



PROASSURANCE[®]
Treated Fairly

2022
Annual
Report

Financial Highlights

FISCAL YEARS ENDED DECEMBER 31

	2022	2021	2020	2019	2018
Income Statement Highlights					
	(in thousands)				
Gross premiums written	\$1,103,993	\$ 960,024	\$ 854,422	\$ 967,490	\$ 957,311
Net premiums earned	\$1,029,581	\$ 971,668	\$ 792,715	\$ 847,532	\$ 818,853
Total revenues	\$1,106,688	\$1,124,410	\$ 874,940	\$ 999,834	\$ 886,030
Net losses and loss adjustment expenses	\$ 776,762	\$ 752,249	\$ 661,447	\$ 753,915	\$ 593,210
Net income (loss) ⁽¹⁾	\$ (402)	\$ 144,124	\$ (175,727)	\$ 1,004	\$ 47,057
Non-GAAP operating income (loss) ⁽²⁾	\$ 24,509	\$ 75,892	\$ (27,741)	\$ (43,779)	\$ 79,527
Balance Sheet Highlights					
Total investments	\$4,387,683	\$4,828,323	\$3,389,345	\$3,390,409	\$3,349,382
Total assets	\$5,699,999	\$6,191,477	\$4,654,803	\$4,805,599	\$4,600,726
Reserve for losses and loss adjustment expenses	\$3,471,147	\$3,579,940	\$2,417,179	\$2,346,526	\$2,119,847
Debt less unamortized debt issuance costs	\$ 426,983	\$ 424,986	\$ 284,713	\$ 285,821	\$ 287,757
Total liabilities	\$4,595,981	\$4,763,090	\$3,305,593	\$3,293,686	\$3,077,724

(1) The 2021 Net Income includes a \$74.4 million gain on bargain purchase related to closing the acquisition of NORCAL Insurance Company. The 2020 Net Loss includes a pre-tax net underwriting loss of approximately \$45.7 million associated with a tail policy issued to a large national healthcare account and a pre-tax \$10 million pandemic-related reserve IBNR, both of which were recorded in the second quarter of 2020, and a \$161 million goodwill impairment charge recorded in the third quarter of 2020.

(2) A reconciliation of Net Income (Loss) to Non-GAAP Operating Income (Loss) is provided in Appendix A to the ProAssurance Form 10-K included with this mailing to shareholders.

DEAR SHAREHOLDERS,

2022 was a year focused on executing our strategic plan and continuing to build a solid foundation for the future. I am proud of what our team accomplished, including the notable milestone of written premium that topped \$1 billion for the first time in our history. While the continued integration of NORCAL was a focal point of our efforts, we accomplished much more. We continued to drive for rate adequacy across our Specialty P&C segment as we responded to very competitive markets across all of our business lines. We were pleased to fully reopen our offices while accommodating a flexible work environment for our team members. Our efforts to keep our employees at the center of all we do led to hiring our first program manager for Diversity, Equity, and Inclusion as well as the development of a new health and wellness platform and employee recognition program.

In 2022, we also continued to consolidate back-office systems that have accumulated at ProAssurance due to the significant number of acquisitions made over the Company's history. Streamlining processes and bringing greater consistency to the tools we use allows us to be more nimble, efficient, and effective in serving our stakeholders.

We have largely emerged from Covid-related labor market disruptions, and job vacancies (which reached an all-time high in 2021) have normalized as of year-end 2022. The initial stages of re-opening our offices presented many challenges, as worker mobility increased significantly due to the prevalence of remote-worker arrangements. Wage increases and a very low unemployment rate in the insurance industry added to the difficulty of filling open positions. We have improved our recruiting and

retention efforts by offering new programs to enhance team member enjoyment, adding to existing benefits we provide our team members, and designing hybrid work programs that provide flexibility to our team members; we have done these things while facilitating the personal interaction that is essential to building a cohesive organization.

We look back on 2022 grateful for the progress we made but knowing that we have challenges to address in 2023 and beyond.

OUR MARKETS TODAY... NEED US MORE THAN EVER

The US medical professional liability market continues to face hurdles brought about by the internal workings of the market as well as broader changes affecting society in general. The AM Best market segment report for MPL published in

The ProAssurance Mission: We Protect Others.

Our Core Values:

*Integrity
Leadership
Relationships
Enthusiasm*

2022 called out a number of challenges for the industry, including:

- Acceleration of telehealth and its potential liability issues
- Cyber security
- Consolidation of healthcare delivery
- Rising medical inflation
- Weakening of tort reform gains
- Higher reinsurance costs
- Increasing responsibility for nurses and expansion of their risk profiles
- Social inflation and its impact on jury verdicts

While the number and scope of the challenges are significant, the current environment provides ProAssurance an opportunity to play a critical role in addressing these issues. In times like these our industry is acutely needed, and the professionals that we serve depend

on us more than ever to understand and provide solutions for the increasing risks they face.

The challenges are not confined to the medical professional liability market, as headwinds also exist in workers' compensation insurance. While claims cost trends have been lower in workers' compensation than in MPL insurance, the potential for social inflation to adversely affect those trends remains. Changing employment patterns can lead to workers receiving less training, and less experienced workers or those new to a particular industry are typically at greater risk for injury.

Many of the companies serving our markets today were created in times of difficulty; ProAssurance has its own origin in a medical liability crisis over five decades ago. We were created for the very purpose of *Protecting Others* in the turbulent sort of environment in which we find ourselves today. We know that our customers rely on us to provide strength and calm in their time of greatest need, no matter how difficult or challenging the environment may be. That's what ProAssurance was formed to do, and we continue to do it every single day.

\$1.10
BILLION
RECORD
GROSS
PREMIUMS
WRITTEN

\$1.03
BILLION
NET
PREMIUMS
EARNED

CLAIMS-PAYING RATING

A.M. BEST: A (Excellent)
Fitch: A- (Strong)

Business Unit	Lines of Business
HCPL	Healthcare professional liability
Medmarc	Medical technology liability
Small Business Unit	Podiatrists, chiropractors, dentists, and lawyers
Eastern	Workers' Compensation & captive facilities (all lines)
PRA Corporate	Corporate functions

THE WAY FORWARD

As we face head-on the challenges of the present time, we never lose sight of our key mission:

We Protect Others, and our core values of **Integrity, Leadership, Relationships, and Enthusiasm**. Each of these is vitally important to providing solutions and pointing the way forward for those we serve.

In the **Specialty Property and Casualty** segment we will seek to advance our mission and values through a number of focused efforts, including:

- Completing the NORCAL integration and systems consolidation by year-end 2023; consolidating all HCPL business onto a single underwriting and claims system platform
- Building out our data science and predictive analytics strategy, transforming the actuarial team into a leader in data analytics
- Launching a next-generation online portal for our policyholders and agency partners, enhancing their experience via self-service options and access to policy and payment details

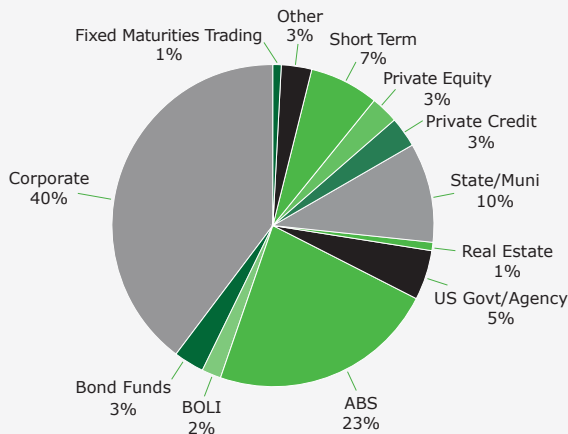
For our **Workers' Compensation Insurance** and **Segregated Portfolio Cell Reinsurance** teams, our goals are to:



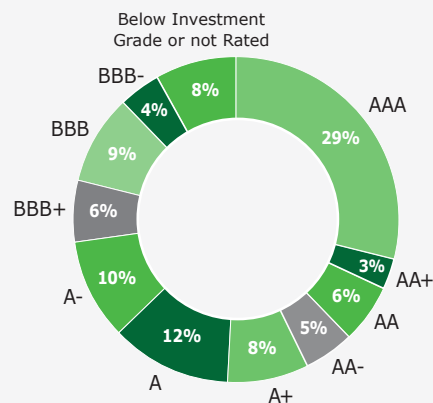
Edward L. Rand, Jr.
President and Chief Executive Officer

- Implement a powerful and fully-integrated new system for policy, claims, risk management, and billing administration
- Proactively manage our product mix by writing a majority of our premium in high ROE products
- Leverage our capability in the Segregated Portfolio Cells to place workers' compensation and medical professional liability in a single SPC

Total Investments
\$4.39 Billion



Fixed Maturity Credit Quality



The **Corporate Segment** will support our business success by:

- Continuing to manage the investment strategy and portfolio to meet the challenges of the current market, with an emphasis on increasing investment income
- Executing a statutory consolidation strategy to reduce expenses and regulatory costs, improve productivity, increase efficiencies, and streamline operations

We look forward to meeting every challenge that 2023 will bring. The many concerns facing our industry provide us a perfect opportunity to improve our operations, find creative solutions, and partner with our existing stakeholders and those we will engage in our pursuit of excellence.

Our ProAssurance team members, who serve our communities in countless ways, will continue to pursue the relentless commitment to excellence for which ProAssurance is known.

I am eager to see all that we will achieve as a result of our planned initiatives throughout 2023 and beyond. Thank you for your confidence in us and the mission that we are determined to accomplish.

Sincerely,



Ned Rand
President and Chief Executive Officer

OUR PROASSURANCE BRANDS

Specialty P&C

Healthcare Professional Liability



Medical Technology & Life Sciences Products Liability



Legal Professional Liability



Workers' Compensation



Alternative Risk Transfer



COMMITTEES

Board of Directors	Independence	Audit	Compensation	Executive	Nominating & Corporate Governance
Bruce D. Angiolillo - Chairman Retired Partner, Simpson Thacher & Bartlett LLP	I			C	
Kedrick D. Adkins, Jr. Retired Chief Financial Officer, Mayo Clinic	I	C, E			
Fabiola Cobarrubias, M.D. Practicing Physician Founder & CEO, Pacific Inpatient Medical Group	I	M			
Samuel A. Di Piazza, Jr. Chairman, Warner Bros. Discovery, Inc. Retired Global CEO, PricewaterhouseCoopers	I	M		M	
Maye Head Frei Former Chairman, Ram Tool Construction Supply Company	I		C		
M. James Gorrie President & CEO, Brasfield & Gorrie	I				M
Ziad R. Haydar, M.D. Chief Medical Officer, Alpine Physicians Partners Retired Chief Clinical Officer, Ascension	I		M		
Edward L. Rand, Jr. President & CEO, ProAssurance	N			M	
Frank A. Spinosa, D.P.M. Practicing Podiatrist Past President, American Podiatric Medical Association	I				M
Scott C. Syphax President, Syphax Strategic Solutions Former Chairman & CEO, Nehemiah Companies	I		M		
Katisha T. Vance, M.D. Practicing Physician Past President, Jefferson County Medical Society	I				C
Thomas A. S. Wilson, Jr., M.D. Retired Physician	I				M

Management, Non-Independent = N Independent = I Member = M Chairman = C Financial Expert = E

Executive Officers

Edward L. Rand, Jr.
President and Chief Executive Officer
ProAssurance Corporation

Michael L. Boguski
President, Specialty P&C

Noreen L. Dishart
Executive Vice President and
Chief Human Resources Officer
ProAssurance Corporation

Dana S. Hendricks
Executive Vice President and
Chief Financial Officer
ProAssurance Corporation

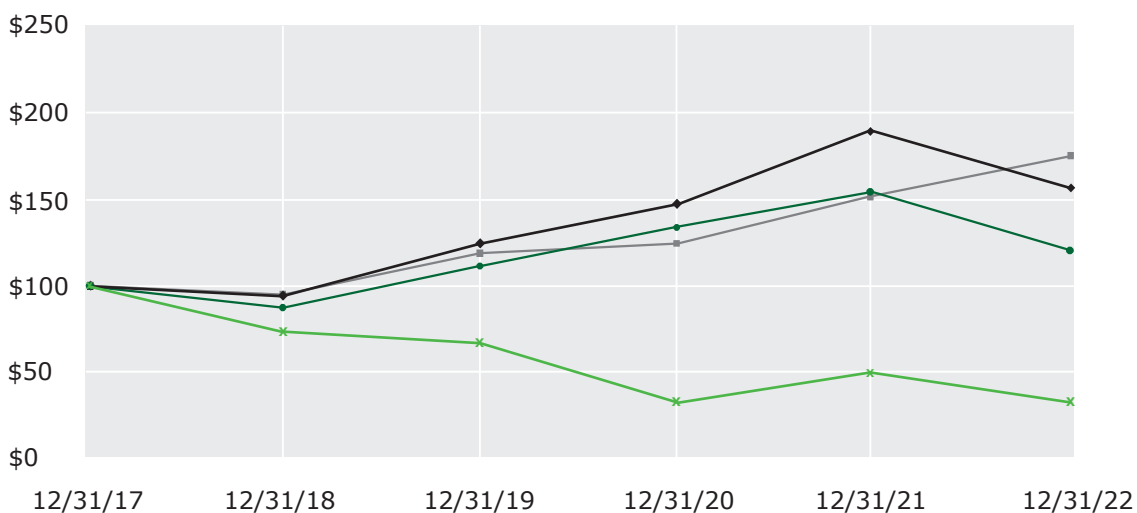
Jeffrey P. Lisenby
Executive Vice President, Corporate
Secretary, and General Counsel
ProAssurance Corporation

Kevin M. Shook
President, Workers' Compensation
Insurance and Segregated Portfolio
Cell Reinsurance

Stock Price Performance

You may use the following information to compare the market value of our Common Stock with other public companies and public companies in the insurance industry. The graph shows the cumulative total shareholder return of our stock, as well as the cumulative total shareholder return of the Russell 2000 Index and the S&P Composite 1500 Property & Casualty Index for the five years ended December 31, 2022. We have also included the Standard & Poor's 500 Index in this graph because it is a recognizable broad index.

Total Return Performance



INDEX	PERIOD ENDING (IN \$)						
	12/31/17	12/31/18	12/31/19	12/31/20	12/31/21	12/31/22	
—x— ProAssurance Corporation	100.00	74.07	68.22	34.33	49.22	34.32	
—◆— S&P 500 Index	100.00	95.62	125.73	148.87	191.60	156.90	
—●— Russell 2000 Index	100.00	88.99	111.70	134.00	153.85	122.41	
—■— S&P 1500 P&C Index	100.00	96.65	120.18	126.66	151.45	173.86	

Source: S&P Global Market Intelligence, Bloomberg, and ycharts.com
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**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

For the fiscal year ended December 31, 2022,

or

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

For the transition period from _____ to _____.

Commission file number: 001-16533

ProAssurance Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction 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:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.01 per share	PRA	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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes No

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, 2022 was \$1,261,668,461. As of February 22, 2023, the registrant had outstanding approximately 53,964,169 shares of its common stock.

Documents incorporated by reference in this Form 10-K

- (i) The definitive proxy statement for the 2023 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
AAD	Annual aggregate deductible
ALAE	Allocated loss adjustment expense
AOCI	Accumulated other comprehensive income (loss)
ASU	Accounting Standards Update
Board	Board of Directors of ProAssurance Corporation
BOLI	Business owned life insurance
CARES Act	Coronavirus Aid, Relief and Economic Security Act
CCPA	California Consumer Privacy Act of 2018, as amended
CIMA	Cayman Islands Monetary Authority
Council of Lloyd's	The governing body for Lloyd's of London
CODM	Chief Operating Decision Maker
COSO	Committee of Sponsoring Organizations of the Treadway Commission
COVID-19	Coronavirus Disease 2019
CPRA	California Privacy Rights Act of 2020, as amended
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
ECO/XPL	Extra-contractual obligations/excess of policy limit claims
EEA	European Economic Area
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
GDPR	General Data Protection Regulation
GILTI	Global intangible low-taxed income
GNMA	Government National Mortgage Association
HCPL	Healthcare professional liability
IBNR	Incurred but not reported
Inova Re	Inova Re, LTD, S.P.C.
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
MICRA	Medical Injury Compensation Reform Act

Term	Meaning
Model Holding Co. Law	Model Insurance and Holding Company System Regulatory Act and Regulation
Mortgage Loans	Two ten-year mortgage loans with original borrowing amounts of approximately \$18 million and approximately \$23 million, each entered into by a subsidiary of ProAssurance, both of which were paid off during 2021.
NAIC	National Association of Insurance Commissioners
NAV	Net asset value
NFIP	National Flood Insurance Program
NOL	Net operating loss
NORCAL	NORCAL Insurance Company, formerly known as NORCAL Mutual Insurance Company
NRSRO	Nationally recognized statistical rating organization
NYDFS	New York Department of Financial Services
NYSE	New York Stock Exchange
OCI	Other comprehensive income (loss)
ORSA	Risk Management and Own Risk and Solvency Assessment Model Act
PBO	Projected benefit obligations
PCAOB	Public Company Accounting Oversight Board
PDR	Premium deficiency reserve
PPM RRG	Preferred Physicians Medical Risk Retention Group, a Mutual Insurance Company
PICA	ProAssurance Insurance Company of America
ProAssurance Plan	Executive non-qualified excess plan
ProAssurance Savings Plan	ProAssurance group savings and retirement plan
Revolving Credit Agreement	ProAssurance's \$250 million revolving credit agreement
ROE	Return on equity
ROU	Right-of-use
SAP	Statutory accounting principles
SEC	Securities and Exchange Commission
SOFR	Secured Overnight Financing Rate
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 was 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 expenses
VIE	Variable interest entity
VOBA	Value of business acquired

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General Information

Throughout this report, references to "ProAssurance," "PRA," "Company," "organization," "we," "us" and "our" 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 (investor.proassurance.com) under Other Information. In addition, throughout this discussion we use certain terms and abbreviations, which can be found in the Glossary of Terms and Acronyms provided at the beginning of this report.

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 pricing or 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;
- changes in laws or government regulations regarding financial markets or market activity that may affect our business;
- changes in the ability, or perception thereof, 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 or by Syndicate 1729;
- 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;
- the effect of cyclical insurance industry trends on our underwriting, including demand and pricing in the insurance and reinsurance markets in which we operate;

- 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;
- 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 and other qualified personnel;
- the availability, integrity and security of our technology infrastructure and that of our third-party providers, including any susceptibility to cyber-attacks which might result in a loss of information, operating capability or actual monetary loss;
- the impact of a catastrophic event, including a pandemic event, as it relates to our business and insurance operations, investment results, Syndicate 1729 and our insured risks;
- the impact of a catastrophic man-made event, such as acts of terrorism, acts of war and civil and political unrest;
- 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 holding company or 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

Additional risks, assumptions and uncertainties that could arise from our membership in the Lloyd's market and our participation in certain 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 5%, but can be increased by Lloyd's;
- Syndicate results can be affected by decisions made by the Council of Lloyd's which the management of Syndicate 1729 has little ability to control, such as a decision to not approve the business plan of Syndicate 1729, 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 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 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 material differences are described in "Item 1A, Risk Factors" in this report and other documents we file with the SEC, such as our quarterly reports on Form 10-Q.

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, 2022, our net premiums written totaled \$1.0 billion, and at December 31, 2022 we had total assets of \$5.7 billion and \$1.1 billion of shareholders' equity.

Our Mission

We 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, advance diversity, equity and inclusion, and accomplish our mission with infectious enthusiasm and unbending integrity.

Our Values

Integrity, Leadership, Relationships, Enthusiasm

ProAssurance is a U.S. based specialty property and casualty and workers' compensation insurance carrier. Our specialty property and casualty insurance products primarily include professional liability insurance and liability insurance for medical technology and life sciences risks. We also provide capital to Syndicate 1729 which writes a range of property and casualty insurance and reinsurance lines.

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 practicable after the report is electronically filed with, or furnished to, the SEC. 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 our Investor Relations department, 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; the most recent and significant of which was the acquisition of NORCAL Insurance Company on May 5, 2021. We believe its contribution to our customers and culture have expanded our product capabilities with broader geographic scale and efficiencies, supporting a nationwide platform to deliver value to our customers and stakeholders.

Our Strategy

We seek to generate an attractive total return for our shareholders while focusing on our culture and people. The basic components of our strategy for achieving this objective are as follows:

- *Pursue profitable underwriting opportunities.* We emphasize profitability, not market share, and strive to achieve a consistent level of underwriting profit over the various economic and insurance cycles. Key elements of our approach are adhering to disciplined underwriting principles, including prudent risk selection, adequate pricing and product structure, as well as adjusting our business mix as necessary to effectively utilize capital and achieve long-term profit objectives.
- *Focus on culture and people.* We strive to be the Employer of Choice by attracting, retaining and developing a diverse group of team members who embody our Mission, Vision and Values. We are committed to fostering an inclusive workplace in which variety of thought, creativity and innovation fuel team member engagement and ultimately increases shareholder return. See further discussion on our team members and culture within this section under the heading "Human Capital Resources."
- *Provide specialized healthcare-centric expertise and thought leadership to meet the evolving demands in the healthcare and medical technology markets.* We provide traditional liability products and services to both markets. We also leverage our national geographic footprint, broad product spectrum, expertise and financial strength to provide innovative and customized products to meet the risk management needs of larger healthcare organizations or groups.
- *Provide superior workers' compensation products and services.* We provide 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 and the dignity of work.
- *Provide superior customer service.* Our mission statement, "We Protect Others," goes hand-in-hand with our corporate brand promise, "Treated Fairly." Our goal is to deliver an exceptional service experience that is responsive and provides value to customers through a regional business model. Our valued team members demonstrate our core values of integrity, leadership, relationships and enthusiasm every day and are focused on meeting the needs of our customers.
- *Focus on operational excellence.* We continuously endeavor to improve our competitive position through operational excellence and productivity gains. This is accomplished through a well-designed organizational structure, data-driven efficiencies, business automation, innovative technology solutions, workflow enhancements and proactive expense management.
- *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.
- *Manage claims effectively.* Our industry leading claims professionals bring extensive industry and insurance experience, along with local jurisdictional knowledge to resolve claims in a cost effective manner.
- *Emphasize risk management.* We actively manage our enterprise risk by maintaining strong internal controls. We also emphasize the importance of risk management with our insureds and offer them training and risk reduction resources to mitigate loss exposures.
- *Maintain an effective investment strategy.* Our investment strategy is 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 financial strength and adequate capital.

