

Section 1: 10-K (10-K)

[Table of Contents](#)

United States
Securities and Exchange Commission
Washington, D.C. 20549
FORM 10-K

(Mark One)

Annual report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934 [Fee Required] for the fiscal year ended December 31, 2017,

or

Transition report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934 [No Fee Required] for the transition period from _____ to _____.

Commission file number: 001-16533

ProAssurance Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State of
incorporation or organization)

63-1261433
(I.R.S. Employer
Identification No.)

100 Brookwood Place,
Birmingham, AL
(Address of principal executive offices)

35209
(Zip Code)

(205) 877-4400

(Registrant's Telephone Number, Including Area Code)
Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Name of Each Exchange On Which Registered</u>
Common Stock, par value \$0.01 per share	New York Stock Exchange

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

The aggregate market value of voting stock held by non-affiliates of the registrant at June 30, 2017 was \$3,178,564,902.

As of February 16, 2018, the registrant had outstanding approximately 53,457,021 shares of its common stock.

[Table of Contents](#)

Documents incorporated by reference in this Form 10-K

- (i) The definitive proxy statement for the 2018 Annual Meeting of the Stockholders of ProAssurance Corporation (File No. 001-16533) is incorporated by reference into Part III of this report.

Glossary of Terms and Acronyms

When the following terms and acronyms appear in the text of this report, they have the meanings indicated below.

Term	Meaning
ACA	The Affordable Care Act
ALAE	Allocated loss adjustment expense
AOCI	Accumulated other comprehensive income (loss)
BEAT	Base erosion anti-abuse tax
Board	Board of Directors of ProAssurance Corporation
BOLI	Business owned life insurance
CIMA	Cayman Islands Monetary Authority
Council of Lloyd's	The governing body for Lloyd's of London
COSO	Committee of Sponsoring Organizations of the Treadway Commission
Commutation	An agreement between a ceding insurer and the reinsurer that provides for the valuation, payment, and complete discharge of all obligations between the parties under a particular reinsurance contract
DDR	Death, disability and retirement
Dodd-Frank Act	The Dodd-Frank Wall Street Reform and Consumer Protection Act
DPAC	Deferred policy acquisition costs
Eastern Re	Eastern Re, LTD, S.P.C.
EBUB	Earned but unbilled premium
ERM	Enterprise Risk Management
FAL	Funds at Lloyd's
FASB	Financial Accounting Standards Board
FHLB	Federal Home Loan Bank
FHLMC	Federal Home Loan Mortgage Corporation
FIO	Federal Insurance Office
FNMA	Federal National Mortgage Association
GAAP	Generally accepted accounting principles in the United States of America
GNMA	Government National Mortgage Association
HCPL	Healthcare professional liability
IBNR	Incurred but not reported
IRS	Internal Revenue Service
LAE	Loss adjustment expense
LIBOR	London Interbank Offered Rate
LLC	Limited liability company
Lloyd's	Lloyd's of London market
LP	Limited partnership
Medical technology liability	Medical technology and life sciences products liability
Model Holding Co. Law	Model Insurance and Holding Company System Regulatory Act and Regulation
NAIC	National Association of Insurance Commissioners
NAV	Net asset value
NFIP	National Flood Insurance Program
NOL	Net operating loss
NRSRO	Nationally recognized statistical rating organization
NYDFS	New York Department of Financial Services
NYSE	New York Stock Exchange

Table of Contents

Term	Meaning
OCI	Other comprehensive income (loss)
ORSA	Risk Management and Own Risk and Solvency Assessment Model Act
OTTI	Other-than-temporary impairment
PCAOB	Public Company Accounting Oversight Board
ProAssurance Plan	Non-qualified deferred compensation plan
ProAssurance Savings Plan	Defined contribution savings and retirement plan
Revolving Credit Agreement	ProAssurance's \$250 million revolving credit agreement
ROE	Return on equity
SAB	Staff Accounting Bulletin, which reflects the SEC staff's views regarding accounting-related disclosure practices
SAP	Statutory accounting principles
SEC	Securities and Exchange Commission
SPA	Special Purpose Arrangement
SPC	Segregated portfolio cell
Specialty P&C	Specialty Property and Casualty
Syndicate 1729	Lloyd's of London Syndicate 1729
Syndicate 6131	Lloyd's of London Syndicate 6131, a Special Purpose Arrangement with Lloyd's of London Syndicate 1729
Syndicate Credit Agreement	Unconditional revolving credit agreement with the Premium Trust Fund of Syndicate 1729
TCJA	Tax Cuts and Jobs Act H.R.1 of 2017
TRIA	Federal Terrorism Risk Insurance Act
U.K.	United Kingdom of Great Britain and Northern Ireland
ULAE	Unallocated loss adjustment expense
VIE	Variable interest entity

TABLE OF CONTENTS

<u>PART I</u>		<u>8</u>
<u>PART II</u>		
<u>Item 5.</u>	<u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>30</u>
<u>Item 6.</u>	<u>Selected Financial Data</u>	<u>31</u>
<u>Item 7.</u>	<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>32</u>
<u>Item 7A.</u>	<u>Quantitative and Qualitative Disclosures About Market Risk</u>	<u>120</u>
<u>Item 8.</u>	<u>Financial Statements and Supplementary Data</u>	<u>123</u>
<u>Item 9.</u>	<u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>123</u>
<u>Item 9A.</u>	<u>Controls and Procedures</u>	<u>123</u>
<u>Item 9B.</u>	<u>Other Information</u>	<u>123</u>
<u>PART III</u>		
<u>Item 10.</u>	<u>Directors, Executive Officers and Corporate Governance of the Registrant</u>	<u>125</u>
<u>Item 11.</u>	<u>Executive Compensation</u>	<u>125</u>
<u>Item 12.</u>	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>125</u>
<u>Item 13.</u>	<u>Certain Relationships and Related Transactions, and Director Independence</u>	<u>125</u>
<u>Item 14.</u>	<u>Principal Accountant Fees and Services</u>	<u>125</u>
<u>PART IV</u>		
<u>Item 15.</u>	<u>Exhibits and Financial Statement Schedules</u>	<u>126</u>

Table of Contents

General Information

Throughout this report, references to ProAssurance, "we," "us," "our" or "the Company" refer to ProAssurance Corporation and its consolidated subsidiaries. Because ProAssurance is an insurance holding company and certain terms and phrases common to the insurance industry are used in this report that carry special and specific meanings, we encourage you to read the Glossary of Selected Insurance and Related Financial Terms posted on our website on the Investor Relations page under Other Information (www.proassurance.com/glossary).

Caution Regarding Forward-Looking Statements

Any statements in this Form 10-K that are not historical facts are specifically identified as forward-looking statements. These statements are based upon our estimates and anticipation of future events and are subject to significant risks, assumptions and uncertainties that could cause actual results to vary materially from the expected results described in the forward-looking statements. Forward-looking statements are identified by words such as, but not limited to, "anticipate," "believe," "estimate," "expect," "hope," "hopeful," "intend," "likely," "may," "optimistic," "possible," "potential," "preliminary," "project," "should," "will" and other analogous expressions. There are numerous factors that could cause our actual results to differ materially from those in the forward-looking statements. Thus, sentences and phrases that we use to convey our view of future events and trends are expressly designated as forward-looking statements as are sections of this Form 10-K that are identified as giving our outlook on future business.

Forward-looking statements relating to our business include among other things: statements concerning future liquidity and capital requirements, investment valuation and performance, return on equity, financial ratios, net income, premiums, losses and loss reserve, premium rates and retention of current business, competition and market conditions, the expansion of product lines, the development or acquisition of business in new geographical areas, the availability of acceptable reinsurance, actions by regulators and rating agencies, court actions, legislative actions, payment or performance of obligations under indebtedness, payment of dividends and other matters.

These forward-looking statements are subject to significant risks, assumptions and uncertainties, including, among other things, the following factors that could affect the actual outcome of future events:

- changes in general economic conditions, including the impact of inflation or deflation and unemployment;
- our ability to maintain our dividend payments;
- regulatory, legislative and judicial actions or decisions that could affect our business plans or operations;
- the enactment or repeal of tort reforms;
- formation or dissolution of state-sponsored insurance entities providing coverages now offered by ProAssurance which could remove or add sizable numbers of insureds from or to the private insurance market;
- changes in the interest and tax rate environment;
- resolution of uncertain tax matters and changes in tax laws, including the impact of the TCJA;
- changes in U.S. laws or government regulations regarding financial markets or market activity that may affect the U.S. economy and our business;
- changes in the ability of the U.S. government to meet its obligations that may affect the U.S. economy and our business;
- performance of financial markets affecting the fair value of our investments or making it difficult to determine the value of our investments;
- changes in requirements or accounting policies and practices that may be adopted by our regulatory agencies, the FASB, the SEC, the PCAOB or the NYSE that may affect our business;
- changes in laws or government regulations affecting the financial services industry, the property and casualty insurance industry or particular insurance lines underwritten by our subsidiaries;
- the effect on our insureds, particularly the insurance needs of our insureds, and our loss costs, of changes in the healthcare delivery system and/or changes in the U.S. political climate that may affect healthcare policy or our business;
- consolidation of our insureds into or under larger entities which may be insured by competitors, or may not have a risk profile that meets our underwriting criteria or which may not use external providers for insuring or otherwise managing substantial portions of their liability risk;
- uncertainties inherent in the estimate of our loss and loss adjustment expense reserve and reinsurance recoverable;
- changes in the availability, cost, quality or collectability of insurance/reinsurance;
- the results of litigation, including pre- or post-trial motions, trials and/or appeals we undertake;

Table of Contents

- effects on our claims costs from mass tort litigation that are different from that anticipated by us;
- allegations of bad faith which may arise from our handling of any particular claim, including failure to settle;
- loss or consolidation of independent agents, agencies, brokers or brokerage firms;
- changes in our organization, compensation and benefit plans;
- changes in the business or competitive environment may limit the effectiveness of our business strategy and impact our revenues;
- our ability to retain and recruit senior management;
- the availability, integrity and security of our technology infrastructure or that of our third-party providers of technology infrastructure, including any susceptibility to cyber-attacks which might result in a loss of information or operating capability;
- the impact of a catastrophic event, as it relates to both our operations and our insured risks;
- the impact of acts of terrorism and acts of war;
- the effects of terrorism-related insurance legislation and laws;
- guaranty funds and other state assessments;
- our ability to achieve continued growth through expansion into new markets or through acquisitions or business combinations;
- changes to the ratings assigned by rating agencies to our insurance subsidiaries, individually or as a group;
- provisions in our charter documents, Delaware law and state insurance laws may impede attempts to replace or remove management or may impede a takeover;
- state insurance restrictions may prohibit assets held by our insurance subsidiaries, including cash and investment securities, from being used for general corporate purposes;
- taxing authorities can take exception to our tax positions and cause us to incur significant amounts of legal and accounting costs and, if our defense is not successful, additional tax costs, including interest and penalties; and
- expected benefits from completed and proposed acquisitions may not be achieved or may be delayed longer than expected due to business disruption; loss of customers, employees or key agents; increased operating costs or inability to achieve cost savings; and assumption of greater than expected liabilities, among other reasons.

Additional risks, assumptions and uncertainties that could arise from our membership in the Lloyd's of London market and our participation in Lloyd's Syndicates include, but are not limited to, the following:

- members of Lloyd's are subject to levies by the Council of Lloyd's based on a percentage of the member's underwriting capacity, currently a maximum of 3%, but can be increased by Lloyd's;
- Syndicate operating results can be affected by decisions made by the Council of Lloyd's which the management of Syndicate 1729 and Syndicate 6131 have little ability to control, such as a decision to not approve the business plan of Syndicate 1729 or Syndicate 6131, or a decision to increase the capital required to continue operations, and by our obligation to pay levies to Lloyd's;
- Lloyd's insurance and reinsurance relationships and distribution channels could be disrupted or Lloyd's trading licenses could be revoked making it more difficult for a Lloyd's Syndicate to distribute and market its products;
- rating agencies could downgrade their ratings of Lloyd's as a whole; and
- Syndicate 1729 and Syndicate 6131 operations are dependent on a small, specialized management team and the loss of their services could adversely affect the Syndicate's business. The inability to identify, hire and retain other highly qualified personnel in the future, could adversely affect the quality and profitability of Syndicate 1729's or Syndicate 6131's business.

Our results may differ materially from those we expect and discuss in any forward-looking statements. The principal risk factors that may cause these differences are described in "Item 1A, Risk Factors" in this report.

We caution readers not to place undue reliance on any such forward-looking statements, which are based upon conditions existing only as of the date made, and advise readers that these factors could affect our financial performance and could cause actual results for future periods to differ materially from any opinions or statements expressed with respect to future periods in any current statements. Except as required by law or regulations, we do not undertake and specifically decline any obligation to publicly release the result of any revisions that may be made to any forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.

PART I

ITEM 1. BUSINESS

Overview

ProAssurance Corporation is a holding company for property and casualty insurance companies. For the year ended December 31, 2017, our net premiums written totaled \$764 million, and at December 31, 2017 we had Total Assets of \$4.9 billion and \$1.6 billion of Shareholders' Equity.

Our Mission

We exist to Protect Others

Our Vision

We will be the best in the world at understanding and providing solutions for the risks our customers encounter as healers, innovators, employers and professionals. Through an integrated family of specialty companies, products and services, we will be a trusted partner enabling those we serve to focus on their vital work. As the employer of choice, we embrace every day as a singular opportunity to reach for extraordinary outcomes, build and deepen superior relationships, and accomplish our mission with infectious enthusiasm and unbending integrity.

Our wholly owned insurance subsidiaries provide professional liability insurance for healthcare professionals and facilities, professional liability insurance for attorneys, liability insurance for medical technology and life sciences risks and workers' compensation insurance. We are also the majority capital provider for Syndicate 1729 which writes a range of property and casualty insurance and reinsurance lines. In addition, we are the sole (100%) capital provider of a newly formed SPA, Syndicate 6131, which began active operations in 2018 and focuses on contingency and specialty property business.

Our executive offices are located at 100 Brookwood Place, Birmingham, Alabama 35209 and our telephone number is (205) 877-4400. Our stock trades on the NYSE under the symbol "PRA." Our website is www.proassurance.com and we maintain a dedicated Investor Relations section on that website (investor.proassurance.com) to provide specialized resources for investors and others seeking to learn more about us.

As part of our disclosure through the Investor Relations section of our website, we publish our annual report on Form 10-K, our quarterly reports on Form 10-Q and our current reports on Form 8-K and all other public SEC filings as soon as reasonably practical after filing with the SEC on its EDGAR system. These SEC filings can be found on our website at investor.proassurance.com/Docs. This section also includes information regarding stock trading by corporate insiders by providing access to SEC Forms 3, 4 and 5 when they are filed with the SEC. In addition to federal filings on our website, we make available other documents that provide important additional information about our financial condition and operations. Documents available on our website include the financial statements we file with state regulators (compiled under SAP as required by regulation), news releases that we issue, a listing of our investment holdings and certain investor presentations. The Governance section of our website provides copies of the charters for our governing committees and many of our governing policies. Printed copies of these documents may be obtained from Frank O'Neil, Senior Vice President, ProAssurance Corporation, either by mail at P.O. Box 590009, Birmingham, Alabama 35259-0009, or by telephone at (205) 877-4400 or (800) 282-6242.

Our History

We were incorporated in Delaware in 2001 as the successor to Medical Assurance, Inc. in conjunction with its merger with Professionals Group, Inc. ProAssurance has a history of growth through acquisitions. Acquisitions completed in the most recent five years include:

- Medmarc Mutual Insurance Company and subsidiaries, acquired January 1, 2013, and
- Eastern Insurance Holdings, Inc., acquired January 1, 2014.

We provided the majority of the capital for the newly formed Syndicate 1729 in November 2013, and Syndicate 1729 began active operations effective January 1, 2014. We provided 100% of the capital for the newly formed SPA, Syndicate 6131, in December 2017, and Syndicate 6131 began active operations effective January 1, 2018.

Our Strategy

Our main business objective is to generate attractive total return for our shareholders. The basic components of our strategy for achieving this objective are as follows:

- *Provide specialized healthcare-centric expertise to meet evolving demands in the healthcare marketplace.* Through our focus on healthcare, we provide traditional liability insurance products to healthcare providers. We also leverage our reach, expertise and financial strength to provide innovative and customized products to meet the risk management needs of larger healthcare organizations or groups.

Table of Contents

- *Provide superior workers' compensation products and services.* We provide unique workers' compensation products and services that focus on increasing an organization's productivity while reducing costs. We do this by providing innovative programs and solutions that address the specific needs of our customers and return injured workers to wellness.
- *Effectively manage capital.* We carefully monitor use of our capital and consider various options for capital deployment, such as business expansion by our existing subsidiaries, opportunities that arise for mergers or acquisitions, share repurchases and payment of dividends.
- *Pursue profitable underwriting opportunities.* We emphasize profitability, not market share. Key elements of our approach are prudent risk selection using established underwriting guidelines, appropriate pricing and adjusting our business mix as appropriate to effectively utilize capital and achieve market synergies.
- *Emphasize risk management.* We seek to reduce risk at the corporate level by actively managing our enterprise risk and by maintaining strong internal controls. We also emphasize the importance of risk management to our insureds and offer them training in the use of risk reduction tools and techniques.
- *Manage claims effectively.* Our experienced claims teams have industry and insurance expertise that, with our extensive local knowledge, allows us to resolve claims in an effective manner, considering the circumstances of each claim. When practical, we utilize formalized claims management processes and protocols as a means of reducing claim costs.
- *Provide superior customer service.* Our mission statement, "We exist to Protect Others," goes hand-in-hand with our corporate brand promise, "Treated Fairly." Our employees demonstrate our core values of integrity, leadership, relationships and enthusiasm every day and are focused on meeting the needs of our customers.
- *Maintain a conservative investment strategy.* We believe that we follow a conservative investment strategy designed to emphasize the preservation of our capital and provide adequate liquidity for the prompt payment of claims. Our investment portfolio consists primarily of investment-grade, fixed-maturity securities of short-to medium-term duration.
- *Maintain financial stability.* We are committed to maintaining claims paying ratings of "A" or better from major rating agencies.

Organization and Segment Information

We operate through multiple insurance organizations and report our operating results in four segments, as follows:

- *Specialty Property and Casualty Segment* - This segment includes our professional liability business and our medical technology and life sciences business.
- *Workers' Compensation Segment* - This segment includes our workers' compensation business which we provide for employers, groups and associations.
- *Lloyd's Syndicate Segment* - This segment includes operating results from our participation in Lloyd's Syndicates.
- *Corporate Segment* - This segment includes our investment operations, interest expense and U.S. income taxes, all of which are managed at the corporate level with the exception of investment assets solely allocated to Lloyd's Syndicate operations. This segment also includes non-premium revenues generated outside of our insurance entities and corporate expenses.

Gross Premiums Written

Gross premiums written for the years ended December 31, 2017, 2016 and 2015 were comprised as follows:

(\$ in thousands)	Year Ended December 31					
	2017		2016		2015	
Specialty P&C ⁽¹⁾	\$ 549,323	63%	\$ 535,725	64%	\$ 526,296	65%
Workers' Compensation	263,391	30%	247,940	30%	243,608	30%
Syndicate 1729 ⁽²⁾	70,224	8%	65,157	8%	56,929	7%
Inter-segment revenues ⁽²⁾	(8,062)	(1%)	(13,808)	(2%)	(14,615)	(2%)
Total	<u>\$ 874,876</u>	<u>100%</u>	<u>\$ 835,014</u>	<u>100%</u>	<u>\$ 812,218</u>	<u>100%</u>

⁽¹⁾ Primarily comprised of one-year term policies, but includes premium related to policies with a two-year term of \$27.4 million in 2017, \$21.9 million in 2016 and \$29.7 million in 2015.

⁽²⁾ Our written premium includes our 58% share of premiums written by Syndicate 1729, including casualty premium assumed by Syndicate 1729 from our Specialty P&C segment. We eliminate this inter-segment revenue.

Table of Contents

We do not allocate assets to segments because investments and other assets are not managed at the segment level. Additional detailed information regarding premium by individual product type within each of our insurance segments is provided in Item 7, Management's Discussion and Analysis, in the Results of Operations section, under the headings "Premiums Written."

Our insurance exposures are primarily within the U.S. As a result of our participation in Syndicate 1729, we had net written premium of \$21.3 million in 2017, \$12.2 million in 2016 and \$4.7 million in 2015 associated with insurance exposures outside of the U.S.

Specialty Property and Casualty Segment

Professional Liability Insurance

Our professional liability business is primarily focused on providing professional liability insurance to healthcare providers. We target the full spectrum of the HCPL market, covering multiple categories of healthcare professionals and healthcare entities, including hospitals and other healthcare facilities. While most of our business is written in the standard market, we also offer professional liability insurance on an excess and surplus lines basis, and we offer alternative risk and self-insurance products on a custom basis.

We utilize independent agencies and brokers as well as an internal sales force to write our HCPL business. For the year ended December 31, 2017, approximately 65% of our HCPL gross premiums written were produced through independent insurance agencies or brokers. The agencies and brokers we use typically sell through healthcare insurance specialists who are able to convey the factors that differentiate our professional liability insurance products. In 2017, our ten largest agents or brokers produced approximately 27% of our HCPL premium; individually, no one agency produced more than 10% of our HCPL premium.

In marketing our professional liability products we emphasize our financial strength, product flexibility and excellent claims, underwriting and risk resource services. We market our insurance products through our direct sales force and through our agents as well as direct mailings and advertising in industry-related publications. We also are involved in professional societies and related organizations and support legislation that will have a positive effect on healthcare and legal liability issues. We maintain regional underwriting centers which permit us to consistently provide a high level of customer service to both small and large accounts.

We maintain claim processing centers where our internal claims personnel investigate and monitor the processing of our professional liability claims. We engage experienced, independent litigation attorneys in each venue to assist with the claims process as we believe this practice aids us in providing a defense that is aggressive, effective and cost-efficient. We evaluate the merit of each claim and determine the appropriate strategy for resolution of the claim, either seeking a reasonable good faith settlement appropriate for the circumstances of the claim or aggressively defending the claim. As part of the evaluation and preparation process for HCPL claims, we meet regularly with medical advisory committees in our key markets to examine claims, attempt to identify potentially troubling practice patterns and make recommendations to our staff.

We also provide professional liability coverage to attorneys, and this is a less significant portion of our business, accounting for approximately 3% of our 2017 gross premiums written.

During 2016, we expanded our alternative market solutions by writing new healthcare premium in certain SPCs. All or a portion of the premium written is ceded to Eastern Re, our wholly owned reinsurance subsidiary domiciled in the Cayman Islands. Total alternative market premium written in this segment during 2017 was approximately \$4.3 million of which 100% was ceded to the SPCs operated through Eastern Re. Our Specialty P&C segment does not currently participate in the cells that write HCPL premium, and therefore retains no underwriting profit or loss on the business ceded to Eastern Re.

Medical Technology and Life Sciences Insurance

Our medical technology liability business offers products-completed operations liability as well as errors and omissions liability insurance policies for medical technology and life sciences companies. These companies manufacture or distribute products that are almost all regulated by the U.S. Food and Drug Administration or similar regulatory authorities in foreign jurisdictions. Products insured include imaging and non-invasive diagnostic medical devices, orthopedic implants, pharmaceuticals, clinical lab instruments, medical instruments and surgical supplies, dental products, and animal pharmaceuticals and medical devices. We also provide coverage for sponsors of clinical trials and contract manufacturers.

Underwriting decisions for our medical technology liability coverages consider the type of risk, the amount of coverage being sought, the expertise and experience of the applicant, and the expected volume of product sales. Close to 100% of our medical technology liability business is written through independent brokers. In 2017, our top ten largest brokers generated approximately 49% of our medical technology liability gross written premium, with no one broker representing more than 14%.

Table of Contents

We do not appoint agents for our medical technology liability business. We strongly defend our medical technology liability claims, with a negotiated settlement being the most frequent means of resolution.

Workers' Compensation Segment

Our Workers' Compensation segment offers workers' compensation products in the Mid-Atlantic, Southeast, Midwest, Gulf South and New England regions of the continental U.S. Our workers' compensation business consists of two major business activities:

- Traditional workers' compensation insurance coverages provided to employers, generally those with 1,000 employees or less. Types of policies offered include guaranteed cost policies, policyholder dividend policies, retrospectively-rated policies and deductible policies.
- Alternative market workers' compensation solutions provided to individual companies, groups and associations whereby the premium written is 100% ceded to either the SPCs within Eastern Re or to unaffiliated captive insurers. Of our total alternative market premiums written, approximately 92% in 2017 and 90% in 2016 was ceded to SPCs operated through Eastern Re. Each SPC is owned, fully or in part, by an agency or insured group or association, hereafter referred to as cell participants. The SPC is operated solely for the benefit of cell participants of that particular cell, and the pool of assets of one SPC are statutorily protected from the creditors of any other SPC. The underwriting results and investment income of the SPCs are shared with the cell preferred shareholders or participants in accordance with the terms of the cell agreements. We participate as either a preferred shareholder or participant to a varying degree in the results of certain SPCs. As of December 31, 2017, our ownership interest in the SPCs in which we participate is as low as 25% and as high as 85%.

All of our workers' compensation products are distributed through a group of appointed independent agents.

We utilize an individual account underwriting strategy for our workers' compensation business that is focused on selecting quality accounts. The goal of our workers' compensation underwriters is to select a diverse book of business with respect to risk classification, hazard level and geographic location. We target accounts with strong return to wellness and safety programs in primarily low to middle hazard levels such as clerical offices, light manufacturing, healthcare, auto dealers and service industries and maintain a strong risk management unit in order to better serve our customers' needs. During 2017, we established our Eastern Specialty Risk unit, which focuses on higher hazard risks in select industries. New business written totaled \$4.6 million in this unit in 2017.

We actively seek to reduce our workers' compensation loss costs by placing a concentrated focus on returning injured workers to wellness as quickly as possible. We emphasize early intervention and aggressive disability management, utilizing in-house and third-party specialists for case management, including medical cost management. Strategic vendor relationships have been established to reduce medical claim costs and include preferred provider, physical therapy, prescription drug and catastrophic medical services.

Lloyd's Syndicate Segment

Our Lloyd's Syndicate segment includes operating results from our participation in Lloyd's of London Syndicates. The results of this segment are normally reported on a quarter delay, except when information is available that is material to the current period. Furthermore, investment results associated with investment assets solely allocated to Lloyd's Syndicate operations and certain U.S. paid administrative expenses are reported concurrently as that information is available on an earlier time frame. We have a total capital commitment to support Syndicate 1729 and Syndicate 6131 through 2022 of up to \$200 million. For the 2018 underwriting year, we have satisfied our capital commitment with investment securities deposited with Lloyd's which at December 31, 2017 had a fair value of approximately \$123.9 million.

Lloyd's Syndicate 1729

We are the majority (58%) capital provider to Syndicate 1729 with the remaining capital provided by unrelated third parties, including private names and other corporate members. For the 2018 underwriting year, we increased our participation in the operating results of Syndicate 1729 from 58% to 62%. Syndicate 1729 covers a range of property and casualty insurance and reinsurance lines, primarily for risks within the U.S., and for the 2018 underwriting year has a maximum underwriting capacity of £132 million (approximately \$178.4 million at December 31, 2017), of which £82 million (approximately \$110.8 million at December 31, 2017) is our allocated underwriting capacity as a corporate member.

Lloyd's Syndicate 6131

Beginning in 2018, our Lloyd's Syndicate segment will include the operating results of a newly formed SPA, Syndicate 6131. A Lloyd's SPA is only allowed to underwrite one quota share reinsurance contract with another Lloyd's syndicate, which in this arrangement is Syndicate 1729. We are the sole (100%) capital provider to Syndicate 6131 which will focus on contingency and specialty property business. For the 2018 underwriting year, Syndicate 6131 has a maximum underwriting capacity of £8 million (approximately \$10.8 million at December 31, 2017).

Table of Contents

Corporate Segment

Our Corporate segment includes investment operations managed at the corporate level, except investment assets solely allocated to Lloyd's Syndicate operations, non-premium revenues generated outside of our insurance entities and corporate expenses, including interest expense and U.S. income taxes. We apply a consistent management strategy to the entire investment portfolio managed at the corporate level. Accordingly, we report those investment results and net realized investment gains and losses within our Corporate segment. Our overall investment strategy is to maximize current income from our investment portfolio while maintaining safety, liquidity, duration targets and portfolio diversification. The portfolio is generally managed by professional third-party asset managers whose results we monitor and evaluate. The asset managers typically have the authority to make investment decisions within the asset classes they are responsible for managing, subject to our investment policy and oversight, including a requirement that available-for-sale securities in a loss position cannot be sold without specific authorization from us. See Note 3 of the Notes to Consolidated Financial Statements for more information on our investments.

Competition

The marketplace for all our lines of business is very competitive. Within the U.S. our competitors are primarily domestic insurance companies and range from large national insurers whose financial strength and resources may be greater than ours to smaller insurance entities that concentrate on a single state and as a result have an extensive knowledge of the local markets. Additionally, there are many providers, domestic and international, of alternative risk management solutions. Syndicate 1729 and Syndicate 6131, which are based in the U.K., face significant competition from other Lloyd's syndicates as well as other international and domestic insurance and reinsurance firms operating in the country of the insured. Competitive distinctions include pricing, size, name recognition, service quality, market commitment, market conditions, breadth and flexibility of coverage, method of sale, financial stability, ratings assigned by rating agencies and regulatory conditions.

The changing healthcare environment within the U.S. during the past few years is providing both increased competitive challenges and opportunities for our largest segment, the Specialty P&C segment. Many physicians now practice as employees of larger healthcare entities. Further, healthcare services are increasingly provided by professionals other than physicians and outside of a traditional hospital or clinic setting. Such trends are widely expected to continue. Larger healthcare entities have customer service and risk management needs that differ from the traditional solo or small physician groups. Larger entities are more likely to combine risks such as workers' compensation and professional liability when purchasing insurance and are also more likely to manage all or a part of their risk through alternative insurance mechanisms. We have addressed these issues by enhancing our existing hospital/physician insurance programs, expanding our coverage of healthcare providers other than physician or hospitals, expanding our coverages to include workers' compensation and product liability, and by enhancing our customer service capabilities, particularly with regard to the needs of larger accounts. We have also increased our focus on offering unique, joint or cooperative insurance programs that are attractive to larger healthcare entities.

The workers' compensation industry is highly competitive in the geographic markets in which we operate. Price competition, including the leveraging of workers' compensation business by multi-line insurers, and the effect of loss cost reductions in many of the states in which we write business impacted our renewal rates during 2017, and we expect the trend to continue in 2018. We believe our product offerings allow us to provide flexibility in offering workers' compensation solutions to our customers at a competitive price. In addition, we believe that our claims handling and risk management services are attractive to our customers and provide us with a competitive advantage even when our pricing is higher than our competitors.

For all of our business, we recognize the importance of providing our products at competitive rates, but we do not price our products at rates that will not permit us to meet our profit targets. We base our rates on current loss projections, maintaining a long-term focus even when this approach reduces our top line growth. We believe that our size, reputation for effective claims management, unique customer service focus, multi-state presence and broad spectrum of coverages offered provides us with competitive advantages, even as the needs of our insureds change.

Rating Agencies

Our claims paying ability is regularly evaluated and rated by three major rating agencies: A.M. Best, Fitch and Moody's. In developing their claims paying ratings, these agencies make an independent evaluation of an insurer's ability to meet its obligations to policyholders. See "Risk Factors" for a table presenting the claims paying ratings of our principal insurance operations.

Three rating agencies evaluate and rate our ability to service current debt and potential debt. These financial strength ratings reflect each agency's independent evaluation of our ability to meet our obligation to holders of our debt, if any. While financial strength ratings may be of greater interest to investors than our claims paying ratings, these ratings are not evaluations of our equity securities nor a recommendation to buy, hold or sell our equity securities.

Table of Contents

Insurance Regulatory Matters

We are subject to regulation under the insurance and insurance holding company statutes of various jurisdictions, including the domiciliary states of our insurance subsidiaries and other states in which our insurance subsidiaries do business. Our insurance subsidiaries are primarily domiciled in the U.S. Our states of domicile include Alabama, Illinois, Michigan, Pennsylvania and Vermont. Our foreign jurisdictions include our reinsurance operations based in the Cayman Islands, a territory of the U.K., and, through our participation in Lloyd's Syndicates, our insurance and reinsurance operations based in the U.K.

United States

Our insurance subsidiaries are required to file detailed annual statements in their states of domicile, with the NAIC and, in some cases, with the state insurance regulators in each of the states in which they do business. The laws of the various states establish agencies with broad authority to regulate, among other things, licenses to transact business, premium rates for certain types of coverage, trade practices, agent licensing, policy forms, underwriting and claims practices, reserve adequacy, transactions with affiliates and insurer solvency. Such regulations may hamper our ability to meet operating or profitability goals, including preventing us from establishing premium rates for some classes of insureds that adequately reflects the level of risk assumed for those classes. Many states also regulate investment activities on the basis of quality, distribution and other quantitative criteria. States have also enacted legislation, typically based in whole or in part on NAIC model laws, which regulates insurance holding company systems, including acquisitions, the payment of dividends, the terms of affiliate transactions, enterprise risk and solvency management, and other related matters.

Applicable state insurance laws, rather than federal bankruptcy laws, apply to the liquidation or reorganization of insurance companies.

Insurance companies are also subject to state and federal legislative and regulatory measures and judicial decisions. These could include new or updated definitions of risk exposure and limitations on business practices.

Insurance Regulation Concerning Change or Acquisition of Control

The insurance regulatory codes in each of the domiciliary states of our operating subsidiaries contain provisions (subject to certain variations) to the effect that the acquisition of "control" of a domestic insurer or of any person that directly or indirectly controls a domestic insurer cannot be consummated without the prior approval of the domiciliary insurance regulator. In general, a presumption of "control" arises from the direct or indirect ownership, control or possession with the power to vote or possession of proxies with respect to 10% (5% in Alabama) or more of the voting securities of a domestic insurer or of a person that controls a domestic insurer. Because of these regulatory requirements, any party seeking to acquire control of ProAssurance or any other domestic insurance company, whether directly or indirectly, would usually be required to obtain such approvals.

In addition, certain state insurance laws contain provisions that require pre-acquisition notification to state agencies of a change in control of a non-domestic insurance company admitted in that state. While such pre-acquisition notification statutes do not authorize the state agency to disapprove the change of control, such statutes do authorize certain remedies, including the issuance of a cease and desist order with respect to the non-domestic admitted insurers doing business in the state if certain conditions exist, such as undue market concentration.

Insurance Regulation Concerning Cybersecurity

In March 2017, new cybersecurity rules took effect for financial institutions, insurers and other companies regulated by the NYDFS. The NYDFS Cybersecurity Regulation's intent is to encourage the protection of consumer information, as well as the technology systems of NYDFS regulated entities. We are currently compliant according to the transition periods defined in the NYDFS Cybersecurity Regulation.

In addition, in October 2017, the NAIC adopted the Insurance Data Security Model Law, which creates rules for insurers, agents and other licensed entities covering data security and investigation and notification of breach. Such rules include maintaining an information security program based on an ongoing risk assessment, overseeing third-party service providers, investigating data breaches and notifying regulators of a cybersecurity event. We expect states, including our states of domicile, to adopt the NAIC's Insurance Data Security Model Law. We do not expect compliance with the Insurance Data Security Model Law to have a material impact on our financial condition or results of operations as it closely resembles the NYDFS Cybersecurity Regulation.

Table of Contents

Statutory Accounting and Reporting

Insurance companies are required to file detailed quarterly and annual reports with state insurance regulators in their state of domicile and each of the states in which they do business. Their business and accounts are subject to examination by such regulators at any time. The financial information in these reports is prepared in accordance with SAP. Insurance regulators periodically examine each insurer's adherence to SAP, financial condition and compliance with insurance department rules and regulations.

Regulation of Dividends and Other Payments from Our Operating Subsidiaries

Our U.S. operating subsidiaries are subject to various state statutory and regulatory restrictions that limit the amount of dividends or distributions an insurance company may pay to its shareholders, including our insurance holding company, without prior regulatory approval. Generally, dividends may be paid only out of unassigned earned surplus. In every case, surplus subsequent to the payment of any dividends must be reasonable in relation to an insurance company's outstanding liabilities and must be adequate to meet its financial needs.

State insurance holding company regulations generally require domestic insurers to obtain prior approval of extraordinary dividends. Insurance holding company regulations that govern our principal operating subsidiaries deem a dividend as extraordinary if the combined dividends and distributions to the parent holding company in any twelve-month period exceed prescribed thresholds. Such thresholds are statutorily prescribed by the state of domicile and currently are based on either net income for the prior fiscal year (reduced by realized capital gains in certain domiciliary states) or a percentage of unassigned surplus at the end of the prior fiscal year, depending upon the wording of the statute.

If insurance regulators determine that payment of a dividend or any other payments within a holding company group, (such as payments under a tax-sharing agreement or payments for employee or other services) would, because of the financial condition of the paying insurance company or otherwise, be a detriment to such insurance company's policyholders, the regulators may prohibit such payments that would otherwise be permitted.

Risk-Based Capital and Risk Assessment

In order to enhance the regulation of insurer solvency, each state of domicile in accordance with an NAIC-defined formula specifies risk-based capital requirements for property and casualty insurance companies. At December 31, 2017, all of ProAssurance's insurance subsidiaries substantially exceeded the minimum required risk-based capital levels.

In late 2010, the NAIC adopted the Model Holding Co. Law. The Model Holding Co. Law, as compared to previous NAIC guidance, increases regulatory oversight of and reporting by insurance holding companies, including reporting related to non-insurance entities, and requires reporting of risks affecting the holding company group. Additionally, in 2012 the NAIC adopted ORSA, which requires insurers to maintain a framework for identifying, assessing, monitoring, managing and reporting on the "material and relevant risks" associated with the insurer's (or insurance group's) current and future business plans. ORSA requires larger insurers, generally those with annual written premium volume greater than \$1.0 billion as a group or \$500 million as an individual insurer, to file an internal assessment of solvency with insurance regulators annually beginning in 2015. Although no specific capital adequacy standard is currently articulated in ORSA, it is possible that such standard will be developed over time. The Model Holding Co. Law and ORSA will be binding only if adopted by state legislatures and/or state insurance regulatory authorities and actual regulations adopted by any state may differ from that adopted by the NAIC. As of December 31, 2017, all states have adopted the Model Holding Co. Law and 48 states have adopted ORSA. ProAssurance did not meet ORSA filing criteria in 2017.

Also, the NAIC subsequently revised the Model Holding Co. Law to include provisions which allow regulatory supervision of the holding company group through supervisory colleges and which require reporting of risk and solvency assessments for the group. Certain states in which we operate adopted these revisions early and we began filing our risk and solvency assessment in 2014.

Investment Regulation

Our operating subsidiaries are subject to state laws and regulations that require diversification of investment portfolios and that limit the amount of investments in certain investment categories. Failure to comply with these laws and regulations may cause non-conforming investments to be treated as non-admitted assets for purposes of measuring statutory surplus and, in some instances, would require divestiture of investments. We monitor the practices used by our operating subsidiaries for compliance with applicable state investment regulations and take corrective measures when deficiencies are identified.

Table of Contents

Assessment Funds

Admitted insurance companies are required to be members of guaranty associations which administer state guaranty funds. To fund the payment of claims (up to prescribed limits) against insurance companies that become insolvent, these associations levy assessments on all member insurers in a particular state on the basis of the proportionate share of the premiums written by member insurers in the covered lines of business in that state. Maximum assessments permitted by law in any one year generally vary between 1% and 2% of annual premiums written by a member in that state, although state regulations may permit larger assessments if insolvency losses reach specified levels. Some states permit member insurers to recover assessments paid through surcharges on policyholders or through full or partial premium tax offsets, while other states permit recovery of assessments through the rate filing process. In recent years, participation in guaranty funds has not had a material effect on our results of operations.

