Atlantic States exchanged a variable-rate cash advance of $35.0 million that was due in March 2020 for a fixed-rate cash advance of $35.0 million that was outstanding at December 31, 2019. Atlantic States incurred a penalty of $176,000 related to the early termination of its previous cash advance. The new cash advance carries a fixed interest rate of 1.74% and is due in August 2024.

The following table shows expected payments for our significant contractual obligations at December 31, 2019:

(in thousands)	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Net liability for unpaid losses and loss expenses of our insurance subsidiaries	$ 506,906	$ 231,924	$ 237,195	$ 18,976	$ 18,811
Subordinated debentures	5,000	—	—	—	5,000
Borrowings under lines of credit	35,000	—	—	35,000	—
Total contractual obligations	$ 546,906	$ 231,924	$ 237,195	$ 53,976	$ 23,811

We estimated the timing of the amounts for the net liability for unpaid losses and loss expenses of our insurance subsidiaries based on historical experience and expectations of future payment patterns. We have shown the liability net of reinsurance recoverable on unpaid losses and loss expenses to reflect expected future cash flows related to such liability. Assumed amounts from the underwriting pool with Donegal Mutual represent a substantial portion of our insurance subsidiaries' gross liability for unpaid losses and loss expenses, and ceded amounts to the underwriting pool represent a substantial portion of our insurance subsidiaries' reinsurance recoverable on unpaid losses and loss expenses. We include cash settlements of Atlantic States' assumed liability from the pool in our monthly settlements of pooled activity. In these monthly settlements, we net amounts ceded to and assumed from the pool. Donegal Mutual and Atlantic States do not anticipate any further changes in the pool participation levels in the foreseeable future. However, any such change would be prospective in nature and therefore would not impact the timing of expected payments for Atlantic States' proportionate liability for pooled losses occurring in periods prior to the effective date of such change.

We discuss in Note 9 – Borrowings our estimate of the timing of the amounts payable for the borrowings under our lines of credit based on their contractual maturities. The borrowings under our lines of credit carry interest rates that we discuss in Note 9 – Borrowings.

The cash dividends we declared to our stockholders totaled $16.2 million, $15.8 million and $15.0 million in 2019, 2018 and 2017, respectively. There are no regulatory restrictions on our payment of dividends to our stockholders, although there are restrictions under applicable state laws on the payment of dividends from our insurance subsidiaries to us. Our insurance subsidiaries are required by law to maintain certain minimum surplus on a statutory basis and are subject to regulations under which their payment of dividends from statutory surplus is restricted and may require prior approval of their domiciliary insurance regulatory authorities. Our insurance subsidiaries are also subject to risk-based capital ("RBC") requirements. The amount of statutory capital and surplus necessary for our insurance subsidiaries to satisfy regulatory requirements, including the RBC requirements, was not significant in relation to our insurance subsidiaries' statutory capital and surplus at December 31, 2019. Amounts available for distribution to us as ordinary dividends from our insurance subsidiaries without prior approval of insurance regulatory authorities in 2020 are $25.9 million from Atlantic States, $5.4 million from Southern, $2.0 million from Peninsula and $6.6 million from MICO, or a total of approximately $39.9 million.

Investments

At December 31, 2019 and 2018, our investment portfolio of primarily investment-grade bonds, common stock, short-term investments and cash totaled $1.2 billion and $1.1 billion, respectively, representing 60.3% and 59.1%, respectively, of our total assets. See “Business - Investments” for more information.

	December 31,			
	2019		2018	
(dollars in thousands)	Amount	Percent of Total	Amount	Percent of Total
Fixed maturities:				
Total held to maturity	$ 476,094	42.9%	$ 402,799	39.1%
Total available for sale	564,952	50.8	526,558	51.1
Total fixed maturities	1,041,046	93.7	929,357	90.2
Equity securities	55,477	5.0	43,667	4.2
Investment in affiliate	—	—	41,026	4.0
Short-term investments	14,030	1.3	16,749	1.6
Total investments	$ 1,110,553	100.0%	$1,030,799	100.0%

The carrying value of our fixed maturity investments represented 93.7% and 90.2% of our total invested assets at December 31, 2019 and 2018, respectively.

Our fixed maturity investments consisted of high-quality marketable bonds, of which 99.8% were rated at investment-grade levels at December 31, 2019 and 2018.

At December 31, 2019, the net unrealized gain on our available-for-sale fixed maturity investments, net of deferred taxes, amounted to $6.4 million, compared to a net unrealized loss of $6.8 million at December 31, 2018.

Impact of Inflation

Our insurance subsidiaries establish their property and casualty insurance premium rates before they know the amount of losses and loss settlement expenses or the extent to which inflation may impact such expenses. Consequently, our insurance subsidiaries attempt, in establishing rates, to anticipate the potential future impact of inflation. Our insurance subsidiaries account for inflation in the reserving function through analysis of costs and trends and reviews of historical reserving results.

Impact of New Accounting Standards

In January 2016, the FASB issued guidance that generally requires entities to measure equity investments at fair value and recognize changes in fair value in their results of operations. This guidance also simplifies the impairment assessment of equity investments without readily determinable fair values by requiring entities to perform a qualitative assessment to identify impairment. The FASB issued other disclosure and presentation improvements related to financial instruments within the guidance. The guidance was effective for annual and interim reporting periods beginning after December 15, 2017. As a result of the adoption of this guidance on January 1, 2018, we transferred $4.9 million of net unrealized gains from accumulated other comprehensive income (“AOCI”) to retained earnings. We recognized $8.9 million of unrealized gains and $25,751 of unrealized losses on equity securities held at December 31, 2019 in net investment gains for 2019. We recognized $1.2 million of unrealized gains and $4.4 million of unrealized losses on equity securities held at December 31, 2018 in net investment losses for 2018.

In February 2016, the FASB issued guidance that requires lessees to recognize leases, including operating leases, on the lessee’s balance sheet, unless a lease is considered a short-term lease. This guidance also requires entities to make new judgments to identify leases. The guidance was effective for annual and interim reporting periods beginning after December 15, 2018 and permitted early adoption. Our adoption of this guidance on January 1, 2019 did not have a significant impact on our financial position, results of operations or cash flows.

In January 2017, the FASB issued guidance that simplifies the measurement of goodwill by modifying the goodwill impairment test previous guidance required. The guidance requires an entity to perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize impairment for the amount by which the reporting unit's carrying amount exceeds its fair value. The guidance is effective for annual and interim reporting periods beginning after December 15, 2019 and permits early adoption. We early adopted this guidance in 2019. The adoption of this guidance did not have a significant impact on our financial position, results of operations or cash flows.

In August 2018, the FASB issued guidance that modifies disclosure requirements related to fair value measurements. The guidance removes the requirements to disclose the amounts of, and reasons for, transfers between Level 1 and Level 2 of the fair value hierarchy. The guidance is effective for annual and interim reporting periods beginning after December 15, 2019 and permits early adoption. We early adopted this guidance in 2019. The adoption of this guidance on January 1, 2019 did not have a significant impact on our financial position, results of operations or cash flows.

In June 2016, the FASB issued guidance that amends previous guidance on the impairment of financial instruments by adding an impairment model that requires an entity to recognize expected credit losses as an allowance rather than impairments as credit losses are incurred. The intent of this guidance is to reduce complexity and result in a more timely recognition of expected credit losses. In November 2019, the FASB issued guidance that delays the effective date for "smaller reporting companies," as defined in Item 10(f)(1) of Regulation S-K, to annual and interim reporting periods beginning after December 15, 2022 from December 15, 2019. We are in the process of evaluating the impact of the adoption of this guidance on our financial position, results of operations and cash flows.

Off-Balance Sheet Arrangements

As of December 31, 2019 and 2018, we did not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K.

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

We are exposed to the impact of interest rate changes, to changes in fair values of investments and to credit risk.

In the normal course of business, we employ established policies and procedures to manage our exposure to changes in interest rates, fluctuations in the fair market value of our debt and equity securities and credit risk. We seek to mitigate these risks by various actions we describe below.

Interest Rate Risk

Our exposure to market risk for a change in interest rates is concentrated in our investment portfolio. We monitor this exposure through periodic reviews of our asset and liability positions. We regularly monitor estimates of cash flows and the impact of interest rate fluctuations relating to our investment portfolio. Generally, we do not hedge our exposure to interest rate risk because we have the capacity to, and do, hold fixed-maturity investments to maturity.

Principal cash flows and related weighted-average interest rates by stated maturity dates for the financial instruments we held at December 31, 2019 that are sensitive to interest rates are as follows:

(in thousands)	Principal Cash Flows	Weighted-Average Interest Rate
Fixed-maturity and short-term investments:		
2020	$ 43,644	2.40%
2021	38,710	3.42
2022	37,547	3.06
2023	46,126	2.87
2024	53,971	3.71
Thereafter	821,889	3.47
Total	$ 1,041,887	
Fair value	$ 1,079,296	
Debt:		
2024	$ 35,000	1.74%
Thereafter	5,000	5.00
Total	$ 40,000	
Fair value	$ 40,000	

Actual cash flows from investments may differ from those depicted above as a result of calls and prepayments.

Equity Price Risk

Our portfolio of equity securities, which we carry on our consolidated balance sheets at estimated fair value, has exposure to price risk, which is the risk of potential loss in estimated fair value resulting from an adverse change in prices. Our objective is to mitigate this risk and to earn competitive relative returns by investing in a diverse portfolio of high-quality, liquid securities.

Credit Risk

Our objective is to earn competitive returns by investing in a diversified portfolio of securities. Our portfolio of fixed maturity securities and, to a lesser extent, short-term investments is subject to credit risk. We define this risk as the potential loss in fair value resulting from adverse changes in the borrower's ability to repay the debt. We manage this risk by performing an analysis of prospective investments and through regular reviews of our portfolio by our investment personnel. We also limit the amount of our total investment portfolio that we invest in any one security.

Our insurance subsidiaries provide property and liability insurance coverages through independent insurance agencies located throughout their operating areas. Our insurance subsidiaries bill the majority of this business directly to the insured, although our insurance subsidiaries bill a portion of their commercial business through their agents, to whom they extend credit in the normal course of business.

Because the pooling agreement does not relieve Atlantic States of primary liability as the originating insurer, Atlantic States is subject to a concentration of credit risk arising from the business Atlantic States cedes to Donegal Mutual. Our insurance subsidiaries maintain reinsurance agreements with Donegal Mutual and with a number of other major unaffiliated authorized reinsurers.

Item 8. Financial Statements and Supplementary Data.

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Donegal Group Inc.
Consolidated Balance Sheets

	December 31,	
	2019	2018
Assets		
Investments		
Fixed maturities		
Held to maturity, at amortized cost (fair value $500,314,344 and $405,038,296)	$ 476,093,782	$ 402,798,518
Available for sale, at fair value (amortized cost $556,839,278 and $535,112,451)	564,951,803	526,558,304
Equity securities, at fair value	55,477,556	43,667,009
Investment in Donegal Financial Services Corporation	—	41,025,975
Short-term investments, at cost, which approximates fair value	14,030,222	16,748,760
Total investments	1,110,553,363	1,030,798,566
Cash	49,318,930	52,594,461
Accrued investment income	7,066,029	6,561,199
Premiums receivable	165,732,949	156,702,250
Reinsurance receivable	367,021,468	343,369,065
Deferred policy acquisition costs	59,284,859	60,615,127
Deferred tax asset, net	8,514,311	13,069,755
Prepaid reinsurance premiums	142,475,767	135,379,777
Property and equipment, net	4,558,072	4,690,704
Accounts receivable - securities	4,961	261,829
Federal income taxes recoverable	—	19,032,604
Goodwill	5,625,354	5,625,354
Other intangible assets	958,010	958,010
Other	2,047,058	2,419,566
Total assets	$ 1,923,161,131	$ 1,832,078,267
Liabilities and Stockholders' Equity		
Liabilities		
Losses and loss expenses	$ 869,673,849	$ 814,665,224
Unearned premiums	510,147,485	506,528,606
Accrued expenses	28,453,744	25,442,146
Reinsurance balances payable	2,116,084	3,882,193
Borrowings under lines of credit	35,000,000	60,000,000
Cash dividends declared to stockholders	4,075,234	3,948,484
Subordinated debentures	5,000,000	5,000,000
Accounts payable - securities	1,119	1,003,810
Income taxes payable	84,831	—
Due to affiliate	10,069,171	10,874,540
Other	7,524,095	1,863,363
Total liabilities	1,472,145,612	1,433,208,366
Stockholders' Equity		
Preferred stock, $.01 par value, authorized 2,000,000 shares; none issued	—	—
Class A common stock, $.01 par value, authorized 50,000,000 shares, issued 26,203,935 and 25,819,341 shares and outstanding 23,201,347 and 22,816,753 shares	262,040	258,194
Class B common stock, $.01 par value, authorized 10,000,000 shares, issued 5,649,240 shares and outstanding 5,576,775 shares	56,492	56,492
Additional paid-in capital	268,151,601	261,258,423
Accumulated other comprehensive income (loss)	504,170	(14,228,059)
Retained earnings	223,267,573	192,751,208
Treasury stock, at cost	(41,226,357)	(41,226,357)
Total stockholders' equity	451,015,519	398,869,901
Total liabilities and stockholders' equity	$ 1,923,161,131	$ 1,832,078,267

See accompanying notes to consolidated financial statements.

Donegal Group Inc.
Consolidated Statements of Income (Loss) and Comprehensive Income (Loss)

	Years Ended December 31,		
	2019	**2018**	**2017**
Statements of Income (Loss)			
Revenues			
Net premiums earned (includes affiliated reinsurance of $203,409,131, $198,580,547 and $190,924,704 - see note 3)	$ 756,078,400	$ 741,290,873	$ 702,514,755
Investment income, net of investment expenses	29,514,955	26,907,656	23,527,304
Installment payment fees	4,134,749	5,256,721	5,157,163
Lease income	443,750	480,617	500,455
Net investment gains (losses) (includes $147,236, ($499,244) and $5,705,255 accumulated other comprehensive income reclassification)	21,984,617	(4,801,509)	5,705,255
Equity in earnings of Donegal Financial Services Corporation	295,000	2,693,962	1,621,605
Total revenues	812,451,471	771,828,320	739,026,537
Expenses			
Net losses and loss expenses (includes affiliated reinsurance of $103,218,679, $140,113,591 and $114,865,113 - see note 3)	506,387,664	576,458,420	487,268,054
Amortization of deferred policy acquisition costs	122,443,000	120,964,000	115,065,000
Other underwriting expenses	114,561,741	113,270,131	116,538,431
Policyholder dividends	8,978,406	5,353,023	5,014,624
Interest	1,579,299	2,302,082	1,593,437
Other, net	1,420,331	1,717,513	1,432,529
Total expenses	755,370,441	820,065,169	726,912,075
Income (loss) before income tax expense (benefit)	57,081,030	(48,236,849)	12,114,462
Income tax expense (benefit) (includes $30,920, ($104,841) and $1,939,787 income tax expense (benefit) from reclassification items)	9,929,286	(15,476,509)	4,998,362
Net income (loss)	$ 47,151,744	$ (32,760,340)	$ 7,116,100
Basic earnings (loss) per common share:			
Class A common stock	$ 1.68	$ (1.18)	$ 0.27
Class B common stock	$ 1.51	$ (1.09)	$ 0.22
Diluted earnings (loss) per common share:			
Class A common stock	$ 1.67	$ (1.18)	$ 0.26
Class B common stock	$ 1.51	$ (1.09)	$ 0.22
Statements of Comprehensive Income (Loss)			
Net income (loss)	$ 47,151,744	$ (32,760,340)	$ 7,116,100
Other comprehensive income (loss), net of tax			
Unrealized gain (loss) on securities:			
Unrealized holding gain (loss) arising during the period, net of income tax expense (benefit) of $3,947,082, ($1,865,948) and $1,964,385	14,848,545	(7,019,532)	3,811,151
Reclassification adjustment for (gains) losses included in net income (loss), net of income tax expense (benefit) of $30,920, ($104,841) and $1,939,787	(116,316)	394,403	(3,765,468)
Other comprehensive income (loss)	14,732,229	(6,625,129)	45,683
Comprehensive income (loss)	$ 61,883,973	$ (39,385,469)	$ 7,161,783

See accompanying notes to consolidated financial statements.