Organization and Segment Information

We operate through multiple insurance organizations and report our financial results in five segments which are based on our internal management reporting structure for which financial results are regularly evaluated by our CODM to determine resource allocation and assess operating performance: Specialty P&C, Workers' Compensation Insurance, Segregated Portfolio Reinsurance, Lloyd's Syndicates and Corporate. Additional information on ProAssurance's five operating and reportable segments is included in Note 16 of the Notes to Consolidated Financial Statements and in the segment discussion that follows.

Gross Premiums Written

Gross premiums written for the years ended December 31, 2022, 2021 and 2020 were comprised as follows:

(\$ in thousands)	Year Ended December 31					
	2022		2021		2020	
Specialty P&C ⁽¹⁾⁽²⁾	\$ 836,628	76%	\$ 681,509	71%	\$ 522,911	61%
Workers' Compensation Insurance	247,132	22%	240,546	25%	246,791	29%
Segregated Portfolio Cell Reinsurance ⁽³⁾	78,937	7%	71,850	8%	72,843	9%
Lloyd's Syndicates	20,233	2%	37,969	4%	84,718	10%
Inter-segment revenues ⁽³⁾	(78,937)	(7%)	(71,850)	(8%)	(72,841)	(9%)
Total	\$ 1,103,993	100%	\$ 960,024	100%	\$ 854,422	100%

⁽¹⁾ Premiums in our Specialty P&C segment include \$302.0 million of premium contributed by NORCAL for the year ended December 31, 2022 and \$154.1 million of premium contributed by NORCAL since the date of acquisition for the year ended December 31, 2021.

⁽²⁾ Primarily comprised of twelve month term policies, but includes premium related to policies with a twenty-four month term of \$8.3 million in 2020. The majority of renewed twenty-four month term policies were re-underwritten to twelve month term policies as we have ceased offering twenty-four month term policies beginning in the second quarter of 2020. In addition, our written premium in 2022 and 2021 includes \$12.0 million and \$13.5 million of NORCAL Standard Physician policies with a three-month term, respectively.

⁽³⁾ Premiums in our Segregated Portfolio Cell Reinsurance segment are assumed from either our Workers' Compensation Insurance or Specialty P&C segments. We eliminate this inter-segment revenue.

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" or "Premiums."

Our insurance exposures are primarily within the U.S. As a result of our participation in Lloyd's Syndicates 1729 and 6131, we had net written premium of \$6.7 million in 2022, \$14.5 million in 2021 and \$22.6 million in 2020 associated with insurance exposures outside of the U.S. In addition, we had net written premium of \$32.5 million in 2022, \$23.0 million in 2021 and \$11.1 million in 2020 associated with international insurance exposures within our Specialty P&C segment.

Specialty Property and Casualty Segment

Our Specialty P&C segment focuses on professional liability insurance and Medical Technology Liability insurance. Professional liability insurance is primarily offered to healthcare providers and institutions and, to a lesser extent, to attorneys and their firms. Our professional liability insurance also includes the business acquired through the NORCAL transaction that closed on May 5, 2021. Medical technology liability insurance is offered to medical technology and life sciences companies that manufacture or distribute products including entities conducting human clinical trials.

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 medical professional liability market, covering multiple categories of healthcare professionals, institutions (which includes hospitals, surgery centers and miscellaneous medical facilities) and, to a lesser extent, facilities specializing in long term residential care. While a majority of our business is written in the standard market, we also offer professional liability insurance on an excess and surplus lines basis through our Specialty business; and we offer alternative risk and self-insurance products on a customized basis.

Our custom alternative risk solutions include a loss portfolio transfer program for healthcare entities who, most commonly, are exiting a line of business, and assumed reinsurance for healthcare entities who, most commonly, are changing an insurance approach or simply looking for a more tailored solution for transferring risk. Our assumed reinsurance is primarily comprised of premiums assumed on a quota share basis from our strategic partnership with an international medical professional liability insurer. Our custom alternative risk solutions also include a turnkey captive solution whereby we cede all or a portion of the healthcare premium, net of reinsurance, to three SPCs of our wholly owned Cayman Islands reinsurance subsidiaries, Inova Re and Eastern Re, which are reported in our Segregated Portfolio Cell Reinsurance segment. Each SPC is owned, fully or in part, by an individual company, agency, group or association, and we currently have a 25% participation interest in the results of one of these three SPCs. See further discussion that follows under the heading "Segregated Portfolio Cell Reinsurance Segment." The portion not ceded to the SPCs is retained within our Specialty P&C segment. Total gross premiums written in this segment in our alternative market captive cell program were approximately \$11.8 million, \$8.1 million and \$7.1 million during 2022, 2021 and 2020, respectively.

We utilize independent agencies and brokers as well as an internal business development team to write our HCPL business. For the year ended December 31, 2022, approximately 74% 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 2022, our ten largest agents or brokers produced approximately 29% of our HCPL premium; individually, no one agency or broker produced more than 9% of our HCPL premium.

In marketing our professional liability products we emphasize our financial strength, product flexibility and excellent claims, underwriting and risk management services. We market our insurance products through our business development team 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 a regional business model which permits us to consistently provide a high level of services to customers on a local basis.

We maintain regional claim management offices where our internal claims personnel investigate and monitor the adjudication 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 evaluate practice patterns and make recommendations to our underwriting and risk management team members for implementation with customers.

We also provide professional liability coverage to attorneys and their firms in select areas of practice, which is a part of our Small Business Unit. Our legal professional liability coverage is a less significant portion of our business, accounting for approximately 2% of our 2022 gross premiums written. This business offers errors and omissions liability insurance policies for law firms engaged in the private practice of law. The program generally insures solo practitioners and smaller firms; almost all of our insured attorneys are members of a firm employing five or fewer attorneys. The areas of practice of our insured firms include plaintiff, real estate, criminal defense and general corporate law. The program does not insure firms practicing in areas that are considered high hazard such as securities and intellectual property law.

Underwriting decisions for our legal professional liability coverage consider the firm's areas of practice, the experience of the attorneys and the management controls and loss mitigation practices of the applicant. Our legal professional liability line of business operates in 34 states written through independent brokers. Brokers are appointed and must specialize in legal professional liability. The territory of appointed brokers is restricted to a state or a small number of states in order to maintain a level of exclusivity.

Medical Technology and Life Sciences Insurance

Our Medical Technology Liability business offers products-completed operations and errors and omissions liability coverage for medical technology and life sciences companies. The vast majority of these insureds and the products they manufacture and/or distribute are regulated by the U.S. Food and Drug Administration or similar regulatory authorities in foreign jurisdictions. The products we insure cover a broad array of medical devices and pharmaceuticals including, but not limited to, infusion systems, operating room surgical instruments and disposables, laboratory equipment and supplies, in vitro diagnostic test kits and instruments, patient mobility aids, respiratory and anesthesia products, cardiovascular devices, vaccines or cancer therapeutics, laser surgical instruments, non-invasive diagnostic imaging systems, orthopedic implants and human and veterinary branded and generic drugs. We provide coverage for commercialized products and all phases of clinical trials.

Underwriting analysis for Medical Technology Liability contemplates many factors including, but not limited to, the product's risk profile, loss history, the amount of coverage being sought, level of the insured's retention, policy limits, applicant's management experience, regulatory compliance record and volume of sales. Almost all of our Medical Technology Liability business is written through independent brokers. In 2022, our top ten largest brokers generated approximately 46% of our Medical Technology Liability gross written premium, with no one broker representing more than 12%. We work with licensed property and casualty insurance brokerages across the country and do not require an appointment except where required by law. We defend our Medical Technology Liability claims vigorously, with a negotiated settlement being the most frequent means of resolution.

Workers' Compensation Insurance Segment

Our Workers' Compensation Insurance segment offers workers' compensation products primarily in 19 core states in the Mid-Atlantic, Southeast, Midwest, Gulf South and New England regions of the continental U.S. Our Workers' Compensation Insurance segment 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, agencies, groups or associations. The workers' compensation premium written is 100% ceded to either the SPCs at Inova Re or Eastern Re, which are reported in our Segregated Portfolio Cell Reinsurance segment, or captive insurers unaffiliated with ProAssurance for two programs. Alternative market solutions include program design, fronting, claims administration, risk management, SPC rental, asset management and SPC management services. Of our total alternative market premiums written, approximately 93% in 2022 and 95% in 2021 was ceded to the SPCs at Inova Re and Eastern Re.

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. Our goal is to underwrite 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.

We actively seek to reduce our workers' compensation loss costs by placing a concentrated focus on returning injured workers to wellness and the dignity of work 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.

Segregated Portfolio Cell Reinsurance Segment

Our Segregated Portfolio Cell Reinsurance segment includes the results (underwriting profit or loss, plus investment results, net of U.S. federal income taxes) of SPCs at Inova Re and Eastern Re, our Cayman Islands SPC operations. Each SPC is owned, fully or in part, by an individual company, agency, group or association and the results of the SPCs are attributable to the participants of that cell. We participate to a varying degree in the results of certain SPCs and, for the SPCs in which we participate, our participation interest ranges from a low of 15% to a high of 85% as of December 31, 2022. Each SPC is operated solely for the benefit of its cell participants, and the pool of assets of one SPC are statutorily protected from the creditors of any other SPC. The results of the SPCs are allocated among the cell participants in accordance with the terms of the cell agreements. SPC results attributable to external cell participants are reflected as an SPC dividend expense (income) in our Segregated Portfolio Cell Reinsurance segment. In addition, the Segregated Portfolio Cell Reinsurance segment includes the investment results of the SPCs as the investments are solely for the benefit of the cell participants. The segment results also reflect our share of the results of the SPCs in which we participate. The SPCs assume workers' compensation insurance, healthcare professional liability insurance or a combination of the two from our Workers' Compensation Insurance and Specialty P&C segments.

The underwriting, marketing and distribution of policies written in alternative market programs are the same as that of the segment from which the policy was assumed: Workers' Compensation Insurance or Specialty P&C segments.

Lloyd's Syndicates Segment

Our Lloyd's Syndicates segment includes the results from our participation in Syndicates 1729 and 6131. Effective January 1, 2022, Syndicate 6131 ceased underwriting on a quota share basis with Syndicate 1729 as Syndicate 6131's applicable business is retained within Syndicate 1729 beginning with the 2022 year of account. Premium from our participation in the results of Syndicate 6131 from open underwriting years prior to 2022 will continue to earn out pro rata over the entire policy period of the underlying business. The results of this segment are normally reported on a quarter lag, 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.

In addition to our participation in Syndicate results, we have investments in and obligations to Syndicate 1729 consisting of a Syndicate Credit Agreement and FAL requirements. The Syndicate Credit Agreement was issued for the purpose of providing working capital to Syndicate 1729. At December 31, 2022, the maximum permitted borrowings under the Syndicate

Credit Agreement were approximately £15.0 million. We provide FAL to support underwriting by Syndicate 1729 which is comprised of investment securities and cash and cash equivalents deposited with Lloyd's with a total fair value of approximately \$24.8 million at December 31, 2022. See further discussion on the Syndicate Credit Agreement and our FAL in Note 9 and Note 4 of the Notes to Consolidated Financial Statements, respectively.

We provide capital to Syndicate 1729, which covers a range of property and casualty insurance and reinsurance lines in both the U.S. and international markets. The remaining capital for Syndicate 1729 is provided by unrelated third parties, including private names and other corporate members. For the 2023 underwriting year, our participation in the results of Syndicate 1729 remains unchanged at approximately 5%. Syndicate 1729's maximum underwriting capacity for the 2023 underwriting year is £280 million (approximately \$338 million at December 31, 2022), of which £15 million (approximately \$18 million at December 31, 2022) is our allocated underwriting capacity.

Our Lloyd's Syndicates segment products are distributed principally through retail brokers and coverholders (i.e., only those authorized by our retail brokers to enter into a contract but only in accordance with specified terms), which consist primarily of premium written through open-market channels and delegated underwriting authority arrangements. Syndicate 1729 writes business in the Lloyd's marketplace and has access to international markets across the world.

Corporate Segment

Our Corporate segment includes our investment operations and excludes those reported in our Segregated Portfolio Cell Reinsurance and Lloyd's Syndicates segments. In addition, this segment includes corporate expenses, interest expense, U.S. income taxes and non-premium revenues generated outside of our insurance entities. We apply a consistent management strategy to the entire investment portfolio managed at the corporate level. Accordingly, we report those investment results and net investment gains and losses within our Corporate segment. Our overall investment strategy is to maximize current income from our investment portfolio while maintaining appropriate credit risk, liquidity, duration, portfolio diversification and capital efficiency. 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 4 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 ranging 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 or smaller unrated organizations who are targeting growth aggressively in multiple jurisdictions. Further, in many instances the coverage we offer is also offered through mutual entities whose ROE objectives may be lower than ours, and thus may be able to price their products more aggressively. Additionally, there are many providers, domestic and international, of alternative risk management solutions. Syndicate 1729, which is based in the U.K., faces 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 healthcare environment in the U.S. is continuing to consolidate, which brings competitive challenges and opportunities to our largest segment, the Specialty P&C segment. This consolidation initially took the form of hospitals acquiring physician practices and later the growth of physician groups owned by outside investors. As these trends continue most physicians no longer practice medicine as owners of an independent practice. Healthcare delivery settings are changing with the growth of retail delivery by allied healthcare professionals as well as physicians in distributed clinics, pharmacies, large consumer stores and online. These larger commercial enterprises have differing risk management needs from those in the traditional small physician practices. As such, we have enhanced our coverage offerings to fit the needs of combined hospital/physician entities, multi-state medical groups, telemedicine companies, miscellaneous facilities, allied healthcare professionals and self-insured entities even as we continue to service that portion of the market maintaining more traditional practice structures.

The workers' compensation industry is highly competitive in the geographic markets in which we operate. New business opportunities, renewal pricing and retention continue to be a challenge as a result of intense competition, especially from multi-line insurers that are willing to underprice their workers' compensation products in order to gain access to write other coverages that may be more lucrative and we expect this trend to continue in 2023. 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, and we believe that we price our products at rates that will permit us to meet our long-term profit targets over the life of the insurance cycle. We base our rates on current loss projections, maintaining a long-term focus even when this approach may reduce our top line growth. Such projections could also result in us not meeting profit targets during certain phases of the insurance cycle. 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: AM 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. The following table presents the claims paying ratings of our insurance subsidiaries as of February 22, 2023.

	Rating Agency ⁽¹⁾		
	AM Best (www.ambest.com)	Fitch (www.fitchratings.com)	Moody's (www.moody's.com)
ProAssurance Casualty Company	A (Excellent)	A- (Strong)	A3
ProAssurance Indemnity Company, Inc.	A (Excellent)	A- (Strong)	A3
ProAssurance Specialty Insurance Company	A (Excellent)	A- (Strong)	NR
ProAssurance Insurance Company of America	A (Excellent)	A- (Strong)	A3
Medmarc Casualty Insurance Company	A (Excellent)	A- (Strong)	NR
NORCAL Group ⁽²⁾	A- (Excellent)	NR	A3
Allied Eastern Indemnity Company	A (Excellent)	A- (Strong)	A3
Eastern Advantage Assurance Company	A (Excellent)	A- (Strong)	NR
Eastern Alliance Insurance Company	A (Excellent)	A- (Strong)	A3
Eastern Re Ltd., SPC	NR	NR	NR
Inova Re Ltd., SPC	NR	NR	NR
Lloyd's Syndicate 1729 ⁽³⁾	A (Excellent)	AA- (Strong)	NR

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

⁽²⁾ NORCAL Group is comprised of FD Insurance Company, Medicus Insurance Company, NORCAL Insurance Company, NORCAL Specialty Insurance Company and Preferred Physicians Medical Risk Retention Group, a Mutual Insurance Company, all of which have an individual rating of A-.

⁽³⁾ Rating provided is the rating applicable to all Lloyd's syndicates.

Our ability to service current debt and potential debt is regularly evaluated and rated by four rating agencies: AM Best, S&P, Fitch and Moody's. These debt ratings reflect each agency's independent evaluation of our ability to meet our obligation to holders of our debt, if any. Our senior debt is rated "BBB-" with a stable outlook, by Fitch, "BB" with a negative outlook, by S&P and "Baa3" with a negative outlook, by Moody's. Additionally, our senior debt is rated "a+" and NORCAL Group's senior debt is rated "a-", both of which with a stable outlook, by AM Best. While debt 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.

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, California, Florida, Illinois, Michigan, Missouri, Pennsylvania, Texas and Vermont. Our foreign jurisdictions include our reinsurance operations based in the Cayman Islands and, through our participation in Lloyd's Syndicates, our insurance and reinsurance operations based in the U.K. that we support.

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 reflect 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, the New York Cybersecurity Regulation took effect for financial institutions, insurers and other companies regulated by the NYDFS. The intent of the regulation is to encourage the protection of consumer information, as well as the technology systems of NYDFS regulated entities. We are currently compliant with the regulation according to the transition periods as defined in the NYDFS Cybersecurity Regulation.

In October 2017, the NAIC adopted the Insurance Data Security Model Law, which created rules for insurers, agents and other licensed entities covering data security and investigation and notification of breach. In May 2018, the European Union implemented the GDPR, designed to protect data privacy of individuals within the European Union and the EEA. We are compliant with the GDPR due to the global nature of our business, including international activity in our Specialty P&C segment. In addition, managing agents of Lloyd's syndicates are required to ensure that they meet the requirements of the GDPR and any local data protection regulation based on territories in which they operate. As of December 31, 2022, Syndicate 1729, including its managing agent, is compliant with the GDPR.

Each of the domiciliary states of our insurance subsidiaries, excluding Missouri and Pennsylvania has enacted data security or data privacy laws. These state laws require 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. Within

the past few years, the following domiciliary states of our insurance subsidiaries have enacted or amended data security or data privacy laws:

- Alabama enacted the Alabama Data Breach Notification Act of 2018, effective June 1, 2018, and the Insurance Data Security Law, effective May 1, 2019.
- California enacted the California Consumer Privacy Act of 2018, effective January 1, 2020, and the California Privacy Rights Act of 2020, effective January 1, 2023. The CPRA amends and expands the CCPA.
- Illinois amended its Personal Information Protection Act, effective January 1, 2020.
- Michigan enacted the Michigan Insurance Data Security Law, effective January 20, 2021.
- Vermont amended its Security Breach Notice Act, effective July 1, 2020, and enacted the Vermont Insurance Data Security Law, effective January 1, 2023.

The GDPR and the CCPA, as amended and expanded by the CPRA, grant individuals the right to request that a company delete or de-identify their personal information. We expect other states, including our domiciliary states of Florida, Missouri, Pennsylvania and Texas, to either adopt the NAIC's Insurance Data Security Model Law or enact their own data security regulations. Moreover, we expect to see privacy laws similar to the CCPA/CPRA to be enacted in other states, including our other states of domicile. We do not expect compliance with the various data security or data privacy acts to have a material impact on our financial condition or results of operations, as they closely resemble the NAIC Model Law, the NYDFS Cybersecurity Regulations and the CCPA/CPRA.

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, 2022, the Company estimates that all of ProAssurance's insurance subsidiaries will exceed 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 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, 2022, all states have adopted the Model Holding Co. Law and 49 states have adopted ORSA. ProAssurance was not required to file an internal assessment of solvency under the ORSA criteria during the years ended December 31, 2022 or 2021. Due to our written premium volume in 2022, ProAssurance will be required to file an internal assessment during 2023.

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.

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

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 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 which has subsequently received multiple short-term extensions and currently expires on September 30, 2023. We cannot predict whether the proposals will be adopted or extended or what impact, if any, subsequently enacted laws might have on our business, financial condition or results of operations.

Terrorism Risk Insurance Act

TRIA, initially enacted in 2002 and reauthorized in 2007, 2015 and 2019 ensures the availability of insurance coverage for certain acts of terrorism, as defined in the legislation. The 2019 reauthorization extended the program through 2027. TRIA currently provides that during 2022 and in any year thereafter a loss event must exceed \$200 million to trigger coverage and that the federal government will reimburse 80% of an insurer's losses in excess of the insurer's deductible, up to the maximum annual federal liability of \$100 billion. 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 subsidiaries, Inova Re and Eastern Re, which are organized and licensed as Cayman Islands unrestricted Class B insurance companies. Inova Re and Eastern Re are subject to regulation by the CIMA. Applicable laws and regulations govern the types of policies that Inova Re and Eastern Re can insure or reinsure, the amount of capital they must maintain and the way it can be invested, and the payment of dividends. Inova Re and Eastern Re are required to maintain minimum capital of approximately \$200,000 and must receive approval from the CIMA before they can pay any dividends.

United Kingdom

Syndicate 1729 is 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 5%) 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.

Effective January 1, 2016, the European Union's executive body, the European Commission, implemented capital adequacy and risk management regulations called Solvency II that applies to businesses within the European Union. Syndicate 1729 follows the Solvency II compliance guidelines set out by the Council of Lloyd's.

Human Capital Resources

Our people are the most critical element in assuring we deliver our promise of protecting others. As such, the commitment we extend to and the investment we make in our employees (or team members) is of the highest priority. We are determined in our goal to attract, develop, and retain a diverse group of team members who embody our Mission, Vision and Values and this goal drives the programs and resources we proudly offer.

We are committed to providing a safe and healthy working experience where all team members are treated with dignity and respect, allowing them to do their best work. Further, we seek to provide equal opportunities while fostering a diverse and inclusive workplace that promotes team member engagement. To ensure our workforce is comprised of a diverse group of highly-qualified individuals, we are committed to advertising job openings and sourcing candidates through broad-reaching techniques. We are committed to a strategy of workforce diversity and inclusion, starting with our Board and extending through all levels within our organization. Further, we seek to provide a fulfilling work experience through the creation of well-documented career paths and opportunities for advancement, robust training and development programs and the management of transparent salary administration practices. Our competitive pay and benefit programs are designed to reward, support and retain our team members. To further illustrate the significance of our commitment to our team members and being the employer of choice, the Board regularly reviews the Company's human capital management strategies and outcomes including matters related to diversity, equity and inclusion, talent management and development, talent acquisition and team member engagement.