Certain states in which we write workers' compensation insurance have established administrative and/or second injury funds that levy assessments against insurers that write business in their state. The assessments are generally based on insurer's proportionate share of premiums or losses in a particular state, and the assessment rate can vary from year to year.

Shared Markets

State insurance regulations may force us to participate in mandatory property and casualty shared market mechanisms or pooling arrangements that provide certain insurance coverage to individuals or other entities that are otherwise unable to purchase such coverage in the commercial insurance marketplace. Our operating subsidiaries' participation in such shared markets or pooling mechanisms is not material to our business at this time.

Federal Regulation

Tort reform proposals are considered from time to time at the federal level. Passage of a federal tort reform package would likely be subject to judicial challenge and we cannot be certain that it would be upheld by the courts.

The Dodd-Frank Act was enacted in July 2010 and established additional regulatory oversight of financial institutions. To date, the Dodd-Frank Act has not materially affected our business. However, development of regulations is not complete, and there could yet be changes in the regulatory environment that affect the way we conduct our operations or the cost of compliance, or both.

One of the federal government bodies created by the Dodd-Frank Act was the FIO which in December 2013 released a proposal on insurance modernization and improvement of the system of insurance regulation in the U.S. Although the FIO is prohibited from directly regulating the business of insurance, it has authority to represent the U.S. in international insurance matters and has limited power to preempt certain types of state insurance laws. The proposal advocates significantly greater federal involvement in insurance regulation and identifies necessary reforms by the states to preclude further consideration of direct federal regulation. While the proposal does not necessarily imply that the federal government will displace state regulation completely, it does recommend more of a hybrid approach to insurance regulation. In response to the FIO proposal, the NAIC and a number of state legislatures have considered or adopted legislative proposals that alter and, in many cases, increase the authority of state agencies to regulate insurance companies and insurance holding company systems. We cannot predict whether the proposals will be adopted or what impact, if any, subsequently enacted laws might have on our business, financial condition or results of operations.

In June 2017, the U.S. House of Representatives passed the Financial CHOICE Act, which would amend or repeal certain regulations in the Dodd-Frank Act, specifically modifying provisions related to insurance regulation. Revisions include the consolidation of two conflicting federal insurance positions into a single position established to advocate for the U.S. insurance industry at domestic and international levels, while preserving the traditional state-based system of insurance regulation. This proposed legislation is now being considered by the U.S. Senate. We are unable to predict with any certainty the effect that the Financial CHOICE Act, if passed, will have on our business.

In June 2012, Congress passed the Biggert-Waters Bill, which provided for a five-year renewal of the NFIP and, among other things, authorized the Federal Emergency Management Agency to carry out initiatives to determine the capacity of private insurers, reinsurers, and financial markets to assume a greater portion of the flood risk exposure in the U.S. and to assess the capacity of the private reinsurance market to assume some of the program's risk. In August 2017, the President of the U.S. signed an executive order revoking the establishment of a federal flood risk management standard. In November 2017, the U.S. House of Representatives adopted a bill to reauthorize the NFIP for five years and implement several reforms, including provisions designed to spur additional private insurer involvement in covering flood risk, but the U.S. Senate has yet to vote on the measure. Due to the 2017 hurricane season, Congress adopted a short-term extension to fund the NFIP through January 2018, which lapsed on January 19, 2018. On January 22, 2018, Congress reauthorized the NFIP retroactively by adopting a short-term extension through February 2018. We cannot predict whether the proposals will be adopted or what impact, if any, subsequently enacted laws might have on our business, financial condition or results of operations.

Table of Contents

U.S. Department of the Treasury Report

In February 2017, the President of the U.S. issued an Executive Order that calls for a comprehensive review of laws, treaties, regulations, policies and guidance regulating the U.S. financial system, and requires the Secretary of the Treasury to consult with the heads of the member agencies of the Financial Stability Oversight Council to identify any laws, regulations or requirements that inhibit federal regulation of the financial system in a manner consistent with the core principles identified in the Executive Order. The Secretary's report on asset management and insurance was issued in October 2017 and recommended activities-based evaluations of systemic risk in the insurance industry rather than an entity-based approach. The report also supported primary regulation of the U.S. insurance industry by the states rather than the federal government. We cannot predict whether any of the recommendations will ultimately become laws, regulations or other requirements applicable to our business.

U.S. Tax Legislation

On December 22, 2017, the President of the U.S. signed the TCJA into law. The TCJA includes significant changes to the U.S. corporate income tax system, including a reduction in the federal corporate rate from 35% to 21% beginning after December 31, 2017, changes to loss reserve discounting factors, limitations on the deductibility of interest expense and executive compensation, and modifications of the taxation of non-U.S. subsidiaries. Additionally, the TCJA could result in material uncertainties with respect to estimates made in our provision for income taxes and could materially affect management's assessment of the need for a valuation allowance. See further discussion of the impact of the TCJA on our results of operations and financial position provided in Item 7, Management's Discussion and Analysis, in the Critical Accounting Estimates section under the heading "Taxes" or Note 5 of the Notes to Consolidated Financial Statements.

Terrorism Risk Insurance Act

TRIA, initially enacted in 2002 and reauthorized in 2007 and 2015, ensures the availability of insurance coverage for certain acts of terrorism, as defined in the legislation. The 2015 reauthorization extended the program through 2020. TRIA currently provides that during 2018 a loss event must exceed \$160 million to trigger coverage and that the federal government will reimburse 82% of an insurer's losses in excess of the insurer's deductible, up to the maximum annual federal liability of \$100 billion. The event trigger will gradually increase to \$200 million by 2020 and the reimbursement percentage will gradually decline to 80% by 2020. TRIA requires that we offer terrorism coverage to our commercial policyholders in our workers' compensation line of business, for which we may, when warranted, charge an additional premium. The policyholders may or may not accept such coverage.

International

Cayman Islands

Our SPC business operates through our subsidiary, Eastern Re, which is organized and licensed as a Cayman Islands unrestricted Class B insurance company. Eastern Re is subject to regulation by CIMA. Applicable laws and regulations govern the types of policies that Eastern Re can insure or reinsure, the amount of capital that it must maintain and the way it can be invested, and the payment of dividends without approval by the CIMA. Eastern Re is required to maintain minimum capital of approximately \$200,000 and must receive approval from the CIMA before it can pay any dividends.

United Kingdom

Syndicate 1729 and Syndicate 6131 are regulated in the U.K. by the Prudential Regulation Authority and the Financial Conduct Authority. All Lloyd's Syndicates must also comply with the bylaws and regulations established by the Council of Lloyd's including submission and approval of an annual business plan and maintenance of stipulated capital levels. Also, the Council of Lloyd's may call or assess a percentage of a member's underwriting capacity (currently a maximum of 3%) as a contribution to Lloyd's Central Fund, which, similar to state guaranty funds in the U.S., meets policyholder obligations if a Lloyd's member is otherwise unable to do so.

The European Union's executive body, the European Commission, has implemented new capital adequacy and risk management regulations called Solvency II that applies to businesses within the European Union. Solvency II became effective January 1, 2016. Both Syndicate 1729 and Syndicate 6131 follow the Solvency II compliance guidelines set out by the Council of Lloyd's.

In June 2016, the U.K. approved a referendum to exit the European Union, commonly referred to as "Brexit", which resulted in volatility in global stock markets and currency exchange rates, and has increased political, economic and global market uncertainty. The formal process for Brexit was triggered in March 2017 by the filing of a notice to withdraw. The effects of Brexit will depend in part on any agreements the U.K. makes to retain access to European Union markets either during a transitional period or more permanently. Brexit could impair or end the ability of Lloyd's Syndicates to transact business in European Union countries. Until the withdrawal is finalized, Lloyd's is currently permitted to operate without the need for

Table of Contents

additional licensing or authorization from each individual country. In March 2017, Lloyd's announced that it will be establishing a new European insurance company in Brussels in order to maintain access to European Union business for the 2019 renewal season, subject to regulatory approval. We cannot predict the nature and extent of the impact that Brexit will have on regulation, interest rates, currency exchange rates and financial markets.

Enterprise Risk Management

As a large property and casualty insurance provider, we are exposed to many risks stemming from both our insurance operations and the environments in which we operate. Since certain risks can be correlated with other risks, an event or a series of events can impact multiple areas of the Company simultaneously and have a material effect on the Company's results of operations, financial position and/or liquidity. In response to these exposures we have implemented an ERM program. Our ERM program consists of numerous processes and controls that have been designed by our senior management with oversight by our Board and implemented across our organization. We utilize ERM to identify potential risks from all aspects of our operations and to evaluate these risks in a manner that is both prudent and balanced. Our primary objective is to develop a risk appetite that creates and preserves value for all of our stakeholders.

Employees

At December 31, 2017, we had 994 employees, none of whom were represented by a labor union. We consider our employee relations to be good.

ITEM 1A. RISK FACTORS.

There are a number of factors, many beyond our control, which may cause results to differ significantly from our expectations. Some of these factors are described below. Any factor described in this report could by itself, or together with one or more other factors, have a negative effect on our business, results of operations and/or financial condition. There may be factors not described in this report that could also cause results to differ from our expectations.

Insurance market conditions may alter the effectiveness of our current business strategy and impact our revenues.

The property and casualty insurance business is highly competitive. We compete in a fragmented market comprised of many insurers, ranging from smaller single state monoline insurers who have an extensive knowledge of local markets to large national insurers who offer multiple product lines and whose financial strength and resources may be greater than ours. In many instances, coverage we offer is also available through mutual entities whose ROE objectives may be lower than ours. Also, there are many opportunities for self-insurance and for participation in an alternative risk transfer mechanism, such as a captive insurer or a risk retention group.

Competition in the property and casualty insurance business is based on many factors, including premiums charged and other terms and conditions of coverage, services provided, financial ratings assigned by independent rating agencies, claims services, reputation, geographic scope, local presence, agent and client relationships, financial strength and the experience of the insurance company in the line of insurance to be written. Actions of competitors could adversely affect our ability to attract and retain business at current premium levels, impact our market share and reduce the profits that would otherwise arise from operations.

Because we are a property and casualty insurer, our business may suffer as a result of unforeseen catastrophe losses.

As a property and casualty insurer we are exposed to claims arising out of catastrophes, primarily through our workers' compensation and Lloyd's Syndicate operations. Catastrophes can be caused by various events, including hurricanes, tsunamis, tornadoes, windstorms, earthquakes, hailstorms, explosions, flooding, severe winter weather and fires and may include man-made events, such as terrorist attacks or a widespread financial crisis. The incidence, frequency and severity of catastrophes are inherently unpredictable. While we use historical data and modeling tools to assess our potential exposure to catastrophic losses under various conditions and probability scenarios, such assessments do not necessarily accurately predict future losses or accurately measure our potential exposure. The extent of losses from a catastrophe is a function of both the total amount of insured exposure in the area affected by the event and the severity of the event.

Our loss exposure for a terrorist act meeting the TRIA definition is mitigated by our coverage provided by this program as described in Part I under the heading "Insurance Regulatory Matters." Congress has the ability to alter or repeal the provisions of TRIA at its discretion, and if altered or repealed our exposure could increase and result in premium increases for those types of coverages. Workers' compensation coverages cannot exclude damages related to an act of terrorism and if TRIA were repealed or the benefits were substantially reduced, this might affect our ability to offer these coverages at a reasonable rate.

Insurance companies are not permitted to reserve for a catastrophe until it has occurred. Although we purchase reinsurance protection for risks we believe bear a significant level of catastrophe exposure, actual losses resulting from a catastrophic event or events may exceed our reinsurance protection. Furthermore, for significant catastrophic exposure, the inability or unwillingness of the reinsurer to make timely payments under the terms of the reinsurance agreement could impact our liquidity. It is therefore possible that a catastrophic event or multiple catastrophic events could have a material adverse effect on our financial position, results of operations and liquidity.

Our results of operations and financial condition may be affected if actual insured losses differ from our loss reserves or if actual amounts recoverable under reinsurance agreements differ from our estimated recoverables.

We establish reserves as balance sheet liabilities representing our estimates of amounts needed to resolve reported and unreported losses and pay related loss adjustment expenses. Our largest liability is our reserve for losses and loss adjustment expenses. Due to the size of our reserve for losses and loss adjustment expenses, even a small percentage adjustment to our reserve can have a material effect on our results of operations for the period in which the change is made.

The process of estimating loss reserves is complex. Significant periods of time may elapse between the occurrence of an insured loss, the reporting of the loss by the insured and payment of that loss. Ultimate loss costs, even for claims with similar characteristics, can vary significantly depending upon many factors including but not limited to the nature of the claim, including whether the claim is an individual or a mass tort claim, the personal situation of the claimant or the claimant's family, the outcome of jury trials, the legislative and judicial climate where the insured event occurred, general economic conditions and, for claims involving bodily injury, the trend of healthcare costs. Consequently, the loss cost estimation process requires actuarial skill and the application of judgment and such estimates require periodic revision. As part of the reserving process, we

Table of Contents

review the known facts surrounding reported claims as well as historical claims data and consider the impact of various factors such as:

- for reported claims, the nature of the claim and the jurisdiction in which the claim occurred;
- trends in paid and incurred loss development;
- trends in claim frequency and severity;
- emerging economic and social trends;
- trends in healthcare costs for claims involving bodily injury;
- inflation and levels of employment; and
- changes in the regulatory, legal and political environment.

This process assumes that past experience, adjusted for the effects of current developments and anticipated trends, is an appropriate, but not necessarily accurate, basis for predicting future events. There is no precise method for evaluating the impact of any specific factor on the adequacy of reserves, and actual results are likely to differ from original estimates. We evaluate our reserves each period and increase or decrease reserves as necessary based on our estimate of future claims payments. An increase to reserves has a negative effect on our results of operations in the period of increase; a reduction to reserves has a positive effect on our results of operations in the period of reduction.

Our loss reserves also may be affected by court decisions that expand liability of our policies after they have been issued. In addition, a significant jury award or series of awards against one or more of our insureds could require us to pay large sums of money in excess of our reserved amounts. Due to uncertainties inherent in the jury system, any case that is litigated to a jury verdict has the potential to incur a loss that has a material adverse effect on our results of operations.

We purchase reinsurance to mitigate the effect of large losses. Our receivable from reinsurers on unpaid losses and loss adjustment expenses represents our estimate of the amount of our reserve for losses that will be recoverable under our reinsurance programs. We base our estimate of funds recoverable upon our expectation of ultimate losses and the portion of those losses that we estimate to be allocable to reinsurers based upon the terms and conditions of our reinsurance agreements. Given the uncertainty of the ultimate amounts of our losses, our estimates of losses and related amounts recoverable may vary significantly from the eventual outcome. Also, we estimate premiums ceded under reinsurance agreements wherein the premium due to the reinsurer, subject to certain maximums and minimums, is based in part on losses reimbursed or to be reimbursed under the agreement. Due to the size of our reinsurance balances, changes to our estimate of the amount of reinsurance that is due to us could have a material effect on our results of operations in the period for which the change is made.

We are exposed to and may face adverse developments involving mass tort claims arising from coverages provided to our insureds.

Establishing claim and claim adjustment expense reserves for mass tort claims is subject to uncertainties due to many factors, including expanded theories of liability, geographical location and jurisdiction of the lawsuits. Moreover, it is difficult to estimate our ultimate liability for such claims due to evolving judicial interpretations of various tort theories of liability and defense theories, such as federal preemption and joint and several liability, as well as the application of insurance coverage to these claims.

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

As part of our overall risk and capacity management strategy, we purchase reinsurance for significant amounts of risk underwritten by our insurance company subsidiaries. Market conditions beyond our control determine the availability and cost of the reinsurance. We may be unable to maintain current reinsurance coverage or to obtain other reinsurance coverage in adequate amounts and at favorable rates. If we are unable to renew our expiring coverage or to obtain new reinsurance coverage, either our net exposure to risk would increase or, if we are unwilling to bear an increase in net risk exposures, we would need to reduce the amount of our underwritten risk.

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

We transfer part of our risks to reinsurance companies in exchange for part of the premium we receive in connection with the risk. Although our reinsurance agreements make the reinsurer liable to us to the extent the risk is transferred, our liability to our policyholders remains our responsibility. Reinsurers may periodically dispute our demand for reimbursement from them based upon their interpretation of the terms of our agreements or may fail to pay us for financial or other reasons. If reinsurers refuse or fail to pay us or fail to pay on a timely basis, our financial results and/or cash flows could be adversely affected and could have a material effect on our results of operations in the period in which uncollectible amounts are identified.

Table of Contents

At December 31, 2017 our receivable from reinsurers on unpaid losses and loss adjustment expenses was \$336 million and our receivable from reinsurers on paid losses and loss adjustment expenses was \$7 million. As of December 31, 2017, no reinsurer, on an individual basis, had an estimated net amount due which exceeded \$29 million.

Our claims handling could result in a bad faith claim against us.

We have been sued from time to time for allegedly acting in bad faith during our handling of a claim. The damages claimed in actions for bad faith may include amounts owed by the insured in excess of the policy limits as well as consequential and punitive damages. Awards above policy limits are possible whenever a case is taken to trial. These actions have the potential to have a material and adverse effect on our financial condition and results of operations.

Changes in healthcare policy could have a material effect on our operations.

The ACA was enacted in March 2010, and many but not all of its provisions have become effective. To date, we do not believe that the primary provisions of ACA have directly affected our business. However, regulations to implement the law may be revised and the effect of currently enacted provisions may evolve over time. Specifically, presidential and congressional elections in the U.S. could result in significant changes in, and uncertainty with respect to, legislation, regulation and government policy. While it is not possible to predict whether and when any such changes will occur, recent proposals discussed by the current U.S. administration included the repeal or material amendment of the ACA. Thus, the ACA may yet have unanticipated or indirect effects on our business or alter the risk and cost environments in which we and our insureds operate. These risks include: further increases in the number of physicians choosing to practice as a part of a larger healthcare organization that utilizes a self-insurance or alternative risk management solution for its HCPL needs; use of electronic medical records may lead to additional medical malpractice litigation or increase the cost of litigation; patient dissatisfaction may increase due to greater strain on the patient-physician relationship; overall healthcare costs may increase which would increase loss costs for claims involving bodily injury; and additional health conditions may be identified as work-related which could increase the number of workers' compensation claims. Conversely, it is anticipated that there will be growth in the number of ancillary healthcare providers that will become customers for HCPL products. We are unable to predict with any certainty the effect that ACA or future related legislation will have on our insureds or our business.

Changes due to financial reform legislation could have a material effect on our operations.

The Dodd-Frank Act, enacted in July 2010 established additional regulatory oversight of financial institutions. While regulations are still in development for various portions of the Dodd-Frank Act, to date the Act has not materially affected our business. As detailed regulations are developed to implement the provisions of the Dodd-Frank Act, there may be changes in the regulatory environment that affect the way we conduct our operations or the cost of regulatory compliance, or both. We are unable to predict with any certainty the effect that the Dodd-Frank Act will have on our business.

One of the federal government bodies created by the Dodd-Frank Act was the FIO which, in December 2013, released a proposal on insurance modernization and improvement of the system of insurance regulation in the U.S. Although the FIO is prohibited from directly regulating the business of insurance, it has authority to represent the U.S. in international insurance matters and has limited power to preempt certain types of state insurance laws. The proposal advocates significantly greater federal involvement in insurance regulation and identifies necessary reforms by the states to preclude further consideration of direct federal regulation. While the proposal does not necessarily imply that the federal government will displace state regulation completely, it does recommend more of a hybrid approach to insurance regulation. We cannot predict whether the proposals will be adopted or what impact, if any, enacted laws may have on our business, financial condition or results of operations.

During 2017, the U.S. House of Representatives passed the Financial CHOICE Act, which would amend or repeal certain regulations in the Dodd-Frank Act, specifically modifying provisions related to insurance regulation. This proposed legislation is now being considered by the U.S. Senate. Revisions include the consolidation of two conflicting federal insurance positions into a single position established to advocate for the U.S. insurance industry at domestic and international levels, while preserving the traditional state-based system of insurance regulation. We are unable to predict with any certainty the effect that the Financial CHOICE Act, if passed, will have on our business.

The passage of tort reform or other legislation, and the subsequent review of such laws by the courts could have a material impact on our operations.

Tort reforms generally restrict the ability of a plaintiff to recover damages by, among other limitations, eliminating certain claims that may be heard in a court, limiting the amount or types of damages, changing statutes of limitation or the period of time to make a claim, and limiting venue or court selection. A number of states in which we do business previously enacted tort reform legislation in an effort to reduce escalating loss trends.

Table of Contents

Challenges to tort reform have been undertaken in most states where tort reforms have been enacted, and in some states the reforms have been fully or partially overturned. Additional challenges to tort reform may be undertaken. We cannot predict with any certainty how state appellate courts will rule on these laws. While the effects of tort reform have been generally beneficial to our business in states where these laws have been enacted, there can be no assurance that such reforms will be ultimately upheld by the courts. Furthermore, if tort reforms are effective, the business of providing professional liability insurance may become more attractive, thereby causing an increase in competition. In addition, the enactment of tort reforms could be accompanied by legislation or regulatory actions that may be detrimental to our business because of expected benefits which may or may not be realized. These expectations could result in regulatory or legislative action limiting the ability of professional liability insurers to maintain rates at adequate levels.

Coverage mandates or other expanded insurance requirements could also be imposed. States may also consider state-sponsored insurance entities that could remove our potential insureds from the private insurance market.

We continue to monitor developments on a state-by-state basis and make business decisions accordingly.

Our performance is dependent on the business, economic, regulatory and legislative conditions of states where we have a significant amount of business.

Our top five states, Pennsylvania, Alabama, Indiana, Texas and Michigan, represented 41% of our direct premiums written for the year ended December 31, 2017. Moreover, on a combined basis, Pennsylvania, Alabama and Indiana accounted for 32% of our direct premiums written for each of the years ended December 31, 2017, 2016 and 2015. Unfavorable business, economic or regulatory conditions in any of these states could have a disproportionately greater effect on us than they would if we were less geographically concentrated.

From time to time we may identify opportunities for growth through acquisitions. However, approval of acquisitions may not be granted or conditions of approval may adversely alter the expected value and benefits of the acquisition. In addition, expected benefits from acquisitions may not be achieved or may be delayed longer than expected.

Growth through the acquisition of other companies or books of business is opportunistic and sporadic. If we are able to identify a target for acquisition, state insurance regulation concerning change or acquisition of control could delay or prevent us from completing the acquisition. State insurance regulatory codes provide that the acquisition of “control” of a domestic insurer or of any person that directly or indirectly controls a domestic insurer cannot be consummated without the prior approval of the domiciliary insurance regulator. There is no assurance that we will receive such approval from the respective insurance regulator or that such approvals will not be conditioned in a manner that materially and adversely affects the aggregate economic value and business benefits expected to be obtained and cause us to not complete the acquisition.

The Company performs thorough due diligence before agreeing to a merger or acquisition; however, there is no guarantee that the procedures we perform will adequately identify all potential weaknesses or liabilities of the target company or potential risks to the consolidated entity.

There is also no guarantee that businesses acquired in the future will be successfully integrated. Ineffective integration of our businesses and processes may result in substantial costs or delays and adversely affect our ability to compete. The process of integrating an acquired company or business can be complex and costly, and may create unforeseen operating difficulties and expenditures. Potential problems that may arise include but are not limited to: business disruption, loss of customers and employees, the ineffective integration of underwriting, claims handling and actuarial practices, an increase in the inherent uncertainty of reserve estimates for a period of time until stable trends reestablish themselves within the combined organization, diversion of management time and resources to acquisition integration challenges, the cultural challenges associated with integrating employees, increased operating costs, assumption of greater than expected liabilities, or inability to achieve cost savings.

Furthermore, claims may be asserted by either the policyholders or shareholders of any acquired entity related to payments or other issues associated with the acquisition and merger into the consolidated entity. Such claims may prove costly or difficult to resolve or may have unanticipated consequences.

If our businesses do not perform well, we may be required to recognize an impairment of our goodwill or intangible assets, which could have a material adverse effect on our results of operations and financial condition.

We review our definite-lived intangible assets for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable from estimated future cash flows. We test goodwill and intangible assets with indefinite lives for impairment at least annually. If we determine that such goodwill or intangible assets are impaired, we would be required to write down the goodwill or the intangible asset by the amount of the impairment, with a corresponding charge to net income. Such write downs could have a material adverse effect on our results of operations or financial position.

Table of Contents

If we are unable to maintain favorable financial strength ratings, it may be more difficult for us to write new business or renew our existing business.

Independent rating agencies assess and rate the claims-paying ability and the financial strength of insurers based upon criteria established by the agencies. Periodically the rating agencies evaluate us to confirm that we continue to meet the criteria of previously assigned ratings. The financial strength ratings assigned by rating agencies to insurance companies represent independent opinions of financial strength and ability to meet policyholder and debt obligations and are not directed toward the protection of equity investors.

Our principal operating subsidiaries hold favorable claims paying ratings with A.M. Best, Fitch and Moody's. Claims-paying ratings are used by agents, brokers and customers as an important means of assessing the financial strength and quality of insurers. If our financial position deteriorates or the rating agencies significantly change the rating criteria that are used to determine ratings, we may not maintain our favorable financial strength ratings from the rating agencies. A downgrade or involuntary withdrawal of any such rating could limit or prevent us from writing desirable business.

The following table presents the claims paying ratings of our core insurance subsidiaries as of February 16, 2018.

	Rating Agency ⁽¹⁾		
	A.M. Best (www.ambest.com)	Fitch (www.fitchratings.com)	Moody's (www.moody's.com)
ProAssurance Indemnity Company, Inc.	A+ (Superior)	A (Strong)	A2
ProAssurance Casualty Company	A+ (Superior)	A (Strong)	A2
ProAssurance Specialty Insurance Company, Inc.	A+ (Superior)	A (Strong)	NR
Podiatry Insurance Company of America	A+ (Superior)	A (Strong)	A2
PACO Assurance Company, Inc.	A- (Excellent)	A (Strong)	NR
Noetic Specialty Insurance Company	A+ (Superior)	A (Strong)	NR
Medmarc Casualty Insurance Company	A+ (Superior)	A (Strong)	NR
Lloyd's Syndicate 1729 and Syndicate 6131 ⁽²⁾	A (Excellent)	AA- (Strong)	NR
Eastern Alliance Insurance Company	A (Excellent)	A (Strong)	A3
Allied Eastern Indemnity Company	A (Excellent)	A (Strong)	A3
Eastern Advantage Assurance Company	A (Excellent)	A (Strong)	NR
Eastern Re Ltd., SPC	A (Excellent)	NR	NR

⁽¹⁾ NR indicates that the subsidiary has not been rated by the listed rating agency.

⁽²⁾ Rating provided is the rating applicable to all Lloyd's syndicates.

Three rating agencies evaluate and rate our ability to service current debt and potential debt. These financial strength ratings reflect each agency's independent evaluation of our ability to meet our obligation to holders of our debt, if any. While these ratings may be of greater interest to investors than our claims-paying ratings, these are not ratings of our equity securities nor a recommendation to buy, hold or sell our equity securities.

Our business could be adversely affected by the loss or consolidation of independent agents, agencies, or brokers or brokerage firms.

We heavily depend on the services of independent agents and brokers in the marketing of our insurance products. We face competition from other insurance companies for their services and allegiance. These agents and brokers may choose to direct business to competing insurance companies.

Our success is dependent upon our ability to effectively design and execute our business strategy.

The Company depends upon the skill and work product of our officers and employees in executing our business strategy. While management and the Board monitor the strategic direction of the Company, strategic changes could be made that are not supportable by our capital base.

Our success is dependent upon our ability to adequately and appropriately serve our customers.

The operations of the Company are heavily dependent upon the delivery of superior customer service across a broad customer base, by which negative feedback from agents, insureds or internal staff could result in a loss of revenue for the Company.

Table of Contents

Our business could be affected by the loss of one or more of our senior executives.

We are heavily dependent upon our senior management, and the loss of services of our senior executives could adversely affect our business. Our success has been, and will continue to be, dependent on our ability to retain the services of existing key employees and to attract and retain additional qualified personnel in the future. The loss of the services of key employees or senior managers, or the inability to identify, hire and retain other highly qualified personnel in the future, could adversely affect the quality and profitability of our business operations.

Our Board regularly reviews succession planning relating to our Chief Executive Officer as well as other senior officers. Mr. Starnes, our Chief Executive Officer and President, executed an amendment to his employment agreement effective June 1, 2017, which extends his service 5 years from the date of the agreement.

Provisions in our charter documents, Delaware law and state insurance law may impede attempts to replace or remove management or may impede a takeover, which could adversely affect the value of our common stock.

Our certificate of incorporation, bylaws and Delaware law contain provisions that may have the effect of inhibiting a non-negotiated merger or other business combination. We currently have no preferred stock outstanding, and no present intention to issue any shares of preferred stock. In addition, our Corporate Governance Principles provide that the Board, subject to its fiduciary duties, will not issue any series of preferred stock for any defense or anti-takeover purpose, for the purpose of implementing any stockholders rights plan, or with features intended to make any acquisition more difficult or costly without obtaining stockholder approval. However, because the rights and preferences of any series of preferred stock may be set by the Board in its sole discretion, the rights and preferences of any such preferred stock may be superior to those of our common stock and thus may adversely affect the rights of the holders of common stock.

The voting structure of common stock and other provisions of our certificate of incorporation are intended to encourage a person interested in acquiring us to negotiate with and to obtain the approval of the Board in connection with a transaction. However, certain of these provisions may discourage our future acquisition, including an acquisition in which stockholders might otherwise receive a premium for their shares. As a result, stockholders who might desire to participate in such a transaction may not have the opportunity to do so.

In addition, state insurance laws provide that no person or entity may directly or indirectly acquire control of an insurance company unless that person or entity has received approval from the insurance regulator. An acquisition of control of ProAssurance would be presumed if any person or entity acquires 10% (5% in Alabama) or more of our outstanding common stock, unless the applicable insurance regulator determines otherwise. These provisions apply even if the offer may be considered beneficial by stockholders.

We are a holding company and are dependent on dividends and other payments from our operating subsidiaries, which may be subject to dividend restrictions.

We are a holding company whose principal source of funds is cash dividends and other permitted payments from operating subsidiaries. If our subsidiaries are unable to make payments to us, or are able to pay only limited amounts, we may be unable to make payments on our indebtedness, meet other holding company financial obligations, or pay dividends to shareholders. The payment of dividends by these operating subsidiaries is subject to restrictions set forth in the insurance laws and regulations of their respective states of domicile, as discussed in Item I under the heading "Insurance Regulatory Matters."

Regulatory requirements or changes to regulatory requirements could have a material effect on our operations.

Our insurance businesses are subject to extensive regulation by state insurance authorities in each state in which they operate. Regulation is intended for the benefit of policyholders rather than shareholders. In addition to the amount of dividends and other payments that can be made to a holding company by insurance subsidiaries, these regulatory authorities have broad administrative and supervisory power relating to:

- licensing requirements;
- trade practices;
- capital and surplus requirements;
- investment practices; and
- rates charged to insurance customers.

These regulations may impede or impose burdensome conditions on rate changes or other actions that we may desire to take in order to enhance our results of operations. In addition, we may incur significant costs in the course of complying with regulatory requirements. Most states also regulate insurance holding companies like us in a variety of matters such as acquisitions, solvency and risk assessment, changes of control and the terms of affiliated transactions.

Table of Contents

Also, certain states sponsor insurance entities which affect the amount and type of liability coverages purchased in the sponsoring state. Changes to the number of state sponsored entities of this type could result in a large number of insureds changing the amount and type of coverage purchased from private insurance entities such as ProAssurance.

We own a subsidiary domiciled in the Cayman Islands and subject to the laws of the Cayman Islands and regulations promulgated by the CIMA. Failure to comply with these laws, regulations and requirements could result in consequences ranging from a regulatory examination to a regulatory takeover of our Cayman subsidiary, which could potentially impact profitability of alternative market solutions offered through this subsidiary.

Syndicate 1729 and Syndicate 6131 are regulated in the U.K. by the Prudential Regulation Authority and the Financial Conduct Authority. All Lloyd's Syndicates must also comply with the bylaws and regulations established by the Council of Lloyd's. Failure to comply with bylaws and regulations could affect our ability to underwrite as a Lloyd's Syndicate in the future and therefore affect our profitability. Changes in bylaws and regulations could also affect the profitability of the operations.

The European Union's executive body, the European Commission, has implemented new capital adequacy and risk management regulations called Solvency II that apply to businesses within the European Union. Solvency II became effective January 1, 2016. Syndicate 1729 and Syndicate 6131 follow the Solvency II compliance guidelines set out by the Council of Lloyd's.

As a member of the Lloyd's market and a capital provider to Lloyd's Syndicate 1729 and Syndicate 6131 we are subject to certain risks which could affect us.

As a participant in Lloyd's of London, Lloyd's Syndicates are subject to certain risks and uncertainties, including the following:

- reliance on insurance and reinsurance brokers and distribution channels to distribute and market products;
- obligation to pay levies to Lloyd's;
- obligations to maintain funds to support underwriting activities and risk-based capital requirements that are assessed periodically by Lloyd's and subject to variation;
- ability to maintain liquidity to fund claims payments, when due;
- ability to obtain reinsurance and retrocessional coverage to protect against adverse loss activity;
- reliance on ongoing approvals from Lloyd's and various regulators to conduct business, including a requirement that Annual Business Plans be approved by Lloyd's before the start of underwriting for each account year;
- financial strength ratings are derived from the rating assigned to Lloyd's, although they have limited ability to directly affect the overall Lloyd's rating; and
- reliance on Lloyd's trading licenses in order to underwrite business outside the U.K.

The assessments that we are required to pay to state associations may increase or our participation in mandatory risk retention pools could be expanded and our results of operations and financial condition could suffer as a result.

Each state in which we operate has separate insurance guaranty fund laws requiring admitted property and casualty insurance companies doing business within their respective jurisdictions to be members of their guaranty associations. These associations are organized to pay covered claims (as defined and limited by the various guaranty association statutes) under insurance policies issued by insurance companies that have become insolvent. Most guaranty association laws enable the associations to make assessments against member insurers to obtain funds to pay covered claims after a member insurer becomes insolvent. These associations levy assessments (up to prescribed limits) on all member insurers in a particular state on the basis of the proportionate share of the premiums written by member insurers in the covered lines of business in that state. Maximum assessments generally vary between 1% and 2% of annual premiums written by a member in that state. Some states permit member insurers to recover assessments paid through surcharges on policyholders or through full or partial premium tax offsets, while other states permit recovery of assessments through the rate filing process. We had no significant guaranty fund recoupments or assessments in 2017, 2016 or 2015. Our practice is to accrue for insurance insolvencies when notified of assessments. We are not able to reasonably estimate assessments or develop a meaningful range of possible assessments prior to notice because the guaranty funds do not provide sufficient information for development of such estimates or ranges.

Certain states in which we write workers' compensation insurance have established administrative and/or second injury funds that levy assessments against insurers that write business in their state. The assessments are generally based on an insurer's proportionate share of premiums or losses in a particular state, and the assessment rate can vary from year to year.

Risk pooling mechanisms have been established in certain states that offer insurance coverage to individuals or entities who are otherwise unable to purchase coverage from private insurers. Authorized property and casualty insurers in these states are generally required to share in the underwriting results of these pooled risks, which are typically adverse. Should our

Table of Contents

mandatory participation in such pools be increased or if the assessments from such pools increased, our results of operations and financial condition would be negatively affected, although that was not the case in 2017, 2016 or 2015.

Our investment results will fluctuate as interest rates change.

Our investment portfolio is primarily comprised of interest-earning assets, marked to fair value each period. Thus, prevailing economic conditions, particularly changes in market interest rates, may significantly affect our results of operations. Significant movements in interest rates potentially expose us to lower yields or lower asset values. Changes in market interest rate levels generally affect our net income to the extent that reinvestment yields are different than the yields on maturing securities. Changes in interest rates also can affect the value of our interest-earning assets, which are principally comprised of fixed and adjustable-rate investment securities. Generally, the values of fixed-rate investment securities fluctuate inversely with changes in interest rates. Interest rate fluctuations could affect our stockholders' equity, income and/or cash flows.

Our investments are subject to credit, prepayment and other risks.

A significant portion of our total assets (\$3.7 billion or 75%) at December 31, 2017 are financial instruments whose value can be significantly affected by economic and market factors beyond our control including, among others, the unemployment rate, the strength of the domestic housing market, the price of oil, changes in interest rates and spreads, consumer confidence, investor confidence regarding the economic prospects of the entities in which we invest, corrective or remedial actions taken by the entities in which we invest, including mergers, spin-offs and bankruptcy filings, the actions of the U.S. government, and global perceptions regarding the stability of the U.S. economy. Adverse economic and market conditions could cause investment losses or OTTI of our securities, which could affect our financial condition, results of operations, or cash flows.

At December 31, 2017 approximately 9% of our investment portfolio was invested in mortgage and asset-backed securities. We utilize ratings determined by NRSROs (Moody's, Standard & Poor's, and Fitch) as an element of our evaluation of the creditworthiness of our securities. The ratings are subject to error by the agencies; therefore, we may be subject to additional credit exposure should the rating be misstated.

Our asset-backed securities are also subject to prepayment risk. A prepayment is the unscheduled return of principal. When rates decline, the propensity for refinancing may increase and the period of time we hold our asset-backed securities may shorten due to prepayments. Prepayments may cause us to reinvest cash proceeds at lower yields than the retired security. Conversely, as rates increase, and motivations for prepayments lessen, the period of time over which our asset-backed securities are repaid may lengthen, causing us to not reinvest cash flows at the higher available yields.

At December 31, 2017 the fair value of our state/municipal portfolio was \$632.2 million (amortized cost basis of \$618.4 million). While our state/municipal portfolio had a high credit rating (AA on average), which indicates a strong ability to pay, there is no assurance that there will not be a credit related event which would cause fair values to decline. An economic downturn could lessen tax receipts and other revenues in many states and their municipalities. Prospectively, with U.S. corporate tax rates decreasing, the overall attractiveness of owning municipal bonds may decline and impact the market valuations.

Our tax credit partnership interests are subject to risks related to the potential forfeiture of the tax credits and all or a portion of the previously claimed tax credits. Loss of all or a portion of the tax credits might occur if the property owner fails to meet the specified requirements of planning and constructing or, in the case of the qualified affordable housing project tax credits, fails to operate the property as required or below expected capacity. Prospectively, with U.S. corporate tax rates decreasing, the utilization of our tax credits may take longer than anticipated. While this would not impact the amount of tax credits we receive, a delay in recognition could be impactful from an economic perspective due to the time value of money. Additionally, the value of losses embedded in our tax credits could decrease due to a lower deduction value, which would reduce the carrying value of the partnership interests and could result in an OTTI. At December 31, 2017 the carrying value of our tax credit partnership interests was approximately \$90.7 million.

In a period of market illiquidity and instability, the fair values of our investments are more difficult to assess and our assessments may prove to be greater or less than amounts received in actual transactions.

In accordance with applicable GAAP, we value 94% of our investments at fair value and the remaining 6% at cost, equity, or cash surrender value. See Notes 1, 2 and 3 of the Notes to Consolidated Financial Statements for additional information.

We determine the fair value of our investments using quoted exchange or over-the-counter prices, when available. At December 31, 2017, we valued approximately 24% of our investments in this manner. When exchange or over-the-counter quotes are not available, we estimate fair values based on broker dealer quotes and various other valuation methodologies, which may require us to choose among various input assumptions and which requires us to utilize judgment. At December 31, 2017 approximately 64% of our investments were valued in this manner. When markets exhibit significant volatility, there is more risk that we may utilize a quoted market price, broker dealer quote, valuation technique or input assumption that results in

Table of Contents

a fair value estimate that is either over or understated as compared to actual amounts that would be received upon disposition of the security. At December 31, 2017 approximately 6% of our investments are investment funds which measure fund assets at fair value on a recurring basis and provide us with a NAV for our interest. As a practical expedient, we consider the NAV provided to approximate the fair value of the interest. NAV is provided by the asset managers and in some cases estimates are used for valuation and are subject to variations depending on those estimates.