Donegal Group Inc.
Consolidated Statements of Stockholders' Equity

	Common Stock								
	Class A Shares	Class B Shares	Class A Amount	Class B Amount	Additional Paid-In Capital	Accumulated Other Comprehensive (Loss) Income	Retained Earnings	Treasury Stock	Total Stockholders' Equity
Balance, January 1, 2017	24,483,377	5,649,240	$244,834	$56,492	$236,851,709	$ (2,254,271)	$ 244,942,913	$ (41,226,357)	$438,615,320
Issuance of common stock (stock compensation plans)	157,085		1,571		2,486,762				2,488,333
Stock-based compensation	924,019		9,240		15,462,479				15,471,719
Net income							7,116,100		7,116,100
Cash dividends							(15,041,051)		(15,041,051)
Grant of stock options					600,608		(600,608)		—
Reclassification of tax effects						(475,687)	475,687		—
Other comprehensive income						45,683			45,683
Balance, December 31, 2017	25,564,481	5,649,240	$255,645	$56,492	$255,401,558	$ (2,684,275)	$ 236,893,041	$ (41,226,357)	$448,696,104
Issuance of common stock (stock compensation plans)	174,899		1,749		2,469,220				2,470,969
Stock-based compensation	79,961		800		2,853,111				2,853,911
Net loss							(32,760,340)		(32,760,340)
Cash dividends							(15,765,614)		(15,765,614)
Grant of stock options					534,534		(534,534)		—
Reclassification of equity unrealized gains						(4,918,655)	4,918,655		—
Other comprehensive loss						(6,625,129)			(6,625,129)
Balance, December 31, 2018	25,819,341	5,649,240	$258,194	$56,492	$261,258,423	$ (14,228,059)	$ 192,751,208	$ (41,226,357)	$398,869,901
Issuance of common stock (stock compensation plans)	167,096		1,671		2,225,527				2,227,198
Stock-based compensation	217,498		2,175		4,251,665				4,253,840
Net income							47,151,744		47,151,744
Cash dividends							(16,219,393)		(16,219,393)
Grant of stock options					415,986		(415,986)		—
Other comprehensive income						14,732,229			14,732,229
Balance, December 31, 2019	26,203,935	5,649,240	$262,040	$56,492	$268,151,601	$ 504,170	$ 223,267,573	$ (41,226,357)	$451,015,519

See accompanying notes to consolidated financial statements.

Donegal Group Inc.
Consolidated Statements of Cash Flows

	Years Ended December 31,		
	2019	2018	2017
Cash Flows from Operating Activities:			
Net income (loss)	$ 47,151,744	$ (32,760,340)	$ 7,116,100
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation, amortization and other non-cash items	5,573,074	6,609,632	6,109,869
Net investment (gains) losses	(21,984,617)	4,801,509	(5,705,255)
Equity in earnings of Donegal Financial Services Corporation	(295,000)	(2,693,962)	(1,621,605)
Changes in Assets and Liabilities:			
Losses and loss expenses	55,008,625	137,993,497	70,007,137
Unearned premiums	3,618,879	3,072,065	37,401,313
Accrued expenses	3,011,598	(2,591,630)	(212,915)
Premiums receivable	(9,030,699)	3,704,182	(1,016,765)
Deferred policy acquisition costs	1,330,268	(325,267)	(3,980,664)
Deferred income taxes	649,928	(4,179,805)	11,889,970
Reinsurance receivable	(23,652,403)	(45,026,502)	(35,314,555)
Accrued investment income	(504,830)	(8,078)	(257,608)
Amounts due to affiliate	(805,369)	3,560,172	16,519,278
Reinsurance balances payable	(1,766,109)	(233,966)	(253,369)
Prepaid reinsurance premiums	(7,095,990)	(347,136)	(10,777,146)
Current income taxes	19,117,435	(8,097,499)	(9,826,855)
Other, net	6,033,243	299,262	(113,482)
Dividends received from Donegal Financial Services Corporation	—	—	1,036,750
Net adjustments	29,208,033	96,536,474	73,884,098
Net cash provided by operating activities	76,359,777	63,776,134	81,000,198
Cash Flows from Investing Activities:			
Purchases of fixed maturities:			
Held to maturity	(96,724,391)	(48,969,776)	(51,049,152)
Available for sale	(165,989,508)	(116,961,667)	(138,675,907)
Purchases of equity securities	(20,722,416)	(11,303,361)	(17,033,093)
Sales of fixed maturities:			
Available for sale	19,527,658	13,202,367	10,081,785
Maturity of fixed maturities:			
Held to maturity	24,460,749	13,184,665	20,577,326
Available for sale	119,113,273	105,266,805	99,544,479
Sales of equity securities	40,465,748	13,779,330	20,880,814
Net purchases of property and equipment	(149,603)	(105,525)	(1,090,726)
Sale of investment in Donegal Financial Services Corporation	33,922,773	—	—
Net sales (purchases) of short-term investments	2,718,538	(5,698,845)	(1,678,908)
Net cash used in investing activities	(43,377,179)	(37,606,007)	(58,443,382)
Cash Flows from Financing Activities:			
Issuance of common stock	4,834,514	3,249,849	15,511,457
Cash dividends paid	(16,092,643)	(15,658,950)	(14,822,052)
Payments on lines of credit	(25,000,000)	—	(10,000,000)
Borrowings under lines of credit	—	1,000,000	—
Net cash used in financing activities	(36,258,129)	(11,409,101)	(9,310,595)
Net (decrease) increase in cash	(3,275,531)	14,761,026	13,246,221
Cash at beginning of year	52,594,461	37,833,435	24,587,214
Cash at end of year	$ 49,318,930	$ 52,594,461	$ 37,833,435

See accompanying notes to consolidated financial statements.

1 - Summary of Significant Accounting Policies

Organization and Business

Donegal Mutual Insurance Company ("Donegal Mutual") organized us as an insurance holding company on August 26, 1986. Our insurance subsidiaries, Atlantic States Insurance Company ("Atlantic States"), Southern Insurance Company of Virginia ("Southern"), the Peninsula Insurance Group ("Peninsula"), which consists of Peninsula Indemnity Company and The Peninsula Insurance Company and Michigan Insurance Company ("MICO"), write personal and commercial lines of property and casualty coverages exclusively through a network of independent insurance agents in certain Mid-Atlantic, Midwestern, New England and Southern states. Until March 8, 2019, we also owned 48.2% of the outstanding stock of Donegal Financial Services Corporation ("DFSC"), a grandfathered unitary savings and loan holding company that owned Union Community Bank ("UCB"), a state savings bank. Donegal Mutual owned the remaining 51.8% of the outstanding stock of DFSC.

We have three segments: our investment function, our commercial lines of insurance and our personal lines of insurance. The commercial lines products of our insurance subsidiaries consist primarily of commercial automobile, commercial multi-peril and workers' compensation policies. The personal lines products of our insurance subsidiaries consist primarily of homeowners and private passenger automobile policies.

At December 31, 2019, Donegal Mutual held approximately 43% of our outstanding Class A common stock and approximately 84% of our outstanding Class B common stock. This ownership provides Donegal Mutual with approximately 71% of the total voting power of our common stock. Our insurance subsidiaries and Donegal Mutual have interrelated operations due to a pooling agreement and other intercompany agreements and transactions. While each company maintains its separate corporate existence, our insurance subsidiaries and Donegal Mutual conduct business together as the Donegal Insurance Group. As such, Donegal Mutual and our insurance subsidiaries share the same business philosophy, the same management, the same employees and the same facilities and offer the same types of insurance products.

Atlantic States, our largest subsidiary, participates in a pooling agreement with Donegal Mutual. Under the pooling agreement, the two companies pool their insurance business and each company receives an allocated percentage of the pooled business. Atlantic States has an 80% share of the results of the pooled business, and Donegal Mutual has a 20% share of the results of the pooled business.

In addition, Donegal Mutual has a 100% quota-share reinsurance agreement with Southern Mutual Insurance Company, or Southern Mutual. Donegal Mutual places its assumed business from Southern Mutual into the underwriting pool.

The same executive management and underwriting personnel administer products, classes of business underwritten, pricing practices and underwriting standards of Donegal Mutual and our insurance subsidiaries. In addition, as the Donegal Insurance Group, Donegal Mutual and our insurance subsidiaries share a combined business plan to achieve market penetration and underwriting profitability objectives. The products our insurance subsidiaries and Donegal Mutual market are generally complementary, thereby allowing the Donegal Insurance Group to offer a broader range of products to a given market and to expand the Donegal Insurance Group's ability to service an entire personal lines or commercial lines account. Distinctions within the products of Donegal Mutual and our insurance subsidiaries generally relate to specific risk profiles targeted within similar classes of business, such as preferred tier versus standard tier products, but we do not allocate all of the standard risk gradients to one company. Therefore, the underwriting profitability of the business the individual companies write directly will vary. However, as the risk characteristics of all business Donegal Mutual and Atlantic States write directly are homogenized within the underwriting pool, Donegal Mutual and Atlantic States share the underwriting results in proportion to their respective participation in the pool. Pooled business represents the predominant percentage of the net underwriting activity of both Donegal Mutual and Atlantic States. We refer to Note 3 - Transactions with Affiliates for more information regarding the pooling agreement.

In July 2018, we consolidated the branch office operations of Peninsula into our home office operations to achieve economies of scale and enhance service levels for policyholders of Peninsula. We recorded a restructuring charge for employee termination costs associated with the Peninsula consolidation of approximately $1.9 million and paid approximately $1.5 million of these costs in 2018. We paid approximately $260,000 of these costs in 2019 and had an accrual of approximately $130,000 remaining at December 31, 2019. We entered into a definitive purchase agreement for the sale of Peninsula's branch office in 2018. The sale was completed in January 2019, and we received net proceeds of $1.2 million. We recorded an

impairment charge of $1.1 million in other expenses in 2018 related to this real estate transaction and included the $1.2 million fair value of the real estate we held for sale in other assets at December 31, 2018.

We and Donegal Mutual sold DFSC to Northwest Bancshares, Inc. ("Northwest") on March 8, 2019, resulting in proceeds valued at approximately $85.8 million in a combination of cash and Northwest common stock. Immediately prior to the closing of the merger, DFSC paid a dividend of approximately $29.2 million to us and Donegal Mutual. As the owner of 48.2% of DFSC's common stock, we received a dividend payment from DFSC of approximately $14.1 million and consideration from Northwest that included a combination of cash in the amount of $20.5 million and Northwest common stock with a fair value at the closing date of $20.9 million. We recorded a gain of $12.7 million from the sale of DFSC in our results of operations for the first quarter of 2019. We sold the Northwest common stock that we received as part of the consideration during 2019. This transaction represented the culmination of a banking strategy that began with the formation of DFSC in 2000.

Effective December 1, 2019, our insurance subsidiaries Le Mars Insurance Company ("Le Mars") and Sheboygan Falls Insurance Company ("Sheboygan Falls") merged with and into Atlantic States (the "Mergers"). As a result of the Mergers, the separate corporate existences of Le Mars and Sheboygan Falls ceased and Atlantic States continued as the surviving insurance company. Atlantic States will place the business of Le Mars and Sheboygan Falls, as their policies renew subsequent to the effective date of the Mergers, into the underwriting pool.

Basis of Consolidation

Our consolidated financial statements, which we have prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"), include our accounts and those of our wholly owned subsidiaries. We have eliminated all significant inter-company accounts and transactions in consolidation. The terms "we," "us," "our" or the "Company" as we use them in the notes to our consolidated financial statements refer to the consolidated entity.

Use of Estimates

In preparing our consolidated financial statements, our management makes estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the balance sheet and revenues and expenses for the period then ended. Actual results could differ significantly from those estimates.

We make estimates and assumptions that could have a significant effect on amounts and disclosures we report in our consolidated financial statements. The most significant estimates relate to our insurance subsidiaries' reserves for property and casualty insurance unpaid losses and loss expenses. While we believe our estimates and the estimates of our insurance subsidiaries are appropriate, the ultimate amounts may differ from the estimates provided. We regularly review our methods for making these estimates as well as the continuing appropriateness of the estimated amounts, and we reflect any adjustment we consider necessary in our current results of operations.

Reclassification

We have made certain reclassifications in our prior period financial statements to conform to the current year presentation.

Investments

We classify our debt securities into the following categories:

Held to Maturity - Debt securities that we have the positive intent and ability to hold to maturity; reported at amortized cost.

Available for Sale - Debt securities not classified as held to maturity; reported at fair value, with unrealized gains and losses excluded from income and reported as a separate component of stockholders' equity (net of tax effects).

Short-term investments are carried at amortized cost, which approximates fair value.

We make estimates concerning the valuation of our investments and the recognition of other-than-temporary declines in the value of our investments. For equity securities, we measure investments at fair value and, beginning January 1, 2018, we recognize changes in fair value in our results of operations. With respect to a debt security that is in an unrealized loss position, we first assess if we intend to sell the debt security. If we determine we intend to sell the debt security, we recognize the

impairment loss in our results of operations. If we do not intend to sell the debt security, we determine whether it is more likely than not that we will be required to sell the debt security prior to recovery. If we determine it is more likely than not that we will be required to sell the debt security prior to recovery, we recognize an impairment loss in our results of operations. If we determine it is more likely than not that we will not be required to sell the debt security prior to recovery, we then evaluate whether a credit loss has occurred. We determine whether a credit loss has occurred by comparing the amortized cost of the debt security to the present value of the cash flows we expect to collect. If we expect a cash flow shortfall, we consider that a credit loss has occurred. If we determine that a credit loss has occurred, we consider the impairment to be other than temporary. We then recognize the amount of the impairment loss related to the credit loss in our results of operations, and we recognize the remaining portion of the impairment loss in our other comprehensive income, net of applicable taxes. In addition, we may write down securities in an unrealized loss position based on a number of other factors, including when the fair value of an investment is significantly below its cost, when the financial condition of the issuer of a security has deteriorated, the occurrence of industry, company or geographic events that have negatively impacted the value of a security and rating agency downgrades.

We amortize premiums and discounts on debt securities over the life of the security as an adjustment to yield using the effective interest method. We compute investment gains and losses using the specific identification method.

We amortize premiums and discounts for mortgage-backed debt securities using anticipated prepayments.

Fair Values of Financial Instruments

We use the following methods and assumptions in estimating our fair value disclosures:

Investments - We present our investments in available-for-sale fixed maturity and equity securities at estimated fair value. The estimated fair value of a security may differ from the amount that we could realize if we sold the security in a forced transaction. In addition, the valuation of fixed maturity investments is more subjective when markets are less liquid, increasing the potential that the estimated fair value does not reflect the price at which an actual transaction would occur. We utilize nationally recognized independent pricing services to estimate fair values for our fixed maturity and equity investments. We generally obtain two prices per security. The pricing services utilize market quotations for fixed maturity and equity securities that have quoted prices in active markets. For fixed maturity securities that generally do not trade on a daily basis, the pricing services prepare estimates of fair value measurements based predominantly on observable market inputs. The pricing services do not use broker quotes in determining the fair values of our investments. Our investment personnel review the estimates of fair value the pricing services provide to determine if the estimates we obtain are representative of fair values based upon the general knowledge of our investment personnel of the market, their research findings related to unusual fluctuations in value and their comparison of such values to execution prices for similar securities. Our investment personnel monitor the market and are familiar with current trading ranges for similar securities and the pricing of specific investments. Our investment personnel review all pricing estimates that we receive from the pricing services against their expectations with respect to pricing based on fair market curves, security ratings, coupon rates, security type and recent trading activity. Our investment personnel review documentation with respect to the pricing services' pricing methodology that they obtain periodically to determine if the primary pricing sources, market inputs and pricing frequency for various security types are reasonable. We refer to Note 5 - Fair Value Measurements for more information regarding our methods and assumptions in estimating fair values.

Cash and Short-Term Investments - The carrying amounts we report in the balance sheet for these instruments approximate their fair values.

Premiums and Reinsurance Receivables and Payables - The carrying amounts we report in the balance sheet for these instruments related to premiums and paid losses and loss expenses approximate their fair values.

Subordinated Debentures - The carrying amounts we report in the balance sheet for these instruments approximate their fair values.

Revenue Recognition

Our insurance subsidiaries recognize insurance premiums as income over the terms of the policies they issue. Our insurance subsidiaries calculate unearned premiums on a daily pro-rata basis.

Policy Acquisition Costs

We defer our insurance subsidiaries' policy acquisition costs, consisting primarily of commissions, premium taxes and certain other underwriting costs, reduced by ceding commissions, related directly to the successful acquisition of new or renewal insurance contracts. We amortize these deferred policy acquisition costs over the period in which our insurance subsidiaries earn the premiums. The method we follow in computing deferred policy acquisition costs limits the amount of such deferred costs to their estimated realizable value, which gives effect to the premium to be earned, related investment income, losses and loss expenses and certain other costs we expect to incur as our insurance subsidiaries earn the premium. Estimates in the calculation of policy acquisition costs have not shown material variability because of uncertainties in applying accounting principles or as a result of sensitivities to changes in key assumptions.

Property and Equipment

We report property and equipment at depreciated cost that we compute using the straight-line method based upon estimated useful lives of the assets.

Losses and Loss Expenses

Liabilities for losses and loss expenses are estimates at a given point in time of the amounts an insurer expects to pay with respect to incurred policyholder claims based on facts and circumstances the insurer knows at that point in time. At the time of establishing its estimates, an insurer recognizes that its ultimate liability for losses and loss expenses will exceed or be less than such estimates. Our insurance subsidiaries base their estimates of liabilities for losses and loss expenses on assumptions as to future loss trends, expected claims severity, judicial theories of liability and other factors. However, during the loss adjustment period, our insurance subsidiaries may learn additional facts regarding individual claims, and, consequently, it often becomes necessary for our insurance subsidiaries to refine and adjust their estimates for these liabilities. We reflect any adjustments to the liabilities for losses and loss expenses of our insurance subsidiaries in our consolidated results of operations in the period in which our insurance subsidiaries make adjustments to their estimates.