We are committed to facilitating and fostering team member engagement. To support those objectives, we conduct quarterly "Pulse" surveys that gain real-time feedback from our team members on key issues. The results are shared with all team members and the data is used to steer our continuous improvement efforts. Additionally, in 2022 we introduced a team member recognition program, PRAvo!, that enables peer to peer recognition as well as points-based recognition from leaders, individual award programs and celebrations such as work anniversaries and other professional and personal milestones. We regularly monitor and evaluate turnover metrics to ensure we are responsive to the evolving, competitive market for top talent.

Some examples of key programs and initiatives that are focused on attracting, developing and retaining our diverse workforce include:

- *Diversity, Equity and Inclusion* - To advance our commitment to fostering a diverse, inclusive and equitable workplace, our Diversity, Equity and Inclusion Council, comprised of team members from across the organization and supported by a newly appointed Diversity, Equity and Inclusion Program Manager, focused on four key strategic areas, including:
 - grow team member and management education and awareness;
 - encourage formation of additional Team Member Engagement Groups;
 - expand our recruitment practices; and
 - provide a safe workplace for all team members supported by a zero-tolerance no harassment policy.
- *Team Member and Leadership Development* - We invest in training and development programs that support our Mission, Vision and Values, encourage continuous learning, equip team members for advancement and encourage a long-term partnership with the Company. We provide career paths for team members to continue to advance their technical skills. To grow the skills of our current managers and plan for future succession needs, we provide a tiered leadership development program, Leadership That Works, that includes both in-person group and self-led content.
- *Team Member Health and Welfare* - We recognize the importance of a comprehensive benefits strategy to support the unique needs of all team members. In 2022, we expanded our support to team members and their families with a new wellness program, ProActive. The program focuses on physical, emotional and financial health as well as well-being. We are excited to utilize ProActive to support overall health in a variety of ways including an array of educational resources, team member challenges and incentives for healthy habits.
- *Flexible Workplace* - The majority of our team members are either fully-remote or working in a flexible work arrangement that supports healthy work-life balance while capitalizing on opportunities to bring team members together to foster relationships, fuel innovation and facilitate engagement.

ProAssurance Corporation and our subsidiaries are equal opportunity employers and we do not discriminate either directly or indirectly against employees or prospective employees on the basis of race, color, religion, sex, sexual preference/orientation, citizenship, marital status, veteran status, national origin, age or disability, or any other attribute protected by applicable law or regulation. At December 31, 2022, we had 1,083 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. Through our ERM program, as previously discussed, we have attempted to identify and understand the nature, caliber and sensitivity of material foreseeable risks, mitigate or avoid those risks and determine a course of action necessary to address such risks. These risk factors generally fall under the following five categories:

1. Insurance
2. Financial
3. Regulatory and Compliance
4. Operational
5. Technology, Data Security and Privacy.

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

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 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 or smaller unrated organizations who are targeting growth aggressively in multiple jurisdictions. In many instances, coverage we offer is also available through mutual entities whose ROE objectives may be lower than ours. The healthcare environment in the U.S. is continuing to consolidate, which initially took the form of hospitals acquiring physician practices and later the growth of physician groups owned by outside investors. As these trends continue most physicians no longer practice medicine as owners of an independent practice. 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.

The cyclical nature in the property and casualty insurance industry could have a material adverse effect on our ability to improve or maintain underwriting profits or to grow or maintain premium volume.

The insurance and reinsurance markets have historically been cyclical, characterized by extended periods of intense price competition and other periods of reduced capacity. The medical professional liability market has been particularly affected by these cycles. Underwriting cycles are driven, among other reasons, by excess capacity available to compete for business that is deemed profitable. This action drives pricing down. Since the insurance industries in which we operate have a long development period, particularly medical professional liability industry, prices typically fall too far resulting in poor underwriting results for a period of time. The reaction is then a withdrawal of capacity, reduced availability of coverage offerings and price increases. In past cycles, these actions improve profitability over a few years inviting new capital into the market again which causes the cycle to repeat. Events other than price can also have a material effect on the duration and depth of the underwriting cycles, such as severity spikes, tort reforms, abrupt frequency changes or reinsurance availability. Changes in the frequency and severity of losses may affect the cycles of the insurance and reinsurance markets significantly. During "soft markets" where price competition is high and underwriting profits are poor, growth and retention of business become challenging which may result in reduced premium volume. During the initial stages of "hard markets", premium volumes rise for existing business and retention levels fall. As more carriers enter this action phase, underwriting profits begin to improve, although their achievement may take several years to materialize. As the cycle progresses, opportunities may then be presented to grow profitably at the higher premium levels.

The Company's results of operations could be adversely impacted by catastrophes, both natural and man-made, pandemics, severe weather conditions, climate change or closely related series of events.

Catastrophes can be caused by unpredictable natural events such as hurricanes, windstorms, severe storms, tornadoes, floods, hailstorms, severe winter weather, earthquakes, explosions and fire, and by other natural and man-made events, such as terrorist attacks, civil and political unrest, as well as pandemics and other similar outbreaks in many parts of the world.

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. These events may have a material adverse effect on our workforce and business operations as well as the workforce and operations of our insureds and independent agents. Some of the assets in our investment portfolio may be adversely affected by declines in the equity markets, changes in interest rates, reduced liquidity and economic activity caused by large-scale catastrophes, pandemics, terrorist attacks or similar events which could have a material adverse effect on our financial position, results of operations and liquidity.

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. In addition, the program currently expires at the end of 2027, and the failure to extend the program could adversely affect our business through increased exposure to a catastrophic level of terrorism losses.

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 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;
- monetary and social inflation and levels of employment; and
- changes in the regulatory, legal and political environment.

The effect of COVID-19 on recent historical trends regarding timing and severity of claims may also impact certain of these factors and our ultimate estimation of losses; however, the extent to which COVID-19 impacts these factors is highly uncertain and cannot be predicted. As a result of COVID-19, the industry has experienced new conditions, including the effect of the postponement of court cases and changes in settlement trends.

Our reserving 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. Further, 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. Additionally, our loss reserves may be impacted by social inflation, which is generally described as the rising costs of insurance claims resulting from factors including, but not limited to, increasing litigation, broader definitions of liability, more plaintiff-friendly legal decisions, jury behavior, and larger compensatory jury awards and non-economic damages. These factors, could lead to greater than anticipated claims and claim handling expenses which could exceed our established reserves causing us to increase our loss reserves, as discussed above.

The effects of monetary inflation could cause the cost of claims to rise in the future. Our loss reserves include assumptions about future payments for settlement of claims and claims handling expenses, such as medical treatments and litigation costs. To the extent inflation causes these costs to increase above reserves established for these claims, we will be required to increase our loss reserves with a corresponding reduction in our financial results in the period in which the need for additional reserves is identified.

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, for certain of our reinsurance agreements, we estimate premiums ceded to the reinsurer, subject to certain maximums and minimums, 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 use analytical models to assist our decision-making in key areas such as pricing and reserving and may be adversely affected if actual results differ materially from the model outputs and related analyses.

We use various modeling techniques and data analytics to analyze and estimate exposures, loss trends and other risks associated with our assets and liabilities. This includes both proprietary and third-party modeled outputs and related analyses to assist us in decision-making (e.g., underwriting, pricing, claims, reserving, reinsurance and catastrophe risk) and to maintain a competitive advantage. Since there is no industry standard for assumptions and preparation of insured data for use in these models, our modeled losses may not be comparable to estimates made by other companies. The modeled outputs and related analyses from both proprietary and third parties are subject to various assumptions, uncertainties, model design errors and the inherent limitations of any statistical analysis, including those arising from the use of historical internal and industry data and assumptions. The loss of use of such proprietary models could impact our competitive advantage in certain aspects of our business and impact future financial performance. Changes in the social, judicial or economic environments in which we operate may make modeled outcomes less reliable or produce new, non-modeled risks. In addition, the effectiveness of any model can be degraded by operational risks including, but not limited to, the improper use of the model. Consequently, actual results may differ materially from our modeled results. If actual losses exceed assumptions that were made when our products were priced or our models fail to appropriately estimate the risks we are exposed to, our business, financial condition, results of operations or liquidity may be adversely affected. Furthermore, our results may be adversely affected if actual losses exceed assumptions that were made when pricing products that also include features such as an option to purchase extended reporting endorsement or "tail" coverage, which are offered at rates that are tied to expiring premiums charged. The profitability and financial condition of the Company substantially depends on the extent to which our actual experience is consistent with assumptions we use in our models and ultimate model outputs.

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

Establishing 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 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.

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.

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 AM 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. See previous discussion under the heading "Rating Agencies" for a table presenting the claims paying ratings of our principal insurance operations.

In addition to the evaluation of our claims paying ability, four rating agencies (AM Best, S&P, Fitch and Moody's) evaluate and rate our ability to service current debt and potential debt. These debt 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. A ratings downgrade could also have a material adverse effect on our liquidity, including the ability to refinance long term debt on favorable terms and potentially limit our access to capital markets. See previous discussion under the heading "Rating Agencies" for additional information on our senior debt ratings.

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

As a member of the Lloyd's market and a participant in certain Lloyd's Syndicates we are subject to certain risks which could affect us.

As a participant in Lloyd's Syndicates, we 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.

Financial

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.

At December 31, 2022, our receivable from reinsurers on unpaid losses and loss adjustment expenses was \$432 million, our receivable from reinsurers on paid losses and loss adjustment expenses was \$15 million and our expected credit losses associated with our reinsurance receivables (related to both paid and unpaid losses) were nominal in amount. As of December 31, 2022, no reinsurer, on an individual basis, had an estimated net amount due which exceeded \$55 million.

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 on an annual basis or upon the occurrence of certain triggering events or substantive changes in circumstances that indicate the asset may be impaired. This test may include the use of projected financial information which is inherently subject to significant risks, assumptions, estimates and uncertainties and may therefore differ materially from our actual financial results, which could have a material adverse effect on the results of our impairment analysis. 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 (loss). Such write downs could have a material adverse effect on our results of operations or financial position.

Our investment results may be impacted by changes in interest rates, U.S. monetary and fiscal policies as well as broader economic conditions.

Changes in interest rates and U.S. fiscal, monetary and trade policies as well as broader economic conditions could have a material adverse effect on our investment results. Fluctuations in the value of our investment portfolio can occur as a result of these changes. 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, our financial position and our book value per share. Significant movements in interest rates potentially expose us to lower yields or lower asset values. Changes in market interest rate levels generally affect our financial results 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. Our equity portfolio is primarily bond funds which will fluctuate directionally with changes in interest rates, not equity markets, impacting the overall value of these holdings. Conversely, the values of fixed-rate investment securities generally fluctuate inversely with changes in interest rates. Recently, the significant rise in interest rates have reduced the market value of our existing fixed maturity portfolio, thereby impacting our financial position and book value per share. As we have both the intent and ability to hold the vast majority of these investments until maturity, we consider this negative impact to be temporary.

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

A significant portion of our total assets (\$4.4 billion or 77%) at December 31, 2022 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 impairment of our securities, which could affect our financial condition, results of operations or cash flows.

At December 31, 2022 approximately 23% 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, 2022 the fair value of our state/municipal portfolio was \$439.5 million (amortized cost basis of \$483.6 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.

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.

At December 31, 2022 and in accordance with applicable GAAP, we valued 97% of our investments at fair value and the remaining 3% at cost, equity, or cash surrender value. See Notes 1, 3 and 4 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, 2022, we valued approximately 7% 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 utilize judgment. At December 31, 2022, approximately 84% 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 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, 2022, 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 funds valued at NAV have various redemption requirements and lock-up provisions (see Note 3 of the Notes to Consolidated Financial Statements for further information).

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 include financial covenants, 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.

Our Revolving Credit Agreement, which expires in November 2024, permits borrowings of up \$300 million. The agreement requires that our consolidated debt to capital ratio (0.28 to 1.0 at December 31, 2022) be 0.35 to 1.0 or less and that we maintain a minimum net worth of \$1 billion which represented 65% of consolidated shareholders' equity, excluding AOCI, determined as of June 30, 2019.

During 2013, we issued \$250 million of unsecured Senior Notes Payable due in November 2023 at a 5.3% interest rate. Furthermore, on May 5, 2021, NORCAL Insurance Company, successor to NORCAL Mutual Insurance Company, issued Contribution Certificates, which are due in 2031, to certain NORCAL policyholders in the conversion at a 3.0% interest rate with a principal amount of \$191 million. 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.

The interest rates on our Revolving Credit Agreement and available-for-sale fixed maturities portfolio are priced using a spread over LIBOR, which will be phased out in the future.

LIBOR is the basic rate of interest used in lending between banks on the London interbank market and is widely used as a reference for setting interest rates on loans globally. The terms of certain of our debt agreements include interest rates which are calculated based on LIBOR.

On July 27, 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, announced that it intends to phase out LIBOR by the end of 2021. On March 5, 2021, the United Kingdom's Financial Conduct Authority and Intercontinental Exchange Benchmark Administration announced that the one-week and two-month U.S. dollar LIBOR settings will cease to be published immediately after December 31, 2021 and the publication of overnight and one-, three-, six-, and twelve-month U.S. dollar LIBOR settings will be extended through June 30, 2023. In addition, the U.S. Federal Reserve announced that it intends for all contracts written with LIBOR benchmarks to end on or before June 30, 2023. The U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, a steering committee comprised of large U.S.

financial institutions, announced the replacement of U.S. dollar LIBOR with a new index calculated by short-term repurchase agreements, backed by U.S. Treasury securities called the Secured Overnight Financing Rate. The first publication of SOFR was released in April 2018 and was subsequently codified by the FASB in October 2018. The updated codification added the overnight index swap rate ("OIS") based on the SOFR to the list of U.S. benchmark interest rates that are eligible to be hedged. During 2020, the FASB issued guidance intended to assist stakeholders during the market-wide reference rate transition period and was effective for a limited period between March 12, 2020 and December 31, 2022; during December 2022, the FASB issued final guidance which defers the transition period to December 31, 2024. The guidance provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions that reference LIBOR or another reference rate that is expected to be discontinued because of reference rate reform.

We have exposure to LIBOR-based financial instruments through our variable rate Revolving Credit Agreement; however, this agreement includes provisions for an alternative benchmark rate if LIBOR ceases to exist which does not materially change our liability exposure. Additionally, we have exposure to LIBOR in our available-for-sale fixed maturities portfolio which represented approximately 6% of our total investments, or \$255 million, as of December 31, 2022; 63% of these investments with exposure to LIBOR were issued since 2020 and include provisions for an alternative benchmark rate. Optional expedients for contract modifications include a prospective adjustment that does not require contract remeasurement or reassessment of a previous accounting determination; therefore, the modified contract is accounted for as a continuation of the existing contract. At this time, we cannot predict the overall effect of the modification or discontinuation of LIBOR or the establishment of alternative benchmark rates.

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. Projections about our future operations and taxable income are inherently subject to significant risks, assumptions, estimates and uncertainties and may therefore differ materially from our actual financial results, which could have a material adverse effect on our tax positions. 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. 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 Company has reinsurance operations domiciled in the Cayman Islands, changes in the tax laws of the Cayman Islands.

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, 2022 we had a net deferred tax asset of approximately \$209.5 million and a net federal income tax receivable of approximately \$8.0 million, which included a liability for unrecognized current tax benefits of \$3.6 million.

Regulatory and Compliance

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

The U.S. federal government generally has not directly regulated the insurance industry except for certain areas of the market, such as insurance for flood, nuclear and terrorism risks. However, the federal government has undertaken initiatives or considered legislation in several areas that may affect the insurance industry. The Dodd-Frank Act was enacted in July 2010 and established additional regulatory oversight of financial institutions (see previous discussion under the heading "Insurance Regulatory Matters"). Our business could be affected by changes to the U.S. system of insurance regulation including legislative or regulatory requirements imposed by or promulgated in connection with the Dodd-Frank Act.

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 protect the rights of a defendant 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.

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.

In 1975, California enacted the Medical Injury Compensation Reform Act (MICRA) which, among other things, established a \$250,000 cap on non-economic damages in medical cases. In May 2022, California's Governor signed an amendment to MICRA which substantially changed many aspects of MICRA, including, but not limited to, an increase in the cap on non-economic damages and an increase in caps on attorney's fees. For a non-death case, the cap increased from \$250,000 to \$350,000 on January 1, 2023, with an incremental increase over the next 10 years to \$750,000. For a wrongful death case, the cap increased from \$250,000 to \$500,000 on January 1, 2023, with an incremental increase over the next 10 years to \$1.0 million. After the caps reach \$750,000/\$1.0 million in 2033, they will increase by 2% per annum thereafter effective January 1, 2034. This amendment could have a material adverse effect on our financial condition, results of operations and cash flows given our concentration in California.

On August 25, 2022 the Supreme Court of Pennsylvania invalidated a statutory provision that required medical liability claims to be filed in the county where the alleged malpractice occurred. Effective January 1, 2023, Pennsylvania healthcare providers can be sued in any county where they regularly conduct business or have significant contacts, regardless of where the actual care took place. To the extent that this change in law results in adjudication of more claims in venues favorable to plaintiffs, our loss costs may increase due to higher jury verdicts, larger settlement payments, and more non-meritorious claims.

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

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.

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 two subsidiaries 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 Islands subsidiaries, which could potentially impact profitability of alternative market solutions offered through these subsidiaries.

Syndicate 1729 is 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.

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

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 2022, 2021 or 2020. 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 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 2022, 2021 or 2020.

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. As of December 31, 2022, we currently have no preferred stock outstanding. 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 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 restrictions or delisting. In addition, we may incur significant costs in the course of complying with NYSE and SEC requirements.

In June 2020, a putative class action lawsuit was filed against the Company in the Northern District of Alabama, alleging violations of the Securities Exchange Act of 1934 and alleging that the Company made false and misleading statements regarding its Specialty Property and Casualty segment. The Company believes the lawsuit is without merit and continues to defend it vigorously; however, there can be no assurance regarding the ultimate outcome of the matter.

Operational

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, California, Florida, Alabama and Texas represented 45% of our direct premiums written for the year ended December 31, 2022. Moreover, on a combined basis, Pennsylvania, California and Florida accounted for 34% of our direct premiums written for the year ended December 31, 2022. 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 into our business and therefore we may not be able to achieve expected synergies. 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 including the ineffective integration of underwriting, risk management, claims handling, finance, information technology and actuarial practices and the design and operation of internal controls over financial reporting. Difficulties integrating an acquired business may also result in the acquired business performing differently than we expected including the loss of customers or in our failure to realize anticipated growth or expense-related efficiencies. We could be adversely affected by the acquisition due to unanticipated performance issues and additional expense, unforeseen or adverse changes in liabilities, including liabilities arising from events prior to the acquisition or that were unknown to us at the time of the acquisition, transaction-related charges, diversion of management time and resources to integration challenges, loss of key team members, regulatory requirements, exposure to tax liabilities, exposure to pension liabilities, amortization of expenses related to intangibles, and charges for impairment of assets or goodwill.

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.

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 external revenue is our investment revenues. In addition, cash dividends and other permitted payments from operating subsidiaries represent another source of funds. 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."

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 we most recently paid a \$0.05 per share dividend for the three months ended December 31, 2022. 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.

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 in the event of a natural disaster or medical event. Our disaster preparedness also allows team members to work remotely 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.

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

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 team members and to attract and retain additional qualified personnel in the future. The loss of the services of key team members 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.

If we fail to maintain proper and effective internal controls over financial reporting, our operating results and our ability to operate our business could be harmed.

We continually enhance our operating procedures and internal controls to effectively support our operations and comply with our regulatory and financial reporting requirements. As a result of the inherent limitations in all control systems, no system of controls can provide absolute assurance that all control objectives have been or will be met, and that instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of an error or mistake. Additionally, controls can be circumvented by the unauthorized and wrongful individual acts of some persons or by collusion of two or more persons. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or the degree of compliance with policies or procedures may deteriorate. Further, the design of a control system must reflect the fact that resource constraints exist. Accordingly, our control system can provide only reasonable, not absolute, assurance of achieving the desired control objectives.

Technology, Data Security and Privacy

The operations of the Company are dependent upon the security, integrity and availability 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, reduce our ability to conduct business effectively, or cause economic harm to the Company in the form of lost time, lost business opportunity, actual monetary loss or loss of investor confidence.

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. ProAssurance collects, uses, stores or transmits an increasingly large amount of confidential, proprietary, personal, legally protected, and other information in connection with the operation of our business. Therefore, the Company has focused resources on securing and preserving the integrity of its data processing systems and related data. Despite the Company's efforts to ensure the integrity of its systems, ProAssurance is increasingly exposed to the risk that its technology infrastructure could be subject to cyber-attacks and unauthorized access, such as physical and electronic break-ins or unauthorized tampering. ProAssurance's IT department, with assistance from third-party security vendors, regularly monitors the Company's systems for indicators of attack or compromise to mitigate the risk of cyberattacks.

The Company also evaluates the integrity and security of the technology infrastructure of third parties that access, process or store data that the Company considers to be sensitive, significant, or legally protected. While ProAssurance reviews and assesses its third-party providers' cybersecurity controls, as appropriate, and make changes to the Company's business processes to manage these risks, 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. A breach of IT systems operated by a vendor, customer, or other third-party with whom we conduct business could result in a breach of the Company's data belonging to a third-party for which the Company is responsible, or financial harm in the form of misdirection of payments for valid invoices or other obligations.

Disruption, damage or destruction of any of the Company's systems or data could cause its 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 a financial, legal and reputational perspective. The Company continually enhances its cyber and information security in order to identify and neutralize emerging threats and improve its ability to prevent, detect and respond to attempts to gain unauthorized access to the Company's data and systems. ProAssurance regularly adds additional security measures to its computer systems and network infrastructure to mitigate the possibility of cybersecurity breaches, including firewalls and penetration testing. However, it is impossible to defend against every risk being posed by changing technologies. The Company has a formal process in place for identifying, handling and disclosing of cybersecurity incidents. In addition, the Company's Board and Audit Committee are involved in the oversight of our cybersecurity policies and procedures and are continually updated on material cybersecurity risks and cybersecurity issues, if any, faced by executive management. While the Company has experienced limited and immaterial potential cyber events and is aware of system breaches involving a number of third parties with whom the Company transacts business, the Company has no knowledge as of this date of any material harm or loss relating to cyber-attacks or other security breaches at the Company or its third parties.