Our Board may decide that our financial condition does not allow the continued payment of a quarterly cash dividend, or requires that we reduce the amount of our quarterly cash dividend.

Our Board approved a cash dividend policy in September 2011, and most recently paid a \$5.00 per share dividend for the three months ended December 31, 2017, which included a \$4.69 special dividend. However, any decision to pay future cash dividends is subject to the Board's final determination after a comprehensive review of the Company's financial performance, future expectations and other factors deemed relevant by the Board.

Our ability to issue additional debt or letters of credit or other types of indebtedness on terms consistent with current debt is subject to market conditions, economic conditions at the time of proposed issuance, results of ratings reviews and the inclusion in certain bond indices of past and future issues. Also, certain of our current debt agreements and loans require a specific debt to capital ratio, and the issuance of debt by one of our insurance subsidiaries requires regulatory approval, both of which may limit or prohibit the issuance of additional debt.

During 2013, we issued \$250 million of unsecured Senior Notes Payable due in 2023 at a 5.3% interest rate. There is no guarantee that additional debt could be issued on similar terms in the future as rates available to us may change due to changes in the economic climate or shifts in the yield curve may occur or an increase in our level of debt may result in rating agencies lowering our debt rating. Additionally, our Revolving Credit Agreement requires that our consolidated debt to capital ratio (0.21 to 1.0 at December 31, 2017) be 0.35 to 1.0 or less.

During 2017, two of our insurance subsidiaries entered into ten-year mortgage loans. These mortgage loans require each of the subsidiaries to have a leverage ratio of consolidated funded debt to consolidated total capitalization (principally, SAP consolidated net worth plus consolidated funded debt) be 0.35 to 1.0 or less. Furthermore, our insurance subsidiaries must obtain regulatory approval before incurring additional debt.

Resolution of uncertain tax matters and changes in tax laws or taxing authority interpretations of tax laws could result in actual tax benefits or deductions that are different than we have estimated, both with regard to amounts recognized and the timing of recognition. Such differences could affect our results of operations or cash flows.

Our provision for income taxes, our recorded tax liabilities and net deferred tax assets, including any valuation allowances, are recorded based on estimates. These estimates require us to make significant judgments regarding a number of factors, including, among others, the applicability of various federal and state laws, the interpretations given to those tax laws by taxing authorities, courts and the Company, the timing of future income and deductions, and our expected levels and sources of future taxable income. We believe our tax positions are supportable under current tax laws and that our estimates are prepared in accordance with GAAP. Additionally, from time to time, due to changes in economic and/or political conditions, there are changes in tax laws and interpretations of tax laws which could significantly change our estimates of the amount of tax benefits or deductions expected to be available to us in future periods. Specifically, recent changes in federal tax law includes a reduction in the U.S. corporate income tax rate, changes to the cost of cross border reinsurance, changes to the overall tax base and a limitation on the deductibility of certain executive compensation in future periods. Changes to our prior estimates in these cases would be reflected in the period changed and could have a material effect on our effective tax rate, financial position, results of operations and cash flows. As the reinsurance portion of our workers' compensation business is domiciled in the Cayman Islands, changes in Cayman Island tax laws as well as the recent change in U.S. federal tax law regarding outbound cross border affiliate reinsurance could result in the loss of profitability of that business.

We are subject to U.S. federal and various state income taxes as well as U.K. related taxes. We are periodically under examination by federal, state and local authorities regarding income tax matters and our tax positions could be successfully challenged; the costs of defending our tax positions could be considerable. Our estimate of our potential liability for known uncertain tax positions is reflected in our financial statements. As of December 31, 2017 we had a federal income tax payable of approximately \$8.0 million. We also had a liability for unrecognized current tax benefits of \$5.3 million, and we had a net deferred tax asset of approximately \$9.9 million.

Table of Contents

New or changes in existing accounting standards, practices and/or policies, as well as subjective assumptions, estimates and judgments by management related to complex accounting matters could significantly affect our financial results or our ability to maintain investor confidence and shareholder value.

GAAP and related accounting pronouncements, implementation guidelines and interpretations with regard to a wide range of matters that are relevant to our business, such as revenue recognition, lease accounting, estimation of losses, determination of fair value, asset impairment (particularly investment securities and goodwill) and tax matters, are highly complex and involve many subjective assumptions, estimates and judgments. Changes in these rules or their interpretation or changes in underlying assumptions, estimates or judgments could significantly change our reported or expected financial performance or financial condition. See Note 1 of the Notes to Consolidated Financial Statements for a description of our significant accounting policies.

ProAssurance is primarily a holding company of insurance subsidiaries which are required to comply with SAP. SAP and its components are subject to review by the NAIC and state insurance departments. The NAIC Accounting Practices and Procedures Manual provides that a state insurance department may allow insurance companies that are domiciled in that state to depart from SAP by granting them permitted non-SAP accounting practices. This permission may permit a competitor or competitors to use a more favorable accounting policy.

It is uncertain whether or how SAP might be revised or whether any revisions will have a positive or negative effect. It is also uncertain whether any changes to SAP or its components or any permitted non-SAP accounting practices granted to our competitors will negatively affect our financial results or operations. See the full discussion on regulatory matters in Item I under the heading "Insurance Regulatory Matters."

Our interpretation, integration and/or compliance with new or changes to existing pronouncements by GAAP or SAP could materially impact us as a publicly traded company as it relates to investor confidence and shareholder value.

We are subject to numerous NYSE and SEC regulations including insider trading regulations, Regulation FD, and regulations requiring timely and accurate reporting of our operating results as well as certain events and transactions. Noncompliance with these regulations could subject us to enforcement actions by the NYSE or the SEC, and could affect the value of our shares and our ability to raise additional capital.

The Company carefully adheres to NYSE and SEC requirements as the loss of trading privileges on the NYSE or an SEC enforcement action could have a significant financial impact on the Company. Failure to comply with various SEC reporting and record keeping requirements could result in a decline in the value of our stock or a decline in investor confidence which could directly impact our ability to efficiently raise capital. Failure to adhere to NYSE requirements could result in fines, trading restriction or delisting.

The operations of the Company are heavily reliant upon the Company's reputation as an ethical business organization providing needed services to its customers.

The Company's positive reputation is critical to its role as an insurance provider and as a publicly traded company. The Board adopted a Code of Ethics and Conduct and management is heavily focused on the integrity of our employees and third-party suppliers, agents or brokers. Illegal, unethical or fraudulent activities perpetrated by an employee or one of our third-party agencies or brokers for personal gain could expose the Company to a potential financial loss.

A natural disaster or pandemic event, or closely related series of events, could cause loss of lives or a substantial loss of property or operational ability at one or more of the Company's facilities.

The Company's disaster preparedness encompasses our Business Continuity Plan, Disaster Recovery Plan, Operations Plan and Pandemic Response Plan. Our disaster preparedness is focused on maintaining the continuity of the Company's data processing and telephone capabilities as well as the use of alternate and temporary facilities in the event of a natural disaster or medical event. The Company's plans are reviewed during the insurance department examinations of the statutory insurance companies. While the Company has plans in place to respond to both short- and long-term disaster scenarios, the loss of certain key operating facilities or data processing capabilities could have a significant impact on Company operations.

The operations of the Company are dependent upon the availability, integrity and security of our internal technology infrastructure and that of certain third parties. Any significant disruption of these infrastructures could result in unauthorized access to Company data or reduce our ability to conduct business effectively, or both.

The Company is dependent upon its technology infrastructure and that of certain third parties to operate and report financial and other Company information accurately and timely. The Company has focused resources on securing and preserving the integrity of our data processing systems and related data. Additionally, the Company evaluates the integrity and security of the technology infrastructure of third parties that process or store data that the Company considers to be significant.

Table of Contents

However, there is no guarantee that measures taken to date will completely prevent possible disruption, damage or destruction by intentional or unintentional acts or events such as cyber-attacks, viruses, sabotage, human error, system failure or the occurrence of numerous other human or natural events. Disruption, damage or destruction of any of our systems or data could cause our normal operations to be disrupted or unauthorized internal or external knowledge or misuse of confidential Company data could occur, all of which could be harmful to the Company from both a financial and reputational perspective.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

We own three office properties, one of which is unencumbered. Our properties in Birmingham, AL and Franklin, TN are encumbered by ten-year mortgage loans entered into during 2017 for the purpose of recapitalization of these properties:

Property Location	Square Footage of Properties		
	Occupied by ProAssurance	Leased or Available for Lease	Total
Birmingham, AL*	120,000	45,000	165,000
Franklin, TN	52,000	51,000	103,000
Okemos, MI	53,000	—	53,000

* Corporate Headquarters

ITEM 3. LEGAL PROCEEDINGS.

Our insurance subsidiaries are involved in various legal actions, a substantial number of which arise from claims made under insurance policies. While the outcome of all legal actions is not presently determinable, management and its legal counsel are of the opinion that these actions will not have a material adverse effect on our financial position or results of operations. See Note 8 of the Notes to Consolidated Financial Statements included herein.

EXECUTIVE OFFICERS OF PROASSURANCE CORPORATION

The executive officers of ProAssurance Corporation serve at the pleasure of the Board. We have a knowledgeable and experienced management team with established track records in building and managing successful insurance operations. Following is a brief description of each executive officer of ProAssurance, including their principal occupation, and relevant background with ProAssurance and former employers.

- W. Stancil Starnes** Mr. Starnes was appointed as Chief Executive Officer in 2007 and has served as the Chairman of the Board since 2008. In 2012 he was appointed President of ProAssurance. Mr. Starnes previously served as President, Corporate Planning and Administration of Brasfield & Gorrie, Inc., a large national commercial contractor. Prior to 2006, Mr. Starnes served as the Senior and Managing Partner of the law firm of Starnes & Atchison, LLP, where he was extensively involved with ProAssurance and its predecessors in the defense of healthcare professional liability claims for over 25 years. Mr. Starnes served as a director of Infinity Property and Casualty Corporation, a public insurance holding company, from 2008 to May 2017 where he served on the Audit and Investment Committees. Mr. Starnes currently serves on the Board of Trustees for the University of Alabama. He also serves on the Board of Directors of National Commerce Corporation, located in Birmingham, Alabama, where he serves as Chairman of the Nominating and Corporate Governance Committee, Chairman of the Pricing Committee and is a member of the Compensation Committee. (Age 69)
- Howard H. Friedman** Mr. Friedman was appointed as President of our Healthcare Professional Liability Group in 2014, and is also our Chief Underwriting Officer and Chief Actuary. Mr. Friedman has previously served as a Co-President of our Professional Liability Group, Chief Financial Officer, Corporate Secretary, and as the Senior Vice President of Corporate Development. Mr. Friedman joined our predecessor in 1996. Mr. Friedman is an Associate of the Casualty Actuarial Society and a member of the American Academy of Actuaries. (Age 59)
- Jeffrey P. Lisenby** Mr. Lisenby was appointed as an Executive Vice President in 2014 and is also our General Counsel, Corporate Secretary and head of the corporate Legal Department. Mr. Lisenby has previously served as Senior Vice President. Prior to joining ProAssurance, Mr. Lisenby practiced law privately in Birmingham, Alabama. Mr. Lisenby is a member of the Alabama State Bar and the United States Supreme Court Bar and is a Chartered Property Casualty Underwriter. (Age 49)
- Edward L. Rand, Jr.** Mr. Rand was appointed as an Executive Vice President in 2014, President of our Medmarc subsidiary in 2016 and Chief Operating Officer in 2018. Mr. Rand is also our Chief Financial Officer and Chief Accounting Officer. Mr. Rand previously served as our Senior Vice President of Finance upon joining ProAssurance in 2004. Prior to joining ProAssurance, Mr. Rand was the Chief Accounting Officer and Head of Corporate Finance for PartnerRe Ltd. Prior to that time Mr. Rand served as the Chief Financial Officer of Atlantic American Corporation. (Age 51)
- Frank B. O'Neil** Mr. O'Neil was appointed as our Senior Vice President and Chief Communications Officer in 2001. Mr. O'Neil has previously served as our Senior Vice President of Corporate Communications, having joined our predecessor in 1987. (Age 64)
- Michael L. Boguski** Mr. Boguski is President of our Eastern subsidiary. Prior to the acquisition of Eastern, Mr. Boguski served as President and Chief Executive Officer of Eastern, and first joined Eastern in 1997. (Age 55)
- Ross E. Taubman** Dr. Taubman is President and Chief Medical Officer of our PICA subsidiary. Prior to joining PICA, Dr. Taubman practiced podiatry for 26 years. During that time, Dr. Taubman served as Treasurer, Vice-President and President of the Maryland Podiatric Medical Association. Dr. Taubman is a diplomate in the American Board of Podiatric Surgery. (Age 60)

We have adopted a Code of Ethics and Conduct that applies to our directors and executive officers, including but not limited to our principal executive officers and principal financial officer. We also have share ownership guidelines in place to ensure that management maintains a significant portion of their personal investments in the stock of ProAssurance. Both our Code of Ethics and Conduct and our Share Ownership Guidelines are available on the Governance section of our website. Printed copies of these documents may be obtained from Frank O'Neil, Senior Vice President, ProAssurance Corporation, either by mail at P.O. Box 590009, Birmingham, Alabama 35259-0009, or by telephone at (205) 877-4400 or (800) 282-6242.

Table of Contents

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.

At February 16, 2018, ProAssurance Corporation had 2,595 stockholders of record and 53,457,021 shares of common stock outstanding. ProAssurance’s common stock currently trades on the NYSE under the symbol “PRA.”

Quarter	2017		2016	
	High	Low	High	Low
First	\$ 61.85	\$ 53.90	\$ 51.05	\$ 46.22
Second	\$ 62.45	\$ 57.80	\$ 53.55	\$ 47.73
Third	\$ 61.80	\$ 51.30	\$ 55.02	\$ 51.29
Fourth	\$ 63.00	\$ 55.00	\$ 62.85	\$ 50.75

Quarter	Dividends Declared		Dividends Paid	
	2017	2016	2017	2016
First	\$ 0.31	\$ 0.31	\$ 5.00	\$ 1.31
Second	\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31
Third	\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31
Fourth*	\$ 5.00	\$ 5.00	\$ 0.31	\$ 0.31

* Includes a special dividend of \$4.69 per common share declared in both 2017 and 2016.

The Board declared a quarterly dividend in each quarter of 2017 and 2016. The dividends were paid in the month after the quarter ended. The Board also declared special dividends of \$4.69 per common share during the fourth quarters of both 2017 and 2016, each of which were paid in January of the following year. Any decision to pay regular or special cash dividends in the future is subject to the Board’s final determination after a comprehensive review of financial performance, future expectations and other factors deemed relevant by the Board.

ProAssurance’s insurance subsidiaries are subject to restrictions on the payment of dividends to the parent. Information regarding restrictions on the ability of the insurance subsidiaries to pay dividends is incorporated herein by reference from the paragraphs under the heading “Insurance Regulatory Matters—Regulation of Dividends and Other Payments from Our Operating Subsidiaries” in Item 1 of this Form 10-K.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information regarding ProAssurance’s equity compensation plans as of December 31, 2017.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	673,227	\$— *	2,082,901
Equity compensation plans not approved by security holders	—	—	—

* No outstanding options as of December 31, 2017. Other outstanding share units have no exercise price.

[Table of Contents](#)

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs* (In thousands)
October 1 - 31, 2017	—	N/A	—	\$109,643
November 1 - 30, 2017	—	N/A	—	\$109,643
December 1 - 31, 2017	—	N/A	—	\$109,643
Total	—	\$—	—	

* Under its current plan begun in November 2010, the Board has authorized \$600 million for the repurchase of common shares or the retirement of outstanding debt. This is ProAssurance's only plan for the repurchase of common shares, and the plan has no expiration date.

ITEM 6. SELECTED FINANCIAL DATA.

<i>(In thousands except per share data)</i>	Year Ended December 31				
	2017	2016	2015	2014	2013
Selected Financial Data ⁽¹⁾					
Gross premiums written	\$ 874,876	\$ 835,014	\$ 812,218	\$ 779,609	\$ 567,547
Net premiums earned	\$ 738,531	\$ 733,281	\$ 694,149	\$ 699,731	\$ 527,919
Net investment income	\$ 95,662	\$ 100,012	\$ 108,660	\$ 125,557	\$ 129,265
Equity in earnings (loss) of unconsolidated subsidiaries	\$ 8,033	\$ (5,762)	\$ 3,682	\$ 3,986	\$ 7,539
Net realized investment gains (losses)	\$ 16,409	\$ 34,875	\$ (41,639)	\$ 14,654	\$ 67,904
Other income	\$ 7,514	\$ 7,808	\$ 7,227	\$ 8,398	\$ 7,551
Total revenues	\$ 866,149	\$ 870,214	\$ 772,079	\$ 852,326	\$ 740,178
Net losses and loss adjustment expenses	\$ 469,158	\$ 443,229	\$ 410,711	\$ 363,084	\$ 224,761
Net income ⁽²⁾	\$ 107,264	\$ 151,081	\$ 116,197	\$ 196,565	\$ 297,523
Net income per share:					
Basic	\$ 2.01	\$ 2.84	\$ 2.12	\$ 3.32	\$ 4.82
Diluted	\$ 2.00	\$ 2.83	\$ 2.11	\$ 3.30	\$ 4.80
Weighted average shares outstanding:					
Basic	53,393	53,216	54,795	59,285	61,761
Diluted	53,611	53,448	55,017	59,525	62,020
Balance Sheet Data, as of December 31					
Total investments	\$ 3,686,528	\$ 3,925,696	\$ 3,650,130	\$ 4,009,707	\$ 3,941,045
Total assets ⁽³⁾	\$ 4,929,197	\$ 5,065,181	\$ 4,906,021	\$ 5,167,375	\$ 5,147,794
Reserve for losses and loss adjustment expenses	\$ 2,048,381	\$ 1,993,428	\$ 2,005,326	\$ 2,058,266	\$ 2,072,822
Debt less debt issuance costs ⁽³⁾	\$ 411,811	\$ 448,202	\$ 347,858	\$ 248,215	\$ 247,695
Total liabilities ⁽³⁾	\$ 3,334,402	\$ 3,266,479	\$ 2,947,667	\$ 3,009,431	\$ 2,753,380
Total capital	\$ 1,594,795	\$ 1,798,702	\$ 1,958,354	\$ 2,157,944	\$ 2,394,414
Total capital per share of common stock outstanding	\$ 29.83	\$ 33.78	\$ 36.88	\$ 38.17	\$ 39.13
Common stock outstanding, period end	53,457	53,251	53,101	56,534	61,197

⁽¹⁾ Includes acquired entities since date of acquisition only.

⁽²⁾ Includes a gain on acquisition of \$32.3 million for the year ended December 31, 2013.

⁽³⁾ For all periods presented, debt is shown net of unamortized debt issuance costs which were previously reported as a part of other assets.

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

The following discussion should be read in conjunction with the Consolidated Financial Statements and Notes to those statements which accompany this report. Throughout the discussion we use certain terms and abbreviations, which can be found in the Glossary of Terms and Acronyms at the beginning of this report. In addition, a glossary of insurance terms and phrases is available on the investor section of our website. Throughout the discussion, references to "ProAssurance," "PRA," "Company," "we," "us" and "our" refer to ProAssurance Corporation and its consolidated subsidiaries. The discussion contains certain forward-looking information that involves significant risks, assumptions and uncertainties. As discussed under the heading "Caution Regarding Forward-Looking Statements," our actual financial condition and operating results could differ significantly from these forward-looking statements.

ProAssurance Overview

We are an insurance holding company and our operating results are primarily derived from the operations of our insurance subsidiaries, which provide professional liability insurance for healthcare professionals and facilities, professional liability insurance for attorneys, liability insurance for medical technology and life sciences risks and workers' compensation insurance. We are also the majority capital provider for Syndicate 1729 which writes a range of property and casualty insurance and reinsurance in both the U.S. and international markets. Beginning in 2018, we are the sole (100%) capital provider for a newly formed SPA, Syndicate 6131, which focuses on contingency and specialty property business.

We report our results in four segments based on the operational focus of the segment. Our Specialty P&C segment includes our professional liability business and our medical technology liability business. Our Workers' Compensation segment includes workers' compensation insurance for employers, groups and associations. Our Lloyd's Syndicate segment reflects operating results from our 58% participation in Syndicate 1729. Beginning in 2018, our Lloyd's Syndicate segment will reflect our continuing participation in the operating results of Syndicate 1729, in which our participation has increased from 58% to 62% on January 1, 2018, and our 100% participation in the operating results of Syndicate 6131. Information regarding Lloyd's operations derived from U.K. based entities is normally reported on a quarter delay, except when information is available that is material to the current period. Investment results associated with our FAL investments and certain U.S. paid administrative expenses are reported concurrently as that information is available on an earlier time frame. Our Corporate segment includes our investment operations, which are managed at the corporate level, except results associated with investment assets solely allocated to Lloyd's Syndicate operations, non-premium revenues generated outside of our insurance entities, corporate expenses, interest expense and U.S. income taxes. Additional information regarding our segments is included in Note 15 of the Notes to Consolidated Financial Statements and in Part I.

Growth Opportunities and Outlook

Over the long-term we expect our growth to come primarily through controlled expansion of our existing operations. In addition, from time to time, we may identify opportunities for growth through the acquisition of other insurers, service providers or books of business. Growth through acquisition is often opportunistic and cannot be predicted.

We operate in very competitive markets and face strong competition from other insurance companies for all of our insurance products. HCPL insurance represents the majority of our gross premiums written (53% in 2017, excluding tail) and the healthcare market has been trending toward the formation of larger medical practice groups and the employment of physicians by hospitals. Large medical groups and facilities frequently manage their healthcare professional liability exposure outside of the traditional first dollar insurance marketplace using self-insured mechanisms and other risk sharing arrangements. In response to these trends, we offer products designed to provide greater risk sharing options to hospitals and large physician groups.

In 2014, we strengthened our position in the healthcare liability space by acquiring Eastern, a provider of workers' compensation insurance. We have also been a consistent acquirer of other physician insurers, completing four acquisitions between 2009 and 2013 as well as acquiring an agency largely focused on the professional liability needs of allied healthcare providers, an insurer focused on the legal professional liability market and a mutual company that focused on medical technology liability insurance for companies that manufacture or distribute medical products.

Late in 2013, we completed the process of becoming a corporate member of Lloyd's of London, an internationally recognized specialist insurance market, by providing the majority of the capital to Syndicate 1729. Syndicate 1729 covers a range of property and casualty insurance and reinsurance lines and began active operations effective January 1, 2014. For the 2018 underwriting year, we increased our participation in the operating results of Syndicate 1729 from 58% to 62%. Syndicate 1729 has a maximum underwriting capacity of £132 million (approximately \$178.4 million at December 31, 2017) for the 2018 underwriting year, of which £82 million (approximately \$110.8 million at December 31, 2017) is our allocated underwriting capacity as a corporate member.

Table of Contents

Late in 2017, we provided 100% of the capital for the newly formed SPA, Syndicate 6131. Syndicate 6131, which began active operations effective January 1, 2018, will serve as a quota share reinsurer to Syndicate 1729 and will focus on contingency and specialty property business. For the 2018 underwriting year, Syndicate 6131 has a maximum underwriting capacity of £8 million (approximately \$10.8 million at December 31, 2017). We have a total capital commitment to support our Lloyd's Syndicate operations through 2022 of up to \$200 million. See further discussion in our Segment Operating Results - Lloyd's Syndicate section that follows.

We believe our emphasis on the fair treatment of our insureds and other important stakeholders through our commitment to "Treated Fairly" has enhanced our market position and differentiated us from other insurers. We will continue to practice our values of integrity, leadership, relationships and enthusiasm in all of our activities. We will honor these values in the execution of "Treated Fairly" to perform our Mission and realize our Vision. We believe that as we reach more customers with this message we will continue to improve retention and add new insureds.

Key Performance Measures

We have sustained our financial stability during difficult market conditions through responsible underwriting, pricing and loss reserving practices and through conservative investment practices. We are committed to maintaining prudent operating and financial leverage and to conservatively investing our assets. We recognize the importance that our customers and producers place on the financial strength of our insurance subsidiaries and we manage our business to protect our financial security.

We consider a number of performance measures, including the following:

- The *net loss ratio* is calculated as net losses incurred divided by net premiums earned and is a component of underwriting profitability.
- The *underwriting expense ratio* is calculated as underwriting, policy acquisition and operating expenses incurred divided by net premiums earned and is a component of underwriting profitability.
- The *combined ratio* is the sum of the net loss ratio and the underwriting expense ratio and measures underwriting profitability.
- The *investment income ratio* is calculated as net investment income divided by net premiums earned and measures the contribution investment earnings provide to our overall profitability.
- The *operating ratio* is the combined ratio, less the investment income ratio. This ratio provides the combined effect of underwriting profitability and investment income.
- The *tax ratio* is calculated as total income tax expense divided by income (loss) before income taxes and measures our effective tax rate.
- *ROE* is calculated as net income for the period divided by the average of beginning and ending shareholders' equity. This ratio measures our overall after-tax profitability and shows how efficiently capital is being used.
- *Book value per share* is calculated as total shareholders' equity at the balance sheet date divided by the total number of common shares outstanding. This ratio measures the net worth of the company to shareholders on a per-share basis. The declaration of dividends decreases book value per share. Growth in book value per share, adjusted for dividends declared, is an indicator of overall profitability.

We particularly focus on our combined ratio and investment returns, both of which directly affect our ROE and growth in our book value. We currently target a dynamic ROE of 700 basis points above the 10-year U.S. Treasury rate, which at December 31, 2017 was approximately 9.4%.

Our emphasis on rate adequacy, selective underwriting, effective claims management and prudent investments is a key factor in our ability to achieve our ROE target. We closely monitor premium revenues, losses and loss adjustment costs, and underwriting and policy acquisition expenses. Our overall investment strategy is to focus on maximizing current income from our investment portfolio while maintaining safety, liquidity, duration and portfolio diversification. While we engage in activities that generate other income, such activities, principally insurance agency services, do not constitute a significant use of our resources or a significant source of revenues or profits.

Critical Accounting Estimates

Our Consolidated Financial Statements are prepared in conformity with GAAP. Preparation of these financial statements requires us to make estimates and assumptions that affect the amounts we report on those statements. We evaluate these estimates and assumptions on an ongoing basis based on current and historical developments, market conditions, industry trends and other information that we believe to be reasonable under the circumstances. There can be no assurance that actual results will conform to our estimates and assumptions; reported results of operations may be materially affected by changes in these estimates and assumptions.

Management considers the following accounting estimates to be critical because they involve significant judgment by management and those judgments could result in a material effect on our financial statements.

Reserve for Losses and Loss Adjustment Expenses

The largest component of our liabilities is our reserve for losses and loss adjustment expenses ("reserve for losses" or "reserve"), and the largest component of expense for our operations is incurred losses and loss adjustment expenses (also referred to as "losses and loss adjustment expenses," "incurred losses," "losses incurred" and "losses"). Incurred losses reported in any period reflect our estimate of losses incurred related to the premiums earned in that period as well as any changes to our previous estimate of the reserve required for prior periods.

As of December 31, 2017 our reserve is comprised almost entirely of long-tail exposures. The estimation of long-tailed losses is inherently difficult and is subject to significant judgment on the part of management. Due to the nature of our claims, our loss costs, even for claims with similar characteristics, can vary significantly depending upon many factors, including but not limited to the specific characteristics of the claim and the manner in which the claim is resolved. Long-tailed insurance is characterized by the extended period of time typically required to assess the viability of a claim, potential damages, if any, and to then reach a resolution of the claim. The claims resolution process may extend to more than five years. The combination of continually changing conditions and the extended time required for claim resolution results in a loss cost estimation process that requires actuarial skill and the application of significant judgment and such estimates require periodic modification.

Our reserve is established by management after taking into consideration a variety of factors including premium rates, claims frequency and severity, historical paid and incurred loss development trends, the expected effect of inflation, general economic trends, the legal and political environment and the conclusions reached by our internal and consulting actuaries. We update and review the data underlying the estimation of our reserve for losses each reporting period and make adjustments to loss estimation assumptions that we believe best reflect emerging data. Both our internal and consulting actuaries perform an in-depth review of our reserve for losses on at least a semi-annual basis using the loss and exposure data of our insurance subsidiaries.

We partition our reserves by accident year, which is the year in which the claim becomes our liability. As claims are incurred (reported) and claim payments are made, they are aggregated by accident year for analysis purposes. We also partition our reserves by reserve type: case reserves and IBNR reserves. Case reserves are established by our claims departments based upon the particular circumstances of each reported claim and represent our estimate of the future loss costs (often referred to as expected losses) that will be paid on reported claims. Case reserves are decremented as claim payments are made and are periodically adjusted upward or downward as estimates regarding the amount of future losses are revised; reported loss for an individual claim is the case reserve at any point in time plus the claim payments that have been made to date. IBNR reserves represent our estimate in the aggregate of future development on losses that have been reported to us and our estimate of losses that have been incurred but not reported to us.

Our reserving process can be broadly grouped into three areas: the establishment of the reserve for the current accident year (the initial reserve), the re-estimation of the reserve for prior accident years (development of prior accident years) and the establishment of the initial reserve for risks assumed in business combinations (the acquired reserve). A summary of the activity in our net reserve for losses during 2017, 2016 and 2015 is provided under the heading "Losses" in the Liquidity and Capital Resources and Financial Condition section that follows.

Current Accident Year - Initial Reserve

Considerable judgment is required in establishing our initial reserve for any current accident year period, as there is limited data available upon which to base our estimate. Our process for setting an initial reserve considers the unique characteristics of each product, but in general we rely heavily on the loss assumptions that were used to price business, as our pricing reflects our analysis of loss costs that we expect to incur relative to the insurance product being priced.

Specialty P&C Segment. Loss costs within this segment are impacted by many factors including but not limited to the nature of the claim, including whether or not the claim is an individual or a mass tort claim, the personal situation of the claimant or the claimant's family, the outcome of jury trials, the legislative and judicial climate where any potential litigation

Table of Contents

may occur, general economic conditions and, for claims involving bodily injury, the trend of healthcare costs. Within our Specialty P&C segment, for our HCPL business (74% of our consolidated gross reserve for losses and loss adjustment expenses for the year ended December 31, 2017), we set an initial reserve using the average loss ratio used in our pricing, plus an additional provision in consideration of the historical loss volatility we and others in the industry have experienced. For our HCPL business our target loss ratio during recent accident years has ranged from 77% to 80% and the provision for loss volatility has ranged from 8 to 10 percentage points, producing an overall average initial loss ratio for our HCPL business of approximately 90%. The reasons for the variability in loss provisions from period to period have included additional loss activity within our surplus lines business, provisions for losses in excess of policy limits, adjustments to unallocated loss adjustment expenses, adjustment to the reserve for the death, disability and retirement provisions in our policies and additional losses recorded for particular exposures, such as mass torts. These specific adjustments are made if we believe the results for a given accident year are likely to exceed those anticipated by our pricing. We believe use of a provision for volatility appropriately considers the inherent risks and limitations of our rate development process and the historic volatility of professional liability losses (the industry has experienced accident year loss ratios as high as 138% and as low as 54% over the past 30 years) and produces a reasonable best estimate of the reserve required to cover actual ultimate unpaid losses. A similar practice is followed for our legal professional liability business (3% of our consolidated gross reserve for losses and loss adjustment expenses for the year ended December 31, 2017).

The risks insured in our medical technology liability business (5% of our consolidated gross reserve for losses and loss adjustment expenses for the year ended December 31, 2017) are more varied, and policies are individually priced based on the risk characteristics of the policy and the account. These policies often have significant deductibles or self-insured retentions and the insured risks range from startup operations to large, multinational entities. Reserves are established using our most recently developed actuarial estimates of losses expected to be incurred based on factors which include results from prior analysis of similar business, industry indications, observed trends and judgment. Claims in this line of business primarily involve bodily injury to individuals and are affected by factors similar to those of our HCPL line of business. For the medical technology liability business, we also establish an initial reserve using a loss ratio approach, including a provision in consideration of historical loss volatility that this line of business has exhibited.

Workers' Compensation Segment. Many factors affect the ultimate losses incurred for our workers' compensation coverages (14% of our consolidated gross reserve for losses and loss adjustment expenses for the year ended December 31, 2017) including but not limited to the type and severity of the injury, the age and occupation of the injured worker, the estimated length of disability, medical treatment and related costs, and the jurisdiction and workers' compensation laws of the injury occurrence. We use various actuarial methodologies in developing our workers' compensation reserve, combined with a review of the exposure base generally based upon payroll of the insured. For the current accident year, given the lack of seasoned information, the different actuarial methodologies produce results with significant variability; therefore, more emphasis is placed on supplementing results from the actuarial methodologies with trends in exposure base, medical expense inflation, general inflation, severity, and claim counts, among other things, to select an expected loss ratio.

Lloyd's Syndicate Segment. Due to the relatively short history of Syndicate 1729 (January 1, 2014) we are influenced by historical claims experience of the Lloyd's market for similar risks in estimating the appropriate initial reserves for our Lloyd's Syndicate segment. We expect loss ratios to fluctuate from quarter to quarter as Syndicate 1729 writes more business and the book begins to mature. Loss ratios can also fluctuate due to the timing of earned premium adjustments. Such adjustments may be the result of premiums for certain policies and assumed reinsurance contracts being reported subsequent to the coverage period and may be subject to adjustment based on loss experience. Premium and exposure for some of Syndicate 1729's insurance policies and reinsurance contracts are initially estimated and subsequently recorded over an extended period of time as reports are received under binding authority programs. When reports are received, the premium, exposure and corresponding loss estimates are revised accordingly. Changes in loss estimates due to premium or exposure fluctuations are incurred in the accident year in which the premium is earned.

For significant property catastrophe exposures, Syndicate 1729 uses third-party catastrophe models to accumulate a listing of potentially affected policies. Each identified policy is given an estimate of loss severity based upon a combination of factors including the probable maximum loss of each policy, market share analytics, underwriting judgment, client/broker estimates and historical loss trends for similar events. These models are inherently uncertain, reliant upon key assumptions and management judgment and are not always a representation of actual events and ensuing potential loss exposure. Determination of actual losses may take an extended period of time until claims are reported and resolved, including coverage litigation.

Syndicate 6131, which began active operations effective January 1, 2018, follows a process similar to Syndicate 1729 for the establishment of initial reserves. Loss assumptions by risk category incorporated into the 2018 business plan submitted to Lloyd's were influenced by historical claims experience of the Lloyd's market for similar risks. We expect the loss ratios of Syndicate 6131 to fluctuate from quarter to quarter as Syndicate 6131 assumes more business from Syndicate 1729 and the book begins to mature.

Table of Contents

Development of Prior Accident Years

In addition to setting the initial reserve for the current accident year, each period we reassess the amount of reserve required for prior accident years.

The foundation of our reserve re-estimation process is an actuarial analysis that is performed by both our internal and consulting actuaries. This very detailed analysis projects ultimate losses based on partitions which include line of business, geography, coverage layer and accident year. The procedure uses the most representative data for each partition, capturing its unique patterns of development and trends. In all there are 200 different partitions of our business for purposes of this analysis. We believe that the use of consulting actuaries provides an independent view of our loss data as well as a broader perspective on industry loss trends.

For both the Specialty P&C and Workers' Compensation segments the analysis performed by the consulting actuaries analyzes each partition of our business in a variety of ways and uses multiple actuarial methodologies in performing these analyses, including:

- Bornhuetter-Ferguson (Paid and Reported) Method
- Paid Development Method
- Reported Development Method
- Average Paid Value Method
- Average Reported Value Method
- Backward Recursive Development Method
- The Adjusted Reported and the Adjusted Paid Methods

A brief description of each method follows.

Bornhuetter-Ferguson Method. We use both the Paid and the Reported Bornhuetter-Ferguson methods. The Paid method assigns partial weight to initial expected losses for each accident year (initial expected losses being the first established case and IBNR reserves for a specific accident year) and partial weight to paid to date losses. The Reported method assigns partial weight to the initial expected losses and partial weight to current expected losses. The weights assigned to the initial expected losses decrease as the accident year matures.

Paid Development and Reported Development Methods. These methods use historical, cumulative losses (paid losses for the Paid Development Method, reported losses for the Reported Development Method) by accident year and develop those actual losses to estimated ultimate losses based upon the assumption that each accident year will develop to estimated ultimate cost in a manner that is analogous to prior years, adjusted as deemed appropriate for the expected effects of known changes in the claim payment environment (and case reserving environment for the Reported Development Method); and to the extent necessary, supplemented by analyses of the development of broader industry data.

Average Paid Value and Average Reported Value Methods. In these methods, average claim cost data (paid claim cost for the Average Paid Value Method and reported claim cost for the Reported Value Method) is developed to an ultimate average cost level by report year based on historical data. Claim counts are similarly developed to an ultimate count level. The average claim cost (after rounding and adjustment, if necessary, to accommodate report year data that is not considered to be predictive) is then multiplied by the ultimate claim counts by report year to derive ultimate loss and ALAE.

Backward Recursive Development Method. This method is an extrapolation of the movements in case reserve adequacy in order to estimate unpaid loss costs. Historical data showing incremental changes to case reserves over progressive time periods is used to derive factors that represent the ratio of case reserve values at successive maturities. Historical claims payment data showing the additional payments in progressive time periods is used to derive factors that represent the portion of a case reserve paid in the following period. Starting from the most mature period, after which all of the case reserve is paid and the case reserve is exhausted, the next prior ultimate development factor for the prior case reserve can be calculated as the case factor times the established ultimate development factor plus the paid factor. For each successive prior maturity, the ultimate development factor is calculated similarly. The result of multiplying the ultimate development factor times the case reserve is the total indicated unpaid amount.

The Adjusted Reported and the Adjusted Paid Methods. These methods are based on the premise that the relative change in a given accident year's adjusted reported loss estimates (Adjusted Reported Method) or adjusted paid losses (Adjusted Paid Method) from one evaluation point to the next is similar to changes observed for earlier accident years at the same evaluation points. In the Adjusted Reported Method reported loss estimates are adjusted to reflect a common case reserve adequacy basis. In the Adjusted Paid Method, the historical paid loss experience is adjusted to reflect a common claim settlement rate basis. We principally use these methods to evaluate reserves for our legal liability coverages.

Generally, methods such as the Bornhuetter-Ferguson method are used on more recent accident years where we have less data on which to base our analysis. As time progresses and we have an increased amount of data for a given accident year, we begin to give more confidence to the development and average methods, as these methods typically rely more heavily on our

Table of Contents

own historical data. These methods emphasize different aspects of loss reserve estimation and provide a variety of perspectives for our decisions.

Certain of the methodologies utilized to estimate the ultimate losses for each partition of our reserves consider the actual amounts paid. Paid data is particularly influential when a large portion of known claims have been closed, as is the case for older accident years. In selecting a point estimate for each partition, management considers the extent to which trends are emerging consistently for all partitions and known industry trends. Thus, actual, rather than estimated severity trends are given more consideration. If actual severity trends are lower than those estimated at the time that reserves were previously established, the recognition of favorable development is indicated. This is particularly true for older accident years where our actuarial methodologies give more weight to actual loss costs (severity).

The various actuarial methods discussed above are applied in a consistent manner from period to period. In addition, we perform statistical reviews of claims data such as claim counts, average settlement costs and severity trends when establishing our reserves.

We utilize the selected point estimates of ultimate losses to develop estimates of ultimate losses recoverable from reinsurers, based on the terms and conditions of our reinsurance agreements. An overall estimate of the amount receivable from reinsurers is determined by combining the individual estimates. Our net reserve estimate is the gross reserve point estimate less the estimated reinsurance recovery.

For our Workers' Compensation segment, we utilize the reported development method, paid development method and Bornhuetter-Ferguson method, to develop our reserve for each accident year. The actuarial review includes the stratification of claims data (lost time claims, medical only claims) using different variations that allow us to identify trends that may not be readily identifiable if the data was evaluated only in the aggregate. Reported and paid loss development factors are key assumptions in the reserve estimation process and are based on our historical reported and paid loss development patterns. As accident years mature, the various actuarial methodologies produce more consistent loss estimates.