Our insurance subsidiaries maintain liabilities for the payment of losses and loss expenses with respect to both reported and unreported claims. Our insurance subsidiaries establish these liabilities for the purpose of covering the ultimate costs of settling all losses, including investigation and litigation costs. Our insurance subsidiaries base the amount of their liability for reported losses primarily upon a case-by-case evaluation of the type of risk involved, knowledge of the circumstances surrounding each claim and the insurance policy provisions relating to the type of loss the policyholder incurred. Our insurance subsidiaries determine the amount of their liability for unreported claims and loss expenses on the basis of historical information by line of insurance. Our insurance subsidiaries account for inflation in the reserving function through analysis of costs and trends and reviews of historical reserving results. Our insurance subsidiaries monitor their liabilities closely and recompute them periodically using new information on reported claims and a variety of statistical techniques. Our insurance subsidiaries do not discount their liabilities for losses and loss expenses.

Reserve estimates can change over time because of unexpected changes in assumptions related to our insurance subsidiaries' external environment and, to a lesser extent, assumptions related to our insurance subsidiaries' internal operations. For example, our insurance subsidiaries have experienced an increase in claims severity and a lengthening of the claim settlement periods on bodily injury claims during the past several years. These trend changes give rise to greater uncertainty as to the pattern of future loss settlements on bodily injury claims. Related uncertainties regarding future trends include the rate of plaintiff attorney involvement in claims and the cost of medical technologies and procedures. Assumptions related to our insurance subsidiaries' external environment include the absence of significant changes in tort law and the legal environment that increase liability exposure, consistency in judicial interpretations of insurance coverage and policy provisions and the rate of loss cost inflation. Internal assumptions include consistency in the recording of premium and loss statistics, consistency in the recording of claims, payment and case reserving methodology, accurate measurement of the impact of rate changes and changes in policy provisions, consistency in the quality and characteristics of business written within a given line of business and consistency in reinsurance coverage and collectability of reinsured losses, among other items. To the extent our insurance subsidiaries determine that underlying factors impacting their assumptions have changed, our insurance subsidiaries make adjustments in their reserves that they consider appropriate for such changes. Accordingly, our insurance subsidiaries' ultimate liability for unpaid losses and loss expenses will likely differ from the amount recorded.

Our insurance subsidiaries seek to enhance their underwriting results by carefully selecting the product lines they underwrite. Our insurance subsidiaries' personal lines products primarily include standard and preferred risks in private passenger automobile and homeowners lines. Our insurance subsidiaries' commercial lines products primarily include business offices, wholesalers, service providers, contractors, artisans and light manufacturing operations. Our insurance subsidiaries

have limited exposure to asbestos and other environmental liabilities. Our insurance subsidiaries write no medical malpractice liability risks.

Income Taxes

We currently file a consolidated federal income tax return that includes us and our insurance subsidiaries.

We account for income taxes using the asset and liability method. The objective of the asset and liability method is to establish deferred tax assets and liabilities for the temporary differences between the financial reporting basis and the tax basis of our assets and liabilities at enacted tax rates we expect to be in effect when we realize or settle such amounts.

Credit Risk

Our objective is to earn competitive returns by investing in a diversified portfolio of securities. Our portfolio of fixed maturity securities and, to a lesser extent, short-term investments is subject to credit risk. We define this risk as the potential loss in fair value resulting from adverse changes in the borrower's ability to repay its debt to us. We manage this risk by performing an analysis of prospective investments and through regular reviews of our portfolio by our investment personnel. We also limit the amount of our total investment portfolio that we invest in any one security.

Our insurance subsidiaries provide property and liability insurance coverages through independent insurance agencies located throughout their operating areas. Our insurance subsidiaries bill the majority of this business directly to their policyholders, although our insurance subsidiaries bill a portion of their commercial business through their agents, to whom they extend credit in the normal course of business.

Our insurance subsidiaries have reinsurance agreements with Donegal Mutual and with a number of major unaffiliated reinsurers.

Reinsurance Accounting and Reporting

Our insurance subsidiaries rely upon reinsurance agreements to limit their maximum net loss from large single risks or risks in concentrated areas and to increase their capacity to write insurance. Reinsurance does not relieve our insurance subsidiaries from liability to their respective policyholders. To the extent that a reinsurer cannot pay losses for which it is liable under the terms of a reinsurance agreement with one or more of our insurance subsidiaries, our insurance subsidiaries retain continued liability for such losses. However, in an effort to reduce the risk of non-payment, our insurance subsidiaries require all of their reinsurers to have an A.M. Best rating of A- or better or, with respect to foreign reinsurers, to have a financial condition that, in the opinion of our management, is equivalent to a company with an A.M. Best rating of A- or better. We refer to Note 10 - Reinsurance for more information regarding the reinsurance agreements of our insurance subsidiaries.

Stock-Based Compensation

We measure all share-based payments to our directors and the directors and employees of our subsidiaries and affiliates, including grants of stock options, using a fair-value-based method and record such expense in our results of operations. In determining the expense we record for stock options we grant to our directors and the directors and employees of our subsidiaries and affiliates, we estimate the fair value of each option award on the date of grant using the Black-Scholes option pricing model. The significant assumptions we utilize in applying the Black-Scholes option pricing model are the risk-free interest rate, expected term, dividend yield and expected volatility.

In 2019, 2018 and 2017, we realized $64,765, $25,938 and $873,515, respectively, in tax benefits upon the exercise of stock options.

Earnings Per Share

We calculate basic earnings per share by dividing net income by the weighted-average number of common shares outstanding for the period. Diluted earnings per share reflects the dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock.

We have two classes of common stock, which we refer to as Class A common stock and Class B common stock. Our Class A common stock is entitled to the declaration and payment of cash dividends that are at least 10% higher than those we declare and pay on our Class B common stock. Accordingly, we use the two-class method for the computation of earnings per

common share. The two-class method is an earnings allocation formula that determines earnings per share separately for each class of common stock based on dividends declared and an allocation of remaining undistributed earnings using a participation percentage that reflects the dividend rights of each class.

Goodwill and Other Intangible Assets

Goodwill represents the excess of the purchase price over the underlying fair value of acquired entities. When completing acquisitions, we seek also to identify separately identifiable intangible assets that we have acquired. We assess goodwill and intangible assets with an indefinite useful life for impairment annually. We also assess goodwill and other intangible assets for impairment upon the occurrence of certain events. In making our assessment, we consider a number of factors including operating results, business plans, economic projections, anticipated future cash flows and current market data. Inherent uncertainties exist with respect to these factors and to our judgment in applying them when we make our assessment. Impairment of goodwill and other intangible assets could result from changes in economic and operating conditions in future periods.

2 - Impact of New Accounting Standards

In January 2016, the FASB issued guidance that generally requires entities to measure equity investments at fair value and recognize changes in fair value in their results of operations. This guidance also simplifies the impairment assessment of equity investments without readily determinable fair values by requiring entities to perform a qualitative assessment to identify impairment. The FASB issued other disclosure and presentation improvements related to financial instruments within the guidance. The guidance was effective for annual and interim reporting periods beginning after December 15, 2017. As a result of the adoption of this guidance on January 1, 2018, we transferred $4.9 million of net unrealized gains from accumulated other comprehensive income (“AOCI”) to retained earnings. We recognized $8.9 million of unrealized gains and $25,751 of unrealized losses on equity securities held at December 31, 2019 in net investment gains for 2019. We recognized $1.2 million of unrealized gains and $4.4 million of unrealized losses on equity securities held at December 31, 2018 in net investment losses for 2018.

In February 2016, the FASB issued guidance that requires lessees to recognize leases, including operating leases, on the lessee’s balance sheet, unless a lease is considered a short-term lease. This guidance also requires entities to make new judgments to identify leases. The guidance was effective for annual and interim reporting periods beginning after December 15, 2018 and permitted early adoption. Our adoption of this guidance on January 1, 2019 did not have a significant impact on our financial position, results of operations or cash flows.

In January 2017, the FASB issued guidance that simplifies the measurement of goodwill by modifying the goodwill impairment test previous guidance required. The guidance requires an entity to perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize impairment for the amount by which the reporting unit’s carrying amount exceeds its fair value. The guidance is effective for annual and interim reporting periods beginning after December 15, 2019 and permits early adoption. We early adopted this guidance in 2019. The adoption of this guidance did not have a significant impact on our financial position, results of operations or cash flows.

In August 2018, the FASB issued guidance that modifies disclosure requirements related to fair value measurements. The guidance removes the requirements to disclose the amounts of, and reasons for, transfers between Level 1 and Level 2 of the fair value hierarchy. The guidance is effective for annual and interim reporting periods beginning after December 15, 2019 and permits early adoption. We early adopted this guidance in 2019. The adoption of this guidance on January 1, 2019 did not have a significant impact on our financial position, results of operations or cash flows.

In June 2016, the FASB issued guidance that amends previous guidance on the impairment of financial instruments by adding an impairment model that requires an entity to recognize expected credit losses as an allowance rather than impairments as credit losses are incurred. The intent of this guidance is to reduce complexity and result in a more timely recognition of expected credit losses. In November 2019, the FASB issued guidance that delays the effective date for “smaller reporting companies,” as defined in Item 10(f)(1) of Regulation S-K, to annual and interim reporting periods beginning after December 15, 2022 from December 15, 2019. We are in the process of evaluating the impact of the adoption of this guidance on our financial position, results of operations and cash flows.

3 - Transactions with Affiliates

Our insurance subsidiaries conduct business and have various agreements with Donegal Mutual that we describe in the following subparagraphs:

a. Reinsurance Pooling and Other Reinsurance Arrangements

Atlantic States, our largest insurance subsidiary, and Donegal Mutual have a pooling agreement under which both companies contribute substantially all of their direct written business to the pool and receive an allocated percentage of the pooled underwriting results, excluding certain reinsurance Donegal Mutual assumes from our insurance subsidiaries. In addition, Donegal Mutual has a 100% quota-share reinsurance agreement with Southern Mutual Insurance Company, or Southern Mutual, and Donegal Mutual places its assumed business from Southern Mutual into the underwriting pool. Atlantic States has an 80% share of the results of the pool, and Donegal Mutual has a 20% share of the results of the pool. The intent of the pooling agreement is to produce more uniform and stable underwriting results from year to year for each pool participant than they would experience individually and to spread the risk of loss between the participants based on each participant's relative amount of surplus and relative access to capital. Each participant in the pool has at its disposal the capacity of the entire pool, rather than being limited to policy exposures of a size commensurate with its own capital and surplus.

The following amounts represent reinsurance Atlantic States ceded to the pool during 2019, 2018 and 2017:

	2019	2018	2017
Premiums earned	$ 218,642,984	$ 212,928,238	$ 200,752,599
Losses and loss expenses	173,238,503	159,495,489	140,015,950
Prepaid reinsurance premiums	116,189,929	106,224,424	103,991,861
Liability for losses and loss expenses	183,326,589	158,081,925	136,786,070

The following amounts represent reinsurance Atlantic States assumed from the pool during 2019, 2018 and 2017:

	2019	2018	2017
Premiums earned	$ 479,835,362	$ 473,512,781	$ 451,470,894
Losses and loss expenses	309,852,141	335,789,280	289,503,373
Unearned premiums	237,106,338	231,958,181	228,988,598
Liability for losses and loss expenses	322,658,731	303,546,744	252,263,547

Donegal Mutual and MICO have a quota-share reinsurance agreement under which Donegal Mutual assumes 25% of the premiums and losses related to the business of MICO. Donegal Mutual and Peninsula have a quota-share reinsurance agreement under which Donegal Mutual assumes 100% of the premiums and losses related to the workers' compensation product line of Peninsula in certain states. Donegal Mutual places its assumed business from MICO and Peninsula into the underwriting pool.

The following amounts represent reinsurance ceded to Donegal Mutual pursuant to these quota-share reinsurance agreements during 2019, 2018 and 2017:

	2019	2018	2017
Premiums earned	$ 42,079,112	$ 42,813,929	$ 42,578,047
Losses and loss expenses	19,617,787	23,175,456	24,978,631
Prepaid reinsurance premiums	19,217,849	19,047,084	19,827,115
Liability for losses and loss expenses	36,597,834	38,434,078	36,396,109

In 2019, each of our insurance subsidiaries had a catastrophe reinsurance agreement with Donegal Mutual that provided coverage under any one catastrophic occurrence above a set retention of $2,000,000, with a combined retention of $5,000,000 for a catastrophe involving a combination of our insurance subsidiaries, up to the amount Donegal Mutual and our insurance subsidiaries retained under catastrophe reinsurance agreements with unaffiliated reinsurers. Through December 31, 2018, Atlantic States, Southern and Le Mars each had a catastrophe reinsurance agreement with Donegal Mutual that provided coverage under any one catastrophic occurrence above a set retention ($2,500,000, $2,000,000 and $1,000,000 for Atlantic States, Southern and Le Mars, respectively, for 2018), with a combined retention of $5,000,000 for a catastrophe involving a

combination of these subsidiaries, up to the amount Donegal Mutual and our insurance subsidiaries retained under catastrophe reinsurance agreements with unaffiliated reinsurers. The set retention was $2,000,000, $1,500,000 and $750,000 for Atlantic States, Southern and Le Mars, respectively, for 2017. Through December 31, 2018, Donegal Mutual and Southern had an excess of loss reinsurance agreement in which Donegal Mutual assumed up to $500,000 of Southern's losses in excess of $500,000.

The following amounts represent reinsurance that our insurance subsidiaries ceded to Donegal Mutual pursuant to these reinsurance agreements during 2019, 2018 and 2017:

	2019	2018	2017
Premiums earned	$ 14,404,636	$ 19,190,067	$ 17,215,273
Losses and loss expenses	13,769,736	12,899,927	8,953,411
Liability for losses and loss expenses	3,149,907	4,847,176	3,399,207

The following amounts represent the effect of affiliated reinsurance transactions on net premiums our insurance subsidiaries earned during 2019, 2018 and 2017:

	2019	2018	2017
Assumed	$ 479,835,362	$ 473,512,781	$ 451,470,623
Ceded	(275,126,732)	(274,932,234)	(260,545,919)
Net	$ 204,708,630	$ 198,580,547	$ 190,924,704

The following amounts represent the effect of affiliated reinsurance transactions on net losses and loss expenses our insurance subsidiaries incurred during 2019, 2018 and 2017:

	2019	2018	2017
Assumed	$ 309,844,705	$ 335,684,463	$ 288,813,105
Ceded	(206,626,026)	(195,570,872)	(173,947,992)
Net	$ 103,218,679	$ 140,113,591	$ 114,865,113

b. Expense Sharing

Donegal Mutual provides facilities, management and other services to us and our insurance subsidiaries. Donegal Mutual allocates certain related expenses to Atlantic States in relation to the relative participation of Atlantic States and Donegal Mutual in the pooling agreement. Our insurance subsidiaries other than Atlantic States reimburse Donegal Mutual for their personnel costs and bear their proportionate share of information services costs based on their percentage of the total written premiums of the Donegal Insurance Group. Charges for these services totaled $134,143,158, $126,153,511 and $124,999,770 for 2019, 2018 and 2017, respectively.

c. Lease Agreement

We lease office equipment with terms ranging from 3 to 10 years to Donegal Mutual under a 10-year lease agreement dated January 1, 2011.

4 - Investments

The amortized cost and estimated fair values of our fixed maturities at December 31, 2019 and 2018 are as follows:

Held to Maturity	2019 Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 82,916,052	$ 1,803,230	$ 68,560	$ 84,650,722
Obligations of states and political subdivisions	204,634,486	14,236,736	288,174	218,583,048
Corporate securities	156,398,001	8,274,912	333,166	164,339,747
Mortgage-backed securities	32,145,243	611,641	16,057	32,740,827
Totals	$ 476,093,782	$ 24,926,519	$ 705,957	$ 500,314,344

Available for Sale	2019 Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 19,302,056	$ 81,773	$ 19,370	$ 19,364,459
Obligations of states and political subdivisions	55,162,046	1,641,171	6,929	56,796,288
Corporate securities	154,946,586	4,477,035	180,312	159,243,309
Mortgage-backed securities	327,428,590	2,856,820	737,663	329,547,747
Totals	$ 556,839,278	$ 9,056,799	$ 944,274	$ 564,951,803

Held to Maturity	2018 Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 76,222,306	$ 174,904	$ 1,086,613	$ 75,310,597
Obligations of states and political subdivisions	159,292,158	8,236,804	704,104	166,824,858
Corporate securities	127,010,071	396,197	4,391,451	123,014,817
Mortgage-backed securities	40,273,983	64,318	450,277	39,888,024
Totals	$ 402,798,518	$ 8,872,223	$ 6,632,445	$ 405,038,296

Available for Sale	2018 Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 45,188,053	$ 25,241	$ 1,003,365	$ 44,209,929
Obligations of states and political subdivisions	73,760,836	1,762,127	306,994	75,215,969
Corporate securities	140,688,937	203,393	3,059,185	137,833,145
Mortgage-backed securities	275,474,625	148,967	6,324,331	269,299,261
Totals	$ 535,112,451	$ 2,139,728	$ 10,693,875	$ 526,558,304

At December 31, 2019, our holdings of obligations of states and political subdivisions included general obligation bonds with an aggregate fair value of $182.0 million and an amortized cost of $172.3 million. Our holdings also included special revenue bonds with an aggregate fair value of $93.4 million and an amortized cost of $87.5 million. With respect to both categories of bonds, we held no securities of any issuer that comprised more than 10% of that category at December 31, 2019. Education bonds and water and sewer utility bonds represented 44% and 35%, respectively, of our total investments in special revenue bonds based on their carrying values at December 31, 2019. Many of the issuers of the special revenue bonds we held

at December 31, 2019 have the authority to impose ad valorem taxes. In that respect, many of the special revenue bonds we held are similar to general obligation bonds.