The Company's Code of Ethics and Conduct explicitly prohibits officers, directors, team members, or other insiders who are subject to the Code from transacting in the Company's stock during a time when such individuals have knowledge of any material undisclosed cybersecurity incident or breach.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

We own three office properties, all of which are unencumbered:

Property Location	Square Footage of Properties		Total
	Occupied by ProAssurance	Leased or Available for Lease	
Birmingham, AL*	120,000	45,000	165,000
Franklin, TN	25,000	78,000	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 9 of the Notes to Consolidated Financial Statements included herein.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

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.

- Edward L. Rand, Jr.** Mr. Rand was appointed as our Chief Executive Officer in 2019 and has served as President since 2018. Mr. Rand previously served as Chief Operating Officer, Chief Financial Officer, Executive Vice President and Senior Vice President since joining ProAssurance in 2004. Mr. Rand also has previously served as President of our Medmarc subsidiary from 2016 to 2018. Prior to joining ProAssurance, Mr. Rand was 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 56)
- Michael L. Boguski** Mr. Boguski was appointed as President of our Specialty P&C segment in 2019. Mr. Boguski previously served as President of our Eastern subsidiary since ProAssurance acquired Eastern in 2014. Prior to the acquisition of Eastern, Mr. Boguski served as President and Chief Executive Officer of Eastern since 2011 and had been with the Eastern organization since its inception in 1997. Mr. Boguski has almost 36 years of insurance industry experience. (Age 60)
- Noreen L. Dishart** Ms. Dishart was appointed as an Executive Vice President in 2020 and has served as our Chief Human Resources Officer since 2015. Ms. Dishart has previously served as Vice President of Human Resources of our Eastern subsidiary for 9 years. Ms. Dishart has over 37 years of experience in Human Resources including positions with Johnson & Johnson/Merck. (Age 59)
- Dana S. Hendricks** Ms. Hendricks was appointed as an Executive Vice President in 2018 and is also our Chief Financial Officer and Corporate Treasurer. Ms. Hendricks has previously served as Senior Vice President of Business Operations for our PICA subsidiary. Prior to that time, Ms. Hendricks served PICA as Vice President of Finance and Corporate Controller. Prior to joining PICA in 2001, Ms. Hendricks held various finance and data analysis positions with American General Life & Accident Insurance Company. (Age 55)
- 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 54)
- Kevin M. Shook** Mr. Shook was appointed as President of our Eastern subsidiary in 2019. Mr. Shook previously served as Executive Vice President of our Eastern subsidiary and has been with Eastern for 19 years. Mr. Shook has over 29 years of insurance industry experience, including 10 years with PricewaterhouseCoopers where he primarily served companies within the insurance industry. (Age 53)

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 our Investor Relations department either by mail at P.O. Box 590009, Birmingham, Alabama 35259-0009, or by telephone at (205) 877-4400 or (800) 282-6242.

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 22, 2023, ProAssurance Corporation had 3,518 stockholders of record and 53,964,169 shares of common stock outstanding. ProAssurance’s common stock currently trades on the NYSE under the symbol “PRA.”

For information regarding dividends paid to shareholders in 2022 and 2021 and the declaration and payment of dividends, see Note 12 of the Notes to Consolidated Financial Statements.

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, 2022.

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	909,513	\$— *	1,045,378
Equity compensation plans not approved by security holders	—	—	—

* No outstanding options as of December 31, 2022. Other outstanding share units have no exercise price.

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 - October 31, 2022	—	N/A	—	\$106,390
November 1 - November 30, 2022	—	N/A	—	\$106,390
December 1 - December 31, 2022	—	N/A	—	\$106,390
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 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion generally focuses on the change in financial condition, results of operations and cash flows for the year ended December 31, 2022 as compared to the year ended December 31, 2021 and should be read in conjunction with the Consolidated Financial Statements and Notes to those statements which accompany this report. For a full discussion of the changes in the financial condition, results of operations and cash flows for the year ended December 31, 2021 as compared to the year ended December 31, 2020, please refer to Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of ProAssurance's December 31, 2021 report on Form 10-K.

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," "organization," "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 results of operations could differ significantly from these forward-looking statements.

Enterprise Risk Management

As a 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 our ERM program 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.

Management Risk Oversight

We have a risk management framework that recognizes the risks inherent in our operating segments as well as the risks associated with the operations of our holding company that is overseen by our Chief Executive Officer. The risk management process is managed by corporate executives in each line of business who are responsible for our key risk areas, including adequacy of loss reserves; defense of claims and the litigation process; the quality of investments supporting our reserves and capital; compliance with regulatory and financial reporting requirements; concentration in our insurance lines of business; and information privacy and data security. Our Chief Executive Officer and members of executive management are responsible for identifying material risks associated with these and other risk areas and for establishing and monitoring risk management solutions that address levels of risk appetite and risk tolerance that are recommended by management and reviewed by the Board. Our internal auditing department is responsible for reviewing and testing these risk management solutions.

Board of Directors Role in Risk Oversight

The Board is responsible for ensuring that our ERM process is in place and functioning. It reviews the ERM process established by management and monitors the functioning of the process, including management's assessment of the most significant enterprise-level risks identified in the ERM process.

The Audit Committee has the primary oversight responsibility for risks relating to financial reporting and cybersecurity. We have established lines of communication between the Audit Committee, our independent auditor, internal auditor and management that enable the Audit Committee to perform its oversight function.

ProAssurance Overview

ProAssurance Corporation is a holding company for property and casualty insurance companies. Our insurance subsidiaries provide professional liability insurance, liability insurance for medical technology and life sciences risks and workers' compensation insurance. We also provide capital to Syndicate 1729 at Lloyd's of London.

We operate in five segments which are based on our internal management reporting structure for which financial results are regularly evaluated by our CODM to determine resource allocation and assess operating performance: Specialty P&C, Workers' Compensation Insurance, Segregated Portfolio Cell Reinsurance, Lloyd's Syndicates and Corporate. Additional information on ProAssurance's five operating and reportable segments is included in Note 16 of the Notes to Consolidated Financial Statements, Part I and in the Segment Results sections herein that follow.

Growth Opportunities and Outlook

Over the long-term we expect our growth to come primarily through controlled expansion of our existing operations. In addition, we may identify opportunities for growth through the acquisition of other insurers, service providers or books of business. On May 5, 2021, we completed our acquisition of NORCAL Insurance Company. The NORCAL acquisition continues to contribute to top line growth, representing approximately 27% of consolidated gross premiums written in 2022. We believe this transaction delivers strategic value through the acquisition of customers, talent, distribution partners and expanded geographic footprint and scale. This supports a national platform to deliver value to our customers, business partners and other stakeholders. See further discussion on the NORCAL acquisition in Note 2 of the Notes to Consolidated Financial Statements.

We operate in very competitive markets and face strong competition from other insurance companies for all of our insurance products. Our Specialty P&C segment includes our HCPL insurance which represents the largest product line in our consolidated gross premiums written (58% in 2022). The Specialty P&C segment also includes our Medical Technology Liability (4% in 2022) and Small Business Unit (9% in 2022) lines of business. The healthcare market in the U.S. is continuing to consolidate, which brings competitive challenges and opportunities. This consolidation initially took the form of hospitals acquiring physician practices and later the growth of physician groups owned by outside investors. As these trends continue, most physicians no longer practice medicine as owners of an independent practice. Large single and multi-specialty practices often operate in many states. Healthcare delivery settings are changing with the growth of retail delivery by allied healthcare professionals as well as physicians in distributed clinics, pharmacies, large consumer stores and online. These larger commercial enterprises have differing risk management needs from those in the traditional small physician practices. In response to these trends, we have enhanced our coverage offerings to fit the needs of combined hospital/physician entities, multi-state medical groups, telemedicine companies, miscellaneous facilities, allied healthcare professionals and self-insured entities even as we continue to service that portion of the market maintaining more traditional practice structures. Our Medical Technology Liability and Small Business Unit lines of business are less affected by these consolidation trends.

Our operations at Eastern, a provider of workers' compensation insurance, represents the second largest product line in our consolidated gross premiums written (22% in 2022, including alternative market premiums). The workers' compensation market is highly competitive in our operating territories and multi-line insurers continue to leverage workers' compensation in their product offerings, which has resulted in a reduction of new business writings. We believe our workers' compensation product offerings allow us to provide flexibility in offering 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, which has contributed to strong renewal retention.

Our Lloyd's Syndicates segment represents 2% of our consolidated gross premiums written in 2022. Our participation in Syndicate 1729 for the 2014 through 2022 underwriting years has ranged from a low of 5% to a high of 62%. For the 2023 underwriting year, our participation in the results of Syndicate 1729 remains unchanged at 5%.

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 uphold 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 are committed to disciplined underwriting, pricing and loss reserving practices as well as an effective investment strategy, even during difficult market conditions. We are also committed to maintaining prudent operating and financial leverage. 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.

In evaluating our performance, we consider a number of performance measures, including the following:

- The *net loss ratio* which is calculated as net losses and loss adjustment expenses incurred divided by net premiums earned and is a component of underwriting profitability.
- The *underwriting expense ratio* which 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* which is the sum of the net loss ratio and the underwriting expense ratio and measures underwriting profitability.
- The *investment income ratio* which 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* which is the combined ratio, less the investment income ratio. This ratio provides the combined effect of underwriting profitability and investment income.
- The *tax ratio* which is calculated as total income tax expense (benefit) divided by income (loss) before income taxes and measures our effective tax rate.
- *Non-GAAP operating income (loss)* is widely used to evaluate performance within the insurance sector. In calculating Non-GAAP operating income (loss), we have excluded the effects of the items that do not reflect normal results, such as net investment gains (losses), transaction-related costs, the 2021 gain on bargain purchase and guaranty fund assessments. We believe Non-GAAP operating income (loss) presents a useful view of the performance of our insurance operations, however it should be considered in conjunction with net income (loss) computed in accordance with GAAP. See a reconciliation to its GAAP counterpart in the Executive Summary of Operations section under the heading “Non-GAAP Financial Measures” that follows.
- *ROE* which is calculated as net income (loss) 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.
- *Non-GAAP operating ROE* is calculated as Non-GAAP operating income (loss) for the period divided by the average of beginning and ending total GAAP shareholders’ equity. Non-GAAP operating ROE measures the overall after-tax profitability of our insurance operations and shows how efficiently capital is being used; however, it should be considered in conjunction with ROE computed in accordance with GAAP. See a reconciliation to its GAAP counterpart in the Executive Summary of Operations section under the heading “Non-GAAP Financial Measures” that follows.
- *Book value per share* which 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.
- *Non-GAAP adjusted book value per share* is a Non-GAAP measure widely used within the insurance sector and is calculated as shareholders’ equity, excluding AOCI, divided by the total number of common shares outstanding at the balance sheet date. This Non-GAAP calculation measures the net worth of the Company to shareholders on a per share basis excluding AOCI to eliminate the temporary and potentially significant effects of fluctuations in interest rates on our fixed income portfolio; however, it should be considered in conjunction with book value per share computed in accordance with GAAP. See a reconciliation to its GAAP counterpart in the Executive Summary of Operations section under the heading “Non-GAAP Financial Measures” that follows.

In particular, we focus on our combined ratio and investment returns, both of which directly affect our ROE and growth in our book value. Currently, we target a dynamic long-term ROE of 700 basis points above the 10-year U.S. Treasury rate, which at December 31, 2022 was approximately 10.9%.

To achieve our long-term ROE target, we emphasize rate adequacy, selective underwriting, effective claims management, operational efficiency gained by leveraging our enhanced scope and scale and prudent investment management. We closely monitor premium revenues, losses and loss adjustment expenses, and underwriting and policy acquisition expenses. Our overall investment strategy is to focus on maximizing current income from our investment portfolio while maintaining appropriate credit risk, liquidity, duration, portfolio diversification and capital efficiency. While we engage in activities that generate other income, these activities, such as 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. We can make 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, 2022, our reserve is comprised almost entirely of long-tail exposures. The estimation of long-tailed losses is inherently complex 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 both to assess the viability of a claim and potential damages, if any, and to reach a resolution of the claim. The claims resolution process may extend to more than five years. Further, the industry has experienced new conditions, including the effect of the postponement of court cases and changes in settlement trends as a result of COVID-19. 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, historical paid and incurred loss development trends and our evaluation of the current loss environment including frequency, severity, expected effects of monetary and social inflation, general economic and social trends, and the legal and political environment. The effect of COVID-19 on recent historical trends regarding timing and severity of claims may also impact certain of these factors and our ultimate estimation of losses. We also take into consideration 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. For claims-made policies, 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. For retroactive coverages, the insured event becomes a liability at inception of the underlying contract. 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 are estimated by accident year and 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, applicable only in periods in which acquisitions occur (the acquired reserve). A summary of the activity in our net reserve for losses during 2022 and 2021 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 (see further discussion that follows under the heading "Use of Judgment"). 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 may occur, general economic and social trends and the trend of healthcare costs. Within our Specialty P&C segment, for our professional liability business (88% of our consolidated gross reserve for losses and loss adjustment expenses as of December 31, 2022; predominately comprised of our HCPL products), we set an initial reserve based upon our evaluation of the current loss environment including frequency, severity, monetary inflation, social inflation and legal trends.

The current accident year net loss ratio in the Specialty P&C segment has ranged from 83% to 106% in the past five years. We observed a reduction in claims frequency that started to emerge in 2020, some of which was due to our re-underwriting efforts and some of which, we believe, was associated with the COVID-19 pandemic including the disruption of the court systems. Given the consistent and prolonged nature of these favorable trends, we recognized these favorable frequency trends in our HCPL current accident year reserve during the third and fourth quarters of 2021. Further, we reduced certain expected NORCAL loss ratios during the fourth quarter of 2021 and the third and fourth quarters of 2022 due to favorable frequency trends which, we believe, is primarily attributable to our re-underwriting efforts. While NORCAL claims frequency is generally down, we observed higher than anticipated loss emergence in our HCPL line of business in select jurisdictions, primarily in the Standard Physician line, which we recognized in our HCPL current accident year reserve during the fourth quarter of 2022. See further discussion in our Segment Results - Specialty Property & Casualty section that follows under the heading "Losses and Loss Adjustment Expenses."

The risks insured in our Medical Technology Liability business (2% of our consolidated gross reserve for losses and loss adjustment expenses as of December 31, 2022) are more varied, and policies are individually priced based on the risk characteristics of the policy and the account. The insured risks range from startup operations to large multinational entities, and the larger entities often have significant deductibles or self-insured retentions. 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 Insurance Segment. Many factors affect the ultimate losses incurred for our workers' compensation coverages (5% of our consolidated gross reserve for losses and loss adjustment expenses as of December 31, 2022) including but not limited to the type and severity of the injury, the age, health 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 state of the injury occurrence.

We use various actuarial methodologies in developing our workers' compensation reserve, combined with a review of the payroll exposure base. 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 ultimate loss indication.

The current accident year net loss ratio in the Workers' Compensation Insurance segment was 71.8% in 2022, which was lower than the 2021 loss ratio of 74.0%, reflecting improved claim frequency and severity trends. The current accident year net loss ratio in 2021 reflected higher claim activity as workers returned to employment with the easing of pandemic-related restrictions in our operating territories, including the impact of labor shortages on the existing workforce.

Segregated Portfolio Cell Reinsurance Segment. The factors that affect the ultimate losses incurred for the workers' compensation and HCPL coverages assumed by the SPCs at Inova Re and Eastern Re (2% of our consolidated gross reserve for losses and loss adjustment expenses as of December 31, 2022) are consistent with that of our Workers' Compensation Insurance and Specialty P&C segments, respectively.

Lloyd's Syndicates Segment. Initial reserves for Syndicate 1729 are primarily recorded using the loss assumptions by risk category incorporated into the Syndicate's business plan submitted to Lloyd's with consideration given to loss experience incurred to date (3% of our consolidated gross reserve for losses and loss adjustment expenses as of December 31, 2022). The assumptions used in each business plan are consistent with loss results reflected in Lloyd's historical data for similar risks. The

loss ratio may also fluctuate due to the mix of earned premium from different open underwriting years which we participate in to varying degrees, as well as 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 delegated underwriting 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.

Development of Prior Accident Years

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

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. 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 the Specialty P&C, Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance 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 (Incurred) Development Method
- Average Paid Value Method
- Average Reported Value Method

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 reported losses. The weights assigned to the initial expected losses decrease as the accident year matures.

Paid Development and Reported (Incurred) Development Methods. These methods use historical, cumulative losses (paid losses for the Paid Development Method, reported losses for the Reported (Incurred) 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 (Incurred) 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.

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 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 Insurance segment and for the workers' compensation exposures in our Segregated Portfolio Cell Reinsurance segment, we utilize the Reported (Incurred) 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 Syndicates 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 NORCAL on May 5, 2021 increased our gross reserves by \$1.2 billion which was the fair value of NORCAL's gross loss reserve at the time of acquisition. The fair value estimate of NORCAL's gross reserve for losses and loss adjustment expenses was based on three components: an actuarial estimate of the expected future net cash flows, a reduction to those cash flows for the time value of money determined utilizing the U.S. Treasury Yield Curve and a risk margin adjustment to reflect the net present value of profit that an investor would demand in return for the assumption of the development risk associated with the reserve. The fair value of NORCAL's gross reserve, including the risk margin adjustment, exceeded the actuarial estimate of NORCAL's undiscounted gross loss reserve by approximately \$42.2 million as of May 5, 2021. This fair value adjustment was recorded to the reserve for losses and loss adjustment expenses and will be amortized over a period utilizing loss payment patterns as a reduction to prior accident year net losses and loss adjustment expenses. We also recorded other adjustments to NORCAL's reserve as a result of purchase accounting including negative VOBA on NORCAL's assumed unearned premium and assumed DDR reserve. See further discussion on these other purchase accounting adjustments in Note 2 of the Notes to Consolidated Financial Statements.

Use of Judgment

The process of estimating reserves involves a high degree of judgment and is subject to a number of variables. These variables can be affected by both views of internal and external events, such as changes in views of monetary and social inflation, legal trends and legislative changes, as well as differentiating views of individuals involved in the reserve estimation process, among others. We continually refine our estimates in a regular, ongoing process as historical loss experience develops and additional claims are reported and settled. Our objective is to consider all significant facts and circumstances known at the time.

Our loss reserves may be impacted by social inflation, which is generally described as the rising costs of insurance claims resulting from factors including, but not limited to, increasing litigation, broader definitions of liability, more plaintiff-friendly legal decisions, jury behavior, and larger compensatory jury awards and non-economic damages. These factors could lead to greater than anticipated claims and claim handling expenses which could exceed our established reserves causing us to increase our loss reserves.

The effects of monetary inflation could cause the cost of claims to rise in the future. Our loss reserves include assumptions about future payments for settlement of claims and claims handling expenses, such as medical treatments and litigation costs. To the extent inflation causes these costs to increase above reserves established for these claims, we will be required to increase our loss reserves with a corresponding reduction in our financial results in the period in which the need for additional reserves is identified.

We use various actuarial methods in the process of setting reserves. Each actuarial method generally returns a different value, and for the more recent accident years the variations among the various methodologies can be significant. In order to project ultimate losses, we partition our reserves for analysis such as by line of business, geography, coverage layer or accident year. 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.

HCPL. Over the past several years the most influential factor affecting the analysis of our HCPL reserves and the related development recognized has been an observed increase in claim severity for the broader medical professional liability industry as well as higher initial loss expectations on incurred claims. The severity trend is an explicit component of our pricing models and directly impacts the reserving process. Our estimate of this 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 to our pricing models for this business component. Our current HCPL pricing models assume severity trends in the range of 2% to 6% depending on state, territory and specialty. In some portions of our HCPL business we have observed and reflected higher severity trends in our estimates of losses and loss adjustment expenses.

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.

Although the future degree and impact of the ultimate severity trend remains uncertain 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 had generally resulted in rate reductions as claim frequency declined and remained at historically low levels. However, from early 2017 to the current period, the average pricing on renewed business has steadily increased reflective of the rising loss cost environment, and we anticipate further renewal pricing increases due to increasing loss severity.

Another factor affecting our analysis of our HCPL reserves and the related development recognized is the reduction in claims frequency that started to emerge in 2020, some of which was due to our re-underwriting efforts and some of which, we believe, was associated with the COVID-19 pandemic, as previously discussed. In 2020, we established a \$10 million IBNR reserve related to COVID-19. Given the consistent and prolonged nature of the favorable claims frequency trend and the fact that early first notices of potential claims related to anticipated COVID-19 losses have not turned into claims, we reduced our COVID-19 IBNR reserve by \$9 million and \$1 million in 2022 and 2021, respectively. As of December 31, 2022, we no longer carry a specific IBNR reserve for potential COVID-19 related losses.

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

Loss Development by Line of Business

Professional Liability

Our professional liability line of business includes both our HCPL and Small Business Unit lines, with our HCPL line representing the largest component of our reserve. Our HCPL line of business also includes the business acquired through the NORCAL transaction that closed on May 5, 2021. In support of our concern that the decline in frequency will result in a higher severity trend for our HCPL claims (suits), we saw our closed-with-indemnity-payment ratio (i.e., the number of suits closed with an indemnity or loss payment as compared to the total number of closed suits) for our claims increase from 28% in 2015 to 33% in 2022.