For our Lloyd's Syndicate segment we rely on the analysis of actual loss experience on the book of business written by Syndicate 1729 to determine loss development by accident year.

Acquired Reserve

The acquisition of Eastern on January 1, 2014 increased our loss reserve by \$153.2 million which represented the fair value of Eastern's loss reserve at the time of the acquisition. The fair value of the reserve for losses and loss adjustment expenses and related reinsurance recoverables was based on an actuarial estimate of the expected future net cash flows, a reduction of those cash flows for the time value of money determined utilizing the U.S. Treasury Yield Curve, and a risk adjustment to reflect the net present value of profit that an investor would demand in return for the assumption of the associated risks. Expected net cash flows were derived from the expected loss payment patterns included in an actuarial analysis of Eastern's reserve performed as of December 31, 2013. The fair value of the reserve, including the risk margin discussed above, exceeded the undiscounted loss reserve previously established by Eastern by \$9.3 million; this fair value adjustment is being amortized over the average expected life of the reserve of 6 years. The unamortized fair value adjustment included in the acquired reserve as of December 31, 2017 was \$3.1 million.

Use of Judgment

Even though the actuarial process is highly technical, it is also highly judgmental, both as to the selection of the data used in the various actuarial methodologies (e.g., initial expected loss ratios and loss development factors) and in the interpretation of the output of the various methods used. Each actuarial method generally returns a different value and for the more recent accident years the variations among the various methodologies can be significant. For each partition of our reserves, we evaluate the results of the various methods, along with the supplementary statistical data regarding such factors as closed with and without indemnity ratios, claim severity trends, the expected duration of such trends, changes in the legal and legislative environment and the current economic environment to develop a point estimate based upon management's judgment and past experience. The series of selected point estimates is then combined to produce an overall point estimate for ultimate losses.

Given the potential for unanticipated volatility for long-tailed lines of business, we are cautious in giving full credibility to emerging trends that, when more fully mature, may lead to the recognition of either favorable or adverse development of our losses. There may be trends, both positive and negative, reflected in the numerical data both within our own information and in the broader marketplace that mitigate or reverse as time progresses and additional data becomes available. This is particularly true for our HCPL business which has historically exhibited significant volatility as previously discussed.

HCPL. Over the past several years the most influential factor affecting the analysis of our HCPL reserves and the related development recognized has been the change, or lack thereof, in the severity of claims. The severity trend is an explicit component of our pricing models, whereas in our reserving process the severity trend's impact is implicit. Our estimate of this

Table of Contents

trend and our expectations about changes in this trend impact a variety of factors, from the selection of expected loss ratios to the ultimate point estimates established by management.

Because of the implicit and wide-ranging nature of severity trend assumptions on the loss reserving process it is not practical to specifically isolate the impact of changing severity trends. However, because severity is an explicit component of our HCPL pricing process we can better isolate the impact that changing severity can have on our loss costs and loss ratios in regards our pricing models for this business component. Our current HCPL pricing models assume a severity trend of 2% to 3% in most states and products. We have observed potentially higher severity trends in our case reserve estimates but these have not been confirmed by actual claim payments. If the severity trend were to be higher by 1 percentage point, the impact would be an increase in our expected loss ratio for this business of 3.2 percentage points, based on current claim disposition patterns. An increase in the severity trend of 3 percentage points would result in a 10.1 percentage point increase in our expected loss ratio. Due to the long-tailed nature of our claims and the previously discussed historical volatility of loss costs, selection of a severity trend assumption is a subjective process that is inherently likely to prove inaccurate over time. Given the long tail and volatility, we are generally cautious in making changes to the severity assumptions within our pricing models. All open claims and accident years are generally impacted by a change in the severity trend, which compounds the effect of such a change.

For the 2004 to 2009 accident years, both our internal and consulting actuaries observed an unprecedented reduction in the frequency of HCPL claims (or number of claims per exposure unit) that cannot be attributed to any single factor. Since 2009, claim frequency has been relatively constant, at a lower level than had historically existed. For a number of years, we believed that much of the reduction in claim frequency was the result of a decline in the filing of non-meritorious lawsuits that had historically been dismissed or otherwise resulted in no payment of indemnity on behalf of our insureds. With fewer non-meritorious claims being filed we expected that the claims that were filed had the potential for greater average losses, or greater severity. To date, however, this effect has not materialized to the extent we anticipated. The uncertainty as to the impact this decline in frequency might ultimately have on the average cost of claims complicated the selection of an appropriate severity trend for our pricing model for these lines, and factoring severity into the various actuarial methodologies we use to evaluate our reserve has been increasingly challenging. Based on the weighted average of payments, typically 91% of our HCPL claims are resolved after eight years for a given accident year.

Although we remain uncertain regarding the ultimate severity trend to project into the future due to the long-tailed nature of our business, we have given consideration to observed loss costs in setting our rates. For our HCPL business this practice has resulted in rate reductions in recent years. For example, on average, excluding our podiatry business acquired in 2009, we have gradually reduced the premium rates we charge on our standard physician renewal business (our largest HCPL line) by approximately 16% from the beginning of 2006 to December 31, 2017. Loss ratios for the current accident years have thus remained fairly constant because expected loss reductions have been reflected in our rates.

Workers' Compensation. The projection of changes in claim severity trend has not historically been an influential factor affecting our workers' compensation analysis of reserves, as claims are typically resolved more quickly than the industry norm. As previously mentioned, the determination and calculation of loss development factors, in particular, the selection of tail factors which are used to extend the projection of losses beyond historical data, requires considerable judgment.

Loss Development

We recognized net favorable reserve development of \$134.4 million for the year ended December 31, 2017, of which \$119.3 million related to our Specialty P&C segment, \$14.3 million related to our Workers' Compensation segment and \$0.8 million related to our Lloyd's Syndicate segment.

Net favorable development recognized within the Specialty P&C segment was primarily attributable to the favorable resolution of HCPL claims during the period and an evaluation of established case reserves and paid claims data that indicated that the actual severity trend associated with the remaining HCPL claims is less than we had previously estimated. The Specialty P&C segment also reflected favorable development of \$10.1 million attributable to our medical technology liability line of business and \$5.2 million attributable to our legal professionals liability line of business for the year ended December 31, 2017.

Net favorable development recognized within the Workers' Compensation segment for 2017 included \$5.7 million attributable to our traditional business of which \$1.6 million related to the amortization of the purchase accounting fair value adjustment. Excluding the purchase accounting fair value adjustment, net favorable development in our traditional business was \$4.1 million which primarily reflected better than expected claims results related to accident years 2015 and 2016. The remaining net favorable development in our Workers' Compensation segment of \$8.6 million was attributable to our SPCs which are evaluated at the cell level. Because a relatively small number of claims are open per cell, the closing of claims can affect the actuarial projections for the remaining open claims in the cell to an extent that indicates development should be recognized for the cell.

Table of Contents

Net favorable development of \$0.8 million recognized within our Lloyd's Syndicate segment in 2017 was attributable to actual loss experience proving to have been better than the Lloyd's market historical averages for similar risks which were used to establish initial reserves.

Specialty P&C Segment

Professional Liability

Our professional liability line of business includes both our HCPL and legal professional lines, with our HCPL line representing the largest component of our reserve. In support of our concern that the decline in frequency will result in a higher severity trend for our HCPL claims, we saw our closed-with-indemnity-payment ratio (i.e., the number of claims closed with an indemnity or loss payment as compared to the total number of closed claims) for our claims increase from 10% in 2005 to 15% in 2017.

While this trend has been in keeping with our expectations, the anticipated increase in severity incorporated into our loss assumptions has not occurred. Rather, we have experienced lower than expected severity which has been the primary driver of the favorable development recognized in recent years.

The following table presents additional information about the loss development for our professional liability line of business:

(\$ in thousands)

Accident Years	Estimated Ultimate Losses, Net of Reinsurance, December 31, 2017	2017		2016		2015	
		Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed
2017	\$ 390,001	N/A	20.4%	N/A	N/A	N/A	N/A
2016	\$ 392,518	\$ 3,413	48.2%	N/A	17.6%	N/A	N/A
2015	\$ 396,426	\$ 1,510	68.7%	\$ 304	47.5%	N/A	18.0%
2014	\$ 369,472	\$ (15,782)	82.3%	\$ (11,358)	71.8%	\$ 1,546	51.7%
2013	\$ 392,286	\$ (23,164)	90.4%	\$ (10,501)	83.4%	\$ (9,564)	72.8%
2012	\$ 402,348	\$ (17,187)	95.3%	\$ (24,988)	92.0%	\$ (21,199)	85.1%
2011	\$ 391,722	\$ (18,277)	96.4%	\$ (15,977)	94.0%	\$ (24,147)	90.6%
2010	\$ 384,737	\$ (17,224)	98.7%	\$ (14,532)	97.6%	\$ (17,966)	95.7%
2009	\$ 341,409	\$ (8,380)	99.0%	\$ (19,920)	98.4%	\$ (25,851)	97.1%
2008	\$ 342,026	\$ (1,744)	99.4%	\$ (10,391)	99.1%	\$ (16,758)	98.3%
Prior to 2008	\$ 6,879,660	\$ (12,384)		\$ (18,283)		\$ (33,349)	

An extended period of time is required to get a clear estimate of the loss cost for a given accident year. As an example, looking at the 2012 accident year for our professional liability reserves, we had resolved 85.1% of the known claims by the end of 2015, 92.0% of the known claims by the end of 2016, and 95.3% of the known claims by the end of 2017. These statistics are based on the number of reported claims; since many non-meritorious claims are resolved early, percentages of ultimate loss payments known at the same points in time are considerably lower. A similar pattern can be seen in each open accident year as demonstrated in the above table.

Historically we have resolved more than 85% of our physician and hospital professional liability claims with no indemnity payment. As an accident year matures, the number of claims resolved with indemnity payments progressively increases. In a similar fashion, we typically expend more in loss adjustment expenses (legal fees) as claims mature.

At December 31, 2017, 2016 and 2015 management reserve estimates for the three most recent prior accident years (which have closed claim percentages at or below 85%) were influenced by the initial reserve estimate set for these years, moderated to reflect consideration of better than anticipated claims experience observed during the periods. Estimates for older accident years with higher percentages of closed claims were more heavily influenced by the more moderate severity trend, particularly with regard to claims closed during the periods.

Table of Contents

This can be seen in looking at both the absolute amount of favorable reserve development recognized for the less developed accident years as well as the size of such development when compared to established ultimates for those same accident years at the end of the preceding calendar year. The following table provides this information for years ended December 31, 2017, 2016 and 2015 with respect to the three then most recent prior accident years:

(\$ in millions)	2017	2016	2015
Prior accident years	2014-2016	2013-2015	2012-2014
Net favorable development recognized for the specified years	\$10.9	\$21.6	\$29.2
Development as a % of established ultimates, prior calendar year end	0.9%	1.8%	2.3%

Medical Technology Liability

Our medical technology liability line of business has not experienced the change in claim frequency previously described for HCPL. However, the nature of the risks insured and volatility of the loss experience in this line of business has produced more variable loss development, as presented in the following table:

(\$ in thousands)	2017				2016		2015	
Accident Years	Estimated Ultimate Losses, Net of Reinsurance, December 31, 2017	Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed	
2017	\$ 14,923	N/A	42.2%	N/A	N/A	N/A	N/A	
2016	\$ 13,587	\$ (537)	53.3%	N/A	26.4%	N/A	N/A	
2015	\$ 12,342	\$ (1,755)	79.5%	\$ (440)	60.0%	N/A	38.3%	
2014	\$ 13,497	\$ (187)	92.5%	\$ (845)	81.7%	\$ 608	72.6%	
2013	\$ 6,839	\$ (2,622)	96.4%	\$ (2,400)	87.7%	\$ (171)	86.5%	
2012	\$ 9,281	\$ (1,251)	96.9%	\$ (1,826)	90.5%	\$ (1,097)	93.3%	
2011	\$ 14,881	\$ 92	73.9%	\$ (1,591)	72.0%	\$ (2,315)	77.4%	
2010	\$ 22,882	\$ (1,385)	96.3%	\$ (800)	90.6%	\$ (2,104)	94.2%	
2009	\$ 21,629	\$ (1,178)	95.7%	\$ (1,382)	92.2%	\$ (1,551)	95.1%	
2008	\$ 42,007	\$ (351)	99.9%	\$ (947)	97.2%	\$ (3,341)	99.7%	
Prior to 2008	\$ 495,064	\$ (899)		\$ (1,282)		\$ (1,726)		

Approximately \$5.8 million of the \$10.1 million total net favorable development recognized in 2017 related to the 2012 to 2015 accident years. The development for the 2012 to 2015 accident years represents a 12.1% reduction to the ultimates established for those reserves at December 31, 2016. Approximately \$5.8 million of the \$11.5 million total net favorable development recognized in 2016 related to the 2011 to 2013 accident years. The development for the 2011 to 2013 accident years represents a 14.3% reduction to the ultimates established for those reserves at December 31, 2015. Approximately \$10.4 million of the \$11.7 million total net favorable development recognized in 2015 related to the 2008 to 2012 accident years. The development for the 2008 to 2012 accident years represents a 7.9% reduction to the ultimates established for those reserves at December 31, 2014.

In 2017, 2016 and 2015 the development was largely attributable to favorable results from claims closed during the year. As time has elapsed we have recognized that actual loss experience has on average been better than estimated. We have been cautious in recognizing the improvement, but as claims have matured and claims are closed or have become more certain for the remaining open claims, we have revised reserve estimates. We believe the need for a cautious approach is required as outcomes are uncertain and results can be significantly affected by outcomes for a small number of cases.

Table of Contents

Workers' Compensation Segment

Claims in our workers' compensation line of business have historically closed at a faster rate than in our HCPL or medical technology liability lines of business. This faster disposition rate, along with a lower net retention after the application of reinsurance, has resulted in less volatility in loss estimates on a net basis. However, a change in the number of individually-severe claims can create volatility in a given accident year. The following table presents additional information about the loss development for our workers' compensation line of business:

Accident Years	Estimated Ultimate Losses, Net of Reinsurance, December 31, 2017	2017		2016		2015	
		Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed
2017	\$ 150,772	N/A	37%	N/A	N/A	N/A	N/A
2016	\$ 139,397	\$ (7,546)	82.5%	N/A	41.3%	N/A	N/A
2015	\$ 134,234	\$ (5,773)	92.4%	\$ (3,452)	82.6%	N/A	45.7%
2014	\$ 126,421	\$ (1,428)	97.0%	\$ 77	92.5%	\$ (85)	83.1%
2013	\$ 120,610	\$ 441	98.3%	\$ 944	97.1%	\$ 1,520	93.0%
2012	\$ 100,509	\$ (308)	99.3%	\$ (577)	98.4%	\$ (739)	96.5%
2011	\$ 95,441	\$ 241	99.0%	\$ 156	98.9%	\$ (263)	98.8%
2010	\$ 75,793	\$ (42)	99.4%	\$ (820)	99.3%	\$ 605	99.1%
Prior to 2010	\$ 423,493	\$ 1,710		\$ (782)		\$ (1,685)	

We recognized \$14.3 million of net favorable development in 2017 which included \$8.6 million of net favorable development at our SPCs and \$5.7 million of net favorable development related to our traditional business. Net favorable development in our traditional business included \$1.6 million related to the amortization of the purchase accounting fair value adjustment. In 2016, we recognized \$6.1 million of net favorable development which included \$4.5 million of net favorable development at our SPCs and \$1.6 million of net favorable development related to the amortization of the purchase accounting fair value adjustment for our traditional business. In 2015, we recognized \$2.2 million of net favorable development which included \$0.6 million of net unfavorable development at our SPCs primarily related to claims activity prior to the 2009 accident year and \$1.6 million of net favorable development related to the amortization of the purchase accounting fair value adjustment for our traditional business.

Variability of Loss Reserves

As previously noted, the number of data points and variables considered and the subjective process followed in establishing our loss reserve makes it impractical to isolate individual variables and demonstrate their impact on our estimate of loss reserves. However, to provide a better understanding of the potential variability in our reserves, we have modeled implied reserve ranges around our single point net reserve estimates for our various lines of business assuming different confidence levels. The ranges have been developed by aggregating the expected volatility of losses across partitions of our business to obtain a consolidated distribution of potential reserve outcomes. The aggregation of this data takes into consideration correlations among our geographic and specialty mix of business. The result of the correlation approach to aggregation is that the ranges are narrower than the sum of the ranges determined for each partition.

We have used this modeled statistical distribution to calculate an 80% and 60% confidence interval for the potential outcome of our consolidated net reserve for losses. The high and low end points of the distributions are as follows:

	Low End Point	Carried Net Reserve	High End Point
80% Confidence Level	\$1.351 billion	\$1.713 billion	\$2.122 billion
60% Confidence Level	\$1.452 billion	\$1.713 billion	\$1.956 billion

Any change in our estimate of net ultimate losses for prior years is reflected in net income in the period in which such changes are made.

Due to the size of our consolidated reserve for losses and the large number of claims outstanding at any point in time, even a small percentage adjustment to our total reserve estimate could have a material effect on our results of operations for the period in which the adjustment is made.

Table of Contents

Reinsurance

We use insurance and reinsurance (collectively, “reinsurance”) to provide capacity to write larger limits of liability, to provide reimbursement for losses incurred under the higher limit coverages we offer, to provide protection against losses in excess of policy limits, and, in the case of risk sharing arrangements, to align our objectives with those of our strategic business partners and to provide custom insurance solutions for large customer groups. The purchase of reinsurance does not relieve us from the ultimate risk on our policies, however it does provide reimbursement for certain losses we pay.

We make a determination of the amount of insurance risk we choose to retain based upon numerous factors, including our risk tolerance and the capital we have to support it, the price and availability of reinsurance, the volume of business, our level of experience with a particular set of claims and our analysis of the potential underwriting results. We purchase excess of loss reinsurance to limit the amount of risk we retain and we do so from a number of companies to mitigate concentrations of credit risk. We utilize reinsurance brokers to assist us in the placement of these reinsurance programs and in the analysis of the credit quality of our reinsurers. The determination of which reinsurers we choose to do business with is based upon an evaluation of their then current financial strength, rating and stability.

We evaluate each of our ceded reinsurance contracts at inception to confirm that there is sufficient risk transfer to allow the contract to be accounted for as reinsurance under current accounting guidance. At December 31, 2017, all ceded contracts were accounted for as risk transferring contracts.

Our receivable from reinsurers on unpaid losses and loss adjustment expenses represents our estimate of the amount of our reserve for losses that will be recoverable under our reinsurance programs. We base our estimate of funds recoverable upon our expectation of ultimate losses and the portion of those losses that we estimate to be allocable to reinsurers based upon the terms and conditions of our reinsurance agreements. Our assessment of the collectability of the recorded amounts receivable from reinsurers considers the payment history of the reinsurer, publicly available financial and rating agency data, our interpretation of the underlying contracts and policies and responses by reinsurers.

Given the uncertainty inherent in our estimates of losses and related amounts recoverable from reinsurers, these estimates may vary significantly from the ultimate outcome.

Under the terms of certain of our reinsurance agreements, the amount of premium that we cede to our reinsurers is based in part on the losses we recover under the agreements. Therefore we make an estimate of premiums ceded under these reinsurance agreements subject to certain maximums and minimums. Any adjustments to our estimates of losses recoverable under our reinsurance agreements or the premiums owed under our agreements are reflected in then current operations. Due to the size of our reinsurance balances, an adjustment to these estimates could have a material effect on our results of operations for the period in which the adjustment is made.

The financial strength of our reinsurers and their ability to pay us may change in the future due to forces or events we cannot control or anticipate. We have not experienced significant collection difficulties due to the financial condition of any reinsurer as of December 31, 2017; however, reinsurers may periodically dispute our demand for reimbursement from them based upon their interpretation of the terms of our agreements. We have established appropriate reserves for any balances that we believe may not be ultimately collected. Should future events lead us to believe that any reinsurer will not meet its obligations to us, adjustments to the amounts recoverable would be reflected in the results of current operations. Such an adjustment has the potential to be material to the results of operations in the period in which it is recorded; however, we would not expect such an adjustment to have a material effect on our capital position or our liquidity.

Investment Valuations

We record the majority of our investments at fair value as shown in the table below. At December 31, 2017, the distribution of our investments based on GAAP fair value hierarchies (levels) was as follows:

	Distribution by GAAP Fair Value Hierarchy				Total Investments
	Level 1	Level 2	Level 3	Not Categorized	
Investments recorded at:					
Fair value	24%	63%	1%	6%	94%
Other valuations					6%
Total Investments					100%

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. All of our fixed maturity and equity security investments are carried at fair value. Our short-term securities are carried at amortized cost, which approximates fair value.

Table of Contents

Because of the number of securities we own and the complexity of developing accurate fair values, we utilize multiple independent pricing services to assist us in establishing the fair value of individual securities. The pricing services provide fair values based on exchange-traded prices, if available. If an exchange-traded price is not available, the pricing services, if possible, provide a fair value that is based on multiple broker/dealer quotes or that has been developed using pricing models. Pricing models vary by asset class and utilize currently available market data for securities comparable to ours to estimate a fair value for our securities. The pricing services scrutinize market data for consistency with other relevant market information before including the data in the pricing models. The pricing services disclose the types of pricing models used and the inputs used for each asset class. Determining fair values using these pricing models requires the use of judgment to identify appropriate comparable securities and to choose a valuation methodology that is appropriate for the asset class and available data.

The pricing services provide a single value per instrument quoted. We review the values provided for reasonableness each quarter by comparing market yields generated by the supplied value versus market yields observed in the marketplace. We also compare yields indicated by the provided values to appropriate benchmark yields and review for values that are unchanged or that reflect an unanticipated variation as compared to prior period values. We utilize a primary pricing service for each security type and compare provided information for consistency with alternate pricing services, known market data and information from our own trades, considering both values and valuation trends. We also review weekly trades versus the prices supplied by the services. If a supplied value appears unreasonable, we discuss the valuation in question with the pricing service and make adjustments if deemed necessary. Historically our review has not resulted in any material changes to the values supplied by the pricing services. The pricing services do not provide a fair value unless an exchange-traded price or multiple observable inputs are available. As a result, the pricing services may provide a fair value for a security in some periods but not others, depending upon the level of recent market activity for the security or comparable securities.

Level 1 Investments

Fair values for a majority of our equity securities and portions of our corporate debt, short term and convertible securities are determined using exchange-traded prices. There is little judgment involved when fair value is determined using an exchange-traded price. In accordance with GAAP, for disclosure purposes we classify securities valued using an exchange-traded price as Level 1 securities.

Level 2 Investments

Most fixed income securities do not trade daily, and thus exchange-traded prices are generally not available for these securities. However, market information (often referred to as observable inputs or market data, including but not limited to, last reported trade, non-binding broker quotes, bids, benchmark yield curves, issuer spreads, two sided markets, benchmark securities, offers and recent data regarding assumed prepayment speeds, cash flow and loan performance data) is available for most of our fixed income securities. We determine fair value for a large portion of our fixed income securities using available market information. In accordance with GAAP, for disclosure purposes we classify securities valued based on multiple market observable inputs as Level 2 securities.

Level 3 Investments

When a pricing service does not provide a value for one of our fixed maturity securities, management estimates fair value using either a single non-binding broker quote or pricing models that utilize market-based assumptions which have limited observable inputs. The process involves significant judgment in selecting the appropriate data and modeling techniques to use in the valuation process. For disclosure purposes, we classify securities valued using limited observable inputs as Level 3 securities.

Fair Values Not Categorized

We hold interests in certain investment funds, primarily LPs/LLCs, which measure fund assets at fair value on a recurring basis and provide us with a NAV for our interest. As a practical expedient, we consider the NAV provided to approximate the fair value of the interest. In accordance with GAAP, we do not categorize these investments within the fair value hierarchy.

Nonrecurring Fair Value Measurements

We measure the fair value of certain assets on a nonrecurring basis either quarterly, annually or when events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. These assets include cost and equity method investments, fixed assets, goodwill and other intangible assets.

Table of Contents

Investments - Other Valuation Methodologies

Certain of our investments, in accordance with GAAP for the type of investment, are measured using methodologies other than fair value. At December 31, 2017, these investments represented approximately 6% of total investments, and are detailed in the following table. Additional information about these investments is provided in Notes 2 and 3 of the Notes to Consolidated Financial Statements.

<i>(In millions)</i>	Carrying Value	GAAP Measurement Method
Other investments:		
Investments in LPs	\$ 55.1	Cost
Other, principally FHLB capital stock	3.5	Principally Cost
	<u>58.6</u>	
Investment in unconsolidated subsidiaries:		
Investments in tax credit partnerships	90.7	Equity
Equity method investments, primarily LPs/LLCs	29.1	Equity
	<u>119.8</u>	
BOLI	62.1	Cash surrender value
Total investments - Other valuation methodologies	<u>\$ 240.5</u>	

Other-than-temporary Impairments

We evaluate our available-for-sale investment securities on at least a quarterly basis for the purpose of determining whether declines in fair value below recorded cost basis represent OTTI. We consider an OTTI to have occurred:

- if there is intent to sell the security;
- if it is more likely than not that the security will be required to be sold before full recovery of its amortized cost basis; and
- if the entire amortized basis of the security is not expected to be recovered.

The assessment of whether the amortized cost basis of a security, particularly an asset-backed debt security, is expected to be recovered requires management to make assumptions regarding various matters affecting future cash flows. The choice of assumptions is subjective and requires the use of judgment. Actual credit losses experienced in future periods may differ from management's estimates of those credit losses. Methodologies used to estimate the present value of expected cash flows are:

For non-structured fixed maturities (obligations of states, municipalities and political subdivisions and corporate debt) the estimate of expected cash flows is determined by projecting a recovery value and a recovery time frame and assessing whether further principal and interest will be received. We consider various factors in projecting recovery values and recovery time frames, including the following:

- third-party research and credit rating reports;
- the current credit standing of the issuer, including credit rating downgrades, whether before or after the balance sheet date;
- the extent to which the decline in fair value is attributable to credit risk specifically associated with the security or its issuer;
- internal assessments and the assessments of external portfolio managers regarding specific circumstances surrounding an investment, which indicate the investment is more or less likely to recover its amortized cost than other investments with a similar structure;
- for asset-backed securities, the origination date of the underlying loans, the remaining average life, the probability that credit performance of the underlying loans will deteriorate in the future, and our assessment of the quality of the collateral underlying the loan;
- failure of the issuer of the security to make scheduled interest or principal payments;
- any changes to the rating of the security by a rating agency; and
- recoveries or additional declines in fair value subsequent to the balance sheet date.

For structured securities (primarily asset-backed securities), management estimates the present value of the security's cash flows using the effective yield of the security at the date of acquisition (or the most recent implied rate used to accrete the security if the implied rate has changed as a result of a previous impairment or changes in expected cash flows). We consider the most recently available six month averages of the levels of delinquencies, defaults, severities, and prepayments for the collateral (loans) underlying the securitization or, if historical data is not available, sector based assumptions, to estimate expected future cash flows of these securities.

Table of Contents

Exclusive of securities where there is an intent to sell or where it is not more likely than not that the security will be required to be sold before recovery of its amortized cost basis, OTTI for debt securities is separated into a credit component and a non-credit component. The credit component of an OTTI is the difference between the security's amortized cost basis and the present value of its expected future cash flows, while the non-credit component is the remaining difference between the security's fair value and the present value of expected future cash flows. The credit component of the OTTI is recognized in earnings while the non-credit component is recognized in OCI.

Investments in tax credit partnerships are evaluated for OTTI by considering both qualitative and quantitative factors which include: whether the current expected cash flows from the investment, primarily tax benefits, are less than those expected at the time the investment was acquired due to various factors, such as a change in the statutory tax rate, and our ability and intent to hold the investment until the recovery of its carrying value.

Investments which are accounted for under the equity method are evaluated for impairment whenever events or changes in circumstances indicate that the carrying value of the investment might not be recoverable. These circumstances include, but are not limited to, evidence of the inability to recover the carrying value of the investment, the inability of the investee to sustain an earnings capacity that would justify the carrying value of the investment or the current fair value of the investment that is less than the carrying value.

Investments in LPs/LLCs which are not accounted for under the equity method are evaluated for impairment by comparing our carrying value to the NAV of our interest as reported by the LP/LLC. Additionally, management considers the performance of the LP/LLC relative to the market and its stated objectives, cash flows expected from the interest and the audited financial statements of the LP/LLC, if available.

We recognize OTTI, exclusive of non-credit OTTI, in earnings as a part of net realized investment gains (losses). In subsequent periods, any measurement of gain, loss or impairment is based on the revised amortized basis of the security. Non-credit OTTI on debt securities and declines in fair value of available-for-sale securities not considered to be other-than-temporary are recognized in OCI.

Asset-backed debt securities that have been impaired due to credit or are below investment grade quality are accounted for under the effective yield method. Under the effective yield method, estimates of cash flows expected over the life of asset-backed securities are then used to recognize income on the investment balance for subsequent accounting periods.

Deferred Policy Acquisition Costs

Policy acquisition costs (primarily commissions, premium taxes and underwriting salaries) which are directly related to the successful acquisition of new and renewal premiums are capitalized as DPAC and charged to expense, net of ceding commissions earned, as the related premium revenue is recognized. We evaluate the recoverability of our DPAC at the segment level each reporting period, and any amounts estimated to be unrecoverable are charged to expense in the current period. As of December 31, 2017 we have not determined that any amounts are unrecoverable.

Deferred Taxes

Deferred federal income taxes arise from the recognition of temporary differences between the basis of assets and liabilities determined for financial reporting purposes and the basis determined for income tax purposes. Our temporary differences principally relate to our loss reserve, unearned premiums, DPAC, unrealized investment gains (losses) and basis differences on fixed assets and investment assets. Deferred tax assets and liabilities are measured using the enacted tax rates expected to be in effect when such benefits are realized. We review our deferred tax assets quarterly for impairment. If we determine that it is more likely than not that some or all of a deferred tax asset will not be realized, a valuation allowance is recorded to reduce the carrying value of the asset. In assessing the need for a valuation allowance, management is required to make certain judgments and assumptions about our future operations based on historical experience and information as of the measurement period regarding reversal of existing temporary differences, carryback capacity, future taxable income (including its capital and operating characteristics) and tax planning strategies.

In 2017 and 2016, a valuation allowance was established against the full value of the deferred tax asset related to the NOL carryforwards for the U.K. operations as management concluded that it was more likely than not that the deferred tax asset will not be realized. See further discussion in Note 5 of the Notes to Consolidated Financial Statements.

Tax Cuts and Jobs Act

The TCJA was signed into law on December 22, 2017 and contains several key provisions that impact our business, including the reduction of the corporate tax rate to 21% effective January 1, 2018, the reduction in the amount of executive compensation that could qualify as a tax deduction, a minimum tax on payments made to related foreign entities and a change in how property and casualty taxpayers discount loss reserves. Under current accounting guidance, the effects of changes in tax

Table of Contents

rates and laws are recognized in the period in which the new legislation is enacted. However, due to the timing of the enactment of the TCJA and its proximity to December 31, 2017, the SEC issued SAB 118 which provides a framework for companies to account for uncertainties in applying the provisions of the TCJA. SAB 118 allows companies to record a provisional amount in situations where a company does not have the necessary information available but can make a reasonable estimate. In situations where companies cannot make a reasonable estimate due to various factors, including lack of information, a provisional amount is not recorded. Instead, companies will continue to apply current accounting guidance based on the provision of the tax laws that were in effect immediately prior to the TCJA being enacted. The measurement period, as defined in SAB 118 for the TCJA, begins on the enactment date of the TCJA and ends when a company has obtained, prepared and analyzed the information that was needed in order to complete the accounting requirements under current accounting guidance. However, under no circumstances will the measurement period extend beyond one year from the enactment date of the TCJA.

Other than the areas discussed below, we were able to complete the accounting under the new provisions of the TCJA for the remeasurement of our deferred tax assets and liabilities based on the newly enacted tax rate and recognized a charge of \$6.5 million, which is included as a component of income tax expense from continuing operations for the year ended December 31, 2017.

Provisional amount

At December 31, 2017, we had not completed the accounting for the tax effects of enactment of the TCJA for certain areas of our tax provision. As it relates to the limitation on the future deductibility of certain executive compensation, we have made a reasonable estimate of the effects on our existing deferred tax asset balances at December 31, 2017. This estimate was recorded as a provisional charge of \$3.5 million, which is included as a component of income tax expense from continuing operations for the year ended December 31, 2017. Any future guidance from the IRS addressing the effects of the TCJA on executive compensation could result in a change to this provisional amount.

Provisional amount not reasonably estimable

The TCJA requires property and casualty taxpayers to discount loss reserves based solely on IRS factors and no longer by reference to historical payment patterns. As the IRS has yet to release the 2018 discount factors, we have been unable to reasonably estimate the impact of the change in loss reserve discounting factors and therefore have not adjusted our deferred tax balances at December 31, 2017 for the impact of these changes due to the TCJA. As prescribed by SAB 118, we continue to utilize the discount factors based on existing accounting guidance and the provisions of the tax laws that were in effect immediately prior to enactment of the TCJA. Once the IRS has released the 2018 loss reserve discount factors, we will complete our analysis and include the effect of the difference in the reserve discount factors in the period the analysis is complete or the impact is reasonably estimable. See Note 5 of the Notes to Consolidated Financial Statements for further information.

Effective January 1, 2018, the TCJA introduces a minimum tax on payments made to related foreign entities referred to as the BEAT. The BEAT is imposed by adding back into the U.S. tax base any base erosion payment made by the U.S. taxpayer to a related foreign entity and applying a minimum tax rate to this newly calculated modified taxable income. Base erosion payments represent any amount paid or accrued by the U.S. taxpayer to a related foreign entity to which a deduction is allowed. Premiums we cede to the SPCs at our wholly owned Cayman Islands reinsurance subsidiary, Eastern Re, fall within the scope of base erosion payments and therefore could be significantly impacted by the BEAT. We are currently evaluating the financial and operational impact the BEAT may have on the business ceded to Eastern Re.

Unrecognized Tax Benefits

We evaluate tax positions taken on tax returns and recognize positions in our financial statements when it is more likely than not that we will sustain the position upon resolution with a taxing authority. If recognized, the benefit is measured as the largest amount of benefit that has a greater than 50% probability of being realized. We review uncertain tax positions each period, considering changes in facts and circumstances, such as changes in tax law, interactions with taxing authorities and developments in case law, and make adjustments as we consider necessary. Adjustments to our unrecognized tax benefits may affect our income tax expense, and settlement of uncertain tax positions may require the use of cash. Other than differences related to timing, no significant adjustments were considered necessary during 2017 or 2016. At December 31, 2017, our liability for unrecognized tax benefits approximated \$5.3 million.

Goodwill

We evaluate goodwill for impairment annually on October 1 and upon the occurrence of certain triggering events or substantive changes in circumstances that indicate the fair value of goodwill may be impaired. Impairment of goodwill is tested at the reporting unit level, which is consistent with the reportable segments identified in Note 15 of the Notes to Consolidated Financial Statements. Of the four reporting units, two have goodwill - Specialty P&C and Workers' Compensation.

When testing goodwill for impairment, we have the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the estimated fair value of a reporting unit is less than its carrying amount. If we elect to perform a qualitative assessment and determine that an impairment is more likely than not, we are then required to perform the two-step quantitative impairment test, otherwise no further analysis is required. We also may elect not to perform the qualitative assessment and, instead, proceed directly to the two-step quantitative impairment test.

In the first step of the two-step quantitative impairment test, the fair value of a reporting unit is compared to its carrying value. If the carrying value of a reporting unit exceeds its fair value, the second step of the impairment test is performed for purposes of measuring the impairment. In the second step, the fair value of the reporting unit is allocated to all of the assets and liabilities of the reporting unit to determine an implied goodwill value. If the carrying amount of the reporting unit's goodwill exceeds the implied fair value of goodwill, an impairment loss will be recognized in an amount equal to that excess.

When performing the two-step quantitative impairment test, we estimate the fair value of our reporting units using the income and market approaches. The estimate of fair value derived from the income approach is based on the present value of expected future cash flows, including terminal value, utilizing a market-based weighted average cost of capital determined separately for each reporting unit. The estimate of fair value derived from the market approach is based on earnings multiple data. The determination of fair value involves the use of significant estimates and assumptions, including revenue growth rates, operating margins, capital expenditures, working capital requirements, tax rates, terminal growth rates, discount rates, comparable public companies and synergistic benefits available to market participants. In addition, we make certain judgments and assumptions in allocating shared assets and liabilities to individual reporting units to determine the carrying amount of each reporting unit. To corroborate the reporting units' valuation, we perform a reconciliation of the estimate of the aggregate fair value of the reporting units to ProAssurance's market capitalization, including consideration of a control premium.

As of the most recent evaluation date on October 1, 2017, we performed a qualitative goodwill impairment assessment for both of our Specialty P&C and Workers' Compensation segments. Our Specialty P&C and Workers' Compensation segments have historically had an excess of fair value over book value and based on current operations are expected to continue to do so; therefore, our annual impairment test for both segments was performed qualitatively. In applying the qualitative approach, management considered macroeconomic factors, industry and market conditions, cost factors that could have a negative impact on the reporting units, actual financial performance of the reporting units versus expectations and management's future business expectations. As a result of the qualitative assessments, management concluded that it was not more likely than not that the fair value of the reporting unit was less than its carrying value as of the testing date; therefore, no further impairment testing was required. No goodwill impairment was recorded in 2017, 2016 or 2015.

Intangibles

Intangible assets with definite lives are amortized over the estimated useful life of the asset. Amortizable intangible assets primarily consist of agency and policyholder relationships, renewal rights and trade names. Intangible assets with an indefinite life, primarily state licenses, are not amortized. Intangible assets are evaluated for impairment on an annual basis. Additional information regarding intangible assets is included in Note 1 of the Notes to Consolidated Financial Statements.

Audit Premium

Workers' compensation premiums are determined based upon the payroll of the insured, applicable premium rates and an experience-based modification factor, where applicable. An audit of the policyholders' records is conducted after policy expiration to make a final determination of applicable premiums. Audit premium due from or due to a policyholder as a result of an audit is reflected in net premiums written and earned when billed. We track, by policy, the amount of additional premium billed in final audit invoices as a percentage of payroll exposure and use this information to estimate the probable additional amount of EBUB premium as of the balance sheet date. We include changes to the EBUB premium estimate in net premiums written and earned in the period recognized.

Lloyd's Premium Estimates

For certain insurance policies and reinsurance contracts written in our Lloyd's Syndicate segment, premiums are initially recognized based upon estimates of ultimate premium. Ultimate premium represents the total expected premium to be written

Table of Contents

under binder authority and certain assumed reinsurance agreements. These estimates of ultimate premium are judgmental and are dependent upon certain assumptions, including historical premium trends for similar agreements. As reports are received from programs, ultimate premium estimates are revised, if necessary, with changes reflected in current operations.

Accounting Changes

Other than changes due to the enactment of the TCJA, we did not adopt any accounting changes or have any change in accounting estimate or policy that had a material effect on our results of operations or financial position during 2017. As of December 31, 2017, we are not aware of any accounting changes not yet adopted that would have a material effect on our results of operations or financial position. Note 1 of the Notes to Consolidated Financial Statements provides additional detail regarding accounting changes.

Liquidity and Capital Resources and Financial Condition

Overview

ProAssurance Corporation is a holding company and is a legal entity separate and distinct from its subsidiaries. As a holding company our principal source of external revenue is our investment revenues. In addition, dividends from our operating subsidiaries represent a significant source of funds for our obligations, including debt service and shareholder dividends. At December 31, 2017, we held cash and liquid investments of approximately \$396 million outside our insurance subsidiaries that were available for use without regulatory approval or other restriction, of which \$267 million was used to pay shareholder dividends in January 2018. We also have an additional \$105 million in permitted borrowings under our Revolving Credit Agreement, which includes \$28 million of the balance outstanding at December 31, 2017 that was repaid as of February 16, 2018. Additionally, we have available an accordion feature which, if subscribed successfully, would allow another \$50 million in available funds as discussed in this section under the heading "Debt."