At December 31, 2018, our holdings of obligations of states and political subdivisions included general obligation bonds with an aggregate fair value of $157.7 million and an amortized cost of $152.2 million. Our holdings also included special revenue bonds with an aggregate fair value of $84.3 million and an amortized cost of $80.9 million. With respect to both categories of bonds, we held no securities of any issuer that comprised more than 10% of that category at December 31, 2018. Education bonds and water and sewer utility bonds represented 49% and 29%, respectively, of our total investments in special revenue bonds based on their carrying values at December 31, 2018. Many of the issuers of the special revenue bonds we held at December 31, 2018 have the authority to impose ad valorem taxes. In that respect, many of the special revenue bonds we held are similar to general obligation bonds.

We have segregated within accumulated other comprehensive income the net unrealized losses of $15.1 million arising prior to the November 30, 2013 reclassification date for fixed maturities reclassified from available for sale to held to maturity. We will amortize this balance over the remaining life of the related securities as an adjustment of yield in a manner consistent with the accretion of discount on the same fixed maturities. During 2019, we recorded amortization of $1.2 million in other comprehensive income. At December 31, 2019 and 2018, net unrealized losses of $7.5 million and $8.6 million, respectively, remained within accumulated other comprehensive loss.

We set forth below the amortized cost and estimated fair value of fixed maturities at December 31, 2019 by contractual maturity. Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	Amortized Cost	Estimated Fair Value
Held to maturity		
Due in one year or less	$ 16,132,891	$ 16,205,362
Due after one year through five years	73,727,277	76,542,800
Due after five years through ten years	182,428,771	191,642,042
Due after ten years	171,659,600	183,183,313
Mortgage-backed securities	32,145,243	32,740,827
Total held to maturity	$ 476,093,782	$ 500,314,344
Available for sale		
Due in one year or less	$ 12,943,726	$ 13,075,792
Due after one year through five years	89,684,400	91,992,458
Due after five years through ten years	112,308,452	115,407,525
Due after ten years	14,474,110	14,928,281
Mortgage-backed securities	327,428,590	329,547,747
Total available for sale	$ 556,839,278	$ 564,951,803

The cost and estimated fair values of our equity securities at December 31, 2019 were as follows:

	Cost	Gross Gains	Gross Losses	Estimated Fair Value
Equity securities	$ 43,419,136	$ 12,179,912	$ 121,492	$ 55,477,556

The cost and estimated fair values of our equity securities at December 31, 2018 were as follows:

	Cost	Gross Gains	Gross Losses	Estimated Fair Value
Equity securities	$ 40,942,716	$ 4,817,917	$ 2,093,624	$ 43,667,009

The amortized cost of fixed maturities on deposit with various regulatory authorities at December 31, 2019 and 2018 amounted to $8,330,651 and $8,795,334, respectively.

We derived net investment income, consisting primarily of interest and dividends, from the following sources:

	2019	2018	2017
Fixed maturities	$ 29,969,774	$ 27,733,555	$ 26,143,924
Equity securities	1,268,056	1,264,120	999,335
Short-term investments	1,243,104	795,522	407,580
Other	29,251	29,450	33,316
Investment income	32,510,185	29,822,647	27,584,155
Investment expenses	(2,995,230)	(2,914,991)	(4,056,851)
Net investment income	$ 29,514,955	$ 26,907,656	$ 23,527,304

We present below gross gains and losses from investments, including those we classified as held to maturity, and the change in the difference between fair value and cost of investments:

	2019	2018	2017
Gross gains:			
Fixed maturities	$ 470,983	$ 131,660	$ 168,855
Equity securities	10,471,285	1,890,762	6,197,253
Investment in affiliate	12,662,147		
	23,604,415	2,022,422	6,366,108
Gross losses:			
Fixed maturities	323,746	630,904	98,723
Equity securities	1,296,052	6,193,027	562,130
	1,619,798	6,823,931	660,853
Net investment gains (losses)	$ 21,984,617	$ (4,801,509)	$ 5,705,255
Change in difference between fair value and cost of investments:			
Fixed maturities	$ 38,647,456	$(20,641,433)	$ 2,335,578
Equity securities	9,334,127	(3,501,853)	1,569,999
Totals	$ 47,981,583	$(24,143,286)	$ 3,905,577

We recognized $8.9 million of unrealized gains and $25,751 of unrealized losses on equity securities held at December 31, 2019 in net investment gains for 2019. We recognized $1.2 million of unrealized gains and $4.4 million of unrealized losses on equity securities held at December 31, 2018 in net investment losses for 2018.

We held fixed maturities with unrealized losses representing declines that we considered temporary at December 31, 2019 as follows:

	Less than 12 months		12 months or longer	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 7,461,245	$ 45,688	$ 5,394,735	$ 42,242
Obligations of states and political subdivisions	23,339,340	293,516	2,326,813	1,587
Corporate securities	19,362,346	263,280	18,803,546	250,198
Mortgage-backed securities	28,507,123	55,729	74,088,769	697,991
Totals	$ 78,670,054	$ 658,213	$ 100,613,863	$ 992,018

We held fixed maturities with unrealized losses representing declines that we considered temporary at December 31, 2018 as follows:

	Less than 12 months		12 months or longer	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 26,342,398	$ 165,774	$ 54,900,027	$ 1,924,204
Obligations of states and political subdivisions	28,321,962	477,357	21,559,520	533,741
Corporate securities	149,269,854	4,482,870	59,396,885	2,967,766
Mortgage-backed securities	82,593,454	912,616	181,379,875	5,861,992
Totals	$286,527,668	$ 6,038,617	$ 317,236,307	$ 11,287,703

We make estimates concerning the valuation of our investments and the recognition of other-than-temporary declines in the value of our investments. For equity securities, we measure investments at fair value and, beginning January 1, 2018, we recognize changes in fair value in our results of operations. With respect to a debt security that is in an unrealized loss position, we first assess if we intend to sell the debt security. If we determine we intend to sell the debt security, we recognize the impairment loss in our results of operations. If we do not intend to sell the debt security, we determine whether it is more likely than not that we will be required to sell the debt security prior to recovery. If we determine it is more likely than not that we will be required to sell the debt security prior to recovery, we recognize an impairment loss in our results of operations. If we determine it is more likely than not that we will not be required to sell the debt security prior to recovery, we then evaluate whether a credit loss has occurred. We determine whether a credit loss has occurred by comparing the amortized cost of the debt security to the present value of the cash flows we expect to collect. If we expect a cash flow shortfall, we consider that a credit loss has occurred. If we determine that a credit loss has occurred, we consider the impairment to be other than temporary. We then recognize the amount of the impairment loss related to the credit loss in our results of operations, and we recognize the remaining portion of the impairment loss in our other comprehensive income, net of applicable taxes. In addition, we may write down securities in an unrealized loss position based on a number of other factors, including when the fair value of an investment is significantly below its cost, when the financial condition of the issuer of a security has deteriorated, the occurrence of industry, company or geographic events that have negatively impacted the value of a security and rating agency downgrades. We held 136 debt securities that were in an unrealized loss position at December 31, 2019. Based upon our analysis of general market conditions and underlying factors impacting these debt securities, we considered these declines in value to be temporary.

We did not recognize any impairment losses in 2019, 2018 or 2017. We had no sales or transfers from our held to maturity portfolio in 2019, 2018 or 2017. We had no derivative instruments or hedging activities during 2019, 2018 or 2017.

5 - Fair Value Measurements

We account for financial assets using a framework that establishes a hierarchy that ranks the quality and reliability of inputs, or assumptions, used in the determination of fair value, and we classify financial assets and liabilities carried at fair value in one of the following three categories:

Level 1 - quoted prices in active markets for identical assets and liabilities;

Level 2 - directly or indirectly observable inputs other than Level 1 quoted prices; and

Level 3 - unobservable inputs not corroborated by market data.

For investments that have quoted market prices in active markets, we use the quoted market price as fair value and include these investments in Level 1 of the fair value hierarchy. We classify publicly traded equity securities as Level 1. When quoted market prices in active markets are not available, we base fair values on quoted market prices of comparable instruments or price estimates we obtain from independent pricing services. We classify our fixed maturity investments as Level 2. Our fixed maturity investments consist of U.S. Treasury securities and obligations of U.S. government corporations and agencies, obligations of states and political subdivisions, corporate securities and mortgage-backed securities.

We present our investments in available-for-sale fixed maturity and equity securities at estimated fair value. The estimated fair value of a security may differ from the amount that we could realize if we sold the security in a forced transaction. In

addition, the valuation of fixed maturity investments is more subjective when markets are less liquid, increasing the potential that the estimated fair value does not reflect the price at which an actual transaction would occur. We utilize nationally recognized independent pricing services to estimate fair values or obtain market quotations for substantially all of our fixed maturity and equity investments. We generally obtain two prices per security. The pricing services utilize market quotations for fixed maturity and equity securities that have quoted prices in active markets. For fixed maturity securities that generally do not trade on a daily basis, the pricing services prepare estimates of fair value measurements based predominantly on observable market inputs. The pricing services do not use broker quotes in determining the fair values of our investments. Our investment personnel review the estimates of fair value the pricing services provide to determine if the estimates we obtain are representative of fair values based upon the general knowledge of the market of our investment personnel, their research findings related to unusual fluctuations in value and their comparison of such values to execution prices for similar securities. Our investment personnel monitor the market and are familiar with current trading ranges for similar securities and pricing of specific investments. Our investment personnel review all pricing estimates that we receive from the pricing services against their expectations with respect to pricing based on fair market curves, security ratings, coupon rates, security type and recent trading activity. Our investment personnel review documentation with respect to the pricing services' pricing methodology that they obtain periodically to determine if the primary pricing sources, market inputs and pricing frequency for various security types are reasonable. At December 31, 2019, we received two estimates per security from the pricing services, and we priced substantially all of our Level 1 and Level 2 investments using those prices. In our review of the estimates the pricing services provided at December 31, 2019, we did not identify any material discrepancies, and we did not make any adjustments to the estimates the pricing services provided.

We present our cash and short-term investments at estimated fair value. The carrying values in our balance sheet for premium receivables and reinsurance receivables and payables for premiums and paid losses and loss expenses approximate their fair values. The carrying amounts reported in the balance sheet for our subordinated debentures and borrowings under lines of credit approximate their fair values. We classify these items as Level 3.

We evaluate our assets and liabilities on a regular basis to determine the appropriate level at which to classify them for each reporting period. Based on our review of the methodology and summary of inputs the pricing services use, we have concluded that our Level 1 and Level 2 investments were classified properly at December 31, 2019 and 2018.

The following table presents our fair value measurements for our investments in available-for-sale fixed maturity and equity securities at December 31, 2019:

	Fair Value Measurements Using			
	Fair Value	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
	(in thousands)			
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 19,364,459	$ —	$ 19,364,459	$ —
Obligations of states and political subdivisions	56,796,288	—	56,796,288	—
Corporate securities	159,243,309	—	159,243,309	—
Mortgage-backed securities	329,547,747	—	329,547,747	—
Equity securities	55,477,556	53,124,368	2,353,188	—
Total investments in the fair value hierarchy	$ 620,429,359	$ 53,124,368	$ 567,304,991	$ —

The following table presents our fair value measurements for our investments in available-for-sale fixed maturity and equity securities at December 31, 2018:

	Fair Value	Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Treasury securities and obligations of U.S. government corporations and agencies	$ 44,209,929	$ —	$ 44,209,929	$ —
Obligations of states and political subdivisions	75,215,969	—	75,215,969	—
Corporate securities	137,833,145	—	137,833,145	—
Mortgage-backed securities	269,299,261	—	269,299,261	—
Equity securities	30,674,835	28,351,110	2,323,725	—
Total investments in the fair value hierarchy	557,233,139	28,351,110	528,882,029	—
Investment measured at net asset value	12,992,174	—	—	—
Totals	$ 570,225,313	$ 28,351,110	$ 528,882,029	$ —

6 - Deferred Policy Acquisition Costs

Changes in our insurance subsidiaries' deferred policy acquisition costs are as follows:

	2019	2018	2017
Balance, January 1	$ 60,615,127	$ 60,289,860	$ 56,309,196
Acquisition costs deferred	121,112,732	121,289,267	119,045,664
Amortization charged to earnings	(122,443,000)	(120,964,000)	(115,065,000)
Balance, December 31	$ 59,284,859	$ 60,615,127	$ 60,289,860

7 - Property and Equipment

Property and equipment at December 31, 2019 and 2018 consisted of the following:

	2019	2018	Estimated Useful Life
Office equipment	$ 8,660,163	$ 10,049,884	3-15 years
Automobiles	301,119	448,015	5 years
Real estate	4,977,813	4,977,813	5-50 years
Software	2,065,927	2,843,782	5 years
	16,005,022	18,319,494	
Accumulated depreciation	(11,446,950)	(13,628,790)	
	$ 4,558,072	$ 4,690,704	

Depreciation expense for 2019, 2018 and 2017 amounted to $282,235, $479,550 and $478,800, respectively.

8 - Liability for Losses and Loss Expenses

The establishment of an appropriate liability for losses and loss expenses is an inherently uncertain process, and we can provide no assurance that our insurance subsidiaries' ultimate liability will not exceed their loss and loss expense reserves and have an adverse effect on our results of operations and financial condition. Furthermore, we cannot predict the timing, frequency and extent of adjustments to our insurance subsidiaries' estimated future liabilities, because the historical conditions and events that serve as a basis for our insurance subsidiaries' estimates of ultimate claim costs may change. As is the case for substantially all property and casualty insurance companies, our insurance subsidiaries have found it necessary in the past to increase their estimated future liabilities for losses and loss expenses in certain periods, and, in other periods, their estimates have exceeded their actual liabilities. Changes in our insurance subsidiaries' estimate of their liability for losses and loss expenses generally reflect actual payments and their evaluation of information received since the prior reporting date.

We summarize activity in our insurance subsidiaries' liability for losses and loss expenses as follows:

	2019	2018	2017
Balance at January 1	$ 814,665,224	$ 676,671,727	$ 606,664,590
Less reinsurance recoverable	(339,267,525)	(293,271,257)	(259,147,147)
Net balance at January 1	475,397,699	383,400,470	347,517,443
Incurred related to:			
Current year	519,319,941	540,826,810	480,646,641
Prior years	(12,932,277)	35,631,610	6,621,413
Total incurred	506,387,664	576,458,420	487,268,054
Paid related to:			
Current year	278,923,614	308,578,285	288,379,600
Prior years	195,956,327	175,882,906	163,005,427
Total paid	474,879,941	484,461,191	451,385,027
Net balance at December 31	506,905,422	475,397,699	383,400,470
Plus reinsurance recoverable	362,768,427	339,267,525	293,271,257
Balance at December 31	$ 869,673,849	$ 814,665,224	$ 676,671,727

Our insurance subsidiaries recognized a (decrease) increase in their liability for losses and loss expenses of prior years of ($12.9 million), $35.6 million and $6.6 million in 2019, 2018 and 2017, respectively. Our insurance subsidiaries made no significant changes in their reserving philosophy or claims management personnel, and they have made no significant offsetting changes in estimates that increased or decreased their loss and loss expense reserves in those years. The 2019 development represented 2.7% of the December 31, 2018 net carried reserves and resulted primarily from lower-than-expected severity in the workers' compensation line of business, partially offset by higher-than-expected severity in the commercial automobile and commercial multi-peril lines of business, for accident years prior to 2019. The majority of the 2019 development related to decreases in the liability for losses and loss expenses of prior years for Atlantic States and MICO. The 2018 development represented 9.3% of the December 31, 2017 net carried reserves and resulted primarily from higher-than-expected severity in the commercial multi-peril, personal automobile and commercial automobile lines of business, offset by lower-than-expected severity in the workers' compensation line of business, for accident years prior to 2018. The majority of the 2018 development related to increases in the liability for losses and loss expenses of prior years for Atlantic States and Southern. During 2018, our insurance subsidiaries received new information on previously-reported commercial automobile and personal automobile claims that led our insurance subsidiaries to conclude that their prior actuarial assumptions did not fully anticipate recent changes in severity and reporting trends. Our insurance subsidiaries have encountered increasing difficulties in projecting the ultimate severity of automobile losses over recent accident years, which our insurance subsidiaries attribute to worsening litigation trends and an increased delay in the reporting to our insurance subsidiaries of information with respect to the severity of claims. As a result, our insurance subsidiaries' actuaries increased their projections of the ultimate cost of our insurance subsidiaries' prior-year personal automobile and commercial automobile losses, and our insurance subsidiaries added $17.7 million to their reserves for personal automobile and $20.8 million to their reserves for commercial automobile for accident years prior to 2018. The 2017 development represented 1.9% of the December 31, 2016 net carried reserves and resulted primarily from higher-than-expected severity in the commercial multi-peril, personal automobile and commercial automobile lines of business, offset by lower-than-expected severity in the workers' compensation line of business, for accident years prior to 2017. The majority of the 2017 development related to increases in the liability for losses and loss expenses of prior years for Atlantic States and Peninsula.