The following table presents additional information about the loss development for our professional liability line of business, excluding loss development for HCPL coverages assumed by the SPCs at Inova Re and Eastern Re. Furthermore, loss development for our professional liability line of business for the year ended December 31, 2022 includes NORCAL and the year ended December 31, 2021 includes NORCAL since the date of acquisition, excluding the amortization of the purchase accounting fair value adjustment in each period:

Accident Years	Estimated Ultimate Losses, Net of Reinsurance, December 31, 2022	2022		2021		2020	
		Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed
2022	\$ 606,906	N/A	26.9 %	N/A	N/A	N/A	N/A
2021	\$ 708,733	\$ (5,754)	52.9 %	N/A	25.9 %	N/A	N/A
2020	\$ 802,923	\$ (17,597)	66.7 %	\$ (4,947)	54.1 %	N/A	22.0 %
2019	\$ 840,353	\$ 20,285	83.5 %	\$ (20,426)	73.7 %	\$ 1,361	48.7 %
2018	\$ 821,716	\$ 4,491	89.5 %	\$ 9,418	81.0 %	\$ 1,218	65.1 %
2017	\$ 699,144	\$ (10,261)	93.3 %	\$ (2,342)	88.4 %	\$ (2,741)	77.9 %
2016	\$ 712,692	\$ 1,642	91.0 %	\$ (2,739)	89.5 %	\$ (1,760)	88.8 %
2015	\$ 638,344	\$ 5,190	98.1 %	\$ 6,011	97.1 %	\$ (4,489)	93.7 %
2014	\$ 567,219	\$ (1,266)	99.0 %	\$ (1,017)	98.5 %	\$ (8,930)	96.6 %
2013	\$ 587,169	\$ (2,608)	99.3 %	\$ (260)	98.9 %	\$ (133)	98.0 %
Prior to 2013	\$ 8,975,275	\$ (8,123)		\$ (610)		\$ (3,413)	

- Development recognized during 2022 principally related to accident years 2017, 2020 and 2021. Net favorable development recognized in 2022 included favorable development related to NORCAL's 2021 accident year. We have not recognized any development related to NORCAL's accident years 2020 or prior since the date of acquisition on May 5, 2021 based on our comparison of expected loss emergence to actual loss emergence. Net favorable prior accident year reserve development recognized in 2022 was partially offset by unfavorable development recognized in our HCPL line of business, excluding NORCAL, driven by higher than anticipated loss severity trends, which emerged primarily in the fourth quarter of 2022. In addition, we recognized favorable prior year reserve development of \$9.0 million in 2022 related to the 2020 accident year associated with our COVID-19 IBNR reserve, as previously discussed, due to the fact that early first notices of potential claims have not turned into claims.
- Development recognized during 2021 principally related to accident years 2015 through 2020. We also recognized favorable prior year reserve development of \$1.0 million associated with our COVID-19 IBNR reserve.
- Development recognized during 2020 principally related to accident years 2014 through 2017.
- Not included in the table above, is \$10.8 million and \$7.9 million of amortization of the purchase accounting fair value adjustment on NORCAL's assumed net reserve and amortization of the negative VOBA associated with NORCAL's DDR reserve which is recorded as a reduction to prior accident year net losses and loss adjustment expenses in 2022 and 2021, respectively. See Note 2 of the Notes to Consolidated Financial Statements for additional information on the NORCAL acquisition and the related purchase accounting adjustments.
- Not included in the above table, as previously discussed, is \$0.7 million of unfavorable development recognized in 2022 and \$2.5 million and \$4.4 million of favorable development recognized during 2021 and 2020, respectively, in our Segregated Portfolio Cell Reinsurance segment related to the HCPL coverages assumed by the SPCs at Inova Re and Eastern Re.

This can also be seen in looking at both the absolute amount of 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, 2022, 2021 and 2020 with respect to the three then most recent prior accident years:

(\$ in millions)	2022		2021		2020	
Prior accident years	2019-2021		2018-2020		2017-2019	
Net favorable (unfavorable) development recognized for the specified years	\$	3.1	\$	16.0	\$	0.2
Development as a % of established ultimates, prior calendar year end		0.1%		1.1%		—%

Medical Technology Liability

Our Medical Technology Liability line of business has not experienced the change in claims 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)		2022			2021		2020	
Accident Years	Estimated Ultimate Losses, Net of Reinsurance, December 31, 2022	Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed	
2022	\$ 17,683	N/A	16.8 %	N/A	N/A	N/A	N/A	
2021	\$ 14,145	\$ (2,759)	53.3 %	N/A	32.0 %	N/A	N/A	
2020	\$ 12,568	\$ (1,921)	70.6 %	\$ (248)	59.2 %	N/A	41.0 %	
2019	\$ 12,247	\$ (1,337)	55.3 %	\$ 722	47.5 %	\$ (1,047)	41.8 %	
2018	\$ 8,554	\$ (252)	86.4 %	\$ (3,091)	85.1 %	\$ (352)	75.2 %	
2017	\$ 7,967	\$ 1,950	97.1 %	\$ (2,192)	94.1 %	\$ (3,854)	90.1 %	
2016	\$ 9,146	\$ 535	98.4 %	\$ (2,126)	97.3 %	\$ (486)	96.7 %	
2015	\$ 7,216	\$ (767)	97.6 %	\$ (638)	97.0 %	\$ (663)	96.3 %	
2014	\$ 9,130	\$ (244)	99.6 %	\$ (317)	99.6 %	\$ (458)	98.9 %	
2013	\$ 4,550	\$ (49)	100.0 %	\$ (128)	100.0 %	\$ (294)	100.0 %	
Prior to 2013	\$ 593,349	\$ (156)		\$ (106)		\$ (1,439)		

- Approximately \$6.3 million of the \$5.0 million total net favorable development recognized in 2022 related to the 2018 through 2021 accident years. The development for the 2018 through 2021 accident years represents a 11.7% reduction to the ultimates established for those reserves at December 31, 2021.
- Approximately \$7.6 million of the \$8.1 million total net favorable development recognized in 2021 related to the 2015 through 2020 accident years. The development for the 2015 through 2020 accident years represents a 11.3% reduction to the ultimates established for those reserves at December 31, 2020.
- Approximately \$5.3 million of the \$8.6 million total net favorable development recognized in 2020 related to the 2017 through 2019 accident years. The development for the 2017 through 2019 accident years represents a 13.7% reduction to the ultimates established for those reserves at December 31, 2019.
- In 2022, 2021 and 2020 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.

Workers' Compensation

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, 2022	2022		2021		2020	
		Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed	Reserve Development (favorable) unfavorable	% of Known Claims Closed
2022	\$ 142,653	N/A	39.8 %	N/A	N/A	N/A	N/A
2021	\$ 145,907	\$ 675	82.6 %	N/A	45.4 %	N/A	N/A
2020	\$ 137,728	\$ (3,348)	93.8 %	\$ (1,493)	85.1 %	N/A	41.6 %
2019	\$ 150,023	\$ (4,143)	96.2 %	\$ (4,030)	92.1 %	\$ (6,160)	81.6 %
2018	\$ 159,152	\$ (410)	97.2 %	\$ (1,503)	95.2 %	\$ 584	91.7 %
2017	\$ 126,325	\$ (3,209)	98.2 %	\$ (2,375)	97.3 %	\$ (3,372)	96.0 %
2016	\$ 107,606	\$ (2,179)	98.5 %	\$ (1,230)	97.8 %	\$ (3,048)	97.1 %
2015	\$ 116,277	\$ (1,285)	98.9 %	\$ (1,538)	98.4 %	\$ (3,919)	98.0 %
2014	\$ 117,001	\$ (891)	99.4 %	\$ (873)	99.3 %	\$ (2,136)	98.9 %
2013	\$ 114,003	\$ (377)	99.6 %	\$ (646)	99.5 %	\$ (592)	99.5 %
Prior to 2013	\$ 657,225	\$ 161		\$ (1,032)		\$ (529)	

- In 2022, we recognized \$8.0 million of net favorable development in our Workers' Compensation Insurance segment and \$7.0 million of net favorable development in our Segregated Portfolio Cell Reinsurance segment related to workers' compensation business.
- In 2021, we recognized \$7.6 million of net favorable development in our Segregated Portfolio Cell Reinsurance segment related to workers' compensation business and \$7.1 million of net favorable development in our Workers' Compensation Insurance segment.
- In 2020, we recognized \$12.1 million of net favorable development in our Segregated Portfolio Cell Reinsurance segment related to workers' compensation business, and \$7.0 million of net favorable development in our Workers' Compensation Insurance segment.

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	\$2.197 billion	\$3.039 billion	\$4.027 billion
60% Confidence Level	\$2.413 billion	\$3.039 billion	\$3.583 billion

Any change in our estimate of net ultimate losses for prior years is reflected in net income (loss) 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, as was the case in 2022, 2021 and 2020.

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 exposures 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. As of December 31, 2022, 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 more than \$55 million, in the aggregate. 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, stability and claims payment practices.

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, 2022, 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 minimums and maximums. Any adjustments to our estimates of losses recoverable under our reinsurance agreements or the premiums owed under our agreements are reflected in 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.

Our reinsurance receivables are exposed to credit losses but to date have not experienced any significant amount of credit losses. To partially mitigate our exposure to credit losses, reinsurance receivables totaling approximately \$90.6 million were collateralized by letters of credit or funds withheld as of December 31, 2022. We measure expected credit losses on our reinsurance receivables on a collective basis when similar risk characteristics exist or on an individual basis if we determine a receivable does not share similar risk characteristics. We measure expected credit losses associated with our reinsurance receivables (related to both paid and unpaid losses) at the consolidated level as our reinsurance receivables share similar risk characteristics including type of financial asset, type of industry and similar historical and expected credit loss patterns. We measure expected credit losses over the average contractual term of our reinsurance receivables utilizing a loss rate method. Historical internal credit loss experience is the basis for our assessment of expected credit losses; however, we may also consider historical credit loss information from external sources. We also consider reasonable and supportable forecasts of future economic conditions in our estimate of expected credit losses. Expected credit losses associated with our reinsurance receivables (related to both paid and unpaid losses) were nominal in amount as of December 31, 2022 and 2021. No reinsurance balances were written off for credit reasons during the years ended December 31, 2022 or 2021. Should our expected credit loss analysis or other facts or circumstances lead us to believe that any reinsurer may not meet its obligations to us, adjustments to the allowance for expected credit losses or to reinsurance receivables would be reflected in 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. For further information on our allowance for expected credit losses related to our receivables from reinsurers see Note 1 of the Notes to Consolidated Financial Statements.

Investment Valuations

We record the majority of our investments at fair value as shown in the table below. At December 31, 2022, 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	7%	82%	2%	6%	97%
Other valuations					3%
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 investments are carried at fair value. The fair value of our short-term securities approximates the cost of the securities due to their short-term nature.

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 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, we classify securities valued using an exchange-traded price as Level 1 securities.

Level 2 Investments

Most fixed income securities do not trade daily; 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, 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. In accordance with GAAP, 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 when events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. These assets include investments carried principally at cost, investments in tax credit partnerships, fixed assets, goodwill and other intangible assets. These assets would also include any equity method investments that do not provide a NAV. We did not have any assets or liabilities that were measured at fair value on a nonrecurring basis at December 31, 2022 or December 31, 2021.

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, 2022, these investments represented approximately 3% of total investments, and are detailed in the following table. Additional information about these investments is provided in Note 3 and Note 4 of the Notes to Consolidated Financial Statements.

<i>(In millions)</i>	<u>Carrying Value</u>	<u>GAAP Measurement Method</u>
Other investments:		
Other, principally FHLB capital stock	\$ 3.3	Principally Cost
Investment in unconsolidated subsidiaries:		
Investments in tax credit partnerships	4.1	Equity
Equity method investments, primarily LPs/LLCs	38.6	Equity
	<u>42.7</u>	
BOLI	81.7	Cash surrender value
Total investments - Other valuation methodologies	<u>\$ 127.7</u>	

Impairments

We evaluate our available-for-sale investment securities, which at December 31, 2022 and December 31, 2021 consisted entirely of fixed maturity securities, on at least a quarterly basis for the purpose of determining whether declines in fair value below recorded cost basis represent an impairment loss. We consider a credit-related impairment loss 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; or
- 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 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 current estimates of those credit losses. Methodologies used to estimate the present value of expected cash flows are:

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;
- recoveries or additional declines in fair value subsequent to the balance sheet date;
- adverse legal or regulatory events;
- significant deterioration in the market environment that may affect the value of collateral (e.g., decline in real estate prices);
- significant deterioration in economic conditions; and
- disruption in the business model resulting from changes in technology or new entrants to the industry.

If deemed appropriate and necessary, a discounted cash flow analysis is performed to confirm whether a credit loss exists and, if so, the amount of the credit loss. We use the single best estimate approach for available-for-sale debt securities and consider all reasonably available data points, including industry analyses, credit ratings, expected defaults and the remaining payment terms of the debt security. For fixed rate available-for-sale debt securities, cash flows are discounted at the security's effective interest rate implicit in the security at the date of acquisition. If the available-for-sale debt security's contractual interest rate varies based on subsequent changes in an independent factor, such as an index or rate, for example, the prime rate, the LIBOR, or the U.S. Treasury bill weekly average, that security's effective interest rate is calculated based on the factor as it changes over the life of the security. If we intend to sell a debt security or believe we will more likely than not be required to sell a debt security before the amortized cost basis is recovered, any existing allowance will be written off against the security's amortized cost basis, with any remaining difference between the debt security's amortized cost basis and fair value recognized as an impairment loss in earnings.

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, impairment for debt securities is separated into a credit component and a non-credit component. The credit component of an impairment 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. An allowance for expected credit losses will be recorded for the expected credit losses through income and the non-credit component is recognized in OCI. The amount of impairment recognized is limited to the excess of the amortized cost over the fair value of the available-for-sale debt security.

Pension

As a result of our NORCAL acquisition, we sponsor a frozen qualified defined benefit pension plan which covers substantially all NORCAL employees (except those that were previous employees of Medicus Insurance Company and FD Insurance Company, employees of PPM RRG as well as new hires after December 31, 2013). Accounting for pension benefits requires the use of assumptions for the valuation of the PBO and the expected performance of the plan assets.

We use December 31 as the measurement date for calculating our obligation related to this defined benefit pension plan and for estimating net periodic benefit cost (income) for the subsequent year. The PBO for pension benefits represents the present value of all future benefits earned as of the measurement date for vested and non-vested employees. At each measurement date, we review the various assumptions impacting the amounts recorded for the pension plan including the discount rates, which impacts the recorded value of the PBO and interest costs, and the expected return on plan assets.

To estimate the discount rate at the measurement date, we use a bond yield curve model, developed based on pricing and yield information for high quality corporate bonds. The assumption for the expected return on plan assets is based on the anticipated returns that will be earned by the portfolio over the long-term. The expected return on plan assets is influenced, but not determined, by historical portfolio performance. We assumed a 4.0% expected return on plan assets on our pension plan assets for the year ended December 31, 2022. For 2023, we increased our expected return on plan assets assumption to 5.3% based on our long-term outlook for the capital markets.

The following table summarizes the estimated changes in our projected benefit obligation and net periodic benefit cost (income) for a hypothetical change in our discount rate and expected return on plan assets:

<i>(\$ in millions)</i>	Shift in Basis Points		
	December 31, 2022		
	(100)	Current	100
Change in Discount Rate:			
Benefit Obligation	\$ 83.8	\$ 74.2	\$ 66.3
Net periodic benefit cost (income)	\$ 0.3	\$ 0.1	\$ 0.4
Change in Expected Return on Plan Assets:			
Net periodic benefit cost (income)	\$ 0.8	\$ 0.1	\$ (0.6)

Accounting standards provide for the delayed recognition of differences between actual results and expected or estimated results. This delayed recognition of the differences is amortized into earnings over time. The differences between actual results and expected or estimated results are recognized in full in AOCI. Amounts recognized in AOCI are reclassified to earnings in a systematic manner over the average future service period of participants. During 2023, we expect to recognize nominal net pension expense and we do not expect that contributions to the pension plan will be required during 2023 nor do we anticipate making any discretionary contributions.

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 reserves, unearned and advanced premiums, DPAC, NOL and tax credit carryforwards, compensation related items, unrealized investment gains (losses) and basis differences on fixed assets, intangible assets and operating leases. 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 of the appropriate character (including its capital and operating characteristics) and tax planning strategies.

A significant portion of our deferred tax asset is related to unrealized losses on our fixed maturities due to the significant rise in interest rates in 2022. Any loss realized prior to recovery would require sufficient income of the appropriate character (i.e., capital gains), and in the appropriate timeframe, to realize the tax benefit. We believe that we have the intent and ability to hold these securities until their recovery. Our projected positive operating income, including the investment income generated from holding our debt securities until maturity, support our ability to implement this tax planning strategy.

A valuation allowance has been established against the deferred tax asset related to the NOL carryforwards for our U.K. operations and against a portion of the deferred tax asset related to a portion of our U.S. state NOL carryforwards. In addition, a valuation allowance was established in 2021 against the net deferred tax asset of ProAssurance American Mutual, a Risk Retention Group. As a taxpayer separate from the consolidated group, this entity has experienced cumulative losses in recent years. Management concluded that it was more likely than not that these deferred tax assets will not be realized. We also established a valuation allowance in a prior year against the deferred tax assets of certain SPCs at our wholly owned Cayman Islands reinsurance subsidiary, Inova Re. Due to the cumulative losses incurred in recent years by these SPCs, management concluded that a valuation allowance was required. As of December 31, 2022, management concluded that the previously recorded valuation allowances were still required against the deferred tax assets related to the NOL carryforwards for our U.K. entities, against the deferred tax assets related to our U.S. state NOL carryforwards and against the deferred tax assets of certain SPCs at Inova Re. Management's assessment of the need for these valuation allowances at December 31, 2022 included an analysis of the available sources of income. See further discussion on ProAssurance's deferred tax assets in Note 6 of the Notes to Consolidated Financial Statements.

U.S. Tax Legislation

Coronavirus Aid, Relief and Economic Security Act

In response to COVID-19, the CARES Act was signed into law on March 27, 2020 and contains several provisions for corporations and eased certain deduction limitations originally imposed by the TCJA. See further discussion in Note 6 of the Notes to Consolidated Financial Statements. Temporary changes regarding NOL carryback provisions included in the CARES Act had a favorable impact on our liquidity, as we were able to carryback our 2019 and 2020 net operating losses to claim refunds (see discussion that follows in the Liquidity and Capital Resources and Financial Condition section under the heading "Taxes"). See further discussion in Note 6 of the Notes to Consolidated Financial Statements.

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 quarter, 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 2022 or 2021. At December 31, 2022, our liability for unrecognized tax benefits approximated \$3.6 million.

Goodwill / Intangibles

Goodwill and intangible assets are tested for impairment annually or more frequently if circumstances indicate an impairment may have occurred. The date of our annual impairment testing is October 1. Impairment of goodwill is tested at the reporting unit level, which is consistent with our reportable segments identified in Note 16 of the Notes to Consolidated Financial Statements.

When testing goodwill for impairment on our annual test date, 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 a 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 quantitative impairment test.

Performance of the qualitative goodwill impairment assessment requires judgment in identifying and considering the significance of relevant key factors, events and circumstances that affect the fair values of our reporting units. This requires consideration and assessment of external factors such as macroeconomic, industry, and market conditions, as well as entity-specific factors, such as our actual and planned financial performance. We also give consideration to the difference between each reporting unit's fair value and carrying value as of the most recent date that a fair value measurement was performed. If the results of the qualitative assessment conclude that it is not more likely than not that the fair value of a reporting unit exceeds its carrying value, additional quantitative impairment testing is performed.

The quantitative goodwill impairment test involves comparing the fair value of a reporting unit with its carrying value including goodwill. If the fair value of a reporting unit exceeds its carrying value, the reporting unit's goodwill is considered not to be impaired. However, if the carrying value of a reporting unit exceeds its fair value, an impairment loss is recorded in an amount equal to that excess. Any impairment charge recognized is limited to the amount of the respective reporting unit's allocated goodwill.

Determining the fair value of a reporting unit under the quantitative goodwill impairment test requires judgment and often involves the use of significant estimates and assumptions, including an assessment of external factors such as macroeconomic, industry and market conditions, as well as entity-specific factors, such as actual and planned financial performance. These estimates and assumptions could have a significant impact on whether or not an impairment charge is recognized and the magnitude of any such charge. To assist management in the process of determining any potential goodwill impairment, we may review and consider appraisals from accredited independent valuation firms. Estimates of fair value are primarily determined using discounted cash flows and market comparisons. These approaches involve significant estimates and assumptions, including projected future cash flows (including timing), discount rates reflecting the risks inherent in those future cash flows, perpetual growth rates, and selection of appropriate market comparable metrics and transactions.

For the most recent goodwill impairment test performed on October 1, 2022, management elected to bypass the optional qualitative impairment test and proceed directly to the quantitative impairment test for both the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance reporting units. In applying the quantitative approach, management estimated the fair value of the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance reporting units

using both an income approach and market approach based on the aforementioned valuation methodologies and process for developing assumptions. To corroborate the reporting units' valuation, a reconciliation of the estimate of the aggregate fair value of the reporting units to ProAssurance's market capitalization was performed, including consideration of a control premium. As a result of the quantitative assessments, management concluded that the fair value of each of the Workers Compensation Insurance and Segregated Portfolio Cell Reinsurance reporting units exceeded the carrying value as of the testing date; therefore, goodwill was not impaired and no further goodwill impairment testing was required. No goodwill impairment was recorded during the year ended December 31, 2022. Furthermore, the analysis of our definite and indefinite lived intangible assets indicated no impairment at December 31, 2022. Additional information regarding our goodwill and intangible assets is included in Note 1 and Note 7 of the Notes to Consolidated Financial Statements.

Accounting Changes

Beginning in 2022, we revised our process for estimating ULAE as a result of substantially integrating NORCAL into our Specialty P&C segment operations. ULAE are costs that cannot be attributed to processing a specific claim and are allocated to net losses and loss adjustment expenses on the Consolidated Statement of Income and Comprehensive Income. We have accounted for this change prospectively as a change in accounting estimate. Changes in accounting estimate are reflected prospectively beginning in the period the change in estimate occurs. The change in our estimate of ULAE resulted in an increase to underwriting, policy acquisition and operating expenses with an offsetting decrease to net losses and loss adjustment expenses in our Specialty P&C segment; there was no impact on total expenses or net income (loss) in our Consolidated Statement of Income and Comprehensive Income for the year ended December 31, 2022. See further discussion on this change in estimate in the Segment Results - Specialty Property & Casualty section that follows and in Note 1 of the Notes to Consolidated Financial Statements.

We did not have any other change in accounting estimate or policy that had a material effect on our results of operations or financial position during 2022. We are not aware of any accounting changes not yet adopted as of December 31, 2022 that could have a material impact on our results of operations, financial position or cash flows. Note 1 of the Notes to Consolidated Financial Statements provides additional detail regarding accounting changes not yet adopted.

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 another source of funds for our obligations, including debt service and shareholder dividends. We also charge our operating subsidiaries within our Specialty P&C (including the acquired wholly owned operating subsidiaries of NORCAL effective January 1, 2022) and Workers' Compensation Insurance segments a management fee based on the extent to which services are provided to the subsidiary and the amount of gross premium written by the subsidiary. At December 31, 2022, we held cash and liquid investments of approximately \$83 million outside our insurance subsidiaries that were available for use without regulatory approval or other restriction. We also have \$250 million in permitted borrowings available under our Revolving Credit Agreement as well as the possibility of a \$50 million accordion feature, if successfully subscribed. As of February 22, 2023, no borrowings were outstanding under our Revolving Credit Agreement.