During 2017, our operating subsidiaries paid dividends to us of approximately \$360 million, including extraordinary dividends from our insurance subsidiaries of approximately \$200 million. Our insurance subsidiaries, in the aggregate, are permitted to pay dividends of approximately \$137 million over the course of 2018 without prior approval of state insurance regulators. However, the payment of any dividend requires prior notice to the insurance regulator in the state of domicile, and the regulator may reduce or prevent the dividend if, in its judgment, payment of the dividend would have an adverse effect on the surplus of the insurance subsidiary. We make the decision to pay dividends from an insurance subsidiary based on the capital needs of that subsidiary, and may pay less than the permitted dividend or may also request permission to pay an additional amount (an extraordinary dividend).

Cash Flows

Cash flows between periods compare as follows:

<i>(In thousands)</i>	Year Ended December 31		
	2017 vs 2016	2016 vs 2015	2015 vs 2014
Increase (decrease) in net cash provided (used) by:			
Operating activities	\$ (20,124)	\$ 57,996	\$ 15,122
Investing activities	503,606	(506,726)	(39,193)
Financing activities	(342,581)	280,917	474
Increase (decrease) in cash and cash equivalents	\$ 140,901	\$ (167,813)	\$ (23,597)

The principal components of our operating cash flows are the excess of premiums collected and net investment income over losses paid and operating costs, including income taxes. Timing delays exist between the collection of premiums and the payment of losses associated with the premiums. Premiums are generally collected within the twelve-month period after the policy is written, while our claim payments are generally paid over a more extended period of time. Likewise, timing delays exist between the payment of claims and the collection of any associated reinsurance recoveries.

The decrease in operating cash flows in 2017 as compared to 2016 was primarily driven by an increase in tax payments of \$25.1 million and an increase in cash paid for other underwriting and operating expenses of approximately \$17.0 million. The increase in tax payments was due to the effect of a \$15.0 million tax refund received in 2016 for the 2015 tax year and a \$10.1 million increase in 2017 estimated tax payments. The increase in cash paid for other underwriting and operating expenses was primarily due to an increase in policy acquisition costs and an increase in cash paid for interest, primarily due to an increase in our weighted average outstanding debt. These decreases in operating cash flows were partially offset by an increase in premium receipts of \$16.1 million, driven by our Workers' Compensation segment, and a decrease in loss payments of \$11.9 million, driven by our Specialty P&C segment.

The increase in operating cash flows in 2016 as compared to 2015 was primarily due to a decrease in net tax payments driven by a \$35.5 million reduction in estimated tax payments and a \$15.0 million refund received in 2016 for the 2015 tax year. In addition, the increase reflected premium receipts of \$11.8 million from a novation entered into during the fourth quarter of 2016 (see further discussion under the heading "Gross Premiums Written" within our Segment Operating Results - Specialty Property & Casualty section that follows).

The increase in operating cash flows in 2015 as compared to 2014 was primarily due to an increase in cash contributed by our Lloyd's Syndicate operations of \$18.3 million and a decrease in loss payments of \$34.5 million, partially offset by a decrease in cash received from investment income of \$24.3 million and an increase in tax payments of \$18.9 million. The increase in tax payments during 2015 primarily reflected the effect of a \$30.5 million tax refund received in 2014, slightly offset by a \$13.0 million decrease in 2015 estimated tax payments.

Table of Contents

We manage our investing cash flows to ensure that we will have sufficient liquidity to meet our obligations, taking into consideration the timing of cash flows from our investments, including interest payments, dividends and principal payments, as well as the expected cash flows to be generated by our operations as discussed in this section under the heading "Investing Activities and Related Cash Flows."

Our financing cash flows are primarily composed of dividend payments, borrowings and repayments under our Revolving Credit Agreement and repurchases of common stock. See further discussion of our financing activities in this section under "Financing Activities and Related Cash Flows."

Operating Activities and Related Cash Flows

Losses

The following table, known as the Analysis of Reserve Development, presents information over the preceding ten years regarding the payment of our losses as well as changes to (the development of) our estimates of losses during that time period. As noted in the table, we have completed various acquisitions over the ten year period which have affected original and re-estimated gross and net reserve balances as well as loss payments.

The table includes losses on both a direct and an assumed basis and is net of anticipated reinsurance recoverables. The gross liability for losses before reinsurance, as shown on the balance sheet, and the reconciliation of that gross liability to amounts net of reinsurance are reflected below the table. We do not discount our reserve for losses to present value. Information presented in the table is cumulative and, accordingly, each amount includes the effects of all changes in amounts for prior years. The table presents the development of our balance sheet reserve for losses; it does not present accident year or policy year development data. Conditions and trends that have affected the development of liabilities in the past may not necessarily occur in the future. Accordingly, it is not appropriate to extrapolate future redundancies or deficiencies based on this table.

The following may be helpful in understanding the Analysis of Reserve Development:

- The line entitled "Reserve for losses, undiscounted and net of reinsurance recoverables" reflects our reserve for losses and loss adjustment expense, less the receivables from reinsurers, each as reported in our consolidated financial statements at the end of each year (the Balance Sheet Reserves).
- The section entitled "Cumulative net paid, as of" reflects the cumulative amounts paid as of the end of each succeeding year with respect to the previously recorded Balance Sheet Reserves.
- The section entitled "Re-estimated net liability as of" reflects the re-estimated amount of the liability previously recorded as Balance Sheet Reserves that includes the cumulative amounts paid and an estimate of the remaining net liability based upon claims experience as of the end of each succeeding year (the Net Re-estimated Liability).
- The line entitled "Net cumulative redundancy (deficiency)" reflects the difference between the previously recorded Balance Sheet Reserve for each applicable year and the Net Re-estimated Liability relating thereto as of the end of the most recent fiscal year.

[Table of Contents](#)

Analysis of Reserve Development

<i>(In thousands)</i>	December 31										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Reserve for losses, undiscount and net of reinsurance recoverable	\$2,232,596	\$2,111,112	\$2,159,571	\$2,136,664	\$2,000,114	\$1,860,076	\$1,825,304	\$1,820,300	\$1,755,976	\$1,719,953	\$1,712,796
Cumulative net paid, as of:											
One Year Later	312,348	278,655	291,654	264,597	300,703	311,835	343,197	390,849	383,062	369,682	
Two Years Later	550,042	468,277	476,682	491,657	526,903	563,805	571,690	646,878	633,246		
Three Years Later	694,113	584,410	614,369	639,220	682,576	704,795	732,892	804,624			
Four Years Later	777,114	666,105	706,091	737,253	763,703	800,189	826,384				
Five Years Later	833,471	724,377	761,659	789,965	821,742	852,873					
Six Years Later	874,479	758,863	793,528	828,043	852,119						
Seven Years Later	898,646	778,795	811,333	844,810							
Eight Years Later	911,961	790,950	821,435								
Nine Years Later	917,797	796,125									
Ten Years Later	921,129										
Re-estimated net liability as of:											
End of Year	2,232,596	2,111,112	2,159,571	2,136,664	2,000,114	1,860,076	1,825,304	1,820,300	1,755,976	1,719,953	
One Year Later	2,047,344	1,903,812	1,925,581	1,810,799	1,728,076	1,644,203	1,644,516	1,659,120	1,612,198	1,585,593	
Two Years Later	1,829,140	1,665,832	1,615,603	1,543,650	1,498,158	1,472,259	1,483,378	1,519,078	1,485,357		
Three Years Later	1,596,508	1,383,189	1,362,538	1,324,906	1,342,996	1,331,828	1,358,560	1,396,130			
Four Years Later	1,357,126	1,154,552	1,172,091	1,205,737	1,224,597	1,231,337	1,252,605				
Five Years Later	1,185,051	1,019,407	1,086,027	1,111,591	1,148,793	1,157,493					
Six Years Later	1,084,422	961,808	1,012,597	1,050,549	1,091,646						
Seven Years Later	1,041,623	915,935	961,987	1,010,802							
Eight Years Later	1,011,674	885,698	940,035								
Nine Years Later	992,015	871,466									
Ten Years Later	978,633										
Net cumulative redundancy (deficiency)	\$1,253,963	\$1,239,646	\$1,219,536	\$1,125,862	\$ 908,468	\$ 702,583	\$ 572,699	\$ 424,170	\$ 270,619	\$ 134,360	

Original

gross liability - end of year	\$2,559,707	\$2,379,468	\$2,422,230	\$2,414,100	\$2,247,772	\$2,051,428	\$2,072,822	\$2,058,266	\$2,005,326	\$1,993,428
Reinsurance recoverable	(327,111)	(268,356)	(262,659)	(277,436)	(247,658)	(191,352)	(247,518)	(237,966)	(249,350)	(273,475)
Original net liability - end of year	<u>\$2,232,596</u>	<u>\$2,111,112</u>	<u>\$2,159,571</u>	<u>\$2,136,664</u>	<u>\$2,000,114</u>	<u>\$1,860,076</u>	<u>\$1,825,304</u>	<u>\$1,820,300</u>	<u>\$1,755,976</u>	<u>\$1,719,953</u>
Gross re-estimated liability - latest	\$1,214,306	\$1,016,303	\$1,066,624	\$1,142,569	\$1,226,131	\$1,287,377	\$1,423,461	\$1,590,748	\$1,714,529	\$1,858,768
Re-estimated reinsurance recoverables	(235,673)	(144,837)	(126,589)	(131,767)	(134,485)	(129,884)	(170,856)	(194,618)	(229,172)	(273,175)
Net re-estimated liability - latest	<u>\$ 978,633</u>	<u>\$ 871,466</u>	<u>\$ 940,035</u>	<u>\$1,010,802</u>	<u>\$1,091,646</u>	<u>\$1,157,493</u>	<u>\$1,252,605</u>	<u>\$1,396,130</u>	<u>\$1,485,357</u>	<u>\$1,585,593</u>
Gross cumulative redundancy (deficiency)	<u>\$1,345,401</u>	<u>\$1,363,165</u>	<u>\$1,355,606</u>	<u>\$1,271,531</u>	<u>\$1,021,641</u>	<u>\$ 764,051</u>	<u>\$ 649,361</u>	<u>\$ 467,518</u>	<u>\$ 290,797</u>	<u>\$ 134,660</u>

See table notes on following page.

Table of Contents

Table Notes

- Reserves for 2009 and thereafter include gross and net reserves acquired in 2009 business combinations of \$169.4 million and \$163.9 million, respectively.
- Reserves for 2010 and thereafter include gross and net reserves acquired in 2010 business combinations of \$88.1 million and \$82.2 million, respectively.
- Reserves for 2012 and thereafter include gross and net reserves acquired in 2012 business combinations of \$21.8 million and \$19.2 million, respectively, which considers reductions of \$3.6 million and \$3.3 million, respectively, recorded in 2013 due to the re-estimation of the fair value of the acquired reserves.
- Reserves for 2013 include gross and net reserves acquired in 2013 business combinations of \$201.1 million and \$126.0 million, respectively.
- Reserves for 2014 include gross and net reserves acquired in 2014 business combinations of \$153.2 million and \$139.5 million, respectively.

In each year reflected in the table, we have estimated our reserve for losses utilizing the management and actuarial processes discussed under the heading "Reserve for Losses and Loss Adjustment Expenses" in the Critical Accounting Estimates section. Factors that have contributed to the variation in loss development are primarily related to the extended period of time required to resolve professional liability claims and include the following:

- The HCPL legal environment deteriorated in the late 1990's and severity began to increase at a greater pace than anticipated in our rates and reserve estimates. We addressed the adverse severity trends through increased rates, stricter underwriting and modifications to claims handling procedures, and reflected this adverse severity trend when we established our initial reserves for subsequent years.
- These adverse severity trends later moderated, with that moderation becoming more pronounced beginning in 2009. We have been cautious in giving full recognition to indications that the pace of severity increase had slowed, however we have given measured recognition of the improved trend in our reserve estimates, as discussed more fully under the heading "Reserve for Losses and Loss Adjustment Expenses" in the Critical Accounting Estimates section (reserve for losses or reserve). The favorable development was most pronounced for years 2004 to 2008, as the initial reserves for these accident years were established prior to substantial indication that severity trends were moderating. We have given stronger recognition to the lower severity trend as time has elapsed and a greater percentage of claims have closed.
- A general decline in claim frequency has also been a contributor to favorable loss development. A significant portion of our policies through 2003 were issued on an occurrence basis, and a smaller portion of our ongoing business results from the issuance of extended reporting endorsements which have occurrence-like exposure. As claim frequency declined, the number of reported claims related to these coverages was less than originally expected.

Table of Contents

Activity in our net reserve for losses during 2017, 2016 and 2015 is summarized below:

<i>(In thousands)</i>	Year Ended December 31		
	2017	2016	2015
Balance, beginning of year	\$ 1,993,428	\$ 2,005,326	\$ 2,058,266
Less reinsurance recoverables on unpaid losses and loss adjustment expenses	273,475	249,350	237,966
Net balance, beginning of year	1,719,953	1,755,976	1,820,300
Net losses:			
Current year	603,518	587,007	571,891
Favorable development of reserves established in prior years, net	(134,360)	(143,778)	(161,180)
Total	469,158	443,229	410,711
Paid related to:			
Current year	(106,633)	(96,190)	(84,186)
Prior years	(369,682)	(383,062)	(390,849)
Total paid	(476,315)	(479,252)	(475,035)
Net balance, end of year	1,712,796	1,719,953	1,755,976
Plus reinsurance recoverables on unpaid losses and loss adjustment expenses	335,585	273,475	249,350
Balance, end of year	\$ 2,048,381	\$ 1,993,428	\$ 2,005,326

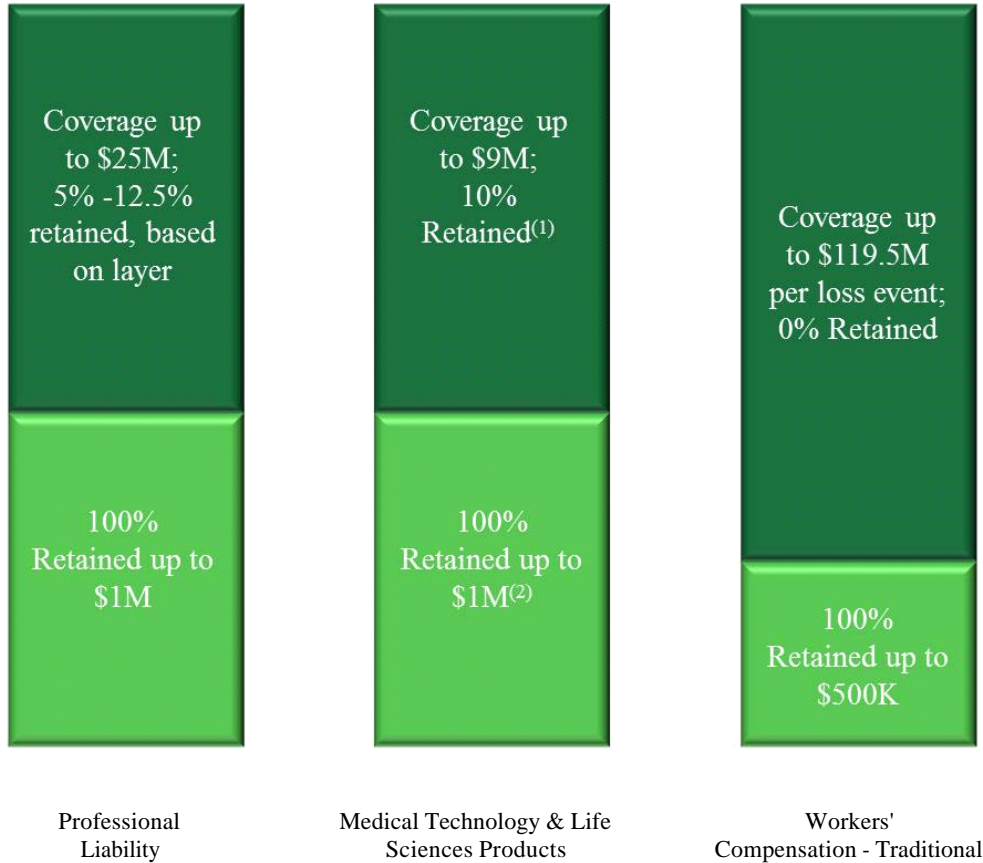
At December 31, 2017 our gross reserve for losses included case reserves of approximately \$1.2 billion and IBNR reserves of approximately \$0.8 billion. Our consolidated gross reserve for losses on a GAAP basis exceeds the combined gross reserves of our insurance subsidiaries on a statutory basis by approximately \$0.2 billion, which is principally due to the portion of the GAAP reserve for losses that is reflected for statutory accounting purposes as unearned premiums. These unearned premiums are applicable to extended reporting endorsements (“tail” coverage) issued without a premium charge upon death, disability or retirement of an insured who meets certain qualifications.

Reinsurance

Within our Specialty P&C segment, we use insurance and reinsurance (collectively, “reinsurance”) to provide capacity to write larger limits of liability, to provide reimbursement for losses incurred under the higher limit coverages we offer and to provide protection against losses in excess of policy limits. Within our Workers' Compensation segment, we use reinsurance to reduce our net liability on individual risks, to mitigate the effect of significant loss occurrences (including catastrophic events), to stabilize underwriting results, and to increase underwriting capacity by decreasing leverage. In both the Specialty P&C and Workers' Compensation segments, we use reinsurance in risk sharing arrangements, to align our objectives with those of our strategic business partners and to provide custom insurance solutions for large customer groups. We have a quota share arrangement with Syndicate 1729 established to provide an initial premium base for Syndicate 1729 which was not renewed on January 1, 2018. The purchase of reinsurance does not relieve us from the ultimate risk on our policies; however, it does provide reimbursement for certain losses we pay. We pay our reinsurers a premium in exchange for reinsurance of the risk. In the majority of our excess of loss arrangements, the premium due to the reinsurer is determined by the loss experience of the business reinsured, subject to certain minimum and maximum amounts. Until all loss amounts are known, we estimate the premium due to the reinsurer. Changes to the estimate of premium owed under reinsurance agreements related to prior periods are recorded in the period in which the change in estimate occurs and can have a significant effect on net premiums earned.

We generally reinsure risks under treaties (our excess of loss reinsurance arrangements) pursuant to which the reinsurers agree to assume all or a portion of all risks that we insure above our individual risk retention levels, up to the maximum individual limits offered. These arrangements are negotiated and renewed annually. Renewal dates for our healthcare professional liability, medical technology liability and workers' compensation treaties are October 1, January 1 and May 1, respectively. There were no significant changes in the cost or structure of our professional liability and medical technology liability treaties which renewed October 1, 2017 and January 1, 2018, respectively. Our workers' compensation treaty renewed May 1, 2017 at a slightly higher rate than the previous agreement. The significant coverages provided by our current excess of loss reinsurance arrangements are detailed in the following table.

Excess of Loss Reinsurance Agreements



⁽¹⁾ Historically, retention has ranged from 5% to 32.5%.

⁽²⁾ Historically, retention has been as high as \$2M.

Large professional liability risks that are above the limits of our basic reinsurance treaties are reinsured on a facultative basis, whereby the reinsurer agrees to insure a particular risk up to a designated limit. We also have in place a number of risk sharing arrangements that apply to the first \$1 million of losses for certain large healthcare systems and other insurance entities and with certain insurance agencies that produce business for us.

During 2017, we wrote workers' compensation and healthcare professional liability policies in our alternative market business generating premium of approximately \$78.2 million. These policies are reinsured to the SPCs of our wholly owned subsidiary, Eastern Re, domiciled in the Cayman Islands, net of a ceding commission. The alternative market workers' compensation policies are ceded to the SPCs under 100% quota share reinsurance agreements and then further reinsured under an excess of loss reinsurance arrangement. The alternative market professional liability policies are ceded to the SPCs under either excess of loss or quota share reinsurance agreements, depending on the structure of the individual program, and the portion of the risk that is not ceded to an SPC may also be reinsured under our standard healthcare professional liability reinsurance program depending on the policy limits provided. The remaining premium written in our alternative market business of \$6.8 million in 2017 is 100% ceded to unaffiliated captive insurers.

Each SPC has preferred shareholders or participants and the underwriting profit or loss of each cell accrues fully to these preferred shareholders or participants. We participate as either a preferred shareholder or participant in certain SPCs. As of December 31, 2017, our ownership interest in the SPCs in which we participate is as low as 25% and as high as 85%.

Table of Contents

As previously discussed, for the workers' compensation business ceded to Eastern Re each SPC has in place its own reinsurance arrangements, which are illustrated in the following table.

Segregated Portfolio Cell Reinsurance



Per Occurrence Coverage

Aggregate Coverage

⁽¹⁾ ProAssurance assumes 100% of aggregate losses in excess of an aggregate attachment point with a maximum loss limit of \$100K.

⁽²⁾ The attachment point is based on a percentage of premium (average is 89%) and varies by cell.

Each SPC maintains a loss fund initially equal to the difference between premium assumed by the cell and the ceding commission. The external owners of each cell provide a letter of credit to us that is initially equal to the difference between the loss fund of the SPC (amount of funds available to pay losses after deduction of ceding commission) and the aggregate attachment point of the reinsurance. Over time, a SPC's retained profits are considered in the determination of the collateral amount required to be provided by the cell's external owners.

Within our Lloyd's Syndicate segment, Syndicate 1729 utilizes reinsurance to provide capacity to write larger limits of liability on individual risks, to provide protection against catastrophic loss and to provide protection against losses in excess of policy limits. The level of reinsurance that Syndicate 1729 purchases is dependent on a number of factors, including its underwriting risk appetite for catastrophic exposure, the specific risks inherent in each line or class of business written and the pricing, coverage and terms and conditions available from the reinsurance market. Reinsurance protection by line of business is as follows:

- Reinsurance is utilized on a per risk basis for the property insurance and casualty coverages in order to mitigate risk volatility.
- Catastrophic protection is utilized on both our property insurance and casualty coverages to protect against losses in excess of policy limits as well as natural catastrophes.
- Both quota share reinsurance and excess of loss reinsurance are utilized to manage the net loss exposure on our property reinsurance coverages.
- Property umbrella excess of loss reinsurance is utilized for peak catastrophe and frequency of catastrophe exposures.

Table of Contents

- Beginning in 2018, external excess of loss reinsurance will be utilized by Syndicate 1729 to manage the net loss exposure on our specialty property and contingency coverages ceded to Syndicate 6131 (see further discussion in Segment Operating Results - Lloyd's Syndicate section that follows).

Syndicate 1729 may still be exposed to losses that exceed the level of reinsurance purchased as well as to reinstatement premiums triggered by losses exceeding specified levels. Cash demands on Syndicate 1729 can vary significantly depending on the nature and intensity of a loss event. For significant reinsured catastrophe losses, the inability or unwillingness of the reinsurer to make timely payments under the terms of the reinsurance agreement could have an adverse effect on Syndicate 1729's liquidity.

For all of our segments, we make a determination of the amount of insurance risk we choose to retain based upon numerous factors, including our risk tolerance and the capital we have to support it, the price and availability of reinsurance, the volume of business, our level of experience with a particular set of claims and our analysis of the potential underwriting results. We purchase excess of loss reinsurance to limit the amount of risk we retain and we do so from a number of companies to mitigate concentrations of credit risk. We utilize reinsurance brokers to assist us in the placement of these reinsurance programs and in the analysis of the credit quality of our reinsurers. The determination of which reinsurers we choose to do business with is based upon an evaluation of their then current financial strength, rating and stability. However, the financial strength of our reinsurers and their corresponding ability to pay us may change in the future due to forces or events we cannot control or anticipate. As of December 31, 2017, there is no reinsurer, on an individual basis, for which our recoverables for both paid and unpaid claims (net of amounts due to the reinsurer) and our prepaid balances are aggregately \$29 million or more.

Litigation

We are involved in various legal actions related to insurance policies and claims handling including, but not limited to, claims asserted against us by policyholders. These types of legal actions arise in the ordinary course of business and, in accordance with GAAP for insurance entities, are generally considered as a part of our loss reserving process, which is described in detail in our Critical Accounting Estimates section under the heading "Reserve for Losses and Loss Adjustment Expenses." We also have other direct actions against the Company unrelated to our claims activity which we evaluate and account for as a part of our other liabilities. For these corporate legal actions, we evaluate each case separately and establish what we believe is an appropriate reserve based on GAAP guidance related to contingent liabilities. As of December 31, 2017 there were no material reserves established for corporate legal actions.

Taxes

We are subject to the tax laws and regulations of the U.S. and U.K. We file a consolidated U.S. federal income tax return that includes the holding company and its U.S. subsidiaries. Our filing obligations include a requirement to make quarterly payments of estimated taxes to the IRS using the corporate tax rate effective for the tax year. The TCJA was signed into law on December 22, 2017. Due to its enactment date, the TCJA had no material effect on our liquidity for the year ended December 31, 2017.

Table of Contents

Investing Activities and Related Cash Flows

Our investments at December 31, 2017 and December 31, 2016 are comprised as follows:

(\$ in thousands)	December 31, 2017		December 31, 2016	
	Carrying Value	% of Total Investment	Carrying Value	% of Total Investment
Fixed maturities, available for sale:				
U.S. Treasury obligations	\$ 133,627	4%	\$ 146,539	4%
U.S. Government-sponsored enterprise obligations	20,956	1%	30,235	1%
State and municipal bonds	632,243	17%	800,463	20%
Corporate debt	1,167,158	31%	1,278,991	33%
Residential mortgage-backed securities	197,844	5%	217,906	5%
Commercial mortgage-backed securities	26,703	1%	32,394	1%
Other asset-backed securities	101,711	3%	106,878	3%
Total fixed maturities, available for sale	2,280,242	62%	2,613,406	67%
Equity securities, trading	470,609	13%	387,274	10%
Short-term investments	432,126	12%	442,084	11%
BOLI	62,113	1%	60,134	1%
Investment in unconsolidated subsidiaries	330,591	9%	340,906	9%
Other investments	110,847	3%	81,892	2%
Total Investments	\$ 3,686,528	100%	\$ 3,925,696	100%

The distribution of our investments in fixed-maturity securities by rating were as follows:

(\$ in thousands)	December 31, 2017		December 31, 2016	
	Carrying Value	% of Total Investment	Carrying Value	% of Total Investment
Rating*				
AAA	\$ 617,091	27%	\$ 676,815	26%
AA+	183,221	8%	213,892	8%
AA	173,488	8%	227,076	9%
AA-	195,110	9%	243,562	9%
A+	210,263	9%	271,534	10%
A	296,852	13%	282,530	11%
A-	202,581	9%	221,139	9%
BBB+	103,023	4%	132,705	5%
BBB	100,025	4%	115,867	4%
BBB-	48,207	2%	54,366	2%
Below investment grade	119,310	6%	146,071	6%
Not rated	31,071	1%	27,849	1%
Total	\$ 2,280,242	100%	\$ 2,613,406	100%

*Average of three NRSRO sources, presented as an S&P equivalent. Source: S&P, Copyright ©2017, S&P Global Market Intelligence

A detailed listing of our investment holdings as of December 31, 2017 is located under the Financial Information heading on the Investor Relations page of our website which can be reached directly at www.proassurance.com/investmentholdings, or through links from the Investor Relations section of our website, investor.proassurance.com.

We manage our investments to ensure that we will have sufficient liquidity to meet our obligations, taking into consideration the timing of cash flows from our investments, including interest payments, dividends and principal payments, as

Table of Contents

well as the expected cash flows to be generated by our operations. In addition to the interest and dividends we will receive, we anticipate that between \$40 million and \$70 million of our investments will mature (or be paid down) each quarter over the next twelve months and become available, if needed, to meet our cash flow requirements. The primary outflow of cash at our insurance subsidiaries is related to paid losses and operating costs, including income taxes. The payment of individual claims cannot be predicted with certainty; therefore, we rely upon the history of paid claims in estimating the timing of future claims payments. To the extent that we may have an unanticipated shortfall in cash, we may either liquidate securities or borrow funds under existing borrowing arrangements through our Revolving Credit Agreement and the FHLB system. As of February 16, 2018, \$155 million could be made available for use through our Revolving Credit Agreement, as discussed in this section under the heading "Debt." Given the duration of our investments, we do not foresee a shortfall that would require us to meet operating cash needs through additional borrowings. Additional information regarding the credit facility is detailed in Note 9 of the Notes to Consolidated Financial Statements.

As discussed under the heading "Business Combinations and Ventures" and in Note 3 of the Notes to Consolidated Financial Statements, our fixed maturity and short-term investments include securities deposited with Lloyd's in order to meet our FAL requirement. At December 31, 2017, securities on deposit with Lloyd's included fixed maturities having a fair value of \$123.5 million and short-term investments with a fair value of \$0.4 million.

Our investment portfolio continues to be primarily composed of high quality fixed income securities with approximately 93% of our fixed maturities being investment grade securities as determined by national rating agencies. The weighted average effective duration of our fixed maturity securities at December 31, 2017 was 3.43 years; the weighted average effective duration of our fixed maturity securities combined with our short-term securities was 2.9 years.

The carrying value and unfunded commitments for certain of our investments were as follows:

	Carrying Value		2017	
	2017	2016	Unfunded Commitment	Expected funding period in years
<i>(\$ in thousands, except expected funding period)</i>				
Qualified affordable housing project tax credit partnerships ⁽¹⁾	\$ 84,607	\$ 102,313	\$ 1,208	6
Historic tax credit partnerships ⁽²⁾	6,118	11,459	3,004	2
Investment fund LPs/LLCs ⁽²⁾	294,924	273,986	160,428	6
Total	\$ 385,649	\$ 387,758	\$ 164,640	

⁽¹⁾ The carrying value reflects our total commitments (both funded and unfunded) to the partnerships, less any amortization, since our initial investment. We fund these investments based on funding schedules maintained by the partnerships.

⁽²⁾ The carrying value reflects our funded commitments less any amortization.

Investment fund LPs/LLCs are by nature less liquid and may involve more risk than other investments. We manage our risk through diversification of asset class and geographic location. At December 31, 2017, we had investments in 30 separate investment funds with a total carrying value of \$294.9 million, as shown in the table above, which represented 8% of our Total Investments. We review and monitor the performance of these investments on a quarterly basis.

Business Combinations and Ventures

There were no business combinations during the years ended December 31, 2017, 2016 and 2015.

In the fourth quarter of 2017, we provided 100% of the capital for the newly formed SPA, Syndicate 6131, which began active operations effective January 1, 2018. The capital for Syndicate 6131 was provided through an increase in our FAL securities, which at December 31, 2017 had a fair value of approximately \$123.9 million, as discussed in Note 3 of the Notes to Consolidated Financial Statements. We have a total capital commitment to support our Lloyd's Syndicate operations through 2022 of up to \$200 million. See further discussion in our Segment Operating Results - Lloyd's Syndicate section that follows.

Table of Contents

Financing Activities and Related Cash Flows

Treasury Shares

Treasury share activity for 2017, 2016 and 2015 was as follows:

<i>(In thousands)</i>	2017	2016	2015
Treasury shares at the beginning of the period	9,409	9,403	5,763
Shares reacquired, at cost of \$2 million and \$170 million for 2016 and 2015, respectively	—	44	3,680
Shares reissued, primarily those reissued pursuant to the ProAssurance 2011 Employee Stock Ownership Plan, fair value of approximately \$2 million in each period presented	(41)	(38)	(40)
Treasury shares at the end of the period	9,368	9,409	9,403

We did not repurchase any common shares subsequent to December 31, 2017 and as of February 16, 2018 our remaining Board authorization was approximately \$110 million.

Shareholder Dividends

Our Board declared cash dividends during 2017, 2016 and 2015 as follows:

	Quarterly Cash Dividends Declared, per Share		
	2017	2016	2015
First Quarter	\$ 0.31	\$ 0.31	\$ 0.31
Second Quarter	\$ 0.31	\$ 0.31	\$ 0.31
Third Quarter	\$ 0.31	\$ 0.31	\$ 0.31
Fourth Quarter	\$ 0.31	\$ 0.31	\$ 0.31
Fourth Quarter - Special dividend	\$ 4.69	\$ 4.69	\$ 1.00

Each dividend was paid in the month following the quarter in which it was declared. Cash dividends totaling \$315 million, \$119 million and \$218 million were paid during the years ended December 31, 2017, 2016 and 2015, respectively. Any decision to pay future cash dividends is subject to the Board's final determination after a comprehensive review of financial performance, future expectations and other factors deemed relevant by the Board.

Debt

At December 31, 2017, our debt included \$250 million of outstanding unsecured senior notes. The notes bear interest at 5.3% annually and are due in 2023 although they may be redeemed in whole or part prior to maturity. There are no financial covenants associated with these notes.

We have a Revolving Credit Agreement which may be used for general corporate purposes, including, but not limited to, short-term working capital, share repurchases as authorized by the Board and support for other activities. Our Revolving Credit Agreement permits borrowings of up to \$200 million, and has available a \$50 million accordion feature, which, if successfully subscribed, would expand permitted borrowings up to \$250 million. During 2017, we repaid \$77 million of the balance outstanding on the Revolving Credit Agreement, and at December 31, 2017, we had outstanding borrowings of \$123 million, on a fully secured basis. In January and February of 2018, we repaid \$28 million of the balance outstanding on the Revolving Credit Agreement, and the remaining outstanding borrowing is repayable or renewable in the first quarter of 2018. Repayment can be deferred until expiration of the Revolving Credit Agreement in June 2020. We are in compliance with the financial covenants of the Revolving Credit Agreement.

During the fourth quarter of 2017, two of our subsidiaries each entered into ten-year mortgage loans collectively totaling approximately \$40 million (Mortgage Loans) with one lender in connection with the recapitalization of two office buildings. The Mortgage Loans mature in December 2027 and accrue interest at three-month LIBOR plus 132.5 basis points with principal and interest payable on a quarterly basis. We are in compliance with the financial covenant of the Mortgage Loans.

Additional information regarding our debt is provided in Note 9 of the Notes to Consolidated Financial Statements.

During the fourth quarter of 2017, we entered into an interest rate cap agreement with a notional amount of \$35 million to manage our exposure to increases in LIBOR on our Mortgage Loans. Per the interest rate cap agreement, we are entitled to receive cash payments if and when the three-month LIBOR exceeds 235 basis points. Additional information on our interest rate cap agreement is provided in Note 10 of the Notes to Consolidated Financial Statements.

Table of Contents

Two of our insurance subsidiaries are members of an FHLB. Through membership, those subsidiaries have access to secured cash advances which can be used for liquidity purposes or other operational needs. In order for us to use FHLB proceeds, regulatory approvals may be required depending on the nature of the transaction. To date, those subsidiaries have not materially utilized their membership for borrowing purposes.

Off-Balance Sheet Arrangements/Guarantees

We have no significant off-balance sheet arrangements/guarantees.

Contractual Obligations

We believe that our operating cash flow and funds from our investment portfolio are adequate to meet our contractual obligations.

A schedule of our non-cancellable contractual obligations at December 31, 2017 was as follows:

<i>(In thousands)</i>	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Losses and loss adjustment expenses	\$ 2,048,381	\$ 553,033	\$ 766,605	\$ 364,215	\$ 364,528
Debt obligations including interest and fees	507,014	18,285	158,364	31,680	298,685
Operating lease obligations	28,401	5,021	8,285	5,883	9,212
Funding commitments primarily related to non-public investment entities	172,749	88,609	70,728	13,252	160
Total	\$ 2,756,545	\$ 664,948	\$ 1,003,982	\$ 415,030	\$ 672,585

The anticipated payout of Losses and loss adjustment expenses is based upon our historical payout patterns. Both the timing and amount of these payments may vary from the payments indicated.

The above table presumes the current outstanding borrowings under our Revolving Credit Agreement at December 31, 2017 will remain outstanding through expiration of the agreement and accrue interest at the respective current interest rates at December 31, 2017. Therefore, we have also included unused commitment fees associated with our Revolving Credit Agreement as we presume the unused portion of the credit line at December 31, 2017 will remain available through expiration of the agreement. Additionally, we presume the current interest rate on our Mortgage Loans at December 31, 2017 will remain constant until maturity of the Mortgage Loans. For more information regarding these agreements see Note 9 of the Notes to Consolidated Financial Statements.

Our operating lease obligations are primarily for the rental of office space and office equipment. Our funding commitments are primarily related to non-public investment entities but also include the unused commitments under our Syndicate Credit Agreement. For more information regarding these agreements see Note 8 of the Notes to Consolidated Financial Statements.

The above table excludes our remaining capital commitment of \$76 million at December 31, 2017 to support our underwriting capacity in our Lloyd's Syndicates through 2022 of up to \$200 million, referred to as FAL. In order to satisfy the FAL requirement, we transfer funds from our Corporate segment to our Lloyd's Syndicate segment which are used to invest in securities that are placed on deposit with Lloyd's. See further discussion of the securities on deposit with Lloyd's in Note 3 of the Notes to Consolidated Financial Statements.

Results of Operations - Year Ended December 31, 2017 Compared to Year Ended December 31, 2016

Selected consolidated financial data for each period is summarized in the table below.

(\$ in thousands, except per share data)	Year Ended December 31		
	2017	2016	Change
Revenues:			
Net premiums written	\$ 764,018	\$ 738,533	\$ 25,485
Net premiums earned	\$ 738,531	\$ 733,281	\$ 5,250
Net investment result	103,695	94,250	9,445
Net realized investment gains (losses)	16,409	34,875	(18,466)
Other income	7,514	7,808	(294)
Total revenues	866,149	870,214	(4,065)
Expenses:			
Net losses and loss adjustment expenses	469,158	443,229	25,929
Underwriting, policy acquisition and operating expenses	235,753	227,610	8,143
Segregated portfolio cells dividend expense (income)	15,771	8,142	7,629
Interest expense	16,844	15,032	1,812
Total expenses	737,526	694,013	43,513
Income before income taxes	128,623	176,201	(47,578)
Income tax expense (benefit)	21,359	25,120	(3,761)
Net income	\$ 107,264	\$ 151,081	\$ (43,817)
Non-GAAP operating income	\$ 108,538	\$ 129,844	\$ (21,306)
Earnings per share:			
Basic	\$ 2.01	\$ 2.84	\$ (0.83)
Diluted	\$ 2.00	\$ 2.83	\$ (0.83)
Non-GAAP operating earnings per share:			
Basic	\$ 2.03	\$ 2.44	\$ (0.41)
Diluted	\$ 2.02	\$ 2.43	\$ (0.41)
Net loss ratio	63.5%	60.4%	3.1 pts
Underwriting expense ratio	31.9%	31.0%	0.9 pts
Combined ratio	95.4%	91.4%	4.0 pts
Operating ratio	82.4%	77.8%	4.6 pts
Effective tax rate	16.6%	14.3%	2.3 pts
Return on equity	6.3%	8.0%	(1.7) pts

In all tables that follow, the abbreviation "nm" indicates that the information or the percentage change is not meaningful.

Executive Summary of Operations

The following sections provide an overview of our consolidated and segment results of operations for the year ended December 31, 2017 as compared to 2016. See the Segment Operating Results sections that follow for additional information regarding each segment's operating results.

Revenues

Our consolidated and segment net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Net Premiums Earned				
Specialty P&C	\$ 453,921	\$ 457,816	\$ (3,895)	(0.9 %)
Workers' Compensation	227,408	220,815	6,593	3.0 %
Lloyd's Syndicate	57,202	54,650	2,552	4.7 %
Consolidated total	\$ 738,531	\$ 733,281	\$ 5,250	0.7 %

Consolidated net premiums earned increased in 2017 as compared to 2016. The decrease in net premiums earned in our Specialty P&C segment was due to the effect of a prior year novation which resulted in \$11.8 million in premium earned in 2016 (see further discussion in our Segment Operating Results - Specialty Property & Casualty section that follows). After removing the impact of the prior year novation in the Specialty P&C segment, net premiums earned increased in all our operating segments in 2017 as compared to 2016.