Short-duration contracts are contracts for which our insurance subsidiaries receive premiums that they recognize as revenue over the period of the contract in proportion to the amount of insurance protection our insurance subsidiaries provide. Our insurance subsidiaries consider the policies they issue to be short-duration contracts. We consider our insurance subsidiaries' material lines of business to be personal automobile, homeowners, commercial automobile, commercial multi-peril and workers' compensation.

Our insurance subsidiaries determine incurred but not reported ("IBNR") reserves by subtracting the cumulative loss and loss expense amounts our insurance subsidiaries have paid and the case reserves our insurance subsidiaries have established at the balance sheet date from their actuaries' estimate of the ultimate cost of losses and loss expenses. Accordingly, our insurance subsidiaries' IBNR reserves include their actuaries' projections of the cost of unreported claims as well as their actuaries' projected development of case reserves on known claims and reopened claims. Our insurance subsidiaries' methodology for

estimating IBNR reserves has been in place for many years, and their actuaries made no significant changes to that methodology during 2019.

The actuaries for our insurance subsidiaries generally prepare an initial estimate for ultimate losses and loss expenses for the current accident year by multiplying earned premium by an expected loss ratio for each line of business our insurance subsidiaries write. Expected loss ratios represent the actuaries' expectation of losses at the time our insurance subsidiaries price and write their policies, before the emergence of any actual claims experience. The actuaries determine an expected loss ratio by analyzing historical experience and adjusting for loss cost trends, loss frequency and severity trends, premium rate level changes, reported and paid loss emergence patterns and other known or observed factors.

The actuaries use a variety of actuarial methods to estimate the ultimate cost of losses and loss expenses. These methods include paid loss development, incurred loss development and the Bornhuetter-Ferguson method. The actuaries base their selection of a point estimate on a judgmental weighting of estimates each of these methods produce.

The actuaries consider loss frequency and severity trends when they develop expected loss ratios and point estimates. Loss frequency is a measure of the number of claims per unit of insured exposure, and loss severity is a measure of the average size of claims. Factors that affect loss frequency include changes in weather patterns or economic activity. Factors that affect loss severity include changes in policy limits, reinsurance retentions, inflation rates and judicial interpretations.

Our insurance subsidiaries create a claim file when they receive notice of an actual demand for payment, an event that may lead to a demand for payment or when they otherwise determine that a demand for payment could potentially lead to a future demand for payment on another coverage under the same policy or another policy they have issued. In recent years, our insurance subsidiaries have noted an increase in the period of time between the occurrence of a casualty loss event and the date on which they receive notice of a liability claim. Changes in the length of time between the loss occurrence date and the claim reporting date affect the actuaries' ability to accurately predict loss frequency and the amount of IBNR reserves our insurance subsidiaries require.

Our insurance subsidiaries generally create a claim file for a policy at the claimant level by type of coverage and generally recognize one count for each claim event. In certain lines of business where it is common for multiple parties to claim damages arising from a single claim event, our insurance subsidiaries recognize one count for each claimant involved in the event. Atlantic States recognizes one count for each claim event, or claimant involved in a multiple-party claim event, related to losses Atlantic States assumes through its participation in its pooling agreement with Donegal Mutual. Our insurance subsidiaries accumulate the claim counts and report them by line of business. For purposes of the claim development tables we present below, our insurance subsidiaries count claims on policies they issue even if they eventually close such claims without making a loss payment. Claims our insurance subsidiaries close without making a loss payment typically generate loss expenses. The methods our insurance subsidiaries have used to summarize claim counts have not changed significantly over the time periods we report in the tables below.

The following tables present information about incurred and paid claims development as of December 31, 2019, net of reinsurance, as well as cumulative claim frequency and the total of IBNR reserves plus expected development on reported claims that our insurance subsidiaries included within their net incurred claims amounts. The tables include unaudited information about incurred and paid claims development for the years ended December 31, 2010 through 2018, which we present as supplementary information.

Personal Automobile

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	At December 31, 2019: Total IBNR Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	Unaudited											
(dollars and reported claims in thousands)												
2010	$117,967	$ 117,552	$ 118,562	$ 118,876	$ 118,916	$118,587	$ 118,385	$ 118,289	$ 118,314	$ 118,294	$ 27	70
2011		127,929	131,678	132,987	133,229	133,617	133,218	133,145	133,142	133,207	73	75
2012			130,415	133,201	135,592	136,493	136,552	136,463	136,141	136,677	215	69
2013				124,965	130,737	131,594	132,643	132,604	132,934	132,853	175	66
2014					124,426	124,806	124,210	126,200	126,779	126,734	264	71
2015						137,596	139,333	139,181	142,493	142,408	732	70
2016							150,216	153,937	157,516	157,943	2,372	73
2017								166,690	176,728	175,939	4,884	79
2018									186,580	183,358	10,675	80
2019										161,056	28,339	66
									Total	$ 1,468,469		

Personal Automobile

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Unaudited									
(in thousands)										
2010	$ 75,889	$ 96,749	$ 107,662	$ 113,243	$ 116,748	$117,812	$ 117,978	$ 118,054	$ 118,093	$ 118,119
2011		87,191	110,249	121,621	127,545	131,319	132,479	132,714	132,777	132,835
2012			87,517	111,941	124,652	130,862	133,428	134,581	135,132	136,137
2013				84,241	109,051	120,118	125,946	130,026	131,326	131,642
2014					85,377	104,736	114,893	120,491	123,815	124,926
2015						93,611	116,303	128,395	135,027	139,121
2016							102,433	129,507	143,321	151,159
2017								111,964	142,372	159,879
2018									115,585	150,175
2019										103,101
									Total	1,347,094
All outstanding liabilities before 2010, net of reinsurance										719
Liabilities for claims and claims adjustment expenses, net of reinsurance										$ 122,094

Homeowners

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance
For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	At December 31, 2019: Total IBNR Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	Unaudited											
(dollars and reported claims in thousands)												
2010	$ 60,315	$ 60,729	$ 60,248	$ 59,972	$ 60,355	$ 60,440	$ 60,443	$ 60,542	$ 60,624	$ 60,641	$ —	25
2011		71,256	70,461	70,436	70,381	70,297	70,351	70,479	70,642	70,682	—	27
2012			53,962	54,794	54,468	54,351	54,281	54,381	54,523	54,537	—	19
2013				50,887	51,121	51,122	50,874	50,988	50,971	51,008	—	13
2014					56,916	58,378	57,680	57,332	57,288	57,402	(4)	18
2015						63,359	63,925	63,053	63,071	63,099	45	14
2016							62,443	64,064	63,735	63,355	78	13
2017								79,283	79,911	79,305	724	18
2018									81,965	83,385	1,657	19
2019										73,294	6,775	14
									Total	$ 656,708		

Homeowners

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance
For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Unaudited									
(in thousands)										
2010	$ 47,419	$ 57,334	$ 59,283	$ 59,875	$ 60,239	$ 60,486	$ 60,501	$ 60,525	$ 60,540	$ 60,557
2011		57,588	69,345	70,125	70,351	70,541	70,626	70,648	70,692	70,692
2012			46,566	53,619	54,028	54,298	54,317	54,356	54,557	54,557
2013				40,949	49,410	50,210	50,478	51,043	50,902	50,967
2014					45,823	56,255	56,990	57,195	56,995	57,243
2015						51,885	61,542	62,204	62,590	62,844
2016							50,125	61,145	62,760	63,144
2017								67,077	77,663	78,006
2018									70,385	79,892
2019										58,074
									Total	635,976
All outstanding liabilities before 2010, net of reinsurance										30
Liabilities for claims and claims adjustment expenses, net of reinsurance										$ 20,762

Commercial Automobile

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance
For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	At December 31, 2019: Total IBNR Plus Expected Development on Reported Claims	Cumulative Number of Reported Claims
	Unaudited											
(dollars and reported claims in thousands)												
2010	$ 19,315	$ 19,913	$ 20,695	$ 21,477	$ 21,490	$ 21,756	$ 21,746	$ 21,713	$ 21,726	$ 21,768	$ 9	7
2011		26,642	27,157	28,570	28,893	29,112	29,107	29,487	29,751	29,542	18	9
2012			26,557	27,720	30,606	31,435	31,278	31,648	31,803	31,896	28	8
2013				32,902	33,749	34,751	35,240	36,404	36,435	36,569	89	9
2014					42,760	44,544	47,326	48,213	49,284	49,168	270	11
2015						46,526	48,323	51,412	54,259	54,517	662	12
2016							54,302	57,353	65,905	67,127	2,134	13
2017								61,484	67,927	67,697	5,149	14
2018									79,307	81,396	11,763	15
2019										88,864	27,764	15
									Total	$ 528,544		

Commercial Automobile

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance
For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Unaudited									
(in thousands)										
2010	$ 10,778	$ 14,180	$ 16,426	$ 19,030	$ 20,804	$ 21,014	$ 21,482	$ 21,549	$ 21,558	$ 21,559
2011		13,876	19,106	24,267	26,973	28,014	28,758	28,836	29,102	29,474
2012			13,642	20,240	23,718	27,417	29,873	30,402	31,104	31,228
2013				16,306	23,557	26,879	31,053	34,083	36,004	36,106
2014					22,707	31,089	39,436	44,374	47,290	48,418
2015						23,875	35,342	41,678	48,261	51,605
2016							27,033	38,237	48,837	57,237
2017								28,707	40,213	49,703
2018									33,862	47,941
2019										36,948
									Total	410,219
All outstanding liabilities before 2010, net of reinsurance										47
Liabilities for claims and claims adjustment expenses, net of reinsurance										$ 118,372

Commercial Multi-Peril

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance
For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	At December 31, 2019: Total IBNR Plus Expected Development on Reported Claims	At December 31, 2019: Cumulative Number of Reported Claims
	Unaudited											
(dollars and reported claims in thousands)												
2010	$ 28,745	$ 29,656	$ 29,390	$ 29,169	$ 29,373	$ 29,453	$ 29,463	$ 29,779	$ 29,925	$ 30,105	$ —	6
2011		33,054	35,411	35,942	37,576	37,385	38,270	38,105	38,160	38,434	—	7
2012			29,789	30,716	32,449	34,117	35,755	36,214	36,525	36,876	—	6
2013				35,683	35,679	37,292	37,205	37,981	37,365	37,453	38	6
2014					48,204	50,135	51,843	52,336	53,294	53,116	147	7
2015						42,070	43,874	44,728	45,104	45,873	519	6
2016							43,005	46,988	48,267	48,871	2,015	6
2017								56,185	56,043	56,517	4,604	7
2018									66,265	66,470	10,568	7
2019										71,865	21,633	6
									Total	$ 485,580		

Commercial Multi-Peril

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance
For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Unaudited									
(in thousands)										
2010	$ 17,007	$ 22,017	$ 24,749	$ 26,832	$ 27,768	$ 28,681	$ 28,906	$ 29,632	$ 29,721	$ 29,923
2011		18,773	24,767	30,286	33,526	36,722	37,759	38,240	38,366	38,413
2012			16,666	23,384	26,634	29,370	33,327	35,331	35,909	36,329
2013				19,875	26,216	29,159	33,614	35,104	36,321	37,333
2014					27,920	35,520	40,936	47,021	50,017	51,615
2015						21,837	29,419	34,323	39,162	42,849
2016							19,660	29,402	34,612	41,193
2017								27,399	36,926	42,691
2018									30,597	42,296
2019										28,210
									Total	390,852
All outstanding liabilities before 2010, net of reinsurance										425
Liabilities for claims and claims adjustment expenses, net of reinsurance										$ 95,153

Workers' Compensation

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance
For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	At December 31, 2019: Total IBNR Plus Expected Development on Reported Claims	At December 31, 2019: Cumulative Number of Reported Claims
	Unaudited											
(dollars and reported claims in thousands)												
2010	$ 27,304	$ 27,859	$ 27,010	$ 26,637	$ 26,944	$ 27,121	$ 27,037	$ 26,984	$ 26,801	$ 26,829	$ 37	5
2011		32,490	35,757	36,614	36,369	35,670	35,039	35,194	34,926	35,034	53	6
2012			39,142	39,516	38,827	37,926	37,163	36,468	35,954	35,932	75	6
2013				46,325	47,027	44,289	42,828	42,327	42,555	42,651	187	6
2014					51,508	51,553	49,288	48,537	47,540	47,693	264	6
2015						53,332	49,615	45,991	44,986	43,006	836	6
2016							58,814	49,802	47,883	44,969	1,630	6
2017								60,450	56,351	52,687	3,362	6
2018									62,197	55,291	7,081	6
2019										60,998	19,280	6
									Total	$ 445,090		

Workers' Compensation

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance
For the Year Ended December 31,

Accident Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Unaudited									
(in thousands)										
2010	$ 8,066	$ 15,937	$ 21,176	$ 23,137	$ 24,539	$ 25,337	$ 25,804	$ 26,050	$ 26,295	$ 26,301
2011		9,157	21,450	27,517	31,905	32,394	33,067	33,577	33,963	34,109
2012			11,097	22,963	28,812	31,244	33,196	34,177	34,460	34,622
2013				13,052	26,043	32,783	36,351	38,877	39,617	40,361
2014					13,932	28,513	36,284	40,393	42,465	43,866
2015						13,071	27,531	34,192	36,929	37,936
2016							14,709	30,344	37,178	40,570
2017								15,581	31,990	39,684
2018									17,644	31,928
2019										16,939
									Total	346,316
All outstanding liabilities before 2010, net of reinsurance										3,261
Liabilities for claims and claims adjustment expenses, net of reinsurance										$ 102,035

The following table presents a reconciliation of the net incurred and paid claims development tables to the liability for claims and claims adjustment expenses in our consolidated balance sheet:

(in thousands)	At December 31, 2019
Net outstanding liabilities:	
Personal automobile	$ 122,094
Homeowners	20,762
Commercial automobile	118,372
Commercial multi-peril	95,153
Workers' compensation	102,035
Other	12,524
	470,940
Reinsurance recoverable:	
Personal automobile	$ 119,364
Homeowners	10,216
Commercial automobile	70,973
Commercial multi-peril	58,765
Workers' compensation	81,837
Other	7,177
	348,332
Unallocated loss adjustment expenses	$ 50,402
Gross liability for unpaid losses and loss expenses	$ 869,674

The following table presents supplementary information about average historical claims duration as of December 31, 2019:

	Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance									
Years	1	2	3	4	5	6	7	8	9	10
Personal automobile	64.6%	17.3%	8.8%	4.6%	2.7%	0.9%	0.2%	0.3%	—%	—%
Homeowners	81.5	15.3	1.5	0.6	0.3	0.2	0.1	—	—	—
Commercial automobile	44.0	18.1	13.3	11.3	6.6	2.5	1.2	0.5	0.7	—
Commercial multi-peril	47.8	17.0	10.2	10.0	6.6	3.5	1.6	1.3	0.2	0.7
Workers' compensation	29.9	31.5	16.3	8.2	4.1	2.5	1.4	0.8	0.7	—

9 - Borrowings

Lines of Credit

In March 2019, we terminated our previous credit agreement with Manufacturers and Traders Trust Company ("M&T") and entered into a new credit agreement with M&T. The new credit agreement relates to a $30.0 million unsecured revolving line of credit. The line of credit expires in July 2020. At December 31, 2019, we had no outstanding borrowings from M&T and had the ability to borrow up to $30.0 million at interest rates equal to M&T's current prime rate or the then-current LIBOR rate plus 2.25%. We pay a fee of 0.15% per annum on the loan commitment amount regardless of usage. The credit agreement requires our compliance with certain covenants. These covenants include minimum levels of our net worth, leverage ratio, statutory surplus and the A.M. Best ratings of our insurance subsidiaries. In addition, Atlantic States has guaranteed our payment obligations under the new credit agreement. We complied with all of the requirements of the new credit agreement during 2019.

Atlantic States is a member of the Federal Home Loan Bank ("FHLB") of Pittsburgh. Through its membership, Atlantic States has the ability to issue debt to the FHLB of Pittsburgh in exchange for cash advances. In August 2019, Atlantic States exchanged a variable-rate cash advance of $35.0 million that was due in March 2020 for a fixed-rate cash advance of $35.0 million that was outstanding at December 31, 2019. Atlantic States incurred a penalty of $176,000 related to the early termination of its previous cash advance. The new cash advance carries a fixed interest rate of 1.74% and is due in August 2024. The table below presents the amount of FHLB of Pittsburgh stock Atlantic States purchased, collateral pledged and assets related to Atlantic States' membership in the FHLB of Pittsburgh at December 31, 2019.