During 2022, our operating subsidiaries paid dividends to us of approximately \$51 million. In the aggregate, our insurance subsidiaries are permitted to pay dividends of approximately \$133 million over the course of 2023 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		
	2022	2021	<i>Change</i>
Net cash provided (used) by:			
Operating activities	\$ (29,841)	\$ 73,970	\$ (103,811)
Investing activities	(61,997)	(85,526)	23,529
Financing activities	(21,805)	(60,624)	38,819
Increase (decrease) in cash and cash equivalents	\$ (113,643)	\$ (72,180)	\$ (41,463)

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 of \$103.8 million in 2022 as compared to 2021 was primarily due to:

- An increase in paid losses of \$280.2 million driven by our Specialty P&C segment primarily due to NORCAL paid losses and the payment of three large claims totaling \$16.4 million during the first quarter of 2022.
- An increase in cash paid for operating expenses of \$131.5 million driven by our Specialty P&C and Corporate segments, partially offset by lower transaction-related costs associated with our acquisition of NORCAL as compared to the prior year period. The increase in cash paid for operating expenses in our Specialty P&C and Corporate segments was driven by an increase in compensation-related costs primarily attributable to an increase in headcount due to the addition of NORCAL employees. Furthermore, the increase in our Specialty P&C segment reflected an increase in commissions paid driven by additional premiums from our acquisition of NORCAL and one-time expenses of \$3.9 million in 2022. One-time expenses in 2022 were mainly comprised of one-time bonuses, employee severance charges and lease exit costs. Additionally, the increase reflected the termination of deferred compensation arrangements assumed in the NORCAL acquisition during the first quarter of 2022 totaling approximately \$13.2 million. See further discussion of NORCAL's deferred compensation arrangements in Note 3 to the Notes to Consolidated Financial Statements.
- The effect of a tax refund of approximately \$9.0 million which we received in February 2021 and an income tax extension payment of \$1.1 million for the 2021 tax year during the second quarter of 2022. See additional discussion

on this refund in our Liquidity section under the heading "Taxes" in Item 7 of our December 31, 2021 report on Form 10-K.

The decrease in operating cash flows was partially offset by:

- An increase in net premium receipts of \$273.0 million primarily driven by our Specialty P&C segment, partially offset by a decrease in our Lloyd's Syndicates segment. The increase in our Specialty P&C segment was due to additional premiums from our acquisition of NORCAL and our focus on rate adequacy. The decrease in premium receipts in our Lloyd's Syndicates segment reflected our ceased participation in Syndicate 6131 for the 2022 underwriting year and the impact of our decreased participation in the results of Syndicates 1729 and 6131 for the 2021 underwriting year.
- An increase in cash received from investment income of \$45.7 million driven by an increase in our investment balances due to the acquisition of NORCAL.

The remaining variance in operating cash flows in 2022 as compared to 2021 was composed of individually insignificant components.

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 comprised of dividend payments. See further discussion of our financing activities in this section under the heading "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 Balance Sheets 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.

Analysis of Reserve Development

	December 31										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<i>(In thousands)</i>											
Reserve for losses, undiscounted and net of reinsurance recoverables	\$ 1,860,076	\$ 1,825,304	\$ 1,812,299	\$ 1,730,308	\$ 1,681,423	\$ 1,659,971	\$ 1,709,129	\$ 1,878,140	\$ 1,945,099	\$ 3,059,328	\$ 2,973,196
Cumulative net paid, as of:											
One Year Later	311,835	343,197	380,508	370,973	354,526	387,389	428,940	466,904	454,902	756,601	
Two Years Later	563,805	571,690	640,655	616,016	621,783	668,340	734,638	790,989	813,768		
Three Years Later	704,795	732,892	798,636	799,689	800,331	857,177	952,309	1,046,573			
Four Years Later	800,189	826,384	910,998	898,844	930,769	990,023	1,133,462				
Five Years Later	852,873	891,615	964,897	974,104	1,004,951	1,085,267					
Six Years Later	893,529	924,334	1,006,215	1,018,148	1,061,488						
Seven Years Later	915,730	952,118	1,030,782	1,051,495							
Eight Years Later	930,375	967,945	1,045,980								
Nine Years Later	941,468	976,074									
Ten Years Later	946,993										
Re-estimated net liability as of:											
End of Year	1,860,076	1,825,304	1,812,299	1,730,308	1,681,423	1,659,971	1,709,129	1,878,140	1,945,099	3,059,328	
One Year Later	1,644,203	1,644,516	1,651,117	1,587,029	1,547,876	1,565,867	1,696,893	1,827,153	1,902,813	3,015,241	
Two Years Later	1,472,259	1,483,378	1,511,542	1,460,660	1,444,619	1,487,905	1,656,615	1,805,433	1,885,456		
Three Years Later	1,331,828	1,358,560	1,388,682	1,356,075	1,337,571	1,446,571	1,647,283	1,792,202			
Four Years Later	1,231,337	1,252,605	1,288,564	1,257,650	1,306,274	1,432,477	1,632,836				
Five Years Later	1,157,493	1,173,975	1,221,463	1,231,713	1,299,032	1,415,077					
Six Years Later	1,108,716	1,126,308	1,204,642	1,230,562	1,287,731						
Seven Years Later	1,078,057	1,121,087	1,199,654	1,217,713							
Eight Years Later	1,075,277	1,119,984	1,183,973								
Nine Years Later	1,070,161	1,110,216									
Ten Years Later	1,064,057										
Net cumulative redundancy (deficiency)	\$ 796,019	\$ 715,088	\$ 628,326	\$ 512,595	\$ 393,692	\$ 244,894	\$ 76,293	\$ 85,938	\$ 59,643	\$ 44,087	
Original gross liability - end of year	\$ 2,051,428	\$ 2,072,822	\$ 2,052,768	\$ 1,990,266	\$ 1,961,436	\$ 1,971,303	\$ 2,037,274	\$ 2,243,133	\$ 2,295,279	\$ 3,469,417	
Reinsurance recoverables	(191,352)	(247,518)	(240,469)	(259,958)	(280,013)	(311,332)	(328,145)	(364,993)	(350,180)	(410,089)	
Original net liability - end of year	\$ 1,860,076	\$ 1,825,304	\$ 1,812,299	\$ 1,730,308	\$ 1,681,423	\$ 1,659,971	\$ 1,709,129	\$ 1,878,140	\$ 1,945,099	\$ 3,059,328	
Gross re-estimated liability - latest	\$ 1,186,101	\$ 1,252,152	\$ 1,344,636	\$ 1,422,764	\$ 1,522,082	\$ 1,672,741	\$ 1,914,194	\$ 2,098,742	\$ 2,197,211	\$ 3,425,358	
Re-estimated reinsurance recoverables	(122,044)	(141,936)	(160,663)	(205,051)	(234,351)	(257,664)	(281,358)	(306,540)	(311,755)	(410,117)	
Net re-estimated liability - latest	\$ 1,064,057	\$ 1,110,216	\$ 1,183,973	\$ 1,217,713	\$ 1,287,731	\$ 1,415,077	\$ 1,632,836	\$ 1,792,202	\$ 1,885,456	\$ 3,015,241	
Gross cumulative redundancy (deficiency)	\$ 865,327	\$ 820,670	\$ 708,132	\$ 567,502	\$ 439,354	\$ 298,562	\$ 123,080	\$ 144,391	\$ 98,068	\$ 44,059	

See table notes on following page.

Table Notes

- We have elected to present reserve history for acquired entities on a prospective basis in the table above; therefore, certain items will not agree to the following table which details activity in our net reserve for losses.
- Given the Lloyd's Syndicates segment reserve is relatively small on a standalone basis as compared to our consolidated reserve, we have elected to exclude the segment's reserve history for all periods presented in the table above; therefore, certain items will not agree to the following table which details activity in our net reserve for losses.
- 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.
- Reserves for 2021 include gross and net reserves acquired in 2021 business combinations of \$1.2 billion and \$1.1 billion, 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 were cautious in giving full recognition to indications that the pace of severity increase had slowed, however we gave measured recognition of the improved trend in our reserve estimates. 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 gave stronger recognition to the lower severity trend as time elapsed and a greater percentage of claims were closed.
- A general decline in claims 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 claims frequency declined, the number of reported claims related to these coverages was less than originally expected.
- Beginning in 2017, we identified potential higher severity trends in the broader HCPL industry. These trends were also reflected in increases in estimates of ultimate losses for open HCPL claims for earlier accident years, which resulted in a lower amount of favorable development recognized in 2018 and 2017 as compared to prior years.
- During 2019 the loss experience in our Specialty line of business in our Specialty P&C segment deteriorated further, particularly in regard to the reserves we established for a large national healthcare account that experienced losses far exceeding the assumptions we made when underwriting the account, beginning in 2016. As a result, we strengthened our Specialty reserves through the recognition of net unfavorable development on prior accident years and a higher current accident year net loss ratio in our Specialty P&C segment in 2019.

Activity in our net reserve for losses during 2022, 2021 and 2020 is summarized below:

<i>(In thousands)</i>	Year Ended December 31		
	2022	2021	2020
Balance, beginning of year	\$ 3,579,940	\$ 2,417,179	\$ 2,346,526
Less reinsurance recoverables on unpaid losses and loss adjustment expenses	451,741	385,087	390,708
Net balance, beginning of year	3,128,199	2,032,092	1,955,818
Net reserves acquired from acquisitions	—	1,089,103	—
Net losses:			
Current year ⁽¹⁾⁽²⁾	813,515	797,732	711,846
Favorable development of reserves established in prior years, net ⁽²⁾	(36,753)	(45,483)	(50,399)
Total	776,762	752,249	661,447
Paid related to:			
Current year	(108,139)	(109,925)	(83,204)
Prior years	(757,564)	(635,320)	(501,969)
Total paid	(865,703)	(745,245)	(585,173)
Net balance, end of year	3,039,258	3,128,199	2,032,092
Plus reinsurance recoverables on unpaid losses and loss adjustment expenses	431,889	451,741	385,087
Balance, end of year	\$ 3,471,147	\$ 3,579,940	\$ 2,417,179

⁽¹⁾ During 2020, the aforementioned large national healthcare account did not renew on terms offered by the Company and exercised its contractual option to purchase extended reporting endorsement or "tail" coverage. As a result, we recognized total current year losses of \$60.0 million (assumes a full limit loss) within the Specialty P&C segment for the year ended December 31, 2020.

⁽²⁾ Current year net losses and prior accident year development for the years ended December 31, 2022 and 2021 includes certain purchase accounting adjustments associated with our acquisition of NORCAL. See Note 8 of the Notes to Consolidated Financial Statements for additional information.

At December 31, 2022 our gross reserve for losses included case reserves of approximately \$2.3 billion and IBNR reserves of approximately \$1.2 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 Insurance 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 our Specialty P&C and Workers' Compensation Insurance 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. Within our Lloyd's Syndicates 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 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 certain 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.

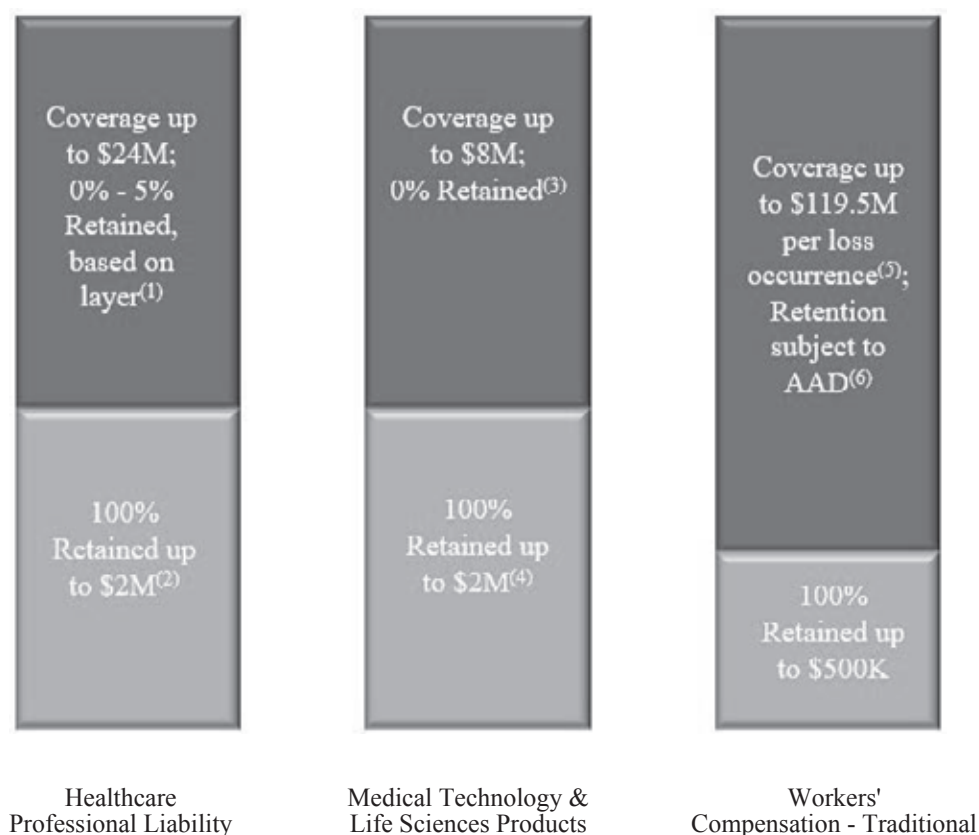
We offer alternative market solutions whereby we cede certain premiums from our Workers' Compensation Insurance and Specialty P&C segments to either the SPCs at Inova Re or Eastern Re, our Cayman Islands reinsurance subsidiaries which are

reported in our Segregated Portfolio Cell Reinsurance segment or captive insurers unaffiliated with ProAssurance for two programs. The majority of these policies are reinsured to the SPCs at Inova Re or Eastern Re, net of a ceding commission. See further discussion on our SPC operations in the Segment Results - Segregated Portfolio Cell Reinsurance section that follows. The alternative market workers' compensation policies are ceded from our Workers' Compensation Insurance segment to the SPCs under 100% quota share reinsurance agreements. The alternative market healthcare professional liability policies are ceded from our Specialty P&C segment to the SPCs under either excess of loss or quota share reinsurance agreements, depending on the structure of the individual program. The portion of the risk that is not ceded to an SPC is retained in our Specialty P&C segment and 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 is 100% ceded to unaffiliated captive insurers.

Excess of Loss Reinsurance Agreements

We generally reinsure risks under treaties (our excess of loss reinsurance agreements) 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. Generally, these agreements are negotiated and renewed annually. Our HCPL and Medical Technology Liability treaties renew annually on October 1 and our Workers' Compensation treaty renews annually on May 1. Our HCPL and Medical Technology Liability treaties renewed October 1, 2022 at a slightly higher rate than the previous treaties; all other material terms were consistent with the expiring treaties. Our traditional workers' compensation treaty renewed May 1, 2022 at a higher rate than the previous treaty; all other material terms were consistent with the expiring treaty. The significant coverages provided by our current excess of loss reinsurance agreements are depicted in the following table.

Excess of Loss Reinsurance Agreements



⁽¹⁾ Effective October 1, 2020, one prepaid limit reinstatement of \$21M and a second limit reinstatement of up to \$21M for the second layer, subject to reinstatement premium, which attaches after the first reinstatement has been completely exhausted. All limit reinstatements thereafter require no additional premium. Effective October 1, 2021, limits can be reinstated a maximum of four times.

⁽²⁾ Prior to October 1, 2020, retention was \$1M.

⁽³⁾ Historically, retention has ranged from 0% to 32.5%.

⁽⁴⁾ Historically, retention has ranged from \$1M to \$2M.

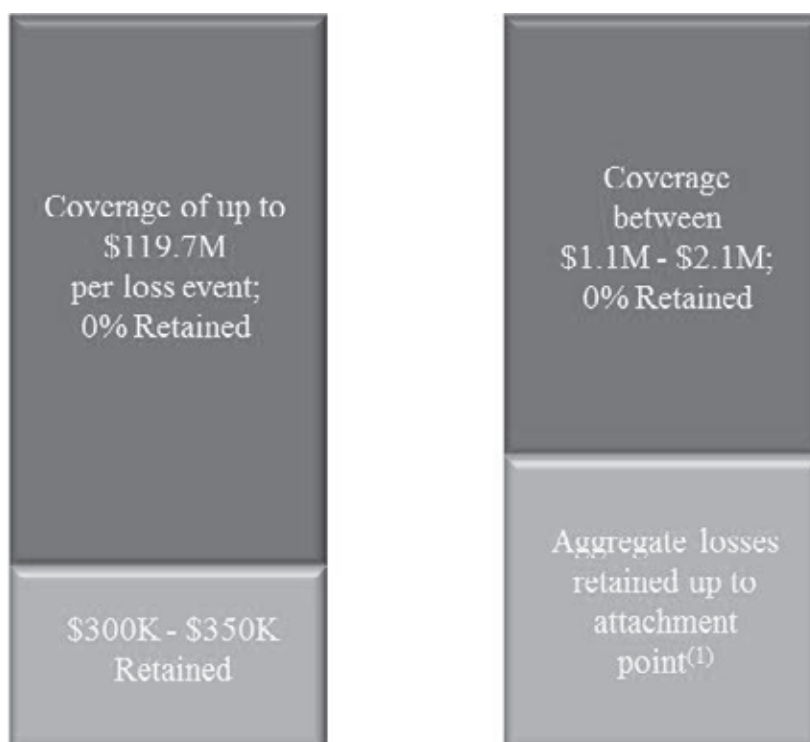
- ⁽⁵⁾ Subject to a limit of \$20M per individual claimant. If an individual loss were to exceed this level the Company would retain this excess exposure.
- ⁽⁶⁾ Subject to an AAD where retention is 3.5% of subject earned premium in annual losses otherwise recoverable in excess of the \$500K retention per loss occurrence.

Large HCPL risks that are above the limits of our basic reinsurance treaties may be 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, as well as with certain insurance agencies that produce business for us.

Other Reinsurance Arrangements

For the workers' compensation business ceded to Inova Re and 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⁾ The attachment point is based on a percentage of written premium within individual cells, ranges from 85% to 94%, and varies by cell.

Each SPC has participants and the profit or loss of each cell accrues fully to these cell participants. As previously discussed, we participate in certain SPCs to a varying degree. Each SPC maintains a loss fund initially equal to the difference between premium assumed by the cell and the ceding commission. The external participants of each cell provide collateral to us, typically in the form of a letter of credit 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, an SPC's retained profits are considered in the determination of the collateral amount required to be provided by the cell's external participants.

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.

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.

Taxes

We are subject to the tax laws and regulations of the U.S., Cayman Islands and U.K. We file a consolidated U.S. Federal income tax return that includes the parent company and its U.S. subsidiaries, except for ProAssurance American Mutual, a Risk Retention Group. 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. During the second quarter of 2022, we made a nominal safe harbor quarterly estimated tax payment and also made an income tax extension payment of \$1.1 million for the 2021 tax year; we did not make any payments during the year ended December 31, 2021, as we expected NOL carryforwards to offset any income taxes due.

As a result of the CARES Act that was signed into law on March 27, 2020 we were permitted to carryback NOLs generated in tax years 2019 and 2020 for up to five years. See further discussion in the Critical Accounting Estimates section under the heading "U.S. Tax Legislation" and Note 6 of the Notes to Consolidated Financial Statements. We generated an NOL of approximately \$33.3 million from the 2020 tax year that was carried back to the 2015 tax year that resulted in a tax refund of approximately \$11.7 million received in February 2023.

As a result of our acquisition of NORCAL, we recorded \$46.8 million of net deferred tax assets reflecting the remeasurement of NORCAL's historical net deferred tax assets at the acquisition date of May 5, 2021. The net deferred tax assets acquired from NORCAL were subject to recalculation following application of all purchase accounting adjustments and our assessment of the realizability of NORCAL's deferred tax assets. As a result of the NORCAL acquisition, we have U.S. Federal NOL carryforwards, which were approximately \$36.1 million as of December 31, 2022. These NOL carryforwards are subject to limitation by Internal Revenue Code Section 382 and will begin to expire in 2035.

Investing Activities and Related Cash Flows

Our investments at December 31, 2022 and December 31, 2021 are comprised as follows:

(\$ in thousands)	December 31, 2022		December 31, 2021	
	Carrying Value	% of Total Investment	Carrying Value	% of Total Investment
Fixed maturities, available for sale:				
U.S. Treasury obligations	\$ 221,608	5 %	\$ 238,507	5 %
U.S. Government-sponsored enterprise obligations	19,934	1 %	20,234	1 %
State and municipal bonds	439,450	10 %	519,196	11 %
Corporate debt	1,781,452	41 %	1,898,556	39 %
Residential mortgage-backed securities	389,540	8 %	453,941	9 %
Commercial mortgage-backed securities	203,794	5 %	245,624	5 %
Other asset-backed securities	416,694	9 %	457,664	9 %
Total fixed maturities, available-for-sale	3,472,472	79 %	3,833,722	79 %
Fixed maturities, trading	43,434	1 %	43,670	1 %
Total fixed maturities	3,515,906	80 %	3,877,392	80 %
Equity investments⁽¹⁾				
Equity investments ⁽¹⁾	143,738	3 %	214,807	4 %
Short-term investments	245,313	6 %	216,987	4 %
BOLI	81,746	2 %	81,767	2 %
Investment in unconsolidated subsidiaries	305,210	7 %	335,576	7 %
Other investments	95,770	2 %	101,794	3 %
Total investments	<u>\$ 4,387,683</u>	<u>100 %</u>	<u>\$ 4,828,323</u>	<u>100 %</u>

⁽¹⁾Includes \$112.1 million and \$187.1 million of investment grade bond funds as of December 31, 2022 and 2021, respectively, which are not subject to significant equity price risk.