The following table shows our consolidated net investment result:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Net investment income	\$ 95,662	\$ 100,012	\$ (4,350)	(4.3 %)
Equity in earnings (loss) of unconsolidated subsidiaries	8,033	(5,762)	13,795	239.4 %
Net investment result	\$ 103,695	\$ 94,250	\$ 9,445	10.0 %

The increase in our consolidated net investment result in 2017 was primarily attributable to an increase in earnings from our unconsolidated subsidiaries of \$13.8 million due to higher reported earnings from our investments in LP/LLCs and the effect of a smaller increase in the estimate of partnership operating losses related to our tax credit partnerships in 2017 as compared to 2016. The increase was partially offset by a decrease in net investment income primarily attributable to reduced earnings from our fixed income portfolio, which reflected both lower yields and lower average investment income balances.

The following table shows our total consolidated net realized investment gains (losses):

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Net impairment losses recognized in earnings	\$ (12,952)	\$ (9,766)	\$ (3,186)	(32.6 %)
Other net realized investment gains (losses)	29,361	44,641	(15,280)	(34.2 %)
Net realized investment gains (losses)	\$ 16,409	\$ 34,875	\$ (18,466)	(52.9 %)

During 2017, we recognized OTTI in earnings of \$13.0 million, including an \$8.5 million impairment related to an early stage business investment. See further discussion in our Segment Operating Results - Corporate section that follows. Other net realized investment gains during 2017 was primarily composed of changes in unrealized holding gains and net realized investment gains related to our trading portfolio.

Table of Contents

Expenses

The following table shows our consolidated and segment net loss ratios:

(\$ in millions)	Year Ended December 31		
	2017	2016	Change
Current accident year net loss ratio			
Consolidated ratio	81.7%	80.1%	1.6 pts
Specialty P&C	89.9%	88.6%	1.3 pts
Workers' Compensation	66.2%	66.4%	(0.2) pts
Lloyd's Syndicate	78.7%	63.3%	15.4 pts
Calendar year net loss ratio			
Consolidated ratio	63.5%	60.4%	3.1 pts
Specialty P&C	63.6%	58.7%	4.9 pts
Workers' Compensation	59.9%	63.6%	(3.7) pts
Lloyd's Syndicate	77.3%	62.4%	14.9 pts
Favorable net loss development, prior accident years			
Consolidated	\$ 134.4	\$ 143.8	\$ (9.4)
Specialty P&C	\$ 119.3	\$ 137.2	\$ (17.9)
Workers' Compensation	\$ 14.3	\$ 6.1	\$ 8.2
Lloyd's Syndicate	\$ 0.8	\$ 0.5	\$ 0.3

Our consolidated current accident year net loss ratio increased 1.6 percentage points for the year ended December 31, 2017 as compared to 2016 primarily driven by higher current accident year net loss ratios in our Lloyd's Syndicate and Specialty P&C segments. The higher current accident year net loss ratio in our Lloyd's Syndicate segment was primarily due to losses related to Hurricanes Harvey, Irma and Maria during 2017 which resulted in a 0.9 percentage point increase in our consolidated current accident year net loss ratio (see further discussion in the Segment Operating Results - Lloyd's Syndicate section that follows).

In both 2017 and 2016, our consolidated calendar year net loss ratio was lower than our consolidated current accident year net loss ratio due to the recognition of favorable net loss development for prior accident years, as shown in the previous table.

Our consolidated and segment underwriting expense ratios were as follows:

	Year Ended December 31		
	2017	2016	Change
Underwriting Expense Ratio			
Consolidated	31.9%	31.0%	0.9 pts
Specialty P&C	24.0%	22.8%	1.2 pts
Workers' Compensation	31.2%	31.9%	(0.7) pts
Lloyd's Syndicate	47.1%	41.8%	5.3 pts
Corporate*	4.0%	4.2%	(0.2) pts

*There are no net premiums earned associated with the Corporate segment. Ratios shown are the contribution of the Corporate segment to the consolidated ratio (Corporate operating expenses divided by consolidated net premium earned).

Our consolidated underwriting expense ratio increased 0.9 percentage points for the year ended December 31, 2017 as compared to 2016 primarily due to the increase in DPAC amortization relative to consolidated net premiums earned. Although consolidated net premiums earned increased in 2017, the increase was largely reduced by the effect of a prior year novation in our Specialty P&C segment, as previously discussed, which resulted in a 0.5 percentage point increase in the consolidated underwriting expense ratio. After removing the impact of the prior year novation, the remaining increase in the consolidated underwriting expense ratio was driven by an increase in DPAC amortization, particularly in our Specialty P&C segment, as a result of an increase in commission expense and a decrease in ceding commission income, which is an offset to expense.

Table of Contents

Taxes

Our effective tax rate was 16.6% for the year ended December 31, 2017, as compared to our 2016 effective tax rate of 14.3%. The increase in the effective tax rate in 2017 was primarily due to the impact to our deferred tax balances at December 31, 2017 as a result of the enactment of the TCJA, which increased the rate by 7.8%, somewhat offset by the application of new guidance adopted in the first quarter of 2017 related to the improvement in accounting for share-based payments, which reduced the rate by 2.1%. Excluding those impacts, our effective tax rate would have been 10.9% for 2017 (see further discussion under the heading "Taxes" within our Segment Operating Results - Corporate section that follows).

Operating Ratio and Return on Equity

Our operating ratio (calculated as our combined ratio, less our investment income ratio) increased by 4.6 percentage points in the year ended December 31, 2017 as compared to 2016. The increase reflected a higher consolidated net loss ratio driven by a lower amount of prior year favorable development in our Specialty P&C segment and estimated losses recognized during 2017 related to Hurricanes Harvey, Irma and Maria in our Lloyd's Syndicate segment (see further discussion in the Segment Operating Results - Lloyd's Syndicate section that follows).

ROE was 6.3% for the year ended December 31, 2017 as compared to 8.0% for the same respective period of 2016. The decrease in 2017 was primarily due to a decrease in net income, partially offset by a lower average equity base (the denominator of the ROE ratio) as compared to 2016. The lower average equity base in 2017 as compared to 2016 was primarily due to dividends declared during the year ended December 31, 2017.

Book Value per Share

We believe the payment of dividends is currently our most effective tool for the deployment of excess capital even though, in the short-term, dividend declarations dampen growth in book value per share. Our book value per share at December 31, 2017 as compared to December 31, 2016 is shown in the following table.

	Book Value Per Share
Book Value Per Share at December 31, 2016	\$ 33.78
Increase (decrease) to book value per share during the year ended December 31, 2017 attributable to:	
Dividends declared	(5.93)
Net income	2.01
Decrease in AOCI	(0.05)
Other	0.02
Book Value Per Share at December 31, 2017	<u>\$ 29.83</u>

Table of Contents

Non-GAAP Financial Measures

Non-GAAP operating income is a financial measure that is widely used to evaluate performance within the insurance sector. In calculating Non-GAAP operating income, we have excluded the after-tax effects of the items listed in the following table that do not reflect normal operating results. We believe Non-GAAP operating income presents a useful view of the performance of our insurance operations, however it should be considered in conjunction with net income computed in accordance with GAAP.

The following table is a reconciliation of net income to Non-GAAP operating income:

	Year Ended December 31	
	2017	2016
<i>(In thousands, except per share data)</i>		
Net income	\$ 107,264	\$ 151,081
Items excluded in the calculation of Non-GAAP operating income:		
Net realized investment (gains) losses	(16,409)	(34,875)
Net realized gains (losses) attributable to SPCs which no profit/loss is retained ⁽¹⁾	3,083	2,049
Guaranty fund assessments (recoupments)	(157)	153
Pre-tax effect of exclusions	(13,483)	(32,673)
Tax effect, at 35% ⁽²⁾	4,719	11,436
After-tax effect of exclusions	(8,764)	(21,237)
Non-GAAP operating income, before tax reform adjustments	98,500	129,844
Tax reform adjustments on our deferred tax balances excluded in the calculation of Non-GAAP operating income:		
Adjustment of deferred taxes upon the change in corporate tax rate ⁽³⁾	6,541	—
Adjustment of deferred taxes upon the change in limitation of future deductibility of certain executive compensation ⁽³⁾	3,497	—
Non-GAAP operating income	\$ 108,538	\$ 129,844
Per diluted common share:		
Net income	\$ 2.00	\$ 2.83
Effect of exclusions	0.02	(0.40)
Non-GAAP operating income per diluted common share	\$ 2.02	\$ 2.43

⁽¹⁾ Net realized investment gains (losses) on investments related to our SPCs are recognized in the earnings of our Corporate segment and the portion of earnings related to the gain or loss, net of our participation, is distributed back to the cells through our SPC dividend expense (income). To be consistent with our exclusion of net realized investment gains (losses) recognized in earnings, we are excluding the portion of net realized investment gains (losses) that is included in SPC dividend expense (income).

⁽²⁾ The 35% rate above is the annual expected incremental tax rate associated with the taxable or tax deductible items listed. The effective tax rate for the respective years was applied to these items in calculating net income. See previous discussion in this section under the heading "Taxes."

⁽³⁾ Due to tax reform enacted by the TCJA, we remeasured our deferred tax assets and liabilities based on the newly enacted tax rate of 21% and recognized a charge of \$6.5 million, which is included as a component of income tax expense from continuing operations for the year ended December 31, 2017. In addition, we have made a reasonable estimate of the effects on our deferred tax asset balances at December 31, 2017 as it relates to the limitation on the future deductibility on certain executive compensation and recorded a provisional charge to income tax expense of \$3.5 million for the year ended December 31, 2017. Any future guidance from the IRS addressing the effects of the TCJA on executive compensation could result in a change to this provisional amount. See further discussion under the heading "Deferred Taxes" in the Critical Accounting Estimates section.

Segment Operating Results - Specialty Property & Casualty

Our Specialty P&C segment focuses on professional liability insurance and medical technology liability insurance as discussed in Note 15 of the Notes to Consolidated Financial Statements. Our Specialty P&C segment operating results reflect pre-tax underwriting profit or loss from these insurance lines, exclusive of investment results, which are included in our Corporate segment. Segment operating results included the following:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Net premiums written	\$ 470,535	\$ 458,681	\$ 11,854	2.6 %
Net premiums earned	\$ 453,921	\$ 457,816	\$ (3,895)	(0.9 %)
Other income	5,688	5,306	382	7.2 %
Net losses and loss adjustment expenses	(288,701)	(268,579)	(20,122)	7.5 %
Underwriting, policy acquisition and operating expenses	(108,830)	(104,333)	(4,497)	4.3 %
Segregated portfolio cells dividend (expense) income	(4,970)	(144)	(4,826)	3,351.4 %
Segment operating results	\$ 57,108	\$ 90,066	\$ (32,958)	(36.6 %)
Net loss ratio	63.6%	58.7%	4.9 pts	
Underwriting expense ratio	24.0%	22.8%	1.2 pts	

Premiums Written

Changes in our premium volume within our Specialty P&C segment are driven by four primary factors: (1) the amount of new business, (2) our retention of existing business, (3) the premium charged for business that is renewed, which is affected by rates charged and by the amount and type of coverage an insured chooses to purchase and (4) the timing of premium written through multi-period policies. In addition, premium volume may periodically be affected by shifts in the timing of renewals between periods. The healthcare professional liability market, which accounts for a majority of the revenues in this segment, remains challenging as physicians continue joining hospitals or larger group practices and are thus no longer purchasing individual or group policies in the standard market. In addition, some competitors have chosen to compete primarily on price; both factors impact our ability to write new business and retain existing business.

Gross, ceded and net premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Gross premiums written	\$ 549,323	\$ 535,725	\$ 13,598	2.5 %
Less: Ceded premiums written	78,788	77,044	1,744	2.3 %
Net premiums written	\$ 470,535	\$ 458,681	\$ 11,854	2.6 %

Table of Contents

Gross Premiums Written

Gross premiums written by component were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Professional liability				
Physicians ⁽¹⁾⁽⁷⁾				
Twelve month term	\$ 360,232	\$ 344,150	\$ 16,082	4.7 %
Twenty-four month term	27,370	21,869	5,501	25.2 %
Total Physicians	387,602	366,019	21,583	5.9 %
Healthcare facilities ⁽²⁾⁽⁷⁾	47,697	59,361	(11,664)	(19.6 %)
Other healthcare providers ⁽³⁾	32,599	33,353	(754)	(2.3 %)
Legal professionals ⁽⁴⁾	25,628	25,351	277	1.1 %
Tail coverages ⁽⁵⁾	21,206	18,092	3,114	17.2 %
Total professional liability	514,732	502,176	12,556	2.5 %
Medical technology liability ⁽⁶⁾	34,164	33,067	1,097	3.3 %
Other	427	482	(55)	(11.4 %)
Total	\$ 549,323	\$ 535,725	\$ 13,598	2.5 %

- ⁽¹⁾ Physician policies were our greatest source of premium revenues in both 2017 and 2016. The increase in twelve month term policies in 2017 was primarily driven by new business written, including the addition of several large policies, and timing differences related to the renewal of certain policies, largely offset by retention losses. In addition, written premium reflected an increase in renewal pricing, driven by an increase in exposures for a few large policies. We offer twenty-four month term policies to our physician insureds in one selected jurisdiction. The increase in twenty-four month premium, as compared to 2016, primarily reflected the normal cycle of renewals (policies subject to renewal in 2017 were previously written in 2015 rather than in 2016).
- ⁽²⁾ Our healthcare facilities premium (which includes hospitals, surgery centers and other facilities) declined in 2017 as compared to 2016 driven by the effect of a novation agreement entered into during the fourth quarter of 2016. A novation represents a legal replacement of one insurer by another extinguishing the ceding entity's liability to the policyholder. The novation resulted in approximately \$11.8 million of one-time gross premiums written and earned during the fourth quarter of 2016 as all the underlying loss events covered by the policy occurred in the past. After removing the impact of the novation, our healthcare facilities premium was relatively flat compared to 2016 due to several offsetting factors. While an increase in renewal pricing and new business written, including one large policy, increased written premium in 2017, the impact was offset by a timing difference related to the renewal of one large policy and retention losses during the period. Renewal pricing increased during 2017 due to changes in loss experience related to a few large policies.
- ⁽³⁾ Our other healthcare providers are primarily dentists, chiropractors and allied health professionals.
- ⁽⁴⁾ Our legal professionals policies are primarily individual and small group policies in select areas of practice. The increase in 2017 as compared to 2016 was primarily due to new business written and, to a lesser extent, an increase in the rate charged for certain renewed policies, largely offset by retention losses. Retention losses were primarily driven by competitive market conditions.
- ⁽⁵⁾ We offer extended reporting endorsement or "tail" coverage to insureds who discontinue their claims-made coverage with us, and we also periodically offer tail coverage through custom policies. The amount of tail coverage premium written can vary widely from period to period. The increase in 2017 as compared to 2016 was driven by the purchase of tail coverage for a few large claims-made policies in one jurisdiction that were rewritten to occurrence coverage in 2017. These policies are part of one of our shared risk arrangements and therefore, a large portion of the premium written was ceded during the current period (see further discussion in the Ceded Premiums Written section that follows).
- ⁽⁶⁾ Our medical technology liability business is marketed throughout the U.S.; coverage is offered on a primary basis, within specified limits, to manufacturers and distributors of medical technology and life sciences products including entities conducting human clinical trials. In addition to the previously listed factors that affect our premium volume, our medical technology liability premium volume is impacted by the sales volume of insureds. The increase in 2017 primarily reflected new business written, including two large policies during the fourth quarter of 2017, partially offset by retention losses, including the loss of one large policy in the first quarter of 2017. Retention losses in 2017 are largely attributable to price competition and merger activity within the industry.

Table of Contents

⁽⁷⁾ During 2016, we expanded our alternative market solutions by writing new healthcare premium in certain SPCs at Eastern Re. We wrote approximately \$1.2 million of healthcare professional liability premium in our physicians line of business in each of the years ended December 31, 2017 and 2016. We wrote healthcare professional liability premium in our healthcare facilities line of business of approximately \$3.1 million and \$2.9 million for the years ended December 31, 2017 and 2016, respectively. All or a portion of the premium written was ceded to the SPCs at our wholly owned Cayman Islands reinsurance subsidiary, Eastern Re. Under the SPC structure, the operating results of each cell, net of any participation we have taken in the SPCs, accrue to the benefit of the external owners of that cell. Our Specialty P&C segment does not currently participate in the cells that write HCPL premium, and therefore retains no underwriting profit or loss. Additional information regarding the SPCs is included under the heading "Underwriting, Policy Acquisition and Operating Expense" in the section that follows.

New business written by component on a direct basis was as follows:

<i>(In millions)</i>	Year Ended December 31	
	2017	2016
Physicians	\$ 31.6	\$ 32.8
Healthcare facilities	5.8	17.4
Other healthcare providers	2.1	3.4
Legal professionals	3.6	3.8
Medical technology liability	5.4	5.1
Total	\$ 48.5	\$ 62.5

For our Specialty P&C segment, we calculate our retention rate as annualized renewed premium divided by all annualized premium subject to renewal. Retention rates are affected by a number of factors. We may lose insureds to competitors or to alternative insurance mechanisms such as risk retention groups or self-insurance entities (often when physicians join hospitals or large group practices) or due to pricing or other issues. We may choose not to renew an insured as a result of our underwriting evaluation. Insureds may also terminate coverage because they have left the practice of medicine for various reasons, principally for retirement, death or disability, but also for personal reasons.

Retention by component was as follows:

	Year Ended December 31	
	2017	2016
Physicians*	90%	88%
Healthcare facilities*	86%	79%
Other healthcare providers*	85%	85%
Legal professionals	84%	78%
Medical technology liability	87%	85%

* Excludes certain policies written on an excess and surplus lines basis.

The pricing of our business includes the effects of filed rates, surcharges and discounts. Renewal pricing also reflects changes in our exposure base, deductibles, self-insurance retention limits and other policy items. We continue to base our pricing on expected losses, as indicated by our historical loss data and available industry loss data. We are committed to a rate structure that will allow us to fulfill our obligations to our insureds, while generating competitive returns for our shareholders.

Table of Contents

Changes in renewal pricing by component was as follows:

	Year Ended December 31
	2017
Physicians ⁽¹⁾	1%
Healthcare facilities ⁽¹⁾⁽²⁾	8%
Other healthcare providers ⁽¹⁾	2%
Legal professionals ⁽²⁾	3%
Medical technology liability	1%

⁽¹⁾ Excludes certain policies written on an excess and surplus lines basis.

⁽²⁾ See Gross Premiums Written section for further explanation of renewal pricing increase.

Ceded Premiums Written

Ceded premiums represent the amounts owed to our reinsurers for their assumption of a portion of our losses. Through our current excess of loss reinsurance arrangements we generally retain the first \$1 million in risk insured by us and cede coverages in excess of this amount. For our medical technology liability coverages, we also retain 10% of the next \$9 million of risk for coverages in excess of \$1 million. We pay our reinsurers a ceding premium in exchange for their accepting the risk, the ultimate amount of which is determined by the loss experience of the business ceded, subject to certain minimum and maximum amounts.

Ceded premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Excess of loss reinsurance arrangements ⁽¹⁾	\$ 31,853	\$ 30,037	\$ 1,816	6.0 %
Premium ceded to Syndicate 1729 ⁽²⁾	13,983	23,832	(9,849)	(41.3 %)
Other shared risk arrangements ⁽³⁾	30,780	26,737	4,043	15.1 %
Other ceded premiums written	3,361	3,521	(160)	(4.5 %)
Adjustment to premiums owed under reinsurance agreements, prior accident years, net ⁽⁴⁾	(1,189)	(7,083)	5,894	(83.2 %)
Total ceded premiums written	\$ 78,788	\$ 77,044	\$ 1,744	2.3 %

⁽¹⁾ We generally reinsure risks under our excess of loss reinsurance arrangements pursuant to which the reinsurers agree to assume all or a portion of all risks that we insure above our individual risk retention levels, up to the maximum individual limits offered. In the majority of our excess of loss reinsurance arrangements, the premium due to the reinsurer is determined by the loss experience of that business reinsured, subject to certain minimum and maximum amounts. The increase in ceded premiums written under our excess of loss reinsurance arrangements for 2017 was primarily due to revised contract terms on our medical technology liability reinsurance arrangement effective January 1, 2017, which reduced the amount of excess premium we retain from 20% to 10%.

⁽²⁾ As previously discussed, we are the majority participant in Syndicate 1729 and normally record our pro rata share of its operating results in our Lloyd's Syndicate segment on a quarter delay, except when information is available that is material to the current period. We also record the cession to the Lloyd's Syndicate segment from our Specialty P&C segment on a quarter delay as the amounts are not material and this permits the cession to be reported by both the Lloyd's Syndicate segment and the Specialty P&C segment in the same reporting period. The decrease in ceded premiums to Syndicate 1729 for the year ended December 31, 2017 reflected the revised contract terms effective January 1, 2017 which reduced the premiums ceded by essentially half. We did not renew our quota share agreement with Syndicate 1729 on January 1, 2018, however the impact will not be reflected in ceded premiums until the second quarter of 2018 due to the previously mentioned quarter delay. See Lloyd's Syndicate segment results for further discussion on the quota share agreement. As our premiums are earned, we recognize the related ceding commission income which reduces underwriting expense by offsetting DPAC amortization. For the years ended December 31, 2017 and 2016, the related ceding commission income was approximately 27% of ceded premiums written. For our consolidated results, eliminations of the inter-segment portion (58% of the Specialty P&C cession) of the transactions are also recorded on a quarter delay.

Table of Contents

- ⁽³⁾ We have entered into various shared risk arrangements, including quota share, fronting, and captive arrangements, with certain large healthcare systems and other insurance entities. These arrangements include our Ascension Health and CAPAssurance programs. While we cede a large portion of the premium written under these arrangements, they provide us an opportunity to grow net premium through strategic partnerships. The increase in 2017 was primarily driven by a few large tail endorsements that were written, and substantially ceded, related to one of these shared risk arrangements, as previously discussed. The remaining increase was due to growth in our Ascension Health and CAPAssurance programs.
- ⁽⁴⁾ Given the length of time that it takes to resolve our claims, many years may elapse before all losses recoverable under a reinsurance arrangement are known. As a part of the process of estimating our loss reserve we also make estimates regarding the amounts recoverable under our reinsurance arrangements. As previously discussed, the premiums ultimately ceded under certain of our excess of loss reinsurance arrangements are subject to the losses ceded under the arrangements. Based upon adjustments in 2017 and 2016 to our estimate of expected losses and associated recoveries for prior year ceded losses, we reduced our estimate of ceded premiums owed to reinsurers. However, prior accident year ceded premium reductions were lower in 2017 as compared to 2016. In addition, the lower prior accident year ceded premium reduction in 2017 reflected an overall change in expected loss recoveries attributable to one large claim during the second quarter of 2017. We do not believe this isolated claim indicates a change in overall loss trends for us or the industry. Changes to estimates of premiums ceded related to prior accident years are fully earned in the period the changes in estimates occur.

Ceded Premiums Ratio

As shown in the table below, our ceded premiums ratio was affected in both 2017 and 2016 by revisions to our estimate of premiums owed to reinsurers related to coverages provided in prior accident years.

	Year Ended December 31		
	2017	2016	Change
Ceded premiums ratio, as reported	14.3%	14.4%	(0.1) pts
Less the effect of adjustments in premiums owed under reinsurance agreements, prior accident years (as previously discussed)	(0.2%)	(1.3%)	1.1 pts
Ratio, current accident year	14.5%	15.7%	(1.2) pts

The decline in the current accident year ceded premiums ratio for the year ended December 31, 2017 was primarily attributable to a decrease in premium ceded to Syndicate 1729, partially offset by an increase in premium ceded under our other shared risk and excess of loss reinsurance arrangements (see discussion under the heading "Ceded Premiums Written").

Net Premiums Earned

Net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Gross premiums earned	\$ 537,583	\$ 535,931	\$ 1,652	0.3 %
Less: Ceded premiums earned	83,662	78,115	5,547	7.1 %
Net premiums earned	\$ 453,921	\$ 457,816	\$ (3,895)	(0.9 %)

Net premiums earned consist of gross premiums earned less the portion of earned premiums that we cede to our reinsurers for their assumption of a portion of our losses. Because premiums are generally earned pro rata over the entire policy period, fluctuations in premiums earned tend to lag those of premiums written. Generally, our policies carry a term of one year, however, as discussed above, we write certain policies with a twenty-four month term, and a few of our medical technology liability policies have a multi-year term. Tail coverage premiums are generally 100% earned in the period written because the policies insure only incidents that occurred in prior periods and are not cancellable. Additionally, ceded premium changes due to changes to estimates of premiums owed under reinsurance agreements for prior accident years are fully earned in the period of change.

The increase in gross premiums earned in 2017 primarily reflected the pro rata effect of the higher premiums written during the preceding twelve months, primarily in our healthcare facilities line of business, and a few large tail policies written and earned during 2017. This increase was largely offset by the effect of a large novation written and earned during the fourth quarter of 2016, as discussed above under the heading "Gross Premiums Written." In addition, prior accident year ceded

Table of Contents

premiums reductions were \$5.9 million lower in 2017 than in 2016 (see discussion under the heading "Ceded Premiums Written").

Losses and Loss Adjustment Expenses

The determination of calendar year losses involves the actuarial evaluation of incurred losses for the current accident year and the actuarial re-evaluation of incurred losses for prior accident years, including an evaluation of the reserve amounts required for losses in excess of policy limits.

Accident year refers to the accounting period in which the insured event becomes a liability of the insurer. For claims-made policies, which represent over 90% of the premiums written in our Specialty P&C segment, the insured event generally becomes a liability when the event is first reported to us. For occurrence policies the insured event becomes a liability when the event takes place. We believe that measuring losses on an accident year basis is the best measure of the underlying profitability of the premiums earned in that period, since it associates policy premiums earned with the estimate of the losses incurred related to those policy premiums.

The following table summarizes calendar year net loss ratios by separating losses between the current accident year and all prior accident years. Additionally, the table shows our current accident year net loss ratio was affected by revisions to our estimate of premiums owed to reinsurers related to coverages provided in prior accident years. Net loss ratios for 2017 and 2016 compare as follows:

	Net Loss Ratios ⁽¹⁾		
	Year Ended December 31		
	2017	2016	Change
Calendar year net loss ratio	63.6%	58.7%	4.9 pts
Less impact of prior accident years on the net loss ratio	(26.3%)	(29.9%)	3.6 pts
Current accident year net loss ratio	89.9 %	88.6 %	1.3 pts
Less estimated ratio increase (decrease) attributable to:			
Ceded premium adjustments, prior accident years ⁽²⁾	(0.2%)	(1.4%)	1.2 pts
Current accident year net loss ratio, excluding the effect of prior year ceded premium ⁽³⁾	90.1 %	90.0 %	0.1 pts

⁽¹⁾ Net losses, as specified, divided by net premiums earned.

⁽²⁾ Reductions to premiums owed under reinsurance agreements for prior accident years increased net premiums earned (the denominator of the current accident year ratio) in both 2017 and 2016, however, the reduction was substantially less in 2017 than in 2016. See the discussion in the Premiums section for our Specialty P&C segment under the heading "Ceded Premiums Written" for additional information.

⁽³⁾ The current accident year net loss ratio was relatively unchanged as compared to 2016 primarily due to offsetting factors. Changes in the mix of business resulted in an 1.2 percentage point increase in the current accident year net loss ratio in 2017 as compared to 2016. However, the effect of a DDR reinsurance commutation during the fourth quarter of 2017 (reduction in current year net losses) partially offset the increase by 0.5 percentage points and the effect of a prior year novation (net premiums earned at a high loss ratio) partially offset the increase by 0.4 percentage points. Additional information regarding the prior year novation is included in the Premiums section for our Specialty P&C segment under the heading "Gross Premiums Written."

We recognized net favorable loss development related to our previously established reserve of \$119.3 million and \$137.2 million for the years ended December 31, 2017 and 2016, respectively. The net favorable loss development in 2017 and 2016 included \$10.1 million and \$12.0 million, respectively, attributable to our medical technology liability line of business and \$5.2 million and \$9.4 million, respectively, attributable to our legal professionals liability line of business. We re-evaluate our previously established reserve each quarter based on our most recently available claims data and currently available industry trend information. Development recognized during 2017 principally related to accident years 2010 through 2014. Development recognized during 2016 principally related to accident years 2009 through 2013.

A detailed discussion of factors influencing our recognition of loss development is included in our Critical Accounting Estimates section under the heading "Reserve for Losses and Loss Adjustment Expenses." Assumptions used in establishing our reserve are regularly reviewed and updated by management as new data becomes available. Any adjustments necessary are reflected in the then current operations. Due to the size of our reserve, even a small percentage adjustment to the assumptions can have a material effect on our results of operations for the period in which the change is made, as was the case in both 2017 and 2016.

Table of Contents

Underwriting, Policy Acquisition and Operating Expenses

Our Specialty P&C segment underwriting, policy acquisition and operating expenses for the years ended December 31, 2017 and 2016 were comprised as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Specialty P&C segment:				
DPAC amortization	\$ 48,469	\$ 45,019	\$ 3,450	7.7 %
Management fees	6,620	6,447	173	2.7 %
Other underwriting and operating expenses	53,741	52,867	874	1.7 %
Total	\$ 108,830	\$ 104,333	\$ 4,497	4.3 %

DPAC amortization increased during the year ended December 31, 2017 as compared to 2016 primarily driven by an increase in commission expense in 2017 and a decrease in ceding commission income, which is an offset to expense, primarily due to a reduction in premiums ceded to Syndicate 1729. In addition, the increase in DPAC amortization reflected the effect of higher gross premiums earned in 2017 as compared to 2016.

Management fees are charged pursuant to a management agreement by the Corporate segment to the operating subsidiaries within our Specialty P&C segment for services provided, based on the extent to which services are provided to the subsidiary and the amount of premium written by the subsidiary. While the terms of the management agreement were consistent between 2017 and 2016, fluctuations in the amount of premium written by each subsidiary can result in corresponding variations in the management fee charged to each subsidiary during a particular period.

Other underwriting and operating expenses increased during the year ended December 31, 2017 as compared to 2016 primarily driven by an increase in compensation related expenses and costs associated with the amortization of new software placed into service during the first quarter of 2017. The increase was partially offset by the effect of non-recurring costs in 2016, including state assessments and a donation to a scholarship fund for which we received a wholly offsetting tax credit during 2016.

Underwriting Expense Ratio (the Expense Ratio)

Our expense ratio for the Specialty P&C segment for the year ended December 31, 2017 as compared to 2016, was as follows:

	Year Ended December 31		
	2017	2016	Change
Underwriting expense ratio	24.0%	22.8%	1.2 pts

The increase in the underwriting expense ratio for 2017 was primarily due to the effect of a reduction in net premiums earned as compared to 2016, primarily attributable to a prior year novation (see further discussion under the heading "Gross Premiums Written") and, to a lesser extent, the effect of an increase in DPAC amortization and software amortization in 2017, as previously discussed.

Segregated Portfolio Cell Dividend Expense (Income)

During 2016 we expanded our alternative market solutions by writing HCPL premium in three SPCs at Eastern Re. Consistent with the SPC structure discussed in our Workers' Compensation segment section that follows, the net operating results of each cell, net of any participation we have taken in the SPCs, are due to the external owners of that cell. Our Specialty P&C segment does not currently participate in the cells that write HCPL premium, and therefore retains no profit or loss. SPC dividend (expense) income for the years ended December 31, 2017 and 2016 was as follows:

(In thousands)	Year Ended December 31		
	2017	2016	Change
SPC dividend (expense) income	\$ (4,970)	\$ (144)	\$ (4,826)

The SPC dividend expense for the year ended December 31, 2017 reflected a \$5.2 million pre-tax expense recognized during the second quarter of 2017 related to previously unrecognized SPC dividend expense for the cumulative earnings of unrelated parties that have owned SPCs at various times since 2003 within a Bermuda captive insurance operation. Historically,

Table of Contents

within our HCPL business, we have written a limited number of segregated cell captive programs through this Bermuda captive arrangement and the use of this facility has declined as the HCPL insurance market has softened. The SPC dividend expense attributable to those cells was unrelated to the captive operations of our Eastern Re subsidiary. See more information on our SPCs under the heading "Underwriting, Policy Acquisition and Operating Expense" in the Segment Operating Results - Workers' Compensation section that follows.

Segment Operating Results - Workers' Compensation

Our Workers' Compensation segment provides traditional workers' compensation insurance products and alternative market solutions for workers' compensation risks to employers generally with 1,000 or fewer employees, as discussed in Note 15 of the Notes to Consolidated Financial Statements. Segment operating results reflect pre-tax underwriting profit or loss, which includes SPC dividend expense (income). Investment results, which includes the SPC investment results, are included in our Corporate segment. Segment operating results included the following:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Net premiums written	\$ 238,514	\$ 223,578	\$ 14,936	6.7 %
Net premiums earned	\$ 227,408	\$ 220,815	\$ 6,593	3.0 %
Other income	674	844	(170)	(20.1 %)
Net losses and loss adjustment expenses	(136,237)	(140,534)	4,297	(3.1 %)
Underwriting, policy acquisition and operating expenses	(70,945)	(70,464)	(481)	0.7 %
Segregated portfolio cells dividend (expense) income ⁽¹⁾	(5,828)	(4,762)	(1,066)	22.4 %
Segment operating results	\$ 15,072	\$ 5,899	\$ 9,173	155.5 %
Net loss ratio				
Traditional business	62.6%	66.5%	(3.9) pts	
Alternative market business	53.0%	55.7%	(2.7) pts	
Segment results	59.9%	63.6%	(3.7) pts	
Underwriting expense ratio				
Traditional business	31.3%	32.2%	(0.9) pts	
Alternative market business	31.1%	31.0%	0.1 pts	
Segment results	31.2%	31.9%	(0.7) pts	

⁽¹⁾Represents the underwriting (profit) loss attributable to the alternative market business ceded to the SPCs at Eastern Re, net of our participation.

During the third quarter of 2017, Eastern Alliance Insurance Group completed a renewal rights transaction with Great Falls Insurance Company ("Great Falls") for consideration of \$4.2 million. Eastern paid \$2.85 million at closing, and the remaining \$1.35 million is contingent upon Eastern renewing at least 75% of the acquired renewal book of business. In the event Eastern renews less than 75% but greater than 50% of the acquired renewal book of business, the contingent consideration will be reduced on a pro-rated basis. Great Falls is a monoline workers' compensation insurance company domiciled in Maine and is licensed to write business in Maine and New Hampshire. Great Falls' direct premium written was approximately \$13.3 million for the year ended December 31, 2016. Eastern has appointed the Great Falls agency partners and all Great Falls' employees became our employees. The acquisition of the renewal rights will expand Eastern's operations into Maine and New Hampshire and ultimately other New England states, providing geographic diversification and the ability to expand our specialty workers' compensation products and services in the New England marketplace. The transaction was accounted for as an asset acquisition and resulted in the recognition of intangible assets totaling \$4.3 million, including transaction-related costs. As of December 31, 2017, a liability has been recognized for the contingent consideration of \$1.35 million as we believe it is more likely than not that we will renew at least 75% of the acquired renewal book of business.

Table of Contents

Premiums Written

Our workers' compensation premium volume is driven by four primary factors: (1) the amount of new business written, (2) audit premium, (3) retention of our existing book of business and (4) premium rates charged on our renewal book of business.

Gross, ceded and net premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Gross premiums written				
Traditional business*	\$ 182,847	\$ 172,025	\$ 10,822	6.3 %
Alternative market business	80,544	75,915	4,629	6.1 %
Segment results	263,391	247,940	15,451	6.2 %
Less: Ceded premiums written				
Traditional business	9,937	9,446	491	5.2 %
Alternative market business*	14,940	14,916	24	0.2 %
Segment results	24,877	24,362	515	2.1 %
Net premiums written				
Traditional business	172,910	162,579	10,331	6.4 %
Alternative market business	65,604	60,999	4,605	7.5 %
Segment results	\$ 238,514	\$ 223,578	\$ 14,936	6.7 %

* Traditional gross premiums written and alternative market ceded premiums written are reported net of alternative market premiums assumed by our traditional business totaling \$0.7 million and \$0.9 million for the years ended December 31, 2017 and 2016, respectively.

Our traditional workers' compensation insurance products include guaranteed cost, dividend, deductible, and retrospectively-rated policies. Our alternative market business is 100% ceded to either the SPCs at our wholly owned Cayman Islands reinsurance subsidiary, Eastern Re, or to unaffiliated captive insurers. As of December 31, 2017, there were 24 (21 active) SPCs at Eastern Re and 2 active alternative market programs with unaffiliated captive insurers.

Additional information regarding the structure of the SPCs is included under the heading "Underwriting, Policy Acquisition and Operating Expenses" section that follows.

Gross Premiums Written

Gross premiums written in our traditional and alternative market business for the years ended December 31, 2017 and 2016 are reflected in the table above. Gross premiums written increased in 2017, driven by growth in both our traditional and alternative market business. Growth in our traditional business was driven by new business written including \$4.6 million of premium related to our Eastern Specialty Risk unit, which writes higher hazard risks, and \$3.4 million of premium written related to the acquisition of Great Falls' book of business. In addition, the increase in gross premiums written in our traditional business reflected an increase in the retention rate, partially offset by a decrease in renewal pricing and the impact of premium adjustments written and earned in the period on retrospectively rated policies which decreased written premium by \$1.9 million in 2017, compared to \$0.2 million in 2016. Growth in our alternative market business was driven by new business written and an increase in the retention rate, partially offset by a decrease in renewal pricing. We retained the 23 alternative market programs up for renewal for the year ended December 31, 2017. During 2017, we added one new alternative market program at Eastern Re that was a designed consolidation of two unaffiliated captive programs.

Table of Contents

New business, audit premium, retention and renewal price changes for both the traditional business and the alternative market business are shown in the table below:

(\$ in millions)	Year Ended December 31					
	2017			2016		
	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results
New business	\$ 37.8	\$ 9.9	\$ 47.7	\$ 22.8	\$ 10.2	\$ 33.0
Audit premium (including EBUB)	\$ 2.7	\$ 1.4	\$ 4.1	\$ 5.2	\$ 1.1	\$ 6.3
Retention rate ⁽¹⁾	85 %	92 %	87 %	84 %	88 %	85 %
Change in renewal pricing ⁽²⁾	(3%)	(4%)	(3%)	(1%)	(1%)	(1%)

⁽¹⁾ We calculate our workers' compensation retention rate as annualized expiring renewed premium divided by all annualized expiring premium subject to renewal. Our retention rate can be impacted by various factors, including price or other competitive issues, insureds being acquired, or a decision not to renew based on our underwriting evaluation.

⁽²⁾ The pricing of our business includes an assessment of the underlying policy exposure and the effects of current market conditions. We continue to base our pricing on expected losses, as indicated by our historical loss data. The renewal rate decreases reflected the competitive workers' compensation environment.

Ceded Premiums Written

Ceded premiums written reflected our external reinsurance programs and alternative market business ceded to unaffiliated captive insurance companies.

Ceded premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Premiums ceded to external reinsurers				
Traditional business	\$ 9,823	\$ 10,255	\$ (432)	(4.2 %)
Alternative market business	8,156	7,258	898	12.4 %
Segment results	17,979	17,513	466	2.7 %
Change in return premium estimate under external reinsurance				
Traditional business	114	(809)	923	114.1 %
Alternative market business	—	—	—	nm
Segment results	114	(809)	923	114.1 %
Premiums ceded to unaffiliated captive insurers				
Traditional business	—	—	—	nm
Alternative market business	6,784	7,658	(874)	(11.4 %)
Segment results	6,784	7,658	(874)	(11.4 %)
Total ceded premiums written				
Traditional business	9,937	9,446	491	5.2 %
Alternative market business	14,940	14,916	24	0.2 %
Segment results	\$ 24,877	\$ 24,362	\$ 515	2.1 %

We retain the first \$0.5 million in risk insured by us on our traditional business and cede losses in excess of this amount on each loss occurrence under our primary external reinsurance contract. The traditional external reinsurance contract contains a return premium provision under which we estimate return premium based on the underlying loss experience of policies covered under the contract. In our alternative market business, the risk retention for each loss occurrence ranges from \$0.3 million to \$0.35 million based on the alternative market program. We cede 100% of premiums written under two alternative market programs to unaffiliated captive insurers.