FHLB stock purchased and owned as part of the agreement	$ 1,639,200
Collateral pledged, at par (carrying value $36,295,910)	36,370,886
Borrowing capacity currently available	240,569

MICO is a member of the FHLB of Indianapolis. During the second quarter of 2018, MICO terminated its line of credit with the FHLB of Indianapolis.

Subordinated Debentures

In January 2002, West Bend Mutual Insurance Company ("West Bend") purchased a surplus note from MICO for $5.0 million to increase MICO's statutory surplus. On December 1, 2010, Donegal Mutual purchased the surplus note from West Bend at face value. The surplus note carries an interest rate of 5.00%, and any repayment of principal or interest requires prior insurance regulatory approval. Upon receipt of regulatory approval, MICO paid $250,000 in interest to Donegal Mutual during each of 2019, 2018 and 2017.

10 - Reinsurance

Unaffiliated Reinsurers

Our insurance subsidiaries and Donegal Mutual implemented a combined third-party reinsurance program effective January 1, 2019. The coverage and parameters of the fully consolidated program are common to all of our insurance subsidiaries and Donegal Mutual. Our insurance subsidiaries use several different reinsurers, all of which have an A.M. Best rating of A- (Excellent) or better or, with respect to foreign reinsurers, have a financial condition that, in the opinion of our management, is equivalent to a company with at least an A- rating from A.M. Best. The following information describes the external reinsurance our insurance subsidiaries had in place for 2019:

- excess of loss reinsurance, under which the losses of Donegal Mutual and our insurance subsidiaries were automatically reinsured, through a series of contracts, over a set retention of $1.0 million for property losses and a retention of $2.0 million for casualty losses (including workers' compensation losses); and
- catastrophe reinsurance, under which Donegal Mutual and our insurance subsidiaries recovered, through a series of reinsurance agreements, 100% of an accumulation of many losses resulting from a single event, including natural disasters, over a set retention of $10.0 million and after exceeding an annual aggregate deductible of $1.2 million up to aggregate losses of $190.0 million per occurrence.

Our insurance subsidiaries and Donegal Mutual also purchased facultative reinsurance to cover exposures in excess of the covered limits of their third-party reinsurance agreements.

As many as 31 reinsurers provided coverage for 2019 on any one treaty with no reinsurer taking more than 40% of any one treaty. The amount of coverage provided under each of these types of reinsurance depended upon the amount, nature, size and location of the risks being reinsured. In order to write automobile insurance in the State of Michigan, MICO is required to be a member of the Michigan Catastrophic Claims Association ("MCCA"). The MCCA provides reinsurance to MICO for personal automobile and commercial automobile personal injury claims in the State of Michigan over a set retention.

In addition to the pooling agreement and third-party reinsurance, our insurance subsidiaries had a catastrophe reinsurance agreement with Donegal Mutual, under which each of our insurance subsidiaries recovered 100% of an accumulation of multiple losses resulting from a single event, including natural disasters, over a set retention of $2.0 million up to aggregate losses of $8.0 million per occurrence. The agreement also provided additional coverage for an accumulation of losses from a single event including a combination of our insurance subsidiaries over a combined retention of $5.0 million.

The following amounts represent ceded reinsurance transactions with unaffiliated reinsurers during 2019, 2018 and 2017:

	2019	2018	2017
Premiums written	$ 36,941,997	$ 50,160,604	$ 51,241,267
Premiums earned	39,732,282	51,266,000	49,633,348
Losses and loss expenses	33,615,819	50,652,202	44,575,268
Prepaid reinsurance premiums	7,067,989	10,108,269	11,213,665
Liability for losses and loss expenses	139,694,097	137,904,346	116,689,871

Total Reinsurance

The following amounts represent total ceded reinsurance transactions with both affiliated and unaffiliated reinsurers during 2019, 2018 and 2017:

	2019	2018	2017
Premiums earned	$ 314,859,014	$ 326,198,234	$ 310,179,267
Losses and loss expenses	240,241,845	246,223,074	218,523,260
Prepaid reinsurance premiums	142,475,767	135,379,777	135,032,641
Liability for losses and loss expenses	362,768,427	339,267,525	293,271,257

The following amounts represent the effect of reinsurance on premiums written for 2019, 2018 and 2017:

	2019	2018	2017
Direct	$ 589,572,526	$ 594,078,723	$ 584,007,351
Assumed	485,233,762	476,482,451	466,087,983
Ceded	(322,204,999)	(326,545,370)	(320,956,412)
Net premiums written	$ 752,601,289	$ 744,015,804	$ 729,138,922

The following amounts represent the effect of reinsurance on premiums earned for 2019, 2018 and 2017:

	2019	2018	2017
Direct	$ 591,101,804	$ 593,976,241	$ 561,178,447
Assumed	479,835,610	473,512,866	451,515,575
Ceded	(314,859,014)	(326,198,234)	(310,179,267)
Net premiums earned	$ 756,078,400	$ 741,290,873	$ 702,514,755
Percentage of assumed premiums earned to net premiums earned	63.5%	63.9%	64.3%

11 - Income Taxes

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (“ the TCJA”) was signed into law. The TCJA contains significant changes to corporate taxation, including the reduction of the corporate income tax rate to 21%, the acceleration of expensing for certain business assets, the one-time transition tax related to the transition of U.S. international tax from a worldwide tax system to a territorial tax system, the repeal of the domestic production deduction, additional limitations on the deductibility of interest expense, the repeal of the corporate alternative minimum tax and expanded limitations on the deductibility of executive compensation.

The key impacts of the TCJA on our financial statements for 2017 were the revaluation of our deferred tax balances to the new corporate tax rate that resulted in additional tax expense of $4.8 million and the reclassification of an alternative minimum tax credit carryforward of $8.5 million from net deferred tax assets to federal income taxes recoverable. We generated sufficient taxable income in 2019 to fully utilize this alternative minimum tax credit carryforward.

Our provision for income tax expense (benefit) for 2019, 2018 and 2017 consisted of the following:

	2019	2018	2017
Current federal income tax	$ 8,454,358	$ (11,296,704)	$ (2,139,061)
Deferred federal income tax	649,928	(4,179,805)	7,137,423
Federal income tax expense (benefit)	$ 9,104,286	$ (15,476,509)	$ 4,998,362
Pennsylvania income tax	825,000	—	—
Income tax expense (benefit)	$ 9,929,286	$ (15,476,509)	$ 4,998,362

Our effective tax rate is different from the amount computed at the statutory federal rate of 21% for 2019 and 2018 and 35% for 2017. The reasons for such difference and the related tax effects are as follows:

	2019	2018	2017
Income (loss) before income taxes	$ 57,081,030	$ (48,236,849)	$ 12,114,462
Computed "expected" taxes	11,987,016	(10,129,738)	4,240,062
Tax-exempt interest	(1,325,197)	(1,521,090)	(3,241,530)
Proration	357,044	405,204	518,948
Effect of tax reform	—	—	4,752,547
Dividends received deduction	(1,913,238)	(99,726)	(508,409)
Net operating loss carryback	—	(4,210,523)	—
Tax benefit on exercise of options	(64,765)	(25,938)	(873,515)
Other, net	236,676	105,302	110,259
Pennsylvania income tax, net of federal benefit	651,750	—	—
Income tax expense (benefit)	$ 9,929,286	$ (15,476,509)	$ 4,998,362

The tax effects of temporary differences that give rise to significant portions of our deferred tax assets and deferred tax liabilities at December 31, 2019 and 2018 are as follows:

	2019	2018
Deferred tax assets:		
Unearned premium	$ 15,482,366	$ 15,634,433
Loss reserves	7,820,683	7,644,415
Net operating loss carryforward	200,942	3,090,010
Net state operating loss carryforward - DGI Parent	7,519,991	8,070,196
Net unrealized losses	—	3,782,145
Other	2,603,155	2,517,791
Total gross deferred tax assets	33,627,137	40,738,990
Less valuation allowance	(7,538,024)	(8,334,663)
Net deferred tax assets	26,089,113	32,404,327
Deferred tax liabilities:		
Deferred policy acquisition costs	12,449,820	12,729,176
Loss reserve transition adjustment	1,733,056	2,339,068
Other	3,391,926	4,266,328
Total gross deferred tax liabilities	17,574,802	19,334,572
Net deferred tax asset	$ 8,514,311	$ 13,069,755

We recorded a net operating loss carryforward for the portion of our taxable loss for 2018 that exceeded our taxable income in 2016 and 2017. We utilized the full net operating loss carryforward in 2019. We also recorded a loss reserve transition adjustment in 2018 related to changes the TCJA required with respect to the calculation of loss reserve discounting. Pursuant to the provisions of the TCJA, we will include the loss reserve transition adjustment in our taxable income over eight years beginning in 2018.

We provide a valuation allowance when we believe it is more likely than not that we will not realize some portion of a deferred tax asset. At December 31, 2019 and 2018, we established a valuation allowance of $18,033 and $264,467, respectively, related to a portion of the net operating loss carryforward of Le Mars that we acquired on January 1, 2004 and a valuation allowance of $7.5 million and $8.1 million, respectively, for the net state operating loss carryforward of DGI. We determined that we were not required to establish a valuation allowance for the other net deferred tax assets of $26.1 million and $32.4 million at December 31, 2019 and 2018, respectively, since it is more likely than not that we will realize these deferred tax assets through reversals of existing temporary differences, future taxable income and our implementation of tax-planning strategies.

Tax years 2016 through 2019 remained open for examination by tax authorities at December 31, 2019. The net operating loss carryforward of $956,865 of Le Mars will begin to expire in 2020 if not utilized and is subject to an annual limitation of approximately $376,000.

12 - Stockholders' Equity

Each share of our Class A common stock outstanding at the time of the declaration of any dividend or other distribution payable in cash upon the shares of our Class B common stock is entitled to a dividend or distribution payable at the same time and to stockholders of record on the same date in an amount at least 10% greater than any dividend declared upon each share of our Class B common stock. In the event of our merger or consolidation with or into another entity, the holders of our Class A common stock and the holders of our Class B common stock are entitled to receive the same per share consideration in such merger or consolidation. In the event of our liquidation, dissolution or winding-up, any assets available to common stockholders will be distributed pro-rata to the holders of our Class A common stock and our Class B common stock after payment of all of our obligations.

On July 18, 2013, our board of directors authorized a share repurchase program pursuant to which we have the authority to purchase up to 500,000 additional shares of our Class A common stock at prices prevailing from time to time in the open market subject to the provisions of the SEC Rule 10b-18 and in privately negotiated transactions. We did not purchase any shares of our Class A common stock under this program during 2019, 2018 or 2017. We have purchased a total of 57,658 shares of our Class A common stock under this program from its inception through December 31, 2019.

At December 31, 2019 and 2018, our treasury stock consisted of 3,002,588 and 72,465 shares of Class A common stock and Class B common stock, respectively.

13 - Stock Compensation Plans

Equity Incentive Plans

Since 1996, we have maintained an Equity Incentive Plan for Employees. During 2019, we adopted a plan that made a total of 4,500,000 shares of Class A common stock available for issuance to employees of our subsidiaries and affiliates. The plan provides for the granting of awards by our board of directors in the form of stock options, stock appreciation rights, restricted stock or any combination of the above. The plan provides that stock options may become exercisable up to five years from their date of grant, with an option price not less than fair market value on the date preceding the date of grant. We have not granted any stock appreciation rights.

Since 1996, we have maintained an Equity Incentive Plan for Directors. During 2019, we adopted a plan that made 500,000 shares of Class A common stock available for issuance to our directors and the directors of our subsidiaries and affiliates.We may make awards in the form of stock options. The plan also provides for the issuance of 500 shares of restricted stock on the first business day of January in each year to each of our directors and each director of Donegal Mutual who does not serve as one of our directors. We issued 8,500 shares of restricted stock on January 2, 2019 under our director plan. We issued 8,500 shares of restricted stock on January 2, 2018 under our prior director plan. We issued 9,000 shares of restricted stock on January 3, 2017 under our prior director plan.

No further shares are available for future option grants for plans in effect prior to 2019.

We measure all share-based payments to employees, including grants of employee stock options, using a fair-value-based method and record such expense in our results of operations. In determining the expense we record for stock options granted to directors and employees of our subsidiaries and affiliates, we estimate the fair value of each option award on the date of grant using the Black-Scholes option pricing model. The significant assumptions we utilize in applying the Black-Scholes option pricing model are the risk-free interest rate, expected term, dividend yield and expected volatility. The risk-free interest rate is the implied yield currently available on U.S. Treasury zero coupon issues with a remaining term equal to the expected term used as the assumption in the model. We base the expected term of an option award on our historical experience for similar awards. We determine the dividend yield by dividing the per share dividend by the grant date stock price. We base the expected volatility on the volatility of our stock price over a historical period comparable to the expected term.

The weighted-average grant date fair value of options we granted during 2019 was $1.15. We calculated this fair value based upon a risk-free interest rate of 1.64%, an expected life of three years, an expected volatility of 17% and an expected dividend yield of 4%.

The weighted-average grant date fair value of options we granted during 2018 was $1.66. We calculated this fair value based upon a risk-free interest rate of 2.68%, an expected life of three years, an expected volatility of 22% and an expected dividend yield of 4%.

The weighted-average grant date fair value of options we granted during 2017 was $1.81. We calculated this fair value based upon a risk-free interest rate of 2.01%, an expected life of three years, an expected volatility of 19% and an expected dividend yield of 3%.

We charged compensation expense for our stock compensation plans against income before income taxes of $1.4 million, $1.7 million and $2.0 million for the years ended December 31, 2019, 2018 and 2017, respectively, with a corresponding income tax benefit of $288,901, $354,412 and $692,164. At December 31, 2019 and 2018, our total unrecognized compensation cost related to non-vested share-based compensation granted under our stock compensation plans was $2.0 million and $2.5 million, respectively. We expect to recognize this cost over a weighted average period of 1.9 years.

During 2019, we received cash from option exercises under all stock compensation plans of $2.9 million. We realized actual tax benefits for the tax deductions from option exercises of share-based compensation of $64,765 for 2019. During 2018, we received cash from option exercises under all stock compensation plans of $1.1 million. We realized actual tax benefits for the tax deductions from option exercises of share-based compensation of $25,938 for 2018. During 2017, we received cash from option exercises under all stock compensation plans of $13.4 million. We realized actual tax benefits for the tax deductions from option exercises of share-based compensation of $873,515 for 2017.

Information regarding activity in our stock option plans follows:

	Number of Options	Weighted-Average Exercise Price Per Share
Outstanding at December 31, 2016	9,338,648	$14.95
Granted - 2017	943,000	17.58
Exercised - 2017	(924,019)	14.45
Forfeited - 2017	(93,167)	15.43
Outstanding at December 31, 2017	9,264,462	15.26
Granted - 2018	1,063,000	13.69
Exercised - 2018	(79,961)	13.74
Forfeited - 2018	(222,639)	16.00
Outstanding at December 31, 2018	10,024,862	15.09
Granted - 2019	1,045,400	14.97
Exercised - 2019	(217,498)	13.23
Forfeited - 2019	(416,774)	15.88
Outstanding at December 31, 2019	10,435,990	$15.09
Exercisable at:		
December 31, 2017	6,946,677	$14.90
December 31, 2018	7,936,659	$15.02
December 31, 2019	8,449,389	$15.13

Shares available for future option grants at December 31, 2019 totaled 4.0 million shares under all plans.

The following table summarizes information about stock options outstanding at December 31, 2019:

Grant Date	Exercise Price	Number of Options Outstanding	Weighted-Average Remaining Contractual Life	Number of Options Exercisable
July 27, 2011	$12.50	907,101	2.0 years	907,101
December 20, 2012	14.50	1,009,819	3.0 years	1,009,819
December 19, 2013	15.90	1,991,804	4.0 years	1,991,804
December 18, 2014	15.80	1,270,581	5.0 years	1,270,581
December 17, 2015	13.64	1,191,845	1.0 years	1,191,845
December 15, 2016	16.48	1,202,808	2.0 years	1,202,808
December 21, 2017	17.60	799,832	3.0 years	533,168
December 20, 2018	13.69	1,016,800	4.0 years	338,930
March 4, 2019	13.51	10,000	4.2 years	3,333
December 19, 2019	14.98	1,035,400	5.0 years	—
	Total	10,435,990		8,449,389

Employee Stock Purchase Plan

Since 1996, we have maintained an Employee Stock Purchase Plan. During 2011, we adopted a plan that made 300,000 shares of our Class A common stock available for issuance. During 2019, we amended the plan to make 500,000 shares of our Class A common stock available for issuance. The plan extends over a 10-year period and provides for shares to be offered to all eligible employees at a purchase price equal to the lesser of 85% of the fair market value of our Class A common stock on the last day before the first day of each enrollment period (June 1 and December 1 of each year) under the plan or 85% of the fair market value of our Class A common stock on the last day of each subscription period (June 30 and December 31 of each year).