At December 31, 2022, 99% of our investments in available-for-sale fixed maturity securities were rated and the average rating was A+ . The distribution of our investments in available-for-sale fixed maturity securities by rating were as follows:

(\$ in thousands)	December 31, 2022		December 31, 2021	
	Carrying Value	% of Total Investment	Carrying Value	% of Total Investment
Rating*				
AAA	\$ 1,008,230	29 %	\$ 1,129,136	29 %
AA+	113,659	3 %	130,077	3 %
AA	210,247	6 %	254,570	7 %
AA-	190,106	5 %	194,661	5 %
A+	264,950	8 %	221,473	6 %
A	432,442	12 %	521,598	14 %
A-	345,671	10 %	364,147	9 %
BBB+	213,794	6 %	292,984	8 %
BBB	305,987	9 %	300,650	8 %
BBB-	137,596	4 %	127,982	3 %
Below investment grade	249,400	7 %	296,444	8 %
Not rated	390	1 %	—	— %
Total	<u>\$ 3,472,472</u>	<u>100 %</u>	<u>\$ 3,833,722</u>	<u>100 %</u>

*Average of three NRSRO sources, presented as an S&P equivalent. Source: S&P, Copyright ©2023, S&P Global Market Intelligence

A detailed listing of our investment holdings as of December 31, 2022 is located under the Financial Information heading on the Investor Relations page of our website which can be reached directly at <https://investor.proassurance.com/financial-information/quarterly-investment-supplements/default.aspx> 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 well as the expected cash flows to be generated by our operations. In addition to the interest and dividends we will receive from our investments, we anticipate that between \$90 million and \$160 million of our portfolio 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 with consideration to current and anticipated industry trends and macroeconomic conditions. 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. Permitted borrowings under our Revolving Credit Agreement are \$250 million with the possibility of an additional \$50 million accordion feature, if successfully subscribed. 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 our Revolving Credit Agreement is detailed in Note 11 of the Notes to Consolidated Financial Statements.

At December 31, 2022, our FAL was comprised of fixed maturity securities with a fair value of \$23.8 million and cash and cash equivalents of \$1.0 million deposited with Lloyd's. See further discussion in Note 4 of the Notes to Consolidated Financial Statements. During the second quarter of 2022, we received a return of approximately \$5.5 million of cash from our FAL balances given Syndicate 6131 ceased underwriting on a quota share basis with Syndicate 1729 beginning with the 2022 underwriting year as well as the settlement of our participation in the results of Syndicate 1729 and Syndicate 6131 for the 2019 underwriting year. Further, during the fourth quarter of 2022, we received a return of approximately \$5.6 million of cash from our FAL balances due to lower capital requirements for the 2023 underwriting year following Lloyd's of London's review of the 2023 business plan.

Our investment portfolio continues to be primarily composed of high quality fixed income securities with approximately 92% 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, 2022 was 3.50 years; the weighted average effective duration of our fixed maturity securities combined with our short-term securities was 3.27 years.

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

<i>(\$ in thousands, except expected funding period)</i>	Carrying Value		December 31, 2022	
	December 31, 2022	December 31, 2021	Unfunded Commitment	Expected funding period in years
Qualified affordable housing project tax credit partnerships ⁽¹⁾	\$ 4,088	\$ 12,424	\$ 253	4
All other investments, primarily investment fund LPs/LLCs	301,122	323,152	120,043	4
Total	\$ 305,210	\$ 335,576	\$ 120,296	

⁽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.

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, 2022, we had investments in 35 separate investment funds with a total carrying value of \$301.1 million which represented approximately 7% of our total investments. Our investment fund LPs/LLCs generate earnings from trading portfolios, secured debt, debt securities, multi-strategy funds and private equity investments, and the performance of these LPs/LLCs is affected by the volatility of equity and credit markets. For our investments in LPs/LLCs, we record our allocable portion of the partnership operating income or loss as the results of the LPs/LLCs become available, typically following the end of a reporting period.

Financing Activities and Related Cash Flows

Treasury Shares

Treasury share activity for 2022, 2021 and 2020 was as follows:

<i>(In thousands)</i>	2022	2021	2020
Treasury shares at the beginning of the period	9,325	9,325	9,325
Shares reacquired, at cost of \$3.3 million for 2022	139	—	—
Treasury shares at the end of the period	<u>9,464</u>	<u>9,325</u>	<u>9,325</u>

We did not repurchase any common shares subsequent to December 31, 2022 and as of February 22, 2023 our remaining Board authorization was approximately \$106.4 million.

ProAssurance Shareholder Dividends

Our Board declared cash dividends during 2022, 2021 and 2020 as follows:

	<u>Quarterly Cash Dividends Declared, per Share</u>		
	2022	2021	2020
First Quarter	\$ 0.05	\$ 0.05	\$ 0.31
Second Quarter	\$ 0.05	\$ 0.05	\$ 0.05
Third Quarter	\$ 0.05	\$ 0.05	\$ 0.05
Fourth Quarter	\$ 0.05	\$ 0.05	\$ 0.05

Each dividend was paid in the month following the quarter in which it was declared. Cash dividends totaling \$11 million were paid during each of the years ended December 31, 2022 and 2021 and cash dividends totaling \$39 million were paid during the year ended December 31, 2020. 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, 2022, our debt included \$250 million of outstanding unsecured senior notes. The notes bear interest at 5.3% annually and are due in November 2023, although they may be redeemed in whole or part prior to maturity. There are no financial covenants associated with these notes.

NORCAL Insurance Company, successor to NORCAL Mutual Insurance Company, issued Contribution Certificates, which bear interest at 3.0% annually and are due in 2031, to certain NORCAL policyholders in the conversion. The Contribution Certificates have a principal amount of \$191 million and were recorded at their fair value of \$175 million at the date of the NORCAL acquisition on May 5, 2021. The difference of \$16 million between the recorded acquisition date fair value and the principal balance of the Contribution Certificates will be accreted utilizing the effective interest method over the term of the certificates of ten years as an increase to interest expense. Furthermore, interest payments are subject to deferral if we do not receive permission from the California Department of Insurance prior to payment. We received permission from the California Department of Insurance to pay the first annual interest payment which was paid in April 2022. See Note 2 and Note 11 of the Notes to Consolidated Financial Statements for additional information on the Contribution Certificates issued in the NORCAL acquisition. There are no financial covenants associated with these certificates.

We have a Revolving Credit Agreement, which expires in November 2024, that 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 \$250 million as well as the possibility of a \$50 million accordion feature, if successfully subscribed. At December 31, 2022, there were no outstanding borrowings on our Revolving Credit Agreement; we are in compliance with the financial covenants of the Revolving Credit Agreement.

Additional information regarding our debt is provided in Note 11 of the Notes to Consolidated Financial Statements.

We utilized an interest rate cap agreement with a notional amount of \$35 million to manage our exposure to increases in LIBOR. Per the interest rate cap agreement, we were entitled to receive cash payments if and when the three-month LIBOR exceeds 2.35%. In April 2022, we terminated our interest rate cap agreement that was previously utilized to manage our exposure to increases in LIBOR on Mortgage Loans that were fully repaid in 2021. As a result of the termination, we received \$2.1 million in proceeds during the second quarter of 2022.

Three 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.

Results of Operations - Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

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

<i>(\$ in thousands, except per share data)</i>	Year Ended December 31		
	2022	2021	<i>Change</i>
Revenues:			
Net premiums written	\$ 1,014,137	\$ 882,721	\$ 131,416
Net premiums earned	\$ 1,029,581	\$ 971,668	\$ 57,913
Net investment result	100,860	119,496	(18,636)
Net investment gains (losses)	(33,157)	24,310	(57,467)
Other income	9,404	8,936	468
Total revenues	1,106,688	1,124,410	(17,722)
Expenses:			
Net losses and loss adjustment expenses	776,762	752,249	24,513
Underwriting, policy acquisition and operating expenses	307,338	268,246	39,092
SPC U.S. federal income tax expense	1,759	1,947	(188)
SPC dividend expense (income)	6,673	10,050	(3,377)
Interest expense	20,372	19,719	653
Total expenses	1,112,904	1,052,211	60,693
Gain on bargain purchase	—	74,408	(74,408)
Income (loss) before income taxes	(6,216)	146,607	(152,823)
Income tax expense (benefit)	(5,814)	2,483	(8,297)
Net income (loss)	\$ (402)	\$ 144,124	\$ (144,526)
Non-GAAP operating income (loss)	\$ 24,509	\$ 75,892	\$ (51,383)
Earnings (loss) per share:			
Basic	\$ (0.01)	\$ 2.67	\$ (2.68)
Diluted	\$ (0.01)	\$ 2.67	\$ (2.68)
Non-GAAP operating income (loss) per share:			
Basic	\$ 0.45	\$ 1.41	\$ (0.96)
Diluted	\$ 0.45	\$ 1.40	\$ (0.95)
Net loss ratio	75.4 %	77.4%	(2.0 pts)
Underwriting expense ratio	29.9 %	27.6%	2.3 pts
Combined ratio	105.3 %	105.0%	0.3 pts
Operating ratio	96.0 %	97.7%	(1.7 pts)
Effective tax rate	93.5%	1.7%	91.8 pts
Return on equity*	—%	5.3%	(5.3 pts)
Non-GAAP operating return on equity*	1.9%	5.6%	(3.7 pts)

*See further discussion on this calculation in the Executive Summary of Operations section under the heading "Non-GAAP Operating ROE."

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, 2022 as compared to the year ended December 31, 2021. See the Segment Results sections that follow for additional information regarding each segment's results. For a full discussion of the changes in the financial condition, results of operations and cash flows for the year ended December 31, 2021 as compared to the year ended December 31, 2020, please refer to Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of ProAssurance's December 31, 2021 report on Form 10-K.

Revenues

The following table shows our consolidated and segment net premiums earned:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Net premiums earned				
Specialty P&C	\$ 769,773	\$ 695,008	\$ 74,765	10.8%
Workers' Compensation Insurance	166,371	164,600	1,771	1.1%
Segregated Portfolio Cell Reinsurance	69,810	63,688	6,122	9.6%
Lloyd's Syndicates	23,627	48,372	(24,745)	(51.2%)
Consolidated total	\$ 1,029,581	\$ 971,668	\$ 57,913	6.0%

For the year ended December 31, 2022, consolidated net premiums earned included earned premium from our acquisition of NORCAL of \$289.0 million as compared to \$214.6 million in 2021. Excluding NORCAL premiums, our consolidated net premiums earned decreased \$16.5 million in 2022 as compared to 2021.

- The decrease in our Lloyd's Syndicates segment for the year ended December 31, 2022 was due to our decreased participation in the results of Syndicate 1729 and Syndicate 6131 for the 2021 underwriting year and, to a lesser extent, our ceased participation in Syndicate 6131 for the 2022 underwriting year.
- Net premiums earned in our Segregated Portfolio Cell Reinsurance segment increased during 2022 driven by tail coverage premiums primarily related to one program in which we do not participate, which resulted in \$4.9 million of one-time premium written and fully earned as well as an increase in audit premium billed to policyholders in 2022.
- For our Workers' Compensation Insurance segment, net premiums earned increased for 2022 due to an increase in audit premiums billed to policyholders in 2022 as well as the change in the carried EBUB estimate, which increased \$1.5 million in 2022 as compared to a reduction of \$1.2 million in 2021, partially offset by the competitive workers' compensation market conditions.
- Net premiums earned in our Specialty P&C segment, excluding NORCAL premiums, remained relatively unchanged during 2022 as compared to 2021.

The following table shows our consolidated net investment result:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Net investment income	\$ 95,972	\$ 70,522	\$ 25,450	36.1%
Equity in earnings (loss) of unconsolidated subsidiaries*	4,888	48,974	(44,086)	(90.0%)
Net investment result	\$ 100,860	\$ 119,496	\$ (18,636)	(15.6%)

*Equity in earnings (loss) of unconsolidated subsidiaries includes our share of the operating results of interests we hold in certain LPs/LLCs as well as operating losses associated with our tax credit partnership investments, which are designed to generate returns in the form of tax credits and tax-deductible project operating losses.

The increase in our consolidated net investment income for the year ended December 31, 2022 as compared to 2021 reflected higher average book yields as we continue to reinvest at higher rates as our portfolio matures and the addition of NORCAL's investment portfolio. Furthermore, the increase in net investment income during 2022 reflected the prior year impact of capital planning in anticipation of closing the NORCAL acquisition. Equity in earnings of unconsolidated subsidiaries decreased in 2022 primarily due to the performance of certain LP/LLCs, which are primarily reported to us on a one-quarter lag, and reflected lower market valuations during 2022, partially offset by lower amortization of tax credit partnership operating losses.

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

<i>(\$ in thousands)</i>	Year Ended December 31			
	2022	2021	<i>Change</i>	
Net impairment losses recognized in earnings	\$ (1,758)	\$ —	\$ (1,758)	<i>nm</i>
Other net investment gains (losses) ⁽¹⁾	(31,399)	24,310	<i>(55,709)</i>	<i>(229.2%)</i>
Net investment gains (losses)	\$ (33,157)	\$ 24,310	<i>\$ (57,467)</i>	<i>(236.4%)</i>

⁽¹⁾ Consolidated other net investment gains (losses) in 2022 include a gain of \$9.0 million recognized during the fourth quarter of 2022 reflecting the change in the fair value of contingent consideration issued in connection with the NORCAL acquisition (see Note 2 of the Notes to Consolidated Financial Statements). We do not consider this adjustment in assessing the financial performance of any of our operating or reportable segments and therefore, we have excluded it from the Segment Results sections that follow. See Note 16 of the Notes to Consolidated Financial Statements for a reconciliation of our segment results to our consolidated results.

We recognized \$33.2 million of net investment losses for the year ended December 31, 2022 driven by unrealized holding losses resulting from changes in the fair value of our equity investments and convertible securities. We recognized \$24.3 million of net investment gains for the year ended December 31, 2021, driven primarily by realized gains on the sale of certain available-for-sale fixed maturities and other investments, partially offset by unrealized holding losses resulting from decreases in the fair value on our equity portfolio.

Expenses

The following table shows our consolidated and segment net loss ratios and net prior accident year reserve development.

<i>(\$ in millions)</i>	Year Ended December 31		
	2022	2021	<i>Change</i>
Current accident year net loss ratio			
Consolidated ratio	79.0%	82.1%	<i>(3.1 pts)</i>
Specialty P&C	83.1%	87.5%	<i>(4.4 pts)</i>
Workers' Compensation Insurance	71.8%	74.0%	<i>(2.2 pts)</i>
Segregated Portfolio Cell Reinsurance	65.3%	67.1%	<i>(1.8 pts)</i>
Lloyd's Syndicates	37.2%	51.9%	<i>(14.7 pts)</i>
Calendar year net loss ratio			
Consolidated ratio	75.4%	77.4%	<i>(2.0 pts)</i>
Specialty P&C	79.2%	82.8%	<i>(3.6 pts)</i>
Workers' Compensation Insurance	67.0%	69.7%	<i>(2.7 pts)</i>
Segregated Portfolio Cell Reinsurance	56.3%	51.1%	<i>5.2 pts</i>
Lloyd's Syndicates	68.3%	61.6%	<i>6.7 pts</i>
Favorable (unfavorable) reserve development, prior accident years			
Consolidated	\$ 36.8	\$ 45.5	<i>\$ (8.7)</i>
Specialty P&C	\$ 29.8	\$ 32.9	<i>\$ (3.1)</i>
Workers' Compensation Insurance	\$ 8.0	\$ 7.1	<i>\$ 0.9</i>
Segregated Portfolio Cell Reinsurance	\$ 6.3	\$ 10.2	<i>\$ (3.9)</i>
Lloyd's Syndicates	\$ (7.3)	\$ (4.7)	<i>\$ (2.6)</i>

The primary drivers of the change in our consolidated current accident year net loss ratio for the year ended December 31, 2022 as compared to 2021 were as follows:

<i>(In percentage points)</i>	Increase (Decrease) 2022 versus 2021
Estimated ratio increase (decrease) attributable to:	
NORCAL Operations	<i>(1.4 pts)</i>
NORCAL Acquisition - Purchase Accounting Adjustment	<i>0.2 pts</i>
Change in Estimate of ULAE	<i>(2.5 pts)</i>
All other, net	<i>0.6 pts</i>
Decrease in the consolidated current accident year net loss ratio	<u><u>(3.1 pts)</u></u>

- Excluding the impact of the items specifically identified in the table above, our consolidated current accident year net loss ratio increased 0.6 percentage points for the year ended December 31, 2022 driven by our Specialty P&C segment, partially offset by our Workers' Compensation Insurance, Segregated Portfolio Cell Reinsurance and Lloyd's Syndicates segments. As a result of actuarial analyses performed by both internal and consulting actuaries during 2022, we increased our current accident year net loss ratio in our Specialty P&C segment, excluding NORCAL, driven by an increase to certain expected loss ratios in our Standard Physician line of business due to higher than anticipated loss severity trends in select jurisdictions, which emerged primarily in the fourth quarter of 2022. See additional information in the Segment Results - Specialty Property and Casualty section that follows. In our Workers' Compensation Insurance segment, the lower current accident year net loss ratio for 2022 reflected an improvement in loss frequency and severity trends, partially offset by the continuation of intense price competition and the resulting renewal rate decreases. Further, the current accident year net loss ratio in our Workers' Compensation Insurance segment for 2021 reflects workers returning to full employment after the lifting of pandemic-related restrictions and the labor shortage. In our Segregated Portfolio Cell Reinsurance segment, the improvement in the current accident year net loss ratio for 2022 primarily reflects favorable trends in prior accident year workers' compensation claim results and their impact on our analysis of the current year loss estimate. For our Lloyd's Syndicates segment, the lower current accident year net loss ratio was driven by decreases to certain loss estimates during the first quarter of 2022, partially offset by lower reinsurance recoveries as a proportion of gross losses as compared to the prior year period.
- Initial expected loss ratios associated with NORCAL policies are higher than the average for the other books of business in our Specialty P&C segment; however, we reduced certain expected NORCAL loss ratios during the fourth quarter of 2021 and also in the third and fourth quarters of 2022 due to favorable frequency trends some of which, we believe, are primarily attributable to our re-underwriting efforts, leading to a 1.4 percentage point improvement in our consolidated current accident year net loss ratio in 2022. We completed the process of evaluating the NORCAL book of business and implementing ProAssurance's underwriting strategies during the second quarter of 2022. Furthermore, the 1.4 percentage point improvement also reflected a reduction to our reserve related to NORCAL's DDR coverage endorsements in the fourth quarter of 2022.
- Also as a result of our acquisition of NORCAL, our consolidated current accident year net loss ratio in 2022 and 2021 was impacted by the purchase accounting amortization of the negative VOBA associated with NORCAL's assumed unearned premium of \$4.9 million and \$6.7 million, respectively, which was recorded as a reduction to current accident year net losses. As of June 30, 2022, the negative VOBA was fully amortized which resulted in a 0.2 percentage point increase in 2022.
- Beginning in 2022, we revised our process of estimating ULAE in our Specialty P&C segment as a result of substantially integrating NORCAL into our operations, which accounted for a 2.5 percentage point decrease in our consolidated current accident year net loss ratio for the year ended December 31, 2022 with an offsetting 2.5 percentage point increase in our consolidated expense ratio for the same current period with no impact to our consolidated combined ratio, total expenses or net income (loss). See additional information on this change in ULAE estimate in the Segment Results - Specialty Property and Casualty section that follows.

In both 2022 and 2021, 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 prior year reserve development, as shown in the previous table. The following table shows the components of our consolidated net prior accident year reserve development:

(\$ in thousands)	Year Ended December 31			Change
	2022	2021		
Net favorable reserve development	\$ 25,934	\$ 37,576	\$ (11,642)	(31.0%)
NORCAL Acquisition - Purchase Accounting Amortization*	10,819	7,907	2,912	36.8%
Total net favorable reserve development	\$ 36,753	\$ 45,483	\$ (8,730)	(19.2%)

*See Note 2 of the Notes to Consolidated Financial Statements for additional information on the purchase accounting adjustments.

- Development recognized in our Specialty P&C segment during 2022 principally related to accident years 2017 and 2020 through 2021. Net favorable prior accident year reserve development recognized in our Specialty P&C segment included favorable development related to NORCAL's 2021 accident year and, to a lesser extent, our Medical Technology Liability line of business. Net favorable prior accident year reserve development recognized in 2022 was partially offset by unfavorable reserve development in our HCPL line of business, excluding NORCAL, driven by higher than anticipated loss severity trends in select jurisdictions, which emerged primarily in the fourth quarter of 2022. We have not recognized any development related to NORCAL's accident years 2020 or prior since the date of acquisition on May 5, 2021.
- We reduced our prior accident year IBNR reserve for COVID-19 by \$9.0 million and \$1.0 million during 2022 and 2021, respectively, as early first notices of potential claims related to anticipated COVID losses have not turned into claims. As of December 31, 2022, we no longer carry a specific IBNR reserve for potential COVID-19 related losses. See additional discussion on the COVID-19 IBNR reserve in our Critical Accounting Estimates section under the heading "Reserve for Losses and Loss Adjustment Expenses."
- For our Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance segments, the net favorable development in 2022 reflected overall favorable trends in claim closing patterns.
- We recognized \$7.3 million of unfavorable prior year development in our Lloyd's Syndicates segment during the year ended December 31, 2022 driven by higher than expected losses and development on certain large claims, primarily catastrophe related losses.

Our consolidated and segment underwriting expense ratios were as follows:

Underwriting Expense Ratio	Year Ended December 31		
	2022	2021	Change
Consolidated ⁽¹⁾	29.9%	27.6%	2.3 pts
Specialty P&C	25.0%	18.4%	6.6 pts
Workers' Compensation Insurance	32.9%	31.8%	1.1 pts
Segregated Portfolio Cell Reinsurance	29.1%	34.0%	(4.9 pts)
Lloyd's Syndicates	31.4%	37.1%	(5.7 pts)
Corporate ⁽²⁾	3.4%	2.7%	0.7 pts

⁽¹⁾ Consolidated underwriting expenses include transaction-related costs for 2022 and 2021 associated with our acquisition of NORCAL that are not included in a segment as we do not consider these costs in assessing the financial performance of any of our operating or reportable segments. See Note 16 of the Notes to Consolidated Financial Statements for a reconciliation of our segment results to our consolidated results.

⁽²⁾ 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 premiums earned).