Per our reinsurance agreements, we cede premiums related to our traditional business on an earned premium basis, whereas alternative market premiums are ceded on a written premium basis. Premiums ceded to external reinsurers in our

Table of Contents

traditional business decreased during the year ended December 31, 2017 which primarily reflected an increase in revenue sharing with our reinsurance broker, partially offset by an increase in premiums earned and reinsurance rates. The increase in premiums ceded to external reinsurers in our alternative market business primarily reflected an increase in premiums written in certain programs, and the reinsurance rates vary based on the alternative market program.

Changes in the return premium estimate reflected the loss experience under the reinsurance contract for the years ended December 31, 2017 and 2016. The decrease in the return premium estimate for the year ended December 31, 2017 primarily reflected severity-related claims activity during the fourth quarter of 2017.

The decrease in premiums ceded to unaffiliated captive insurers reflected the consolidation of the two programs into the new alternative market program at Eastern Re, as discussed above under the heading "Gross Premiums Written."

Ceded Premiums Ratio

Ceded premiums ratio was as follows:

	Year Ended December 31					
	2017			2016		
	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results
Ceded premiums ratio, as reported	5.4%	18.5%	9.4%	5.5%	19.6%	9.8%
Less the effect of:						
Return premium estimated under external reinsurance	0.1%	—%	—%	(0.5%)	—%	(0.3%)
Premiums ceded to unaffiliated captive insurers (100%)	—%	7.5%	2.4%	—%	9.0%	2.9%
Ceded premiums ratio, less the effects of above	5.3%	11.0%	7.0%	6.0%	10.6%	7.2%

As discussed above, we cede premiums related to our traditional business on an earned premium basis, whereas alternative market premiums are ceded on a written premium basis. The decrease in the traditional ceded premiums ratio reflected the impact of the revenue sharing noted above, partially offset by the increase in reinsurance rates. The alternative markets ceded premiums ratio, less the effect of premiums ceded to the unaffiliated captive insurers, reflected premiums ceded to our external reinsurers related to the SPCs at Eastern Re. The reinsurance rates for our alternative market business varies by program.

Net Premiums Earned

Net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Gross premiums earned				
Traditional business*	\$ 172,603	\$ 170,492	\$ 2,111	1.2 %
Alternative market business	80,698	75,658	5,040	6.7 %
Segment results	253,301	246,150	7,151	2.9 %
Less: Ceded premiums earned				
Traditional business	9,937	9,446	491	5.2 %
Alternative market business*	15,956	15,889	67	0.4 %
Segment results	25,893	25,335	558	2.2 %
Net premiums earned				
Traditional business	162,666	161,046	1,620	1.0 %
Alternative market business	64,742	59,769	4,973	8.3 %
Segment results	\$ 227,408	\$ 220,815	\$ 6,593	3.0 %

* Traditional gross premiums earned and alternative market ceded premiums earned are reported net of alternative market premiums assumed by our traditional business totaling \$0.6 million and \$0.9 million for the years ended December 31, 2017 and 2016, respectively.

Table of Contents

Net premiums earned consist of gross premiums earned less the portion of earned premiums that we cede to our reinsurers for their assumption of a portion of our losses. Because premiums are generally earned pro rata over the entire policy period, fluctuations in premiums earned tend to lag those of premiums written. Our workers' compensation policies are twelve month policies and premiums are earned on a pro rata basis over the policy period. Net premiums earned also include premium adjustments related to the audit of our insureds' payrolls. Payroll audits are conducted subsequent to the end of the policy period and any related adjustments are recorded as fully earned in the current period. In addition, we record an estimate for EBUB and evaluate the estimate on a quarterly basis. We did not adjust the EBUB estimate for the year ended December 31, 2017 and increased the estimate by \$0.4 million for the year ended December 31, 2016. The increase in net premiums earned in both our traditional and alternative market business primarily reflected the pro rata effect of higher net premiums written during the preceding twelve months, partially offset by the aforementioned premium adjustments on retrospectively rated policies in our traditional business.

Losses and Loss Adjustment Expenses

The following table summarizes calendar year net loss ratios by separating losses between the current accident year and all prior accident years. Calendar year and current accident year net loss ratios by component were as follows:

	Net Loss Ratios								
	Year Ended December 31								
	2017			2016			Change		
	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results
Calendar year net loss ratio *	62.6%	53.0%	59.9%	66.5%	55.7%	63.6%	(3.9)	(2.7)	(3.7)
Less impact of prior accident years on the net loss ratio	(3.5%)	(13.3%)	(6.3%)	(1.0%)	(7.8%)	(2.8%)	(2.5)	(5.5)	(3.5)
Current accident year net loss ratio	66.1%	66.3%	66.2%	67.5%	63.5%	66.4%	(1.4)	2.8	(0.2)
Less impact of audit premium on loss ratio	—%	(1.5%)	(0.4%)	—%	(1.2%)	(0.3%)	—	(0.3)	(0.1)
Current accident year net loss ratio, excluding the effect of audit and return premium	66.1%	67.8%	66.6%	67.5%	64.7%	66.7%	(1.4)	3.1	(0.1)

* The net loss ratios for the years ended December 31, 2017 and 2016 in the above table are calculated before the impact of \$0.6 million and \$0.9 million, respectively, of premiums earned that is assumed by and ceded from the traditional and alternative markets business.

We recognized net favorable development related to our previously established reserves in both our traditional and alternative market business of \$14.3 million and \$6.1 million for the years ended December 31, 2017 and 2016, respectively.

The decrease in the calendar year net loss ratio in our traditional business reflected net favorable development and an improvement in the current accident year net loss ratio. We recognized \$5.7 million and \$1.6 million of net favorable development in our traditional business during 2017 and 2016, respectively. The net favorable development for both 2017 and 2016 in our traditional business included \$1.6 million related to amortization of the purchase accounting fair value adjustment. Excluding the purchase accounting fair value adjustment in both periods, net favorable development increased \$4.1 million in 2017 as compared to 2016 which primarily reflected better than expected claims results related to accident years 2015 and 2016. The improvement in the current accident year net loss ratio in our traditional business primarily reflected more favorable trends in claims closing results in 2017 as compared to 2016, which reduced loss indications for the 2017 accident year.

The decrease in the calendar year net loss ratio in our alternative market business reflected net favorable development, partially offset by an increase in the current accident year net loss ratio. Net favorable development in our alternative market business totaled \$8.6 million and \$4.5 million for the years ended December 31, 2017 and 2016, respectively. The current accident year net loss ratio for our alternative market business reflects the aggregate of loss ratios for all programs. Loss reserves are estimated for each program on a quarterly basis. Due to the scale of some of the programs, quarterly claims activity can cause the current accident year net loss ratio to fluctuate significantly from period to period. The increase in the current accident year net loss ratio in our alternative market business primarily reflected severity-related claims activity during the fourth quarter of 2017.

Calendar year ceded incurred losses in both our traditional and alternative market business totaled \$44.0 million for the year ended December 31, 2017 as compared to \$35.6 million for 2016. In our traditional business, ceded incurred losses totaled \$25.1 million for the year ended December 31, 2017 as compared to \$20.7 million for 2016. The increase in traditional ceded

Table of Contents

incurred losses in 2017 primarily reflected four loss occurrences totaling \$8.7 million. In our alternative market business, ceded incurred losses totaled \$18.9 million for the year ended December 31, 2017, compared to \$14.9 million for 2016. The increase reflected severity-related claims activity in certain programs, including one claim with ceded incurred losses of \$2.1 million. Additionally, the increase in claims severity impacted our traditional business reinsurance rates and we have not accrued any return premium for the 2014, 2015 or 2016 reinsurance contract years as a result of the increase in ceded losses.

Within our alternative market business, audit premium from insureds results in a decrease in the net loss ratio, whereas audit premium returned to insureds results in an increase in the net loss ratio. We recognized audit premium of \$1.4 million and \$1.1 million in 2017 and 2016, respectively, the effect of which is reflected in the previous table.

In our traditional business, we estimate our current accident year loss and loss adjustment expenses based on an expected loss ratio. Incurred losses and loss adjustment expenses are determined by applying the expected loss ratio to net premiums earned, which includes audit premium, for the respective period. In our alternative market business, we estimate our current accident year losses and loss adjustment expenses based on the underlying actuarial methodologies without consideration of audit premium. As a result, we removed the effects of audit premium in the previous table for purposes of evaluating the current accident year net loss ratio.

Underwriting, Policy Acquisition and Operating Expenses

Underwriting, policy acquisition and operating expenses includes the amortization of commissions, premium taxes and underwriting salaries, which are capitalized and deferred over the related workers' compensation policy period, net of external ceding commissions earned. The capitalization of underwriting salaries can vary as they are subject to the success rate of our contract acquisition efforts. These expenses also include a management fee charged by the Corporate segment, which represents intercompany charges pursuant to a management agreement, and the amortization of intangible assets, primarily related to the acquisition of Eastern by ProAssurance. The management fee is based on the extent to which services are provided to the subsidiary and the amount of premium written by the subsidiary.

The table below provides a comparison of underwriting, policy acquisition and operating expenses:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Traditional business	\$ 51,038	\$ 52,207	(1,169)	(2.2 %)
Alternative market business	19,907	18,257	1,650	9.0 %
Underwriting, policy acquisition and operating expenses	\$ 70,945	\$ 70,464	481	0.7 %

The decrease in underwriting, policy acquisition and operating expenses in our traditional business for 2017 as compared to 2016 was driven by a decrease in intangible asset amortization of \$2.2 million and the effect of a \$1.0 million pension settlement charge recorded during 2016 related to the termination of a legacy Eastern pension plan, partially offset by an increase in acquisition and operating expenses during 2017.

Table of Contents

Underwriting Expense Ratio (the Expense Ratio)

The underwriting expense ratio for the Workers' Compensation segment included the impact of the following:

	Year Ended December 31								
	2017			2016			Change		
	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results
Underwriting expense ratio, as reported*	31.3%	31.1%	31.2%	32.2%	31.0%	31.9%	(0.9)	0.1	(0.7)
Less estimated ratio increase (decrease) attributable to:									
Non-recurring/unusual expenses	—%	—%	—%	0.6%	—%	0.4%	(0.6)	—	(0.4)
Amortization of intangible assets	1.9%	—%	1.3%	3.2%	—%	2.4%	(1.3)	—	(1.1)
Management fees	1.2%	—%	0.9%	1.1%	—%	0.8%	0.1	—	0.1
Impact of audit premium	(0.5%)	(0.7%)	(0.5%)	(0.9%)	(0.6%)	(0.8%)	0.4	(0.1)	0.3
Impact of return premium estimate	—%	—%	—%	(0.1%)	—%	(0.1%)	0.1	—	0.1
Underwriting expense ratio, less listed effects	28.7%	31.8%	29.5%	28.3%	31.6%	29.2%	0.4	0.2	0.3

* The underwriting expense ratios for 2017 and 2016 in the above table are calculated before the impact of \$0.6 million and \$0.9 million, respectively, of premiums earned that is assumed by and ceded from the traditional and alternative markets business, respectively.

The increase in the traditional expense ratio for 2017, exclusive of the items noted in the table, primarily reflected an increase in acquisition expenses and the effect of net retrospective return premium adjustments. Retrospective return premium adjustments decreased earned premium by \$1.9 million in 2017 as compared to \$0.2 million in 2016. There were no other individually significant variances by expense category that contributed to the increase in the expense ratio. The alternative markets expense ratio primarily reflected ceding commissions, which vary by program.

Non-recurring expenses for the year ended December 31, 2016 in the above table reflected a pension settlement charge, as discussed above.

Segregated Portfolio Cell Dividend Expense (Income)

Our Workers' Compensation segment provides turn-key workers' compensation alternative market solutions that include program design, fronting, claims administration, risk management, SPC rental, asset management and SPC management services. The asset management and SPC management services are outsourced to a third party. Alternative market customers include individual companies, groups and associations. SPC dividend expense (income) for each period represents the profit or loss attributable to the alternative market business ceded to the SPCs of Eastern Re, net of any participation we have taken in the SPCs.

The SPCs are segregated pools of assets and liabilities that provide an insurance facility for a defined set of risks. Assets of each SPC are solely for the benefit of that individual cell and each SPC is solely responsible for the liabilities of that individual cell. Assets of one SPC are statutorily protected from the creditors of the others. We participate to a varying degree in the results of selected SPCs. As of December 31, 2017, our ownership interest in the SPCs in which we participate is as low as 25% and as high as 85%. Under the SPC structure, the net operating results of each cell, net of our participation, are due to the external owners of that cell.

The SPC financial results are included in the following table. The SPC dividend expense (income) represents the operating results of each cell in the aggregate.

Table of Contents

SPC dividend expense (income) was as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Net premiums earned	\$ 64,099	\$ 58,826	\$ 5,273	9.0 %
Other income	115	18	97	538.9 %
Less: Net losses and loss adjustment expenses	34,003	32,743	1,260	3.8 %
Less: Underwriting, policy acquisition and operating expenses	19,907	18,258	1,649	9.0 %
SPC net operating results - profit/(loss)	10,304	7,843	2,461	31.4 %
Less: Eastern participation - profit/(loss)	4,476	3,081	1,395	45.3 %
SPC dividend expense (income)	\$ 5,828	\$ 4,762	\$ 1,066	22.4 %

The increase in SPC dividend expense for 2017 as compared to 2016, primarily reflected an increase in net premiums earned and net favorable development.

Segment Operating Results - Lloyd's Syndicate

Our Lloyd's Syndicate segment includes operating results from our participation in Lloyd's of London. We have a total capital commitment to support our Lloyd's Syndicate operations through 2022 of up to \$200 million. For the 2018 underwriting year, we have satisfied our capital commitment with investment securities deposited with Lloyd's (also referred to as FAL) which at December 31, 2017 had a fair value of approximately \$123.9 million, as discussed in Note 3 of the Notes to Consolidated Financial Statements.

We are the majority (58%) capital provider to Syndicate 1729, which covers a range of property and casualty insurance and reinsurance lines. The remaining capital for Syndicate 1729 is provided by unrelated third parties, including private names and other corporate members. Syndicate 1729 had a maximum underwriting capacity of £100.0 million for the 2017 underwriting year, of which £57.6 million (\$77.8 million based on December 31, 2017 exchange rates) was our allocated underwriting capacity. For the 2018 underwriting year, we increased our participation in the operating results of Syndicate 1729 from 58% to 62% and are satisfying our capital commitment to support Syndicate 1729 with our FAL securities, as discussed above.

Beginning in 2018, our Lloyd's Syndicate segment will include the operating results of a newly formed SPA, Syndicate 6131. As a SPA, Syndicate 6131 is only allowed to underwrite one quota share reinsurance contract with Syndicate 1729. We are the sole (100%) capital provider to Syndicate 6131 and are satisfying our capital commitment with our FAL securities, as discussed above. Syndicate 6131 has a maximum underwriting capacity of £8.0 million (approximately \$10.8 million at December 31, 2017) for the 2018 underwriting year and will focus on contingency and specialty property business.

We normally report results from our involvement in Lloyd's Syndicates on a quarter delay, except when information is available that is material to the current period. Furthermore, the investment results associated with our FAL investments and certain U.S. paid administrative expenses are reported concurrently as that information is available on an earlier time frame.

For the years ended December 31, 2017 and 2016, our Lloyd's Syndicate segment results include both our 58% participation in the operating results of Syndicate 1729 and 100% of the operating results of our wholly owned subsidiaries that support Syndicate 1729 and were composed as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Gross premiums written	\$ 70,224	\$ 65,157	\$ 5,067	7.8 %
Ceded premiums written	(15,255)	(8,883)	(6,372)	71.7 %
Net premiums written	<u>\$ 54,969</u>	<u>\$ 56,274</u>	<u>\$ (1,305)</u>	<u>(2.3 %)</u>
Net premiums earned	\$ 57,202	\$ 54,650	\$ 2,552	4.7 %
Net investment income	1,736	1,410	326	23.1 %
Net realized gains (losses)	107	76	31	40.8 %
Other income	(1,476)	1,415	(2,891)	(204.3 %)
Net losses and loss adjustment expenses	(44,220)	(34,116)	(10,104)	29.6 %
Underwriting, policy acquisition and operating expenses	(26,963)	(22,832)	(4,131)	18.1 %
Income tax benefit (expense)	568	(384)	952	(247.9 %)
Segment operating results	<u>\$ (13,046)</u>	<u>\$ 219</u>	<u>\$ (13,265)</u>	<u>(6,057.1 %)</u>
Net loss ratio	77.3%	62.4%	14.9 pts	
Underwriting expense ratio	47.1%	41.8%	5.3 pts	

Segment operating results for the year ended December 31, 2017 included loss estimates in connection with Hurricanes Harvey, Irma and Maria, which affected Texas, several states in the southeastern U.S. and islands in the Caribbean in 2017. We estimated our allocated share (58%) of the net pre-tax losses to be approximately \$7.1 million, which includes reinstatement premiums we expect to receive from insureds as well as pay reinsurers, both of which are written and earned during the period.

Table of Contents

The pre-tax impact of the recognition of these storm-related losses on the segment's operating results for the year ended December 31, 2017 was as follows:

<i>(In thousands)</i>	Year Ended December 31, 2017
Gross premiums written	\$ 234
Ceded premiums written	(2,209)
Net premiums written	\$ (1,975)
Net premiums earned	\$ (1,975)
Gross losses	(36,297)
Reinsurance recoveries	31,198
Net losses and loss adjustment expenses	(5,099)
Segment operating results, before tax	\$ (7,074)

Premiums Written

Gross premiums written in 2017 consisted of casualty coverages (41% of total gross written premium), property insurance coverages (37%), catastrophe reinsurance coverages (15%) and property reinsurance coverages (7%). Gross premiums written increased during 2017 primarily due to new business written and volume increases on renewal business, partially offset by a reduction in premiums assumed from our Specialty P&C segment, as discussed below. The increase in ceded premiums written during 2017 was primarily due to the effect of revised terms on our reinsurance arrangements. In addition, the increase in ceded premiums written during 2017 reflected the effect of reinsurance reinstatement premiums which represent premiums ceded to reinsurers to restore coverage limits that have been exhausted as a result of storm-related losses under certain excess of loss reinsurance treaties. Excluding the effects of the storm-related losses, net premiums written in 2017 increased slightly as compared to 2016.

As discussed in our Specialty P&C segment operating results, Syndicate 1729 serves as a reinsurer on a quota share basis for a wholly owned insurance subsidiary in our Specialty P&C segment. For premium assumed, we include in gross premiums written an estimate of all premiums to be earned over the entire period covered by the reinsurance agreement, generally one year, in the quarter in which the reinsurance agreement becomes effective. The quota share agreement with our Specialty P&C segment renewed effective January 1, 2017 and reflected revised contract terms which reduced premium assumed by Syndicate 1729 by essentially half. Results from this ceding arrangement are reported in the Specialty P&C segment on the same quarter delay in order to be consistent with the Lloyd's Syndicate segment as the effect of doing so is not material. We did not renew the quota share agreement with our Specialty P&C segment on January 1, 2018, however, the impact will not be reflected in either segment's operating results until the second quarter of 2018 due to the previously mentioned quarter delay.

The 2015 and 2014 calendar year quota share arrangements with our Specialty P&C segment were commuted in December 2016 and 2015, respectively. Due to the reporting delay, the effect of the 2015 and 2014 commutation was reported by both segments in results during the first quarters of 2017 and 2016, respectively, and is reflected in the years ended December 31, 2017 and 2016, respectively. The commutations did not differ significantly from previously recorded amounts.

Net Premiums Earned

Net premiums earned consist of gross premiums earned less the portion of earned premiums that we cede to our reinsurers for their assumption of a portion of our losses. Policies written to date primarily carry a term of one year. Because premiums are generally earned pro rata over the entire policy period, fluctuations in premiums earned tend to lag those of premiums written. Additionally, premiums for certain policies and assumed reinsurance contracts are reported subsequent to the coverage period and/or may be subject to adjustment based on loss experience. These premium adjustments are earned when reported, which can result in further fluctuation in earned premium. Net premiums earned for the years ended December 31, 2017 and 2016 included premium assumed from our Specialty P&C segment of approximately \$11.7 million and \$14.0 million. In addition, net premiums earned in 2017 were reduced by the effect of net reinsurance reinstatement premiums associated with the storm-related losses, as previously discussed.

Net Losses and Loss Adjustment Expenses

Losses for the year were primarily recorded using the loss assumptions by risk category incorporated into the business plan submitted to Lloyd's for Syndicate 1729 with consideration given to loss experience incurred to date. The assumptions used in the business plan were consistent with loss results reflected in Lloyd's historical data for similar risks. We expect loss ratios to fluctuate from quarter to quarter as Syndicate 1729 writes more business and the book begins to mature. The loss ratios

Table of Contents

will also fluctuate due to the timing of earned premium adjustments (see discussion in this section under the heading "Net Premiums Earned"). Premium and exposure for some of Syndicate 1729's insurance policies and reinsurance contracts are initially estimated and subsequently adjusted over an extended period of time as underlying premium reports are received from cedants and insureds. When reports are received, the premium, exposure and corresponding loss estimates are revised accordingly. Changes in loss estimates due to premium or exposure fluctuations are incurred in the accident year in which the premium is earned.

The net loss ratio increased by 14.9% in 2017 as compared to 2016 driven by the storm-related losses and associated net reinsurance reinstatement premiums recognized during 2017, as previously discussed, which increased the net loss ratio by approximately 11.2%. Additionally, the net loss ratio for 2016 was lower than in prior periods and reflected reductions attributable to shifts in the mix of business.

Underwriting, Policy Acquisition and Operating Expenses

Underwriting expenses increased by \$4.1 million for the year ended December 31, 2017 as compared to 2016 and primarily reflected the anticipated growth in Syndicate 1729 operations. As operations have matured, the total amount of underwriting salaries has increased along with the number of policies successfully written. Underwriting compensation is capitalized as DPAC only when efforts are successful. The increase in the expense ratio for 2017 was primarily due to the timing of certain expenses relative to the increase in earned premiums.

Net Investment Income

Net investment income for the years ended December 31, 2017 and 2016 was primarily attributable to interest earned on the FAL investments. Our FAL investments are primarily short-term investments and investment-grade corporate debt securities.

Taxes

Operating results of this segment are subject to U.K. income tax law. Tax expense incurred in 2016 reflected the use of prior year Syndicate 1729 operating losses to offset current period Syndicate 1729 operating results.

Segment Operating Results - Corporate

Our Corporate segment includes investment operations, interest expense and U.S. income taxes, all of which are managed at the corporate level with the exception of investment assets solely allocated to Lloyd's Syndicate operations as discussed in Note 15 of the Notes to Consolidated Financial Statements. Our Corporate segment operating results also reflect non-premium revenues generated outside of our insurance entities and corporate expenses. Segment operating results for our Corporate segment were net earnings of \$48.1 million and \$54.9 million for the years ended December 31, 2017 and 2016, respectively, and included the following:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Net investment income	\$ 93,926	\$ 98,602	\$ (4,676)	(4.7 %)
Equity in earnings (loss) of unconsolidated subsidiaries	\$ 8,033	\$ (5,762)	\$ 13,795	239.4 %
Net realized gains (losses)	\$ 16,302	\$ 34,799	\$ (18,497)	(53.2 %)
Operating expense	\$ 29,275	\$ 30,807	\$ (1,532)	(5.0 %)
Segregated portfolio cells dividend expense (income) ⁽¹⁾	\$ 4,973	\$ 3,236	\$ 1,737	53.7 %
Interest expense	\$ 16,844	\$ 15,032	\$ 1,812	12.1 %
Income tax expense (benefit)	\$ 21,927	\$ 24,736	\$ (2,809)	(11.4 %)

⁽¹⁾ Represents the investment results attributable to the SPCs at Eastern Re

Net Investment Income, Equity in Earnings (Loss) of Unconsolidated Subsidiaries, Net Realized Investment Gains (Losses)

Net Investment Income

Net investment income is primarily derived from the income earned by our fixed maturity securities and also includes dividend income from equity securities, income from our short-term and cash equivalent investments, earnings from other investments and increases in the cash surrender value of BOLI contracts. Investment fees and expenses are deducted from investment income.

Net investment income by investment category was as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Fixed maturities	\$ 73,944	\$ 84,386	\$ (10,442)	(12.4 %)
Equities	17,198	14,887	2,311	15.5 %
Other investments, including Short-term	7,662	3,353	4,309	128.5 %
BOLI	1,979	2,008	(29)	(1.4 %)
Investment fees and expenses	(6,857)	(6,032)	(825)	13.7 %
Net investment income	\$ 93,926	\$ 98,602	\$ (4,676)	(4.7 %)

Fixed Maturities

The decrease in our income from fixed maturity securities during 2017 was due to lower yields and lower average investment balances. We reduced the size of our fixed portfolio over the last year in order to pay dividends and invest in other asset classes. On an overall basis, our average investment in fixed maturity securities was approximately 7.0% lower in 2017 as compared to 2016.

Average yields for our fixed maturity portfolio were as follows:

	Year Ended December 31	
	2017	2016
Average income yield	3.1%	3.3%
Average tax equivalent income yield	3.5%	3.8%

Table of Contents

Equities

Income from our equity portfolio increased for the year ended December 31, 2017 as compared to 2016 which reflected an increase in our allocation to this asset category as well as a different mix of equities owned.

Other Investments and Short-term Investments

Income from our other investments and short-term investments consists primarily of distributions from our LPs that are accounted for under the cost method. Distributions from LPs are affected by the volatility of equity and credit markets. The increase in this category during 2017 was primarily due to higher reported earnings from one of our LPs which focuses on the energy sector.

Investment Fees and Expenses

Investment fees and expenses increased for the year ended December 31, 2017 as compared to 2016 primarily due to an increase in subsequent interest expense on our LP subscriptions and incentive fees on our convertible bond portfolio. Subsequent interest expense on some of our LPs is paid on subscriptions that occur later in the fund-raising process and incentive fees for returns that exceed a high water mark on our convertible bond portfolio reflected an increase in the fair value of the portfolio.

Equity in Earnings (Loss) of Unconsolidated Subsidiaries

Equity in earnings (loss) of unconsolidated subsidiaries is derived from our investment interests accounted for under the equity method. Results were as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Equity method investments, primarily LPs/LLCs	\$ 28,685	\$ 19,055	\$ 9,630	50.5 %
Tax credit partnerships	(20,652)	(24,817)	4,165	(16.8 %)
Equity in earnings (loss) of unconsolidated subsidiaries	\$ 8,033	\$ (5,762)	\$ 13,795	239.4 %

We hold interests in certain LPs/LLCs that generate earnings from trading portfolios, secured debt, debt securities, multi-strategy funds and private equity investments. The performance of the LPs/LLCs is affected by the volatility of equity and credit markets. Our investment results from our portfolio of investments in LPs/LLCs for 2017 were affected primarily by our share of higher reported earnings from our LP/LLC investments.

Our tax credit investments are designed to generate returns in the form of tax credits and tax-deductible project operating losses and are comprised of qualified affordable housing project tax credit partnership interests and historic tax credit interests. We account for our tax credit investments under the equity method and record our allocable portion of the operating losses of the underlying properties based on estimates provided by the partnerships. For our qualified affordable housing project tax credit partnership interests we adjust our estimates of our allocable portion of operating losses periodically as actual operating results of the underlying properties become available. Our historic tax credit investments are short-term in nature and remaining operating losses are expected to be recognized primarily in 2018. Based on operating results received, we increased our estimate of partnership operating losses by \$2.1 million for the year ended December 31, 2017, as compared to \$10.2 million for the same respective period in 2016, predominantly related to our qualified affordable housing project tax credit partnership interests.

The tax benefits received from our tax credit partnerships, which are not reflected in our investment results above, reduced our tax expenses in 2017 and 2016 as follows:

(In millions)	Year Ended December 31	
	2017	2016
Tax credits recognized during the period	\$ 23.1	\$ 27.5
Tax benefit of tax credit partnership operating losses	\$ 7.2	\$ 8.7

Tax credits provided by the underlying projects of the historic tax credit partnerships are typically available in the tax year in which the project is put into active service, whereas the tax credits provided by qualified affordable housing project tax credit partnerships are provided over approximately a ten year period. The decrease in tax credits recognized in 2017 was primarily attributable to our historic tax credit partnership investments.

Table of Contents

Non-GAAP Financial Measure – Tax Equivalent Investment Result

We believe that to fully understand our investment returns it is important to consider the current tax benefits associated with certain investments as the tax benefit received represents a portion of the return provided by our tax-exempt bonds, BOLI, common and preferred stocks, and tax credit partnership investments (our tax-preferred investments). We impute a pro forma tax-equivalent result by estimating the amount of fully-taxable income needed to achieve the same after-tax result as is currently provided by our tax-preferred investments. We believe this better reflects the economics behind our decision to invest in certain asset classes that are either taxed at lower rates and/or result in reductions to our current federal income tax expense. Our pro forma tax-equivalent investment result is shown in the table that follows as is a reconciliation of our GAAP net investment result to our tax equivalent investment result.

	Year Ended December 31	
	2017	2016
<i>(In thousands)</i>		
GAAP net investment result:		
Net investment income	\$ 93,926	\$ 98,602
Equity in earnings (loss) of unconsolidated subsidiaries	8,033	(5,762)
GAAP net investment result	\$ 101,959	\$ 92,840
Pro forma tax-equivalent investment result	\$ 149,612	\$ 149,959
Reconciliation of pro forma and GAAP tax-equivalent investment result:		
GAAP net investment result	\$ 101,959	\$ 92,840
Taxable equivalent adjustments, calculated using the 35% federal statutory tax rate:		
State and municipal bonds	9,103	11,698
BOLI	1,065	1,081
Dividends received	1,930	1,957
Tax credit partnerships	35,555	42,383
Pro forma tax-equivalent investment result	\$ 149,612	\$ 149,959

Table of Contents

Net Realized Investment Gains (Losses)

The following table provides detailed information regarding our net realized investment gains (losses).

<i>(In thousands)</i>	Year Ended December 31	
	2017	2016
OTTI losses, total:		
State and municipal bonds	\$ (850)	\$ (100)
Corporate debt	(419)	(7,604)
Investment in unconsolidated subsidiaries	(11,931)	—
Other investments	—	(3,130)
Portion of OTTI losses recognized in other comprehensive income before taxes:		
Corporate debt	248	1,068
Net impairment losses recognized in earnings	(12,952)	(9,766)
Gross realized gains, available-for-sale securities	6,622	12,402
Gross realized (losses), available-for-sale securities	(3,113)	(7,029)
Net realized gains (losses), trading securities	10,724	6,632
Net realized gains (losses), other investments	2,963	1,115
Change in unrealized holding gains (losses), trading securities	11,157	30,521
Change in unrealized holding gains (losses), convertible securities, carried at fair value as a part of Other investments	896	899
Other	5	25
Net realized investment gains (losses)	\$ 16,302	\$ 34,799

During 2017, we recognized OTTI in earnings of \$13.0 million, including an \$8.5 million impairment related to an early stage business investment accounted for under the equity method. This impairment charge represented the difference between the investment's carrying value and fair value, which was measured as our ownership percentage in the projected earnings expected to be generated by the investment. In addition, we recognized OTTI in earnings of \$3.4 million related to our qualified affordable housing project tax credit investments. The current estimated tax benefits expected to be received from our allocable portion of the operating losses of the underlying properties have declined, due to the newly enacted corporate tax rate of 21%, as compared to those at the time the investments were acquired. During 2017, we also recognized credit-related OTTI in earnings of \$0.2 million and non-credit OTTI of \$0.2 million in OCI, both of which related to corporate bonds.

During 2016, we recognized OTTI in earnings of \$9.8 million, including credit-related OTTI of \$5.5 million related to debt instruments from ten issuers in the energy sector. The fair value of these bonds declined during 2016 as did the credit quality of the issuers, and we recognized credit-related OTTI to reduce the amortized cost basis of the bonds to the present value of future cash flows we expected to receive from the bonds. During 2016, we also recognized non-credit impairments of \$0.9 million in OCI relative to the bonds of these issuers, as the fair value of the bonds was less than the present value of the expected future cash flows from the securities.

We also recognized \$3.1 million OTTI in earnings during 2016 related to our interest in an investment fund that is accounted for using the cost method (classified as other investments). The fund is focused on the energy sector and securities held by the fund declined in value during 2016. An OTTI was recognized to reduce our carrying value of the investment to the NAV reported by the fund.

Operating Expenses

Corporate segment operating expenses for the years ended December 31, 2017 and 2016, respectively, were comprised as follows:

<i>(\$ in thousands)</i>	Year Ended December 31		
	2017	2016	Change
Operating expenses	\$ 44,034	\$ 45,116	\$ (1,082) (2.4%)
Management fee offset	(14,759)	(14,309)	(450) 3.1%
Segment Total	\$ 29,275	\$ 30,807	\$ (1,532) (5.0%)

Table of Contents

The decrease in operating expenses during 2017 was primarily due to the effect of costs incurred in 2016 related to a pre-acquisition liability from a discontinued operation that did not reoccur in 2017 and, to a lesser extent, a decrease in compensation related costs in 2017. The decrease in compensation related costs in 2017 was primarily due to lower share based compensation expense, partially offset by higher salaries and benefits. The decrease in operating expenses was partially offset by an increase in costs incurred for technology enhancements in 2017.

Operating subsidiaries within our Specialty P&C and Workers' Compensation segments are charged a management fee by the Corporate segment for services provided to these subsidiaries. The management fee is based on the extent to which services are provided to the subsidiary and the amount of premium written by the subsidiary. Under the arrangement, the expenses associated with such services are reported as expenses of the Corporate segment, and the management fees charged are reported as an offset to Corporate operating expenses. While the terms of the management arrangement were consistent between 2016 and 2017, fluctuations in the amount of premium written by each subsidiary can result in corresponding variations in the management fee charged to each subsidiary during a particular period.

Segregated Portfolio Cell Dividend Expense (Income)

During the first quarter of 2017, we began reporting in the Corporate segment the portion of the SPC dividend expense (income) that is attributable to the investment results of the SPCs, all of which are reported in the Corporate segment, to better align the expense with the related investment results of the SPCs. For comparative purposes, we have reflected the SPC dividend expense for the prior periods in the same manner. SPC dividend expense was \$5.0 million and \$3.2 million for the years ended December 31, 2017 and 2016, respectively. See further information on our SPCs in our Workers' Compensation segment results section under the heading "Underwriting, Policy Acquisition and Operating Expense."

Interest Expense

Interest expense for the years ended December 31, 2017 and 2016, respectively, was comprised as follows:

(\$ in thousands)	Year Ended December 31			
	2017	2016	Change	
Senior Notes due 2023	\$ 13,429	\$ 13,429	\$ —	— %
Revolving Credit Agreement (including fees and amortization)	2,974	1,564	1,410	90.2 %
Mortgage Loans (including amortization)	65	—	65	nm
(Gain)/loss on interest rate cap	339	—	339	nm
Other	37	39	(2)	(5.1 %)
Interest expense	<u>\$ 16,844</u>	<u>\$ 15,032</u>	<u>\$ 1,812</u>	<u>12.1 %</u>

Interest expense increased during 2017 as compared to 2016 driven primarily by an increase in our weighted average outstanding debt, which was \$421 million for the year ended December 31, 2017, as compared to \$351 million for the same respective period of 2016, and, to a lesser extent, an increase in the average interest rate on the outstanding borrowings under our Revolving Credit Agreement. In addition, interest expense for the year ended December 31, 2017 included the change in fair value recognized on the interest rate cap entered into during the fourth quarter of 2017. The interest rate cap is designated as an economic hedge of interest rate risk associated with our variable rate Mortgage Loans. See further discussion of our outstanding debt in Note 9 and further discussion of our interest rate cap agreement in Note 10 of the Notes to Consolidated Financial Statements.

Table of Contents

Taxes

Tax expense allocated to our Corporate segment includes U.S. tax only, which would include U.S. tax expense incurred from our corporate membership in Lloyd's of London. The U.K. tax expense incurred by the U.K. based subsidiaries of our Lloyd's Syndicate segment is allocated to that segment. Consolidated tax expense reflects tax expense of both segments, as shown in the table below:

<i>(In thousands)</i>	Year Ended December 31	
	2017	2016
Corporate segment income tax expense (benefit)	\$ 21,927	\$ 24,736
Lloyd's Syndicate segment income tax expense (benefit)	(568)	384
Consolidated income tax expense (benefit)	\$ 21,359	\$ 25,120

Factors affecting our consolidated effective tax rate include the following:

	Year Ended December 31	
	2017	2016
Statutory rate	35.0%	35.0%
Tax-exempt income*	(6.5%)	(5.6%)
Tax credits	(18.0%)	(15.6%)
Non-U.S. operating results	0.7%	(1.0%)
Excess tax benefit on share-based compensation	(2.1%)	—%
Change in federal corporate tax rate	5.1%	—%
Change in limitation of future deductibility of certain executive compensation	2.7%	—%
Other	(0.3%)	1.5%
Effective tax rate	16.6%	14.3%

* Includes tax-exempt interest, dividends received deduction and change in cash surrender value of BOLI.

Our effective tax rate for 2017 and 2016 was 16.6% and 14.3%, respectively, and differs from the statutory federal income tax rate primarily due to a portion of our investment income being tax-exempt, the utilization of tax credits transferred to us from our tax credit partnership investments and the impact of the remeasurement of our deferred tax assets and liabilities as a result of the enactment of the TCJA in 2017.

As previously discussed, the TCJA was signed into law on December 22, 2017. Under current accounting guidance, the effects of changes in tax rates and laws are recognized in the period in which the new legislation is enacted. Due to the enactment of the TCJA in 2017, we remeasured our deferred tax assets and liabilities based on the new corporate tax rate and recognized a charge of \$6.5 million to income tax expense for the year ended December 31, 2017, which resulted in a 5.1% increase to our effective tax rate in 2017. Additionally, we made a reasonable estimate of the effects on our existing deferred tax asset balances at December 31, 2017 as it relates to the limitation on the future deductibility of certain executive compensation and recorded a provisional charge to income tax expense of \$3.5 million, which resulted in a 2.7% increase to our effective tax rate in 2017. Any future guidance addressing the effects of the TCJA on executive compensation could result in a change to this provisional amount. See further discussion on the impact of the TCJA under the heading "Deferred Taxes" in our Critical Accounting Estimates section.

Tax credits utilized were \$23.1 million for 2017 as compared to \$27.5 million for 2016. The reducing effect of tax credits on the effective tax rate was greater in 2017 due to lower pre-tax income in 2017 as compared to 2016. As previously discussed, the enactment of the TCJA in 2017 lowered the corporate tax rate effective January 1, 2018. While the enactment of the TCJA will not impact the amount of the tax credits we will receive, we expect the future utilization of our tax credits to take longer than in previous years due to the lower corporate tax rate.

One additional item of note impacting our effective tax rate in 2017 was the excess tax benefit on share-based compensation that resulted from the application of revised accounting guidance, which was effective January 1, 2017 and resulted in a 2.1% reduction to our effective tax rate in 2017. Under the revised accounting guidance, the difference between the income tax deduction, which is based upon the fair market value of share-based awards and the time of vesting, and the compensation cost recognized in the financial statements, which is based upon the fair market value of the share-based awards

Table of Contents

on the date of grant, is to be recognized as income tax expense (benefit) in the current period rather than an adjustment to OCI as was required under the previous guidance. See Note 1 of the Notes to Consolidated Financial Statements for further discussion on the adoption of the guidance.

Results of Operations - Year Ended December 31, 2016 Compared to Year Ended December 31, 2015

Selected consolidated financial data for each period is summarized in the table below.