A summary of plan activity follows:

	Shares Issued	
	Price	Shares
January 1, 2017	13.76	18,512
July 1, 2017	13.52	25,155
January 1, 2018	13.34	20,662
July 1, 2018	11.57	27,802
January 1, 2019	11.60	24,834
July 1, 2019	12.24	22,926

On January 1, 2020, we issued 20,424 shares at a price of $12.28 per share under this plan.

Agency Stock Purchase Plan

Since 1996, we have maintained an Agency Stock Purchase Plan. During 2015, we adopted a plan that made 350,000 shares of our Class A common stock available for issuance to agents of our insurance subsidiaries and Donegal Mutual. The plan permits an agent to invest up to $12,000 per subscription period (April 1 to September 30 and October 1 to March 31 of each year) under various methods. We issue stock at the end of each subscription period at a price equal to 90% of the average market price during the last ten trading days of each subscription period. During 2019, 2018 and 2017, we issued 110,836, 117,935 and 104,418 shares, respectively, under this plan. The expense we recognized under the plan was not material.

14 - Statutory Net Income, Capital and Surplus and Dividend Restrictions

The following table presents selected information, as filed with state insurance regulatory authorities, for our insurance subsidiaries as determined in accordance with accounting practices prescribed or permitted by such insurance regulatory authorities:

	2019	2018	2017
Atlantic States:			
Statutory capital and surplus	$ 259,030,868	$ 230,736,313	$ 260,428,754
Statutory unassigned surplus	155,909,822	140,713,118	172,709,955
Statutory net income (loss)	22,282,231	(23,458,516)	(2,037,672)
Southern:			
Statutory capital and surplus	54,405,568	45,355,785	54,503,581
Statutory unassigned (deficit) surplus	(2,375,794)	(6,346,270)	2,914,532
Statutory net income (loss)	5,061,477	(9,822,457)	(3,375,434)
Peninsula:			
Statutory capital and surplus	39,244,570	32,717,996	39,396,818
Statutory unassigned surplus	20,936,805	14,415,949	21,148,253
Statutory net income (loss)	7,360,378	(6,316,130)	(841,119)
MICO:			
Statutory capital and surplus	65,768,590	55,708,442	52,796,379
Statutory unassigned surplus	38,910,008	28,949,919	26,162,540
Statutory net income	9,976,610	6,350,686	7,931,774

Our principal source of cash for payment of dividends is dividends from our insurance subsidiaries. State insurance laws require our insurance subsidiaries to maintain certain minimum capital and surplus amounts on a statutory basis. Our insurance subsidiaries are subject to regulations that restrict the payment of dividends from statutory surplus and may require prior approval of their domiciliary insurance regulatory authorities. Our insurance subsidiaries are also subject to risk-based capital ("RBC") requirements that may further impact their ability to pay dividends. Our insurance subsidiaries' statutory capital and

surplus at December 31, 2019 exceeded the amount of statutory capital and surplus necessary to satisfy regulatory requirements, including the RBC requirements, by a significant margin. Amounts available for distribution to us as dividends from our insurance subsidiaries without prior approval of insurance regulatory authorities in 2020 are $25.9 million from Atlantic States, $5.4 million from Southern, $2.0 million from Peninsula and $6.6 million from MICO, or a total of approximately $39.9 million.

15 - Reconciliation of Statutory Filings to Amounts Reported in the Consolidated Financial Statements

Our insurance subsidiaries must file financial statements with state insurance regulatory authorities using accounting principles and practices prescribed or permitted by those authorities. We refer to these accounting principles and practices as statutory accounting principles (“SAP”). Accounting principles used to prepare these SAP financial statements differ from those used to prepare financial statements on the basis of GAAP.

Reconciliations of statutory net income (loss) and capital and surplus, as determined using SAP, to the net income (loss) and stockholders’ equity amounts included in the accompanying consolidated financial statements are as follows:

	Year Ended December 31,		
	2019	2018	2017
Statutory net income (loss) of insurance subsidiaries	$ 44,680,696	$ (33,246,417)	$ 1,677,549
Increases (decreases):			
Deferred policy acquisition costs	(1,330,268)	325,267	3,980,664
Deferred federal income taxes	639,284	4,179,807	1,334,410
Salvage and subrogation recoverable	207,000	2,061,600	1,199,200
Consolidating eliminations and adjustments	(11,048,314)	(16,013,971)	(13,534,428)
Parent-only net income	14,003,346	9,933,374	12,458,705
Net income (loss)	$ 47,151,744	$ (32,760,340)	$ 7,116,100

	December 31,		
	2019	2018	2017
Statutory capital and surplus of insurance subsidiaries	$ 418,449,596	$ 364,518,536	$ 407,125,532
Increases (decreases):			
Deferred policy acquisition costs	59,284,859	60,615,127	60,289,860
Deferred federal income taxes	(15,477,843)	(20,094,374)	(14,422,511)
Salvage and subrogation recoverable	20,245,200	20,038,200	17,976,600
Non-admitted assets and other adjustments, net	1,727,754	1,904,083	1,960,089
Fixed maturities	(326,795)	(16,528,367)	(8,748,140)
Parent-only equity and other adjustments	(32,887,252)	(11,583,304)	(15,485,326)
Stockholders’ equity	$ 451,015,519	$ 398,869,901	$ 448,696,104

16 - Supplementary Cash Flow Information

The following table reflects net income taxes we (recovered) paid and interest we paid during 2019, 2018 and 2017:

	2019	2018	2017
Income taxes	$ (9,827,433)	$ (3,290,247)	$ 3,050,000
Interest	321,585	1,280,352	1,341,706

17 - Earnings Per Share

We have two classes of common stock, which we refer to as Class A common stock and Class B common stock. Our Class A common stock is entitled to be paid cash dividends that are at least 10% higher than the cash dividends we pay on our Class B common stock. Accordingly, we use the two-class method for the computation of earnings per common share. The two-class method is an earnings allocation formula that determines earnings per share separately for each class of common stock based on dividends declared and an allocation of remaining undistributed earnings using a participation percentage reflecting the dividend rights of each class.

We present below a reconciliation of the numerators and denominators we used in the basic and diluted per share computations for our Class A common stock:

(in thousands, except per share amounts)	Year Ended December 31, 2019	2018	2017
Basic earnings (loss) per share:			
Numerator:			
Allocation of net income (loss)	$ 38,718	$ (26,691)	$ 5,879
Denominator:			
Weighted-average shares outstanding	22,986	22,705	21,799
Basic earnings (loss) per share	$ 1.68	$ (1.18)	$ 0.27
Diluted earnings (loss) per share:			
Numerator:			
Allocation of net income (loss)	$ 38,718	$ (26,691)	$ 5,879
Denominator:			
Number of shares used in basic computation	22,986	22,705	21,799
Weighted-average effect of dilutive securities			
Add: Director and employee stock options	211	—	843
Number of shares used in per share computations	23,197	22,705	22,642
Diluted earnings (loss) per share	$ 1.67	$ (1.18)	$ 0.26

We used the following information in the basic and diluted per share computations for our Class B common stock:

(in thousands, except per share amounts)	Year Ended December 31, 2019	2018	2017
Basic and diluted earnings (loss) per share:			
Numerator:			
Allocation of net income (loss)	$ 8,434	$ (6,069)	$ 1,237
Denominator:			
Weighted-average shares outstanding	5,577	5,577	5,577
Basic and diluted earnings (loss) per share	$ 1.51	$ (1.09)	$ 0.22

During 2019, we did not include options to purchase 5,531,561 shares of our Class A common stock in the computation of diluted earnings per share because the exercise price of the options was greater than the average market price of our Class A common stock.

18 - Condensed Financial Information of Parent Company

Condensed Balance Sheets
(in thousands)

December 31,	2019	2018
Assets		
Investment in subsidiaries/affiliates (equity method)	$ 489,657	$ 465,030
Short-term investments	2,502	29
Cash	2,350	1,542
Property and equipment	944	928
Other	—	—
Total assets	$ 495,453	$ 467,529
Liabilities and Stockholders' Equity		
Liabilities		
Cash dividends declared to stockholders	$ 4,075	$ 3,948
Borrowings under lines of credit	35,000	60,000
Other	5,362	4,711
Total liabilities	44,437	68,659
Stockholders' equity	451,016	398,870
Total liabilities and stockholders' equity	$ 495,453	$ 467,529

Condensed Statements of Income (Loss) and Comprehensive Income (Loss)
(in thousands)

Year Ended December 31,	2019	2018	2017
Statements of Income (Loss)			
Revenues			
Dividends from subsidiaries	$ 4,000	$ 11,000	$ 13,000
Realized investment gains	12,378	—	—
Other	1,009	3,196	2,131
Total revenues	17,387	14,196	15,131
Expenses			
Operating expenses	1,420	1,628	1,433
Interest	1,327	2,224	1,929
Total expenses	2,747	3,852	3,362
Income before income tax expense (benefit) and equity in undistributed net income (loss) of subsidiaries	14,640	10,344	11,769
Income tax expense (benefit)	636	411	(690)
Income before equity in undistributed net income (loss) of subsidiaries	14,004	9,933	12,459
Equity in undistributed net income (loss) of subsidiaries	33,148	(42,693)	(5,343)
Net income (loss)	$ 47,152	$ (32,760)	$ 7,116
Statements of Comprehensive Income (Loss)			
Net income (loss)	$ 47,152	$ (32,760)	$ 7,116
Other comprehensive income (loss), net of tax			
Unrealized gain (loss) - subsidiaries	14,732	(6,625)	46
Other comprehensive income (loss), net of tax	14,732	(6,625)	46
Comprehensive income (loss)	$ 61,884	$ (39,385)	$ 7,162

Condensed Statements of Cash Flows
(in thousands)

Year Ended December 31,	2019	2018	2017
Cash flows from operating activities:			
Net income (loss)	$ 47,152	$ (32,760)	$ 7,116
Adjustments:			
Equity in undistributed net (income) loss of subsidiaries	(33,148)	42,694	5,343
Realized investment gains	(12,378)	—	—
Dividends received from DFSC	—	—	1,037
Other	490	2,531	1,011
Net adjustments	(45,036)	45,225	7,391
Net cash provided	2,116	12,465	14,507
Cash flows from investing activities:			
Net (purchases) sale of short-term investments	(2,473)	—	1
Net purchase of property and equipment	(150)	(106)	(788)
Sale of DFSC	33,923	—	—
Sale of equity securities - available for sale	20,287	—	—
Investment in subsidiaries	(18,283)	(2,644)	(2,992)
Other	—	(1)	(1)
Net cash received (used)	33,304	(2,751)	(3,780)
Cash flows from financing activities:			
Cash dividends paid	(16,093)	(15,659)	(14,821)
Issuance of common stock	6,481	3,250	15,511
Payments on lines of credit	(25,000)	—	(10,000)
Borrowings under lines of credit	—	1,000	—
Net cash used	(34,612)	(11,409)	(9,310)
Net change in cash	808	(1,695)	1,417
Cash at beginning of year	1,542	3,237	1,820
Cash at end of year	$ 2,350	$ 1,542	$ 3,237

19 - Segment Information

We have three reportable segments, which consist of our investment function, our commercial lines of insurance and our personal lines of insurance. Using independent agents, our insurance subsidiaries market commercial lines of insurance to small and medium-sized businesses and personal lines of insurance to individuals.

We evaluate the performance of the commercial lines and personal lines primarily based upon our insurance subsidiaries' underwriting results as determined under SAP for our total business.

We do not allocate assets to the commercial and personal lines and review the two segments in total for purposes of decision-making. We operate only in the United States, and no single customer or agent provides 10 percent or more of our revenues.

Financial data by segment is as follows:

	2019	2018	2017
		(in thousands)	
Revenues:			
Premiums earned:			
Commercial lines	$ 385,465	$ 337,924	$ 318,391
Personal lines	370,613	403,367	384,124
GAAP premiums earned	756,078	741,291	702,515
Net investment income	29,515	26,908	23,527
Investment gains (losses)	21,985	(4,802)	5,705
Equity in earnings of DFSC	295	2,694	1,622
Other	4,578	5,737	5,658
Total revenues	$ 812,451	$ 771,828	$ 739,027

	2019	2018	2017
		(in thousands)	
Income (loss) before income taxes:			
Underwriting income (loss):			
Commercial lines	$ 8,404	$ (22,059)	$ 13,263
Personal lines	(1,617)	(53,590)	(39,042)
SAP underwriting income (loss)	6,787	(75,649)	(25,779)
GAAP adjustments	(3,079)	894	4,408
GAAP underwriting income (loss)	3,708	(74,755)	(21,371)
Net investment income	29,515	26,908	23,527
Investment gains (losses)	21,985	(4,802)	5,705
Equity in earnings of DFSC	295	2,694	1,622
Other	1,578	1,718	2,631
Income (loss) before income taxes	$ 57,081	$ (48,237)	$ 12,114

20 - Guaranty Fund and Other Insurance-Related Assessments

Our insurance subsidiaries' liabilities for guaranty fund and other insurance-related assessments were $1.6 million and $1.9 million at December 31, 2019 and 2018, respectively. These liabilities included $519,462 and $583,361 related to surcharges collected by our insurance subsidiaries on behalf of regulatory authorities for 2019 and 2018, respectively.

21 - Interim Financial Data (unaudited)

	2019			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net premiums earned	$ 188,073,242	$ 188,763,313	$ 189,821,058	$ 189,420,787
Total revenues	214,713,874	198,788,954	198,009,900	200,938,743
Net losses and loss expenses	123,110,656	131,507,280	130,743,395	121,026,333
Net income	23,023,164	4,788,454	5,186,379	14,153,747
Net earnings per common share:				
Class A common stock - basic	0.82	0.17	0.19	0.50
Class A common stock - diluted	0.82	0.17	0.18	0.50
Class B common stock - basic and diluted	0.75	0.15	0.16	0.45

	2018			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net premiums earned	$ 181,764,580	$ 185,714,110	$ 187,661,705	$ 186,150,478
Total revenues	189,328,278	195,790,028	199,904,180	186,805,834
Net losses and loss expenses	156,583,268	135,753,645	140,726,106	143,395,401
Net (loss) income	(18,178,078)	(789,855)	1,206,356	(14,998,763)
Net (loss) earnings per common share:				
Class A common stock - basic	(0.66)	(0.03)	0.04	(0.53)
Class A common stock - diluted	(0.66)	(0.03)	0.04	(0.53)
Class B common stock - basic and diluted	(0.60)	(0.03)	0.04	(0.50)

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of Donegal Group Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Donegal Group, Inc. and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of income (loss) and comprehensive income (loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedule III (collectively, the consolidated financial statements). In our opinion, based on our audits and the report of the other auditors, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 6, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

We did not audit the financial statements of Donegal Financial Services Corporation (previously a 48.2 percent-owned investee company). The Company's investment in Donegal Financial Services Corporation was $41,025,975 as of December 31, 2018, and its equity in earnings of Donegal Financial Services Corporation was $2,693,962 and $1,621,605 for the years 2018 and 2017, respectively. The financial statements of Donegal Financial Services Corporation were audited by other auditors whose report was furnished to us, and our opinion, insofar as it relates to the amounts included for Donegal Financial Services Corporation, is based solely on the report of the other auditors.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for changes in fair value of equity securities in 2018 due to the adoption of Accounting Standards Update 2016-01, *Recognition and Measurement of Financial Assets and Liabilities*.

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 and the report of the other auditors provide a reasonable basis for our opinion.

KPMG LLP

We or our predecessor firms have served as the Company's auditor since 1986.

Philadelphia, Pennsylvania
March 6, 2020

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) at December 31, 2019 covered by this Form 10-K Report. Based on such evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that, at December 31, 2019, our disclosure controls and procedures are effective in recording, processing, summarizing and reporting, on a timely basis, information we are required to disclose in the reports that we file or submit under the Exchange Act and our disclosure controls and procedures are also effective to ensure that information we disclose in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as that term is defined in Rule 13a-15(f) under the Exchange Act. Under the supervision and with the participation of our Chief Executive Officer and our Chief Financial Officer, our management has conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework and criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO Framework"). Based on our evaluation under the COSO Framework, our management has concluded that our internal control over financial reporting was effective at December 31, 2019.

The effectiveness of our internal control over financial reporting at December 31, 2019 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in its report, which is included in this Form 10-K Report.

Changes in Internal Control over Financial Reporting

There were no changes to our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the fourth quarter of 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Donegal Group Inc.:

Opinion on Internal Control Over Financial Reporting

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of income (loss) and comprehensive income (loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedule III (collectively, the consolidated financial statements), and our report dated March 6, 2020 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

KPMG LLP

Philadelphia, Pennsylvania
March 6, 2020

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Other than the information we provide below, we incorporate the response to this Item 10 by reference to our proxy statement we will file with the SEC on or about March 16, 2020 relating to our annual meeting of stockholders that we will hold on April 16, 2020, or our Proxy Statement.

Executive Officers of the Registrant

The following table sets forth information regarding the executive officers of Donegal Mutual and the Registrant as of the date of this Form 10-K Report, each of whom has served with us for more than 10 years:

Name	Age	Position
Kevin G. Burke	54	President and Chief Executive Officer of Donegal Mutual since 2018; President and Chief Executive Officer of us since 2015; Executive Vice President and Chief Operating Officer of Donegal Mutual from 2014 to 2018; Senior Vice President of Human Resources of Donegal Mutual and us from 2005 to 2014; Vice President of Human Resources of Donegal Mutual and us from 2001 to 2005; other positions from 2000 to 2001.
Richard G. Kelley	65	Senior Vice President and Head of Field Operations of Donegal Mutual and us since 2018; Senior Vice President of Donegal Mutual from 2007 to 2018; other positions from 2000 to 2007.
Jeffrey D. Miller	55	Executive Vice President and Chief Financial Officer of Donegal Mutual and us since 2014; Senior Vice President and Chief Financial Officer of Donegal Mutual and us from 2005 to 2014; Vice President and Controller of Donegal Mutual and us from 2000 to 2005; other positions from 1995 to 2000.
Sanjay Pandey	53	Senior Vice President and Chief Information Officer of Donegal Mutual and us since 2013; Vice President and Chief Information Officer of Donegal Mutual and us from 2009 to 2013; other positions from 2000 to 2009.
Daniel J. Wagner	59	Senior Vice President and Treasurer of Donegal Mutual and us since 2005; Vice President and Treasurer of Donegal Mutual and us from 2000 to 2005; other positions from 1993 to 2000.

We incorporate the full text of our Code of Business Conduct and Ethics by reference to Exhibit 14 to this Form 10-K Report.

Item 11. Executive Compensation.

We incorporate the response to this Item 11 by reference to our Proxy Statement. Neither the Report of our Compensation Committee nor the Report of our Audit Committee included in our Proxy Statement shall constitute or be deemed to constitute a filing with the SEC under the Securities Act or the Exchange Act or be deemed to have been incorporated by reference into any filing we make under the Securities Act or the Exchange Act, except to the extent we specifically incorporate the Report of Our Compensation Committee or the Report of Our Audit Committee by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

We incorporate the response to this Item 12 by reference to our Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

We incorporate the response to this Item 13 by reference to our Proxy Statement.

Item 14. Principal Accounting Fees and Services.

We incorporate the response to this Item 14 by reference to our Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) Financial statements, financial statement schedule and exhibits filed:

(a) Consolidated Financial Statements

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Reports of Independent Registered Public Accounting Firm	94
Donegal Group Inc. and Subsidiaries:	
Consolidated Balance Sheets at December 31, 2019 and 2018	55
Consolidated Statements of Income (Loss) and Comprehensive Income (Loss) for each of the years in the three-year period ended December 31, 2019, 2018 and 2017	56
Consolidated Statements of Stockholders' Equity for each of the years in the three-year period ended December 31, 2019, 2018 and 2017	57
Consolidated Statements of Cash Flows for each of the years in the three-year period ended December 31, 2019, 2018 and 2017	58
Notes to Consolidated Financial Statements	59
Report and Consent of Independent Registered Public Accounting Firm (Filed as Exhibit 23.1)	
Consent of Independent Registered Public Accounting Firm (Filed as Exhibit 23.2)	

(b) Financial Statement Schedule

Schedule III — Supplementary Insurance Information	103
Report of Independent Registered Public Accounting Firm	Filed herewith

We have omitted all other schedules since they are not required, not applicable or the information is included in the financial statements or notes to the financial statements.

(c) Exhibits

Exhibit No.	Description of Exhibits	Reference
3.1	Certificate of Incorporation of Donegal Group Inc., as amended.	(r)
3.2	Amended and Restated By-laws of Donegal Group Inc.	(h)
4.1	Description of Donegal Group Inc's Securities Registered pursuant to Section 12 of the Exchange Act.	Filed herewith
Management Contracts and Compensatory Plans or Arrangements		
10.1	Donegal Group Inc. 2011 Equity Incentive Plan for Employees.	(b)
10.2	Donegal Group Inc. 2011 Equity Incentive Plan for Directors.	(b)
10.3	Donegal Group Inc. 2011 Employee Stock Purchase Plan.	(b)
10.4	Donegal Group Inc. 2013 Equity Incentive Plan for Employees.	(c)
10.5	Donegal Group Inc. 2013 Equity Incentive Plan for Directors.	(c)

10.6	Employment Agreement dated as of July 29, 2011 among Donegal Mutual Insurance Company, Donegal Group Inc. and Donald H. Nikolaus.	(d)
10.7	Consulting Agreement dated as of July 29, 2011 among Donegal Mutual Insurance Company, Donegal Group Inc. and Donald H. Nikolaus.	(d)
10.8	Employment Agreement dated as of July 29, 2011 among Donegal Mutual Insurance Company, Donegal Group Inc. and Kevin G. Burke.	(d)
10.9	Employment Agreement dated as of July 29, 2011 among Donegal Mutual Insurance Company, Donegal Group Inc. and Richard G. Kelley.	(q)
10.10	Employment Agreement dated as of July 29, 2011 among Donegal Mutual Insurance Company, Donegal Group Inc. and Jeffrey D. Miller.	(d)
10.11	Employment Agreement dated as of July 18, 2013 among Donegal Mutual Insurance Company, Donegal Group Inc. and Sanjay Pandey.	(m)
10.12	Employment Agreement dated as of July 29, 2011 among Donegal Mutual Insurance Company, Donegal Group Inc. and Daniel J. Wagner.	(d)
10.13	Donegal Mutual Insurance Company 401(k) Plan.	(e)
10.14	Amendment No. 1 effective January 1, 2000 to Donegal Mutual Insurance Company 401(k) Plan.	(e)
10.15	Amendment No. 2 effective January 6, 2000 to Donegal Mutual Insurance Company 401(k) Plan.	(a)
10.16	Amendment No. 3 effective July 23, 2001 to Donegal Mutual Insurance Company 401(k) Plan.	(a)
10.17	Amendment No. 4 effective January 1, 2002 to Donegal Mutual Insurance Company 401(k) Plan.	(a)
10.18	Amendment No. 5 effective December 31, 2001 to Donegal Mutual Insurance Company 401(k) Plan.	(a)
10.19	Amendment No. 6 effective July 1, 2002 to Donegal Mutual Insurance Company 401(k) Plan.	(f)
10.20	Donegal Group Inc. Cash Incentive Bonus Plan for 2019 and prior years.	(p)
10.21	Donegal Group Inc. 2015 Equity Incentive Plan for Employees.	(n)
10.22	Donegal Group Inc. 2015 Equity Incentive Plan for Directors.	(n)
10.23	Donegal Group Inc. Cash Incentive Bonus Plan for 2020.	Filed herewith
10.24	Donegal Group Inc. 2020 Long-Term Executive Incentive Plan.	Filed herewith
10.25	Donegal Group Inc. 2019 Equity Incentive Plan for Employees.	(s)
10.26	Donegal Group Inc. 2019 Equity Incentive Plan for Directors.	(s)
Other Material Contracts		
10.27	Amended and Restated Proportional Reinsurance Agreement dated March 1, 2010 between Donegal Mutual Insurance Company and Atlantic States Insurance Company.	(i)
10.28	Amended and Restated Tax Sharing Agreement dated December 1, 2010 among Donegal Group Inc., Atlantic States Insurance Company, Southern Insurance Company of Virginia, Le Mars Insurance Company, The Peninsula Insurance Company, Peninsula Indemnity Company and Michigan Insurance Company.	(j)
10.29	Amended and Restated Services Allocation Agreement dated December 1, 2010 among Donegal Group Inc., Atlantic States Insurance Company, Southern Insurance Company of Virginia, Le Mars Insurance Company, The Peninsula Insurance Company, Peninsula Indemnity Company and Michigan Insurance Company.	(j)
10.30	Quota-share Reinsurance Agreement dated December 1, 2010 between Donegal Mutual Insurance Company and Michigan Insurance Company.	(j)
10.31	Donegal Group Inc. 2015 Agency Stock Purchase Plan.	(k)

10.32	Stock Purchase and Standstill Agreement dated as of December 18, 2015 among Donegal Mutual Insurance Company, Donegal Group Inc. and Gregory M. Shepard.	(o)
10.33	Credit Agreement between Donegal Group Inc. and Manufacturers and Traders Trust Company dated March 5, 2019.	(q)
14	Code of Business Conduct and Ethics.	(g)
21	Subsidiaries of Registrant.	Filed herewith
23.1	Report and Consent of Independent Registered Public Accounting Firm.	Filed herewith
23.2	Consent of Independent Registered Public Accounting Firm.	Filed herewith
31.1	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Executive Officer.	Filed herewith
31.2	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Financial Officer.	Filed herewith
32.1	Section 1350 Certification of Chief Executive Officer.	Filed herewith
32.2	Section 1350 Certification of Chief Financial Officer.	Filed herewith
Exhibit 10 1.INS	XBRL Instance Document	Filed herewith
Exhibit 10 1.SCH	XBRL Taxonomy Extension Schema Document	Filed herewith
Exhibit 10 1.PRE	XBRL Taxonomy Presentation Linkbase Document	Filed herewith
Exhibit 10 1.CAL	XBRL Taxonomy Calculation Linkbase Document	Filed herewith
Exhibit 10 1.LAB	XBRL Taxonomy Label Linkbase Document	Filed herewith
Exhibit 10 1.DEF	XBRL Taxonomy Extension Definition Linkbase Document	Filed herewith

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(a) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 10-K Report for the year ended December 31, 2001.
(b) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 8-K Report dated April 22, 2011.
(c) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 8-K Report dated April 22, 2013.
(d) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 8-K Report dated August 3, 2011.
(e) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 10-K Report for the year ended December 31, 1999.
(f) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 10-K Report for the year ended December 31, 2002.
(g) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 10-K Report for the year ended December 31, 2003.
(h) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 8-K Report dated July 18, 2008.
(i) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 10-K Report for the year ended December 31, 2009.
(j) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 10-K Report for the year ended December 31, 2010.
(k) We incorporate such exhibit by reference to the like-described exhibit filed in Registrant's Form S-3 registration statement filed on April 28, 2015.
(m) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 10-K Report for the year ended December 31, 2014.
(n) We incorporate such exhibit by reference to the description of such plan in Registrant's definitive proxy statement for its Annual Meeting of Stockholders held on April 16, 2015 filed on March 16, 2015.

(o) We incorporate such exhibit by reference to the like-described exhibit in Registrant's Form 8-K Report dated December 22, 2015.
(p) We incorporate such exhibit by reference to the description of such plan in Registrant’s definitive proxy statement for its Annual Meeting of Stockholders held on April 20, 2017 filed on March 16, 2017.
(q) We incorporate such exhibit by reference to the like-described exhibit in Registrant’s Form 10-K Report for the year ended December 31, 2018.
(r) We incorporate such exhibit by reference to the like-described exhibit in Registrant’s Form 10-Q Report for the year ended June 30, 2019.
(s) We incorporate such exhibit by reference to the description of such plan in Registrant’s definitive proxy statement for its Annual Meeting of Stockholders held on April 18, 2019 filed on March 18, 2019.

Item 16. Form 10-K Summary.

None.

DONEGAL GROUP INC. AND SUBSIDIARIES
SCHEDULE III — SUPPLEMENTARY INSURANCE INFORMATION

Years Ended December 31, 2019, 2018 and 2017
($ in thousands)

Segment	Net Premiums Earned	Net Investment Income	Net Losses and Loss Expenses	Amortization of Deferred Policy Acquisition Costs	Other Underwriting Expenses	Net Premiums Written
Year Ended December 31, 2019						
Commercial lines	$ 385,465	$ —	$ 242,685	$ 62,424	$ 61,631	$ 404,879
Personal lines	370,613	—	263,703	60,019	52,931	347,722
Investments	—	29,515	—	—	—	—
	$ 756,078	$ 29,515	$ 506,388	$ 122,443	$ 114,562	$ 752,601
Year Ended December 31, 2018						
Commercial lines	$ 337,924	$ —	$ 246,048	$ 55,143	$ 51,635	$ 349,895
Personal lines	403,367	—	330,410	65,821	61,635	394,121
Investments	—	26,908	—	—	—	—
	$ 741,291	$ 26,908	$ 576,458	$ 120,964	$ 113,270	$ 744,016
Year Ended December 31, 2017						
Commercial lines	$ 318,391	$ —	$ 197,344	$ 52,149	$ 52,817	$ 329,116
Personal lines	384,124	—	289,924	62,916	63,721	400,023
Investments	—	23,527	—	—	—	—
	$ 702,515	$ 23,527	$ 487,268	$ 115,065	$ 116,538	$ 729,139

DONEGAL GROUP INC. AND SUBSIDIARIES
SCHEDULE III — SUPPLEMENTARY INSURANCE INFORMATION, CONTINUED
($ in thousands)

Segment	Deferred Policy Acquisition Costs	Liability For Losses and Loss Expenses	Unearned Premiums	Other Policy Claims and Benefits Payable
	At December 31,			
2019				
Commercial lines	$ 30,947	$ 582,682	$ 266,297	$ —
Personal lines	28,338	286,992	243,850	—
Investments	—	—	—	—
	$ 59,285	$ 869,674	$ 510,147	$ —
2018				
Commercial lines	$ 27,762	$ 518,127	$ 231,990	$ —
Personal lines	32,853	296,538	274,539	—
Investments	—	—	—	—
	$ 60,615	$ 814,665	$ 506,529	$ —

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.

DONEGAL GROUP INC.

By: /s/ Kevin G. Burke

Kevin G. Burke, President and Chief Executive Officer

Date: March 6, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Kevin G. Burke Kevin G. Burke	President, Chief Executive Officer and a Director (principal executive officer)	March 6, 2020
/s/ Jeffrey D. Miller Jeffrey D. Miller	Executive Vice President and Chief Financial Officer (principal financial and accounting officer)	March 6, 2020
/s/ Scott A. Berlucchi Scott A. Berlucchi	Director	March 6, 2020
/s/ Dennis J. Bixenman Dennis J. Bixenman	Director	March 6, 2020
/s/ Robert S. Bolinger Robert S. Bolinger	Director	March 6, 2020
/s/ Patricia A. Gilmartin Patricia A. Gilmartin	Director	March 6, 2020
/s/ Jack L. Hess Jack L. Hess	Director	March 6, 2020
/s/ Barry C. Huber Barry C. Huber	Director	March 6, 2020
/s/ Kevin M. Kraft, Sr. Kevin M. Kraft, Sr.	Director	March 6, 2020
/s/ Jon M. Mahan Jon M. Mahan	Director	March 6, 2020
/s/ S. Trezevant Moore, Jr. S. Trezevant Moore, Jr.	Director	March 6, 2020
/s/ Richard D. Wampler, II Richard D. Wampler, II	Director	March 6, 2020

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Corporate Information

ANNUAL MEETING

April 16, 2020 at 10:00 a.m. at the:
Heritage Hotel Lancaster
500 Centerville Road
Lancaster, Pennsylvania 17601

CORPORATE OFFICES

1195 River Road
P.O. Box 302
Marietta, Pennsylvania 17547-0302
(800) 877-0600
E-mail Address: investors@donegalgroup.com
Donegal Web Site: www.donegalgroup.com

TRANSFER AGENT

Computershare Trust Company, N.A.
P.O. Box 505000
Louisville, Kentucky 40233
(800) 317-4445
Web Site: www.computershare.com
Hearing Impaired: TDD: 800-952-9245

DIVIDEND REINVESTMENT AND STOCK PURCHASE PLAN

We offer a dividend reinvestment and stock purchase plan through our transfer agent.
For information contact:
Donegal Group Inc.
Dividend Reinvestment and
Stock Purchase Plan
Computershare Trust Company, N.A.
P.O. Box 505000
Louisville, Kentucky 40233

STOCKHOLDERS

The following represent the number of our common stockholders of record as of December 31, 2019:

Class A common stock	1,771
Class B common stock	259

BOARD OF DIRECTORS

Kevin G. Burke	Chairman of the Board and a Director
Scott A. Berlucchi	Director
Dennis J. Bixenman	Director
Robert S. Bolinger	Director
Patricia A. Gilmartin	Director
Jack L. Hess	Director
Barry C. Huber	Director
Kevin M. Kraft, Sr.	Director
Jon M. Mahan	Director
S. Trezevant Moore, Jr.	Director
Richard D. Wampler, II	Director

OFFICERS

Kevin G. Burke	President and Chief Executive Officer
Jeffrey D. Miller	Executive Vice President and Chief Financial Officer
William A. Folmar	Senior Vice President
Christina M. Hoffman	Senior Vice President and Chief Risk Officer
Richard G. Kelley	Senior Vice President
Robert R. Long, Jr.	Senior Vice President and General Counsel
Sanjay Pandey	Senior Vice President and Chief Information Officer
V. Anthony Viozzi	Senior Vice President and Chief Investment Officer
Daniel J. Wagner	Senior Vice President and Treasurer
David B. Bawel	Vice President
Jason M. Crumbling	Vice President and Controller
Karen L. Groff	Vice President and and Assistant Treasurer
Sheri O. Smith	Vice President and Secretary
Michelle M. Post	Assistant Secretary

1195 River Road, P.O. Box 302
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