(\$ in thousands, except per share data)	Year Ended December 31		
	2016	2015	Change
Revenues:			
Net premiums written	\$ 738,533	\$ 709,285	\$ 29,248
Net premiums earned	\$ 733,281	\$ 694,149	\$ 39,132
Net investment result	94,250	112,342	(18,092)
Net realized investment gains (losses)	34,875	(41,639)	76,514
Other income	7,808	7,227	581
Total revenues	870,214	772,079	98,135
Expenses:			
Losses and loss adjustment expenses	515,242	456,862	58,380
Reinsurance recoveries	(72,013)	(46,151)	(25,862)
Net losses and loss adjustment expenses	443,229	410,711	32,518
Underwriting, policy acquisition and operating expenses	227,610	217,064	10,546
Segregated portfolio cells dividend expense (income)	8,142	853	7,289
Interest expense	15,032	14,596	436
Total expenses	694,013	643,224	50,789
Income before income taxes	176,201	128,855	47,346
Income tax expense (benefit)	25,120	12,658	12,462
Net income	\$ 151,081	\$ 116,197	\$ 34,884
Non-GAAP operating income	\$ 129,844	\$ 142,629	\$ (12,785)
Earnings per share:			
Basic	\$ 2.84	\$ 2.12	\$ 0.72
Diluted	\$ 2.83	\$ 2.11	\$ 0.72
Non-GAAP operating earnings per share:			
Basic	\$ 2.44	\$ 2.60	\$ (0.16)
Diluted	\$ 2.43	\$ 2.59	\$ (0.16)
Net loss ratio	60.4%	59.2%	1.2 pts
Underwriting expense ratio	31.0%	31.3%	(0.3) pts
Combined ratio	91.4%	90.5%	0.9 pts
Operating ratio	77.8%	74.8%	3.0 pts
Effective tax rate	14.3%	9.8%	4.5 pts
Return on equity	8.0%	5.6%	2.4 pts

In all tables that follow, that abbreviation "nm" indicates that the information or the percentage change is not meaningful.

Executive Summary of Operations

The following sections provide an overview of our consolidated and segment results of operations for the year ended December 31, 2016 as compared to 2015. See the Segment Operating Results sections that follow for additional information regarding each segment's operating results.

Revenues

Our consolidated and segment net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Net Premiums Earned				
Specialty P&C	\$ 457,816	\$ 443,313	\$ 14,503	3.3 %
Workers' Compensation	220,815	213,161	7,654	3.6 %
Lloyd's Syndicate	54,650	37,675	16,975	45.1 %
Consolidated total	\$ 733,281	\$ 694,149	\$ 39,132	5.6 %

Consolidated net premiums earned increased in 2016 as compared to 2015 driven by increases in net premiums earned from both our Lloyd's Syndicate segment and our Specialty P&C segment. The increase from our Specialty P&C segment was primarily due to \$11.8 million in premium earned from a novation entered into during the fourth quarter of 2016 (see further discussion in our Segment Operating Results - Specialty Property & Casualty section that follows).

The following table shows our consolidated net investment result:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Net investment income	\$ 100,012	\$ 108,660	\$ (8,648)	(8.0 %)
Equity in earnings (loss) of unconsolidated subsidiaries	(5,762)	3,682	(9,444)	(256.5 %)
Net investment result	\$ 94,250	\$ 112,342	\$ (18,092)	(16.1 %)

The decrease in our consolidated net investment result in 2016 was primarily attributable to an \$11.5 million reduction in earnings from our fixed income portfolio, which reflected both lower average investment balances and lower yields, and a reduction in earnings from our unconsolidated subsidiaries. The reduction in earnings from our unconsolidated subsidiaries was primarily attributable to an acceleration of the recognition of tax credit partnership operating losses for 2016, partially offset by higher reported earnings from our investments in LP/LLCs. Operating losses on our tax credit partnerships were partially offset by reductions in our tax provision.

We had net realized investment gains of \$34.9 million in 2016 as compared to net realized investment losses of \$41.6 million in 2015. OTTI recognized in earnings were \$9.8 million in 2016 and \$15.3 million in 2015.

Expenses

The following table shows our consolidated and segment net loss ratios:

(\$ in millions)	Year Ended December 31		
	2016	2015	Change
Current accident year net loss ratio			
Consolidated ratio	80.1%	82.4%	(2.3) pts
Specialty P&C	88.6%	92.3%	(3.7) pts
Workers' Compensation	66.4%	67.1%	(0.7) pts
Lloyd's Syndicate	63.3%	66.8%	(3.5) pts
Calendar year net loss ratio			
Consolidated ratio	60.4%	59.2%	1.2 pts
Specialty P&C	58.7%	56.4%	2.3 pts
Workers' Compensation	63.6%	66.0%	(2.4) pts
Lloyd's Syndicate	62.4%	66.8%	(4.4) pts
Favorable net loss development, prior accident years			
Consolidated	\$ 143.8	\$ 161.2	\$ (17.4)
Specialty P&C	\$ 137.2	\$ 159.0	\$ (21.8)
Workers' Compensation	\$ 6.1	\$ 2.2	\$ 3.9
Lloyd's Syndicate	\$ 0.5	\$ —	\$ 0.5

Our consolidated current accident year net loss ratio decreased 2.3 percentage points for the year ended December 31, 2016 as compared to 2015 driven by a lower net loss ratio in our Specialty P&C segment primarily due to changes in expected loss costs related to mass tort litigation and, to a lesser extent, changes in the mix of business. The decrease in the consolidated current accident year net loss ratio was somewhat offset by a change in expense allocations, as discussed below.

Our consolidated calendar year net loss ratio was lower than our consolidated current accident year net loss ratio due to the recognition of net favorable loss development, as shown in the previous table.

Our consolidated and segment underwriting expense ratios were as follows:

	Year Ended December 31		
	2016	2015	Change
Underwriting Expense Ratio			
Consolidated	31.0%	31.3%	(0.3) pts
Specialty P&C	22.8%	23.8%	(1.0) pts
Workers' Compensation	31.9%	29.9%	2.0 pts
Lloyd's Syndicate	41.8%	49.2%	(7.4) pts
Corporate*	4.2%	3.5%	0.7 pts

*There are no net premiums earned associated with the Corporate segment. Ratios shown are the contribution of the Corporate segment to the consolidated ratio (Corporate operating expenses divided by consolidated net premium earned).

The slight decrease in our 2016 consolidated expense ratio was primarily attributable to an increase in net premiums earned for the period, the effect of which was offset, to an extent, by an increase in underwriting expenses.

The primary components of the consolidated increase in underwriting, policy acquisition and operating expenses for 2016 were:

- Increase in consolidated DPAC amortization by \$8.8 million particularly in the Lloyd's Syndicate segment.
- Increase in operating expenses in our Corporate segment by \$6.3 million primarily related to costs associated with a pre-acquisition liability from a discontinued operation and an increase in share-based compensation expenses resulting from an adjustment of the projected award value based upon the improvement, in the period, of one of the performance metrics associated with a particular year's award.

Table of Contents

- Increase in operating expenses in our Workers' Compensation segment of \$3.5 million primarily due to an increase in compensation and related benefit costs, state assessments and pension settlement charges.

There was a \$5.4 million decrease in consolidated underwriting expenses in 2016 as compared to 2015 that reflected a current year change in how the management fee was considered and allocated to Losses and loss adjustment expenses. This change had a \$5.4 million offsetting effect on consolidated losses and thus did not affect consolidated net income. Likewise, the change resulted in a 0.8 point decrease in our consolidated underwriting expense ratio which was completely offset by a 0.8 point increase in our consolidated net loss ratio. We believe this change better reflects the involvement of senior management at a corporate level and their oversight of the claims process at the segment level.

Taxes

Our effective tax rate was 14.3% for the year ended December 31, 2016, as compared to our 2015 effective tax rate of 9.8%. The increase in the rate for the year ended December 31, 2016 was primarily due to net realized investment gains as compared to net realized investment losses during 2015.

Operating Ratio and Return on Equity

Our operating ratio (calculated as our combined ratio, less our investment income ratio) increased by 3.0 percentage points in the year ended December 31, 2016, which reflected a higher net loss ratio driven by a lower amount of prior year favorable development in our Specialty P&C segment and a lower investment ratio due to a decline in income from our fixed maturity securities.

ROE was 8.0% for the year ended December 31, 2016 and was 5.6% for the year ended December 31, 2015. The increase in 2016 was primarily due to net realized investment gains as compared to net realized investment losses during 2015.

Book Value per Share

We believe our commitment to share repurchases and the declaration of dividends are currently our most effective uses of capital even though, in the short-term, dividends and significant share repurchases above book value dampen growth in book value per share. Our book value per share at December 31, 2016 as compared to December 31, 2015 is shown in the following table.

	Book Value Per Share
Book Value Per Share at December 31, 2015	\$ 36.88
Increase (decrease) to book value per share during the year ended December 31, 2016 attributable to:	
Dividends declared	(5.93)
Cumulative repurchase of shares	(0.47)
Capital management activities	(6.40)
Net income	2.84
Decrease in AOCI	(0.12)
Other	0.58
Book Value Per Share at December 31, 2016	\$ 33.78

Non-GAAP Financial Measures

Non-GAAP operating income is a financial measure that is widely used to evaluate performance within the insurance sector. In calculating Non-GAAP operating income, we have excluded the after-tax effects of the items listed in the following table that do not reflect normal operating results. We believe Non-GAAP operating income presents a useful view of the performance of our insurance operations, however should be considered in conjunction with net income computed in accordance with GAAP.

The following table is a reconciliation of net income to Non-GAAP operating income:

<i>(In thousands, except per share data)</i>	Year Ended December 31	
	2016	2015
Net income	\$ 151,081	\$ 116,197
Items excluded in the calculation of Non-GAAP operating income:		
Net realized investment (gains) losses	(34,875)	41,639
Net realized gains (losses) attributable to SPCs which no profit/loss is retained ⁽¹⁾	2,049	(1,192)
Guaranty fund assessments (recoupments)	153	218
Pre-tax effect of exclusions	(32,673)	40,665
Tax effect, at 35% ⁽²⁾	11,436	(14,233)
Non-GAAP operating income	\$ 129,844	\$ 142,629
Per diluted common share:		
Net income	\$ 2.83	\$ 2.11
Effect of exclusions	(0.40)	0.48
Non-GAAP operating income per diluted common share	\$ 2.43	\$ 2.59

⁽¹⁾ Net realized investment gains (losses) on investments related to our SPCs are recognized in the earnings of our Corporate segment and the portion of earnings related to the gain or loss, net of our participation, is distributed back to the cells through our SPC dividend expense (income). To be consistent with our exclusion of net realized investment gains (losses) recognized in earnings, we are excluding the portion of net realized investment gains (losses) that is included in SPC dividend expense (income).

⁽²⁾ The 35% rate above is the annual expected incremental tax rate associated with the taxable or tax deductible items listed. The effective tax rate applied to these items in calculating net income during 2016 and 2015 was 14.3% and 9.8%, respectively.

Segment Operating Results - Specialty Property & Casualty

Our Specialty P&C segment focuses on professional liability insurance and medical technology liability insurance as discussed in Note 15 of the Notes to Consolidated Financial Statements. Specialty P&C segment operating results reflect pre-tax underwriting profit or loss from these insurance lines, exclusive of investment results, which are included in our Corporate segment. Segment operating results were \$90.1 million for the year ended December 31, 2016 and \$92.1 million for the same respective period of 2015, and included the following:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Net premiums written	\$ 458,681	\$ 442,126	\$ 16,555	3.7 %
Net premiums earned	\$ 457,816	\$ 443,313	\$ 14,503	3.3 %
Other income	5,306	4,561	745	16.3 %
Net losses and loss adjustment expenses	(268,579)	(250,168)	(18,411)	7.4 %
Underwriting, policy acquisition and operating expenses	(104,333)	(105,574)	1,241	(1.2 %)
Segregated portfolio cells dividend (expense) income	(144)	—	(144)	nm
Segment operating results	\$ 90,066	\$ 92,132	\$ (2,066)	(2.2 %)
Net loss ratio	58.7%	56.4%	2.3 pts	
Underwriting expense ratio	22.8%	23.8%	(1.0) pts	

Premiums Written

Changes in our premium volume within our Specialty P&C segment are driven by four primary factors: (1) the amount of new business, (2) our retention of existing business, (3) the premium charged for business that is renewed, which is affected by rates charged and by the amount and type of coverage an insured chooses to purchase and (4) the timing of premium written through multi-period policies. In addition, premium volume may periodically be affected by shifts in the timing of renewals between periods. The healthcare professional liability market, which accounts for a majority of the revenues in this segment, remains challenging as physicians continue joining hospitals or larger group practices and are thus no longer purchasing insurance in the standard market. In addition, some competitors have chosen to compete primarily on price; both factors impact our ability to write new business and retain existing business.

Gross, ceded and net premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Gross premiums written	\$ 535,725	\$ 526,296	\$ 9,429	1.8 %
Less: Ceded premiums written	77,044	84,170	(7,126)	(8.5 %)
Net premiums written	\$ 458,681	\$ 442,126	\$ 16,555	3.7 %

Table of Contents

Gross Premiums Written

Gross premiums written by component were as follows:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Professional liability				
Physicians ⁽¹⁾⁽⁷⁾				
Twelve month term	\$ 344,150	\$ 345,363	\$ (1,213)	(0.4 %)
Twenty-four month term	21,869	29,707	(7,838)	(26.4 %)
Total Physicians	366,019	375,070	(9,051)	(2.4 %)
Healthcare facilities ⁽²⁾⁽⁷⁾	59,361	36,840	22,521	61.1 %
Other healthcare providers ⁽³⁾⁽⁷⁾	33,353	32,503	850	2.6 %
Legal professionals ⁽⁴⁾	25,351	27,879	(2,528)	(9.1 %)
Tail coverages ⁽⁵⁾	18,092	19,520	(1,428)	(7.3 %)
Total professional liability	502,176	491,812	10,364	2.1 %
Medical technology liability ⁽⁶⁾	33,067	33,237	(170)	(0.5 %)
Other	482	1,247	(765)	(61.3 %)
Total	\$ 535,725	\$ 526,296	\$ 9,429	1.8 %

- ⁽¹⁾ Physician policies were our greatest source of premium revenues in both 2016 and 2015. The decline in twelve month term policies in 2016 was primarily due to retention losses, including the non-renewal of a few large policies in 2016, and the shifting of certain policies from a twelve month term to a twenty-four month term, largely offset by new business written. We offer twenty-four month term policies to our physician insureds in one selected jurisdiction. The net decline in twenty-four month premium, as compared to 2015, primarily reflected the normal cycle of renewals (policies subject to renewal in 2016 were previously written in 2014 rather than in 2015).
- ⁽²⁾ Our healthcare facilities premium (which includes hospitals, surgery centers and other facilities) increased in 2016 primarily due to new business written, which includes premiums written in our SPCs (see discussion in footnote 7 below). In addition, the increase also reflected a novation agreement entered into during the fourth quarter of 2016. A novation represents a legal replacement of one insurer by another extinguishing the ceding entity's liability to the policyholder. The novation resulted in approximately \$11.8 million of one-time gross premiums written and earned at the inception of the agreement as all the underlying loss events covered by the policy occurred in the past. The increase was partially offset by retention losses, including the non-renewal of one large policy in the first quarter of 2016.
- ⁽³⁾ Our other healthcare providers are primarily dentists, chiropractors and allied health professionals.
- ⁽⁴⁾ Our legal professionals policies are primarily individual and small group policies in select areas of practice. The decline in 2016 was primarily due to retention losses, partially offset by new business written. Retention losses were primarily driven by an increase in renewal pricing in certain jurisdictions as well as stricter underwriting standards.
- ⁽⁵⁾ We offer extended reporting endorsement or "tail" coverage to insureds who discontinue their claims-made coverage with us, and we also periodically offer tail coverage through custom policies. The amount of tail coverage premium written can vary widely from period to period.
- ⁽⁶⁾ Our medical technology liability business is marketed throughout the U.S.; coverage is offered on a primary basis, within specified limits, to manufacturers and distributors of medical technology and life sciences products including entities conducting human clinical trials. In addition to the previously listed factors that affect our premium volume, our medical technology liability premium volume is impacted by the sales volume of insureds. The slight decline in 2016 was primarily driven by retention losses and, to a lesser extent, a decrease in the rate charged for certain renewed policies, almost entirely offset by new business written.
- ⁽⁷⁾ During 2016, we expanded our alternative market solutions by writing new healthcare premium in certain SPCs. We added approximately \$4.1 million in healthcare professional liability premium during the year ended 2016 which included \$1.2 million written in our physicians line of business, \$2.9 million in our healthcare facilities line of business and a nominal amount written in our other healthcare providers line of business. All or a portion of the premium written was ceded to the SPCs at our wholly owned Cayman Islands reinsurance subsidiary, Eastern Re. Under the SPC structure, the net operating results of each cell, net of any participation we have taken in the SPCs, are due to the external owners of that cell. Our Specialty P&C segment does not currently participate in the cells that write HCPL premium, and therefore retains no underwriting profit or loss. However, we receive ceding commissions on the

Table of Contents

premium written which totaled \$0.7 million during the year ended December 31, 2016. Additional information regarding the SPCs is included in the Underwriting, Policy Acquisition and Operating Expense section that follows.

New business written by component on a direct basis was as follows:

<i>(In millions)</i>	Year Ended December 31	
	2016	2015
Physicians	\$ 32.8	\$ 23.0
Healthcare facilities	17.4	5.9
Other healthcare providers	3.4	2.3
Legal professionals	3.8	4.5
Medical technology liability	5.1	3.7
Total	\$ 62.5	\$ 39.4

We calculate our retention rate as annualized renewed premium divided by all annualized premium subject to renewal. Retention rates are affected by a number of factors. We may lose insureds to competitors or to alternative insurance mechanisms such as risk retention groups or self-insurance entities (often when physicians join hospitals or large group practices) or due to pricing or other issues. We may choose not to renew an insured as a result of our underwriting evaluation. Insureds may also terminate coverage because they have left the practice of medicine for various reasons, principally for retirement, death or disability, but also for personal reasons.

Retention by component was as follows:

	Year Ended December 31	
	2016	2015
Physicians	88%	89%
Healthcare facilities*	79%	85%
Other healthcare providers	85%	85%
Legal professionals	78%	78%
Medical technology liability	85%	81%

* See Gross Premiums Written section above for further explanation of retention decline in 2016.

The pricing of our business includes the effects of filed rates, surcharges and discounts. We continue to base our pricing on expected losses, as indicated by our historical loss data and available industry loss data. We are committed to a rate structure that will allow us to fulfill our obligations to our insureds, while generating competitive returns for our shareholders.

Changes in renewal pricing by component was as follows:

	Year Ended December
	31
	2016
Physicians	—%
Healthcare facilities*	6%
Other healthcare providers*	1%
Legal professionals	5%
Medical technology liability*	(1%)

* The changes in renewal pricing shown are also reflective of changes in our exposure base, deductibles, self-insurance retention limits and other policy terms.

Table of Contents

Ceded Premiums Written

Ceded premiums represent the amounts owed to our reinsurers for their assumption of a portion of our losses. Through our current excess of loss reinsurance arrangements we retain the first \$1 million in risk insured by us and cede coverages in excess of this amount. For our medical technology liability coverages, we also retain 20% of the next \$9.0 million of risk for coverages in excess of \$1.0 million. We pay our reinsurers a ceding premium in exchange for their accepting the risk, the ultimate amount of which is determined by the loss experience of the business ceded, subject to certain minimum and maximum amounts.

Ceded premiums written for the years ended December 31, 2016 and 2015 were as follows:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Excess of loss reinsurance arrangements ⁽¹⁾	\$ 30,037	\$ 32,627	\$ (2,590)	(7.9 %)
Premium ceded to Syndicate 1729 ⁽²⁾	23,832	24,718	(886)	(3.6 %)
Other shared risk arrangements ⁽³⁾	26,737	24,401	2,336	9.6 %
Other ceded premiums written	3,521	3,542	(21)	(0.6 %)
Reduction in premiums owed under reinsurance agreements, prior accident years, net ⁽⁴⁾	(7,083)	(1,118)	(5,965)	533.5 %
Total ceded premiums written	\$ 77,044	\$ 84,170	\$ (7,126)	(8.5 %)

- ⁽¹⁾ We generally reinsure risks under our excess of loss reinsurance arrangements pursuant to which the reinsurers agree to assume all or a portion of all risks that we insure above our individual risk retention levels, up to the maximum individual limits offered. The decrease in ceded premiums written under our excess of loss reinsurance arrangements during 2016 was primarily due to more favorable contract terms on our 2015 core treaty which renewed in October 2016 with similar terms.
- ⁽²⁾ As previously discussed, we are a 58% participant in Syndicate 1729 and record our pro rata share of its operating results in our Lloyd's Syndicate segment on a quarter delay. We also record the cession within the Specialty P&C segment on a quarter delay as the amounts are not material and this permits the cession to be reported by both the Lloyd's Syndicate segment and the Specialty P&C segment in the same reporting period. As our premiums are earned, we recognize the related ceding commission income which reduces underwriting expense by offsetting DPAC amortization. The related ceding commission income was approximately 27% of ceded premiums written. For our consolidated results, eliminations of the inter-segment portion (58% of the Specialty P&C cession) of the transactions are also recorded on a quarter delay.
- ⁽³⁾ We have entered into various shared risk arrangements, including quota share, fronting, and captive arrangements, with certain large healthcare systems and other insurance entities. While we cede a large portion of the premium written under these arrangements, they provide us an opportunity to grow net premium through strategic partnerships. The increase in 2016 was primarily driven by growth in our Ascension Health and CAPAssurance programs.
- ⁽⁴⁾ Given the length of time that it takes to resolve our claims, many years may elapse before all losses recoverable under a reinsurance arrangement are known. As a part of the process of estimating our loss reserve we also make estimates regarding the amounts recoverable under our reinsurance arrangements. As previously discussed, the premiums ultimately ceded under our excess of loss reinsurance arrangements are subject to the losses ceded under the arrangements. In both 2016 and 2015, on a net basis, we reduced our estimate of expected losses and associated recoveries for prior year ceded losses, as well as our estimate of ceded premiums owed to reinsurers. Changes to estimates of premiums ceded related to prior accident years are fully earned in the period the changes in estimates occur.

Table of Contents

Ceded Premiums Ratio

As shown in the table below, our ceded premiums ratio was affected in both 2016 and 2015 by revisions to our estimate of premiums owed to reinsurers related to coverages provided in prior accident years.

	Year Ended December 31		
	2016	2015	Change
Ceded premiums ratio, as reported	14.4%	16.0%	(1.6) pts
Less the effect of reduction in premiums owed under reinsurance agreements, prior accident years (as previously discussed)	(1.3%)	(0.2%)	(1.1) pts
Ratio, current accident year	15.7%	16.2%	(0.5) pts

The decrease in the current accident year ceded premiums ratio for the year ended December 31, 2016 was primarily attributable to more favorable treaty terms in our excess of loss reinsurance arrangements and the effect of an increase in premium volume driven by a fourth quarter 2016 novation (as discussed above under the heading "Gross Premiums Written"). This reduction to the ratio was partially offset by an increase in premium ceded under our shared risk arrangements.

Net Premiums Earned

Net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Gross premiums earned	\$ 535,931	\$ 528,118	\$ 7,813	1.5 %
Less: Ceded premiums earned	78,115	84,805	(6,690)	(7.9 %)
Net premiums earned	\$ 457,816	\$ 443,313	\$ 14,503	3.3 %

Net premiums earned consist of gross premiums earned less the portion of earned premiums that we cede to our reinsurers for their assumption of a portion of our losses. Because premiums are generally earned pro rata over the entire policy period, fluctuations in premiums earned tend to lag those of premiums written. Generally, our policies carry a term of one year, but as discussed above, we write certain policies with a twenty-four month term, and certain of our medical technology liability policies carry a multi-year term. Tail coverage premiums are generally 100% earned in the period written because the policies insure only incidents that occurred in prior periods and are not cancellable. Additionally, ceded premium changes due to changes to estimates of premiums owed under reinsurance agreements for prior accident years are fully earned in the period of change.

The increase in gross premiums earned in 2016 was driven by a large novation during the fourth quarter 2016, as discussed above under the heading "Gross Premiums Written", partially offset by the pro rata effect of the lower physician premiums written during the preceding twelve months. In addition, prior accident year ceded premiums reductions were \$6.0 million higher in 2016 than in 2015 (see discussion under the heading "Ceded Premiums Written").

Losses and Loss Adjustment Expenses

The determination of calendar year losses involves the actuarial evaluation of incurred losses for the current accident year and the actuarial re-evaluation of incurred losses for prior accident years, including an evaluation of the reserve amounts required for losses in excess of policy limits.

Accident year refers to the accounting period in which the insured event becomes a liability of the insurer. For claims-made policies, which represent over 90% of the premiums written in our Specialty P&C segment, the insured event generally becomes a liability when the event is first reported to the insurer. For occurrence policies the insured event becomes a liability when the event takes place. We believe that measuring losses on an accident year basis is the best measure of the underlying profitability of the premiums earned in that period, since it associates policy premiums earned with the estimate of the losses incurred related to those policy premiums.

The following table summarizes calendar year net loss ratios by separating losses between the current accident year and all prior accident years. Additionally, the table shows our current accident year net loss ratio was affected by revisions to our estimate of premiums owed to reinsurers related to coverages provided in prior accident years. Net loss ratios for 2016 and 2015 compare as follows:

	Net Loss Ratios ⁽¹⁾		
	Year Ended December 31		
	2016	2015	Change
Calendar year net loss ratio	58.7%	56.4%	2.3 pts
Less impact of prior accident years on the net loss ratio	(29.9%)	(35.9%)	6.0 pts
Current accident year net loss ratio	88.6 %	92.3 %	(3.7) pts
Less estimated ratio increase (decrease) attributable to:			
Ceded premium reductions, prior accident years ⁽²⁾	(1.4%)	(0.2%)	(1.2) pts
Current accident year net loss ratio, excluding the effect of prior year ceded premium ⁽³⁾	90.0 %	92.5 %	(2.5) pts

⁽¹⁾ Net losses, as specified, divided by net premiums earned.

⁽²⁾ Reductions to premiums owed under reinsurance agreements for prior accident years increased net premiums earned (the denominator of the current accident year ratio) in both 2016 and 2015. See the discussion in the Premiums section for our Specialty P&C segment under the heading "Ceded Premiums Written" for additional information.

⁽³⁾ The decrease in the current accident year net loss ratio primarily reflected changes in expected loss costs related to mass tort litigation and, to a lesser extent, changes in the mix of business. While we increased our reserves related to mass tort litigation in both 2016 and 2015 the increase was substantially less in 2016, resulting in approximately 1.9 percentage points of the decrease. Slightly offsetting the decrease by approximately 0.4 percentage points was the effect of a novation (net premiums earned at a high loss ratio) entered into during the fourth quarter 2016. Additional information regarding the novation is included in the Premiums section for our Specialty P&C segment under the heading "Gross Premiums Written."

We recognized net favorable loss development related to our previously established reserve of \$137.2 million and \$159.0 million for the years ended December 31, 2016 and 2015, respectively. The net favorable loss development in 2016 and 2015 included \$12.0 million and \$11.8 million, respectively, attributable to our medical technology liability line of business and \$9.4 million and \$1.0 million, respectively, attributable to our legal professionals liability line of business. We re-evaluate our previously established reserve each quarter based on our most recently available claims data and currently available industry trend information. Development recognized during 2016 principally related to accident years 2008 through 2014. Development recognized during 2015 principally related to accident years 2008 through 2012.

A detailed discussion of factors influencing our recognition of loss development is included in our Critical Accounting Estimates section under the heading "Reserve for Losses and Loss Adjustment Expenses." Assumptions used in establishing our reserve are regularly reviewed and updated by management as new data becomes available. Any adjustments necessary are reflected in the then current operations. Due to the size of our reserve, even a small percentage adjustment to the assumptions can have a material effect on our results of operations for the period in which the change is made, as was the case in both 2016 and 2015.

Underwriting, Policy Acquisition and Operating Expenses

Specialty P&C segment Underwriting, policy acquisition and operating expenses for 2016 and 2015 were comprised as follows:

(\$ in thousands)	Year Ended December 31		
	2016	2015	Change
Specialty P&C segment:			
DPAC amortization	\$ 45,019	\$ 45,459	\$ (440) (1.0 %)
Management fees	6,447	6,931	(484) (7.0 %)
Other underwriting and operating expenses	52,867	53,184	(317) (0.6 %)
Total	<u>\$ 104,333</u>	<u>\$ 105,574</u>	<u>\$ (1,241) (1.2 %)</u>

DPAC amortization decreased \$0.4 million in 2016 as compared to 2015. The decrease is primarily due to the effect of a \$1.2 million increase in ceding commission income, which is an offset to expense. Increases in commission expense related to business written by our independent agents offsets increases in ceding commission income and, for the period, reduced the increase in ceding commission income almost entirely.

Management fees are charged pursuant to a management agreement by the Corporate segment to the operating subsidiaries within our Specialty P&C segment for services provided, based on the extent to which services are provided to the subsidiary and the amount of premium written by the subsidiary. While the terms of the management agreement were consistent between 2016 and 2015, fluctuations in the amount of premium written by each subsidiary can result in corresponding variations in the management fee charged to each subsidiary during a particular period.

Other underwriting and operating expenses decreased slightly during 2016 with no individually significant variances by expense category.

Underwriting Expense Ratio (the Expense Ratio)

The underwriting expense ratio for the Specialty P&C segment reflects a decrease in 2016 as compared to 2015, as shown below:

	Year Ended December 31		
	2016	2015	Change
Underwriting expense ratio	22.8%	23.8%	(1.0) pts

The decrease in the underwriting expense ratio for 2016 is primarily reflective of the effect of an increase in net earned premium, primarily attributable to a fourth quarter 2016 novation (as discussed in the Premiums section for our Specialty P&C segment under the heading "Gross Premiums Written"), and to a lesser extent by the effect of the previously discussed reduction in DPAC amortization.

Segregated Portfolio Cell Dividend Expense (Income)

During 2016 we expanded our alternative market solutions by writing HCPL premium in three SPCs at Eastern Re. Consistent with the SPC structure discussed in our Workers' Compensation segment, the net operating results of each cell, net of any participation we have taken in the SPCs, are due to the external owners of that cell. Our Specialty P&C segment does not currently participate in the cells that write HCPL premium, and therefore retains no underwriting profit or loss. SPC dividend expense (income) was \$0.1 million for 2016. There was no SPC dividend expense (income) for Specialty P&C during 2015. See the Underwriting, Policy Acquisition and Operating Expense section in our Workers' Compensation segment results for more information on our SPCs.

Segment Operating Results - Workers' Compensation

Our Workers' Compensation segment provides traditional workers' compensation insurance products to employers with 1,000 or fewer employees and alternative market solutions, as discussed in Note 15 to the Notes to Consolidated Financial Statements. Segment operating results reflect pre-tax underwriting profit or loss, which includes SPC dividend expense (income) and excludes investment results which are included in our Corporate segment. Segment operating results included the following:

<i>(\$ in thousands)</i>	Year Ended December 31			
	2016	2015	<i>Change</i>	
Net premiums written	\$ 223,578	\$ 218,338	\$ 5,240	2.4 %
Net premiums earned	\$ 220,815	\$ 213,161	\$ 7,654	3.6 %
Other income	844	492	352	71.5 %
Net losses and loss adjustment expenses	(140,534)	(140,744)	210	(0.1 %)
Underwriting, policy acquisition and operating expenses	(70,464)	(63,653)	(6,811)	10.7 %
Segregated portfolio cells dividend (expense) income ⁽¹⁾	(4,762)	(1,884)	(2,878)	152.8 %
Segment operating results	\$ 5,899	\$ 7,372	\$ (1,473)	(20.0 %)
Net loss ratio				
Traditional business	66.5%	65.5%	1.0 pts	
Alternative market business	55.7%	67.5%	(11.8) pts	
Segment results	63.6%	66.0%	(2.4) pts	
Underwriting expense ratio				
Traditional business	32.2%	29.4%	2.8 pts	
Alternative market business	31.0%	31.4%	(0.4) pts	
Segment results	31.9%	29.9%	2.0 pts	

⁽¹⁾ Represents the underwriting (profit) loss attributable to the alternative market business ceded to the SPCs at Eastern Re, net of our participation.

[Table of Contents](#)

Premiums Written

Our workers' compensation premium volume is driven by four primary factors: (1) the amount of new business written, (2) audit premium, (3) retention of our existing book of business, and (4) premium rates charged on our renewal book of business.

Gross, ceded and net premiums written were as follows:

<i>(\$ in thousands)</i>	Year Ended December 31			
	2016	2015	<i>Change</i>	
Gross premiums written				
Traditional business*	\$ 172,025	\$ 172,977	\$ (952)	(0.6 %)
Alternative market business	75,915	70,631	5,284	7.5 %
Segment results	247,940	243,608	4,332	1.8 %
Less: Ceded premiums written				
Traditional business	9,446	10,307	(861)	(8.4 %)
Alternative market business*	14,916	14,963	(47)	(0.3 %)
Segment results	24,362	25,270	(908)	(3.6 %)
Net premiums written				
Traditional business	162,579	162,670	(91)	(0.1 %)
Alternative market business	60,999	55,668	5,331	9.6 %
Segment results	\$ 223,578	\$ 218,338	\$ 5,240	2.4 %

* Traditional gross premiums written and alternative market ceded premiums written for 2016 are reported net of alternative market premiums assumed by our traditional business totaling \$0.9 million

Our traditional workers' compensation insurance products include guaranteed cost, dividend, deductible, and retrospectively-rated policies. Our alternative market business is 100% ceded to either the SPCs at our wholly owned Cayman Islands reinsurance subsidiary, Eastern Re, or to unaffiliated captive insurers. As of December 31, 2016, there were 23 (20 active) SPCs at Eastern Re and four active alternative market programs with unaffiliated captive insurers. We added a new alternative market program with an unaffiliated captive insurer during the first quarter of 2016 with direct premiums written of \$1.9 million for the year ended December 31, 2016.

Additional information regarding the structure of the SPCs is included in the Underwriting, Policy Acquisition and Operating Expense section that follows.

Table of Contents

Gross Premiums Written

Gross premiums written in our traditional and alternative market business for the years ended December 31, 2016 and 2015 are reflected in the table on the previous page. Gross premiums written increased in 2016, driven by growth in our alternative market business. Our traditional business premium written was relatively flat in 2016, which reflected the competitive environment in the geographic markets in which we operate. We retained all 23 of the available alternative market programs up for renewal for the year ended December 31, 2016.

New business, audit premium, retention and renewal price changes for both the traditional business and the alternative market business are shown in the table below:

(\$ in millions)	Year Ended December 31					
	2016			2015		
	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results
New business	\$ 22.8	\$ 10.2	\$ 33.0	\$ 28.1	\$ 10.2	\$ 38.3
Audit premium (including EBUB)	\$ 5.2	\$ 1.1	\$ 6.3	\$ 5.9	\$ 0.9	\$ 6.8
Retention rate ⁽¹⁾	84 %	88 %	85 %	81%	89%	83%
Change in renewal pricing ⁽²⁾	(1%)	(1%)	(1%)	1%	2%	1%

⁽¹⁾ We calculate our workers' compensation retention rate as annualized expiring renewed premium divided by all annualized expiring premium subject to renewal. Our retention rate can be impacted by various factors, including price or other competitive issues, insureds being acquired, or a decision not to renew based on our underwriting evaluation.

⁽²⁾ The pricing of our business includes an assessment of the underlying policy exposure and the effects of current market conditions. We continue to base our pricing on expected losses, as indicated by our historical loss data. Changes in the renewal rate reflected the competitive workers' compensation environment.

Table of Contents

Ceded Premiums Written

Ceded premiums written reflected our external reinsurance programs and alternative market business ceded to unaffiliated captive insurance companies.

Ceded premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Premiums ceded to external reinsurers				
Traditional business	\$ 10,255	\$ 9,922	\$ 333	3.4 %
Alternative market business	7,258	7,205	53	0.7 %
Segment results	17,513	17,127	386	2.3 %
Change in return premium estimate under external reinsurance				
Traditional business	(809)	385	(1,194)	(310.1 %)
Alternative market business	—	—	—	nm
Segment results	(809)	385	(1,194)	(310.1 %)
Premiums ceded to an unaffiliated captive insurer				
Traditional business	—	—	—	nm
Alternative market business	7,658	7,758	(100)	(1.3 %)
Segment results	7,658	7,758	(100)	(1.3 %)
Total ceded premiums written				
Traditional business	9,446	10,307	(861)	(8.4 %)
Alternative market business	14,916	14,963	(47)	(0.3 %)
Segment results	\$ 24,362	\$ 25,270	(908)	(3.6 %)

We retain the first \$0.5 million in risk insured by us on our traditional business and cede losses in excess of this amount on each loss occurrence under our primary external reinsurance contract. The traditional external reinsurance contract contains a return premium provision under which we estimate return premium based on the underlying loss experience of policies covered under the contract. Changes in the return premium estimate reflect the loss experience under the reinsurance contract for the years ended December 31, 2016 and 2015. In our alternative market business, the risk retention for each loss occurrence ranges from \$0.3 million to \$0.35 million based on the alternative market program. We cede 100% of premiums written under four alternative market programs to unaffiliated captive insurers.

Premiums ceded to external reinsurers in our traditional business increased during the year ended December 31, 2016, which primarily reflected an increase in reinsurance rates for the contract year effective May 1, 2016.

The increase in the return premium estimate for the year ended December 31, 2016 primarily reflected loss experience under the current reinsurance contract year effective May 1, 2016. The decrease in the return premium estimate for the year ended December 31, 2015 primarily reflected 2015 traditional ceded incurred losses as discussed below (including \$4.9 million related to the 2015 accident year), partially offset by favorable loss experience on contract years prior to 2014.

The workers' compensation segment has experienced an increase in severity related claims, which has resulted in an increase in losses ceded under our external reinsurance contract. Calendar year ceded incurred losses in both our traditional and alternative market business totaled \$35.6 million for the year ended December 31, 2016 as compared to \$12.6 million for 2015. In our traditional business, ceded incurred losses totaled \$20.7 million and \$7.9 million for the years ended December 31, 2016 and 2015, respectively. The increase in traditional ceded losses in 2016 primarily reflected 3 loss occurrences totaling \$12.4 million. The increase in our traditional reinsurance rate primarily reflected the increase in claim severity. Additionally, we have not accrued any return premium for the 2014 or 2015 reinsurance contract years as a result of the increase in ceded losses.

The decrease in premiums ceded to unaffiliated captive insurers during the year ended December 31, 2016 primarily reflected the non-renewal of accounts for underwriting reasons, partially offset by the new alternative market program in the first quarter of 2016 as discussed above.

Table of Contents

Ceded Premiums Ratio

Ceded premiums ratio was as follows:

	Year Ended December 31					
	2016			2015		
	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results
Ceded premiums ratio, as reported	5.5%	19.6%	9.8%	6.0%	21.2%	10.4%
Less the effect of:						
Return premium estimated under external reinsurance	(0.5%)	—%	(0.3%)	0.2%	—%	0.2%
Premiums ceded to unaffiliated captive insurer (100%)	—%	9.0%	2.9%	—%	9.7%	2.9%
Ceded premiums ratio, less the effects of above	6.0%	10.6%	7.2%	5.8%	11.5%	7.3%

Per our reinsurance agreements, we cede premiums related to our traditional business on an earned premium basis, whereas alternative market premiums are ceded on a written premium basis. The increase in the traditional ceded premiums ratio, less the effect of return premiums, in 2016 as compared to 2015 reflected the increase in reinsurance rates previously discussed. The decrease in the alternative markets ceded premiums ratio in 2016 as compared to 2015 primarily reflected the impact of the premiums ceded to and assumed by the traditional business.

Net Premiums Earned

Net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31			
	2016	2015	Change	
Gross premiums earned				
Traditional business*	\$ 170,492	\$ 172,115	\$ (1,623)	(0.9%)
Alternative market business	75,658	66,168	9,490	14.3%
Segment results	246,150	238,283	7,867	3.3%
Less: Ceded premiums earned				
Traditional business	9,446	10,859	(1,413)	