The change in our consolidated underwriting expense ratio for the year ended December 31, 2022 as compared to 2021 was primarily attributable to the following:

<i>(In percentage points)</i>	Increase (Decrease) 2022 versus 2021
Estimated ratio increase (decrease) attributable to:	
Change in Net Premiums Earned and DPAC amortization	<i>0.5 pts</i>
NORCAL DPAC Amortization - Prior Period Purchase Accounting Impact	<i>1.4 pts</i>
Change in Estimate of ULAE	<i>2.5 pts</i>
Transaction-related Costs ⁽¹⁾	<i>(2.4 pts)</i>
One-Time Expenses ⁽²⁾	<i>0.4 pts</i>
All other, net	<i>(0.1 pts)</i>
Increase in the underwriting expense ratio	<u>2.3 pts</u>

⁽¹⁾ Represents transaction-related costs associated with our acquisition of NORCAL of \$1.9 million and \$25.0 million for 2022 and 2021, respectively. While these costs are included in our consolidated results, they are not allocated to an individual segment as we do not consider these costs in assessing the financial performance of any of our operating or reportable segments. See Note 16 of the Notes to Consolidated Financial Statements for a reconciliation of our segment results to our consolidated results.

⁽²⁾ Represents one-time expenses of \$3.9 million for 2022 mainly comprised of one-time bonuses, accelerated depreciation associated with a decommissioned IT system, employee severance charges and lease exit costs in our Specialty P&C segment.

- Excluding the impact of items specifically identified in the table above, our consolidated underwriting expense ratio for 2022 remained relatively unchanged as compared to 2021.
- As shown in the previous table, our consolidated underwriting expense ratio for 2022 is higher as compared to 2021 reflecting the impact of lower DPAC amortization than would have otherwise been recognized during 2021 associated with NORCAL policies due to the application of GAAP purchase accounting rules. Under these purchase accounting rules, the capitalized policy acquisition costs for NORCAL policies written prior to the acquisition date were written off through purchase accounting on May 5, 2021 rather than being expensed pro rata over the remaining term of the associated policies (see Note 2 of the Notes to Consolidated Financial Statements in our December 31, 2021 report on Form 10-K for more information). DPAC amortization in our Specialty P&C segment for 2022 was approximately \$1.0 million lower than would have otherwise been recognized. Normalizing the prior year amortization would have increased our consolidated underwriting expense ratio for 2021 by 1.4 percentage points.
- As shown in the previous table, the consolidated underwriting expense ratio for 2022 reflected a revision to our process of estimating ULAE in our Specialty P&C segment, as previously discussed, which resulted in approximately \$25.4 million of expenses remaining in operating expenses instead of being allocated to net losses and loss adjustment expenses. As a result, this change in ULAE estimate accounted for a 2.5 percentage point increase in our consolidated underwriting expense ratio with an offsetting 2.5 percentage point decrease to our consolidated net loss ratio during the same period with no impact to our consolidated combined ratio, total expenses or net income (loss). See additional discussion on this change in ULAE estimate in the Segment Results - Specialty Property and Casualty section that follows.

Gain on Bargain Purchase

As a result of the NORCAL acquisition, we recognized a gain on bargain purchase of \$74.4 million during the second quarter of 2021 representing the excess of the fair value of the identifiable assets acquired and liabilities assumed over the purchase consideration. We do not consider this gain in assessing the financial performance of any of our operating or reportable segments and therefore, we have excluded it from the Segment Results sections that follow. See further discussion around the gain on bargain purchase recognized from the NORCAL acquisition in Note 2 of the Notes to Consolidated Financial Statements.

Taxes

Our consolidated effective tax rates for the years ended December 31, 2022 and 2021 were as follows:

(\$ in thousands)	Year Ended December 31		
	2022	2021	Change
Income (loss) before income taxes	\$ (6,216)	\$ 146,607	\$ (152,823) (104.2%)
Income tax expense (benefit)	(5,814)	2,483	(8,297) (334.2%)
Net income (loss)	\$ (402)	\$ 144,124	\$ (144,526) (100.3%)
Effective tax rate	93.5%	1.7%	91.8 pts

We recognized an income tax benefit in 2022 of \$5.8 million and income tax expense of \$2.5 million in 2021. Our effective tax rates for the years ended December 31, 2022 and 2021 were different from the statutory federal income tax rate of 21% typically due to the benefit recognized from the tax credits transferred to us from our tax credit partnership investments. Additionally, our effective tax rate for 2022 was impacted by a gain of \$9.0 million related to the change in fair value of contingent consideration issued in connection with the NORCAL acquisition, all of which was non-taxable. For 2021, our effective tax rate was also affected by the non-taxable \$74.4 million gain on bargain purchase related to the NORCAL acquisition. See further information on other notable items impacting our effective tax rate for the years ended December 31, 2022 and 2021 in the Segment Results - Corporate section that follows under the heading "Taxes."

Operating Ratio

Our operating ratio is our combined ratio, less our investment income ratio. This ratio provides the combined effect of underwriting profitability and investment income. Our operating ratio for the years ended December 31, 2022 and 2021 was as follows:

	Year Ended December 31		
	2022	2021	Change
Combined ratio	105.3%	105.0%	0.3 pts
Less: investment income ratio	9.3%	7.3%	2.0 pts
Operating ratio	96.0%	97.7%	(1.7 pts)
Combined ratio, excluding transaction-related costs*	105.1%	102.4%	2.7 pts

*Excludes transaction-related costs of \$1.9 million and \$25.0 million in 2022 and 2021, respectively, associated with our acquisition of NORCAL which are included in consolidated results and do not reflect normal operating expenses. See previous discussion under the heading "Expenses."

The primary drivers of the change in our operating ratio were as follows:

(In percentage points)	Increase (Decrease) 2022 versus 2021
Estimated ratio increase (decrease) attributable to:	
Investment Results	(2.0 pts)
Transaction-related Costs	(2.4 pts)
NORCAL DPAC Amortization - Prior Period Purchase Accounting Impact	1.4 pts
All other, net	1.3 pts
Decrease in the operating ratio	(1.7 pts)

Excluding the impact of the items specifically identified in the table above, our operating ratio for 2022 increased as compared to 2021 driven by lower favorable prior year development, partially offset by an improvement in our Specialty P&C segment's current accident year net loss ratio. The improvement in our Specialty P&C segment's current accident year net loss ratio in 2022 was primarily attributable to a decrease to certain expected NORCAL loss ratios during the third and fourth quarters of 2022 due to favorable frequency trends, partially offset by an increase to certain expected loss ratios in our Standard Physician line of business due to higher than anticipated loss emergence in select jurisdictions. See previous discussion in this section under the heading "Expenses" and further discussion in our Segment Operating Results sections that follow.

Non-GAAP Financial Measures

Non-GAAP Operating Income (Loss)

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

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

<i>(In thousands, except per share data)</i>	Year Ended December 31	
	2022	2021
Net income (loss)	\$ (402)	\$ 144,124
Items excluded in the calculation of Non-GAAP operating income (loss):		
Net investment (gains) losses ⁽¹⁾	33,157	(24,310)
Net investment gains (losses) attributable to SPCs which no profit/loss is retained ⁽²⁾	(2,138)	3,253
Transaction-related costs ⁽³⁾	1,862	24,977
Guaranty fund assessments (recoupments)	541	228
Gain on bargain purchase ⁽⁴⁾	—	(74,408)
Pre-tax effect of exclusions	33,422	(70,260)
Tax effect, at 21% ⁽⁵⁾	(8,511)	2,028
After-tax effect of exclusions	24,911	(68,232)
Non-GAAP operating income (loss)	\$ 24,509	\$ 75,892
Per diluted common share:		
Net income (loss)	\$ (0.01)	\$ 2.67
Effect of exclusions	0.46	(1.27)
Non-GAAP operating income (loss) per diluted common share	\$ 0.45	\$ 1.40

⁽¹⁾ Net investment gains (losses) in 2022 include a gain of \$9.0 million related to the change in the fair value of contingent consideration issued in connection with the NORCAL acquisition. We have excluded this adjustment as it does not reflect normal operating results. See further discussion around the contingent consideration in Note 2 and Note 4 of the Notes to Consolidated Financial Statements.

⁽²⁾ Net investment gains (losses) on investments related to SPCs are recognized in our Segregated Portfolio Cell Reinsurance segment. SPC results, including any net investment gain or loss, that are attributable to external cell participants are reflected in the SPC dividend expense (income). To be consistent with our exclusion of net investment gains (losses) recognized in earnings, we are excluding the portion of net investment gains (losses) that is included in the SPC dividend expense (income) which is attributable to the external cell participants.

⁽³⁾ Transaction-related costs associated with our acquisition of NORCAL. We are excluding these costs as they do not reflect normal operating results and are unique and non-recurring in nature.

⁽⁴⁾ Gain on bargain purchase associated with our acquisition of NORCAL which is considered unusual, infrequent and non-recurring in nature. As such, we have excluded the gain on bargain purchase as it does not reflect normal operating results.

⁽⁵⁾ The 21% rate is the statutory tax rate associated with the taxable or tax deductible items listed above. The taxes associated with the net investment gains (losses) related to SPCs in our Segregated Portfolio Cell Reinsurance segment are paid by the individual SPCs and are not included in our consolidated tax provision or net income (loss); therefore, both the net investment gains (losses) from our Segregated Portfolio Cell Reinsurance segment and the adjustment to exclude the portion of net investment gains (losses) included in the SPC dividend expense (income) in the table above are not tax effected. The 2021 gain on bargain purchase and the 2022 gain related to the change in the fair value of contingent consideration are non-taxable and therefore had no associated income tax impact.

Non-GAAP Operating ROE

Non-GAAP operating ROE is a financial measure that is calculated as Non-GAAP operating income (loss) for the period divided by the average of beginning and ending total GAAP shareholders' equity. As previously discussed, in calculating Non-GAAP operating income (loss), we have excluded the effects of certain items that do not reflect normal results. Non-GAAP operating ROE measures the overall after-tax profitability of our insurance operations and shows how efficiently capital is being used; however, it should be considered in conjunction with ROE computed in accordance with GAAP. The following table is a reconciliation of ROE to Non-GAAP operating ROE for the years ended December 31, 2022 and 2021:

	Year Ended December 31		
	2022	2021	Change
ROE ⁽¹⁾	— %	5.3 %	(5.3 pts)
Pre-tax effect of items excluded in the calculation of Non-GAAP operating ROE	2.6 %	0.2 %	2.4 pts
Tax effect, at 21% ⁽²⁾	(0.7 %)	0.1 %	(0.8 pts)
Non-GAAP operating ROE	1.9 %	5.6 %	(3.7 pts)

⁽¹⁾ The \$74.4 million gain on bargain purchase recognized during the second quarter of 2021 was excluded in our calculation of ROE for the year ended December 31, 2021 consistent with our treatment of gains on bargain purchases from previous acquisitions.

⁽²⁾ The 21% rate is the statutory tax rate associated with the taxable or tax deductible items. See further discussion in footnote 5 in this section under the heading "Non-GAAP Operating Income."

Non-GAAP operating ROE for 2022 decreased by 3.7 percentage points largely due to a decrease in our investment results from our portfolio of investments in LPs/LLCs (see previous discussion under the heading "Revenues"). Furthermore, the decrease in ROE for 2022 reflected a lower amount of prior year DPAC amortization associated with NORCAL policies than would have otherwise been recognized during 2021 due to the application of GAAP purchase accounting rules and a lower amount of favorable development as compared to 2021. See previous discussion in this section under the heading "Expenses" and further discussion in our Segment Operating Results sections that follow.

Non-GAAP Adjusted Book Value per Share

Book value per share is calculated as total GAAP shareholders' equity divided by the total number of common shares outstanding at the balance sheet date. This ratio measures the net worth of the Company to shareholders on a per share basis.

Non-GAAP adjusted book value per share is a Non-GAAP measure widely used within the insurance sector and is calculated as shareholders' equity, excluding AOCI, divided by the total number of common shares outstanding at the balance sheet date. This Non-GAAP calculation measures the net worth of the Company to shareholders on a per share basis excluding AOCI to eliminate the temporary and potentially significant effects of fluctuations in interest rates on our fixed income portfolio; however, it should be considered in conjunction with book value per share computed in accordance with GAAP. The increase in interest rates during 2022 lead to significant unrealized holding losses on our available-for-sale fixed maturity investments resulting in volatility in AOCI. See Note 12 of the Notes to Consolidated Financial Statements for additional information.

The following table is a reconciliation of our book value per share to Non-GAAP adjusted book value per share at December 31, 2022 and December 31, 2021:

	Book Value Per Share
Book Value Per Share at December 31, 2021	\$ 26.46
Less: AOCI Per Share ⁽¹⁾	0.30
Non-GAAP Adjusted Book Value Per Share at December 31, 2021	26.16
Increase (decrease) to Non-GAAP Adjusted Book Value Per Share during the year ended December 31, 2022 attributable to:	
Dividends declared	(0.20)
Net income (loss)	(0.01)
Other ⁽²⁾	0.04
Non-GAAP Adjusted Book Value Per Share at December 31, 2022	25.99
Add: AOCI Per Share ⁽¹⁾	(5.53)
Book Value Per Share at December 31, 2022	\$ 20.46

⁽¹⁾ Primarily the impact of accumulated unrealized investment gains (losses) on our available-for-sale fixed maturity investments. See Note 12 of the Notes to Consolidated Financial Statements for additional information.

⁽²⁾ Includes the impact of share-based compensation and shares repurchased conducted through a 10b5-1 stock repurchase plan.

Segment Results - Specialty Property & Casualty

Our Specialty P&C segment focuses on professional liability insurance and medical technology liability insurance as discussed in Note 16 of the Notes to Consolidated Financial Statements. On May 5, 2021, we completed our acquisition of NORCAL, an underwriter of healthcare professional liability insurance (Note 2 of the Notes to Consolidated Financial Statements provides additional information regarding this acquisition). Segment results reflected pre-tax underwriting profit or loss from these insurance lines and included the amortization of certain purchase accounting adjustments. Segment results for the years ended December 31, 2022 and 2021 exclude transaction-related costs and, for 2021, a \$74.4 million gain on bargain purchase associated with our acquisition of NORCAL as we do not consider these items in assessing the financial performance of the segment. Segment results included the following:

(\$ in thousands)	Year Ended December 31			Change
	2022	2021		
Net premiums written	\$ 765,444	\$ 626,147	\$ 139,297	22.2%
Net premiums earned	\$ 769,773	\$ 695,008	\$ 74,765	10.8%
Other income	5,003	3,370	1,633	48.5%
Net losses and loss adjustment expenses	(609,915)	(575,164)	(34,751)	6.0%
Underwriting, policy acquisition and operating expenses	(192,397)	(127,709)	(64,688)	50.7%
Segment results	\$ (27,536)	\$ (4,495)	\$ (23,041)	(512.6%)
Net loss ratio	79.2 %	82.8 %	(3.6 pts)	
Underwriting expense ratio	25.0 %	18.4 %	6.6 pts	

Premiums Written

Changes in our premium volume within our Specialty P&C segment are generally driven by three primary factors: (1) the amount of new business written, (2) our retention of existing business and (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. In addition, premium volume may periodically be affected by shifts in the timing of renewals between periods. For the year ended December 31, 2022, our premium volume was primarily affected by our acquisition of NORCAL.

The medical 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, therefore, are no longer purchasing individual or group policies in the standard market. In addition, some competitors have chosen to compete primarily on price. Both factors may impact our ability to write new business and retain existing business. Furthermore, the insurance and reinsurance markets have historically been cyclical, characterized by extended periods of intense price competition and other periods of reduced capacity. The medical professional liability market has been particularly affected by these cycles. Underwriting cycles are driven, among other reasons, by excess capacity available to compete for the business. Changes in the frequency and severity of losses may also affect the cycles of the insurance and reinsurance markets significantly. During “soft markets” where price competition is high and underwriting profits are poor, growth and retention of business become challenging which may result in reduced premium volumes.

Gross, ceded and net premiums written were as follows:

(\$ in thousands)	Year Ended December 31			Change
	2022	2021		
Gross premiums written	\$ 836,628	\$ 681,509	\$ 155,119	22.8%
Less: Ceded premiums written	71,184	55,362	15,822	28.6%
Net premiums written	\$ 765,444	\$ 626,147	\$ 139,297	22.2%

Gross Premiums Written

Gross premiums written by component were as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Professional Liability				
HCPL				
Standard Physician ⁽¹⁾⁽¹²⁾	\$ 205,271	\$ 209,938	\$ (4,667)	(2.2%)
NORCAL Standard Physician ⁽²⁾	240,391	111,673	128,718	115.3%
Total Standard Physician	445,662	321,611	124,051	38.6%
Specialty				
Custom Physician ⁽³⁾⁽¹²⁾	49,931	46,210	3,721	8.1%
NORCAL Custom Physician ⁽⁴⁾	30,146	16,394	13,752	83.9%
Hospitals and Facilities ⁽⁵⁾⁽¹²⁾	56,121	51,310	4,811	9.4%
NORCAL Hospitals and Facilities ⁽⁶⁾	12,860	9,955	2,905	29.2%
Senior Care ⁽⁷⁾⁽¹²⁾	6,354	6,708	(354)	(5.3%)
Reinsurance assumed ⁽⁸⁾	43,449	37,755	5,694	15.1%
Total Specialty	198,861	168,332	30,529	18.1%
Total HCPL	644,523	489,943	154,580	31.6%
Small Business Unit ⁽⁹⁾	102,524	103,083	(559)	(0.5%)
Tail Coverages ⁽¹⁰⁾⁽¹²⁾	29,009	30,637	(1,628)	(5.3%)
NORCAL Tail Coverages ⁽¹⁰⁾	18,646	16,092	2,554	15.9%
Total Professional Liability	794,702	639,755	154,947	24.2%
Medical Technology Liability ⁽¹¹⁾	41,065	40,997	68	0.2%
Other	861	757	104	13.7%
Total Gross Premiums Written	\$ 836,628	\$ 681,509	\$ 155,119	22.8%

⁽¹⁾ Standard Physician premium, exclusive of NORCAL, decreased in 2022 as compared to 2021 driven by retention losses and, to a lesser extent, the shifting of certain policies totaling \$4.2 million from our Standard Physician line to our Custom Physician line of business during the second quarter of 2022. Partially offsetting these factors during 2022 was an increase in renewal pricing and, to a lesser extent, new business written. Retention losses during 2022 generally reflect our underwriting strategy as we emphasize careful risk selection, rate adequacy, improved contract terms and a willingness to walk away from business that does not fit our goal of achieving a long-term underwriting profit. Our underwriting and strategic planning process includes a continual evaluation of venues, specialties and other areas to improve our underwriting results. Renewal pricing increases during 2022 reflect the rising loss cost environment and new business written reflects the competitive market conditions.

⁽²⁾ NORCAL Standard Physician premium represents premium contributed by NORCAL since the date of acquisition and is comprised of twelve month term policies and, to a lesser extent, three month term policies. NORCAL Standard Physician premium increased during 2022 driven by approximately four months of additional premium in 2022 as compared to 2021 due to the timing of our acquisition of NORCAL on May 5, 2021. The remaining increase in NORCAL Standard Physician premium during 2022 was due to an increase in renewal pricing, the conversion of a majority of the three month term policies to twelve month term policies and, to a lesser extent, new business written, partially offset by retention losses. Retention losses in 2022 were primarily attributable to price competition and the process of evaluating the NORCAL book of business and implementing ProAssurance's underwriting strategies.

⁽³⁾ Custom Physician premium includes large physician groups, multi-state physician groups and non-standard physicians and is written primarily on an excess and surplus lines basis. Exclusive of NORCAL, the increase in Custom Physician premium in 2022 as compared to 2021 primarily reflected the shifting of certain policies totaling \$4.2 million from our Standard Physician line of business. In addition, the increase reflected new business written, an increase in renewal pricing and, to a lesser extent, net timing differences of \$1.3 million primarily related to the prior year renewal of a few policies, partially offset by retention losses. Renewal pricing increases for 2022 reflect pricing actions taken in response to a rising loss cost environment and new business written

reflects the competitive market conditions. The retention rate in our Custom Physician book in 2022 reflects the impact of the loss of two large policies totaling \$9.0 million due to the willingness of competitors to offer pricing and terms that did not meet our underwriting criteria during the first quarter of 2022, which resulted in a decrease to our Specialty retention rate of 5.4 percentage points.

- (4) NORCAL Custom Physician premium represents premium contributed by NORCAL since the date of acquisition and includes large physician groups, multi-state physician groups and non-standard physicians and is written primarily on an excess and surplus lines basis. NORCAL Custom Physician premium increased during 2022 as compared to 2021 driven by approximately four months of additional premium during 2022 as compared to 2021 due to the timing of our acquisition of NORCAL on May 5, 2021. In addition, the increase in NORCAL Custom Physician premium during 2022 reflected an increase in renewal pricing and, to a lesser extent, new business written, partially offset by retention losses. Retention losses during 2022 reflect the loss of a \$2.2 million policy during the second quarter of 2022 due to price competition as well as our evaluation of the NORCAL book of business and implementing ProAssurance's underwriting strategies.
- (5) Hospitals and Facilities premium, exclusive of NORCAL, (which includes hospitals, surgery centers and miscellaneous medical facilities) increased in 2022 as compared to 2021 driven by new business written, primarily miscellaneous medical facilities, and, to a lesser extent, an increase in renewal pricing, partially offset by retention losses. Retention losses in 2022 were largely attributable to the loss of a \$1.4 million policy due to the insured entering into a captive arrangement and our non-renewal of a \$1.2 million policy during the first quarter of 2022 due to our focus on underwriting discipline. Renewal pricing increases in 2022 reflect rate increases and contract modifications that we believe are appropriate given the current loss environment and new business written reflects the competitive market conditions.
- (6) NORCAL Hospitals and Facilities premium represents premium contributed by NORCAL since the date of acquisition and includes hospitals, surgery centers and miscellaneous medical facilities. NORCAL Hospitals and Facilities premium increased in 2022 as compared to 2021 driven by approximately four months of additional premium during 2022 as compared to 2021 due to the timing of our acquisition of NORCAL on May 5, 2021. In addition, the increase in NORCAL Hospitals and Facilities premium in 2022 as compared to 2021 reflected new business written and, to a lesser extent, an increase in renewal pricing, partially offset by retention losses. Retention losses in 2022 are largely attributable to the process of evaluating the NORCAL book of business and implementing ProAssurance's underwriting strategies.
- (7) Senior Care premium includes facilities specializing in long term residential care primarily for the elderly ranging from independent living through skilled nursing. Our Senior Care premium remained relatively unchanged in 2022 as compared to 2021 as retention losses were offset by new business written and, to a lesser extent, an increase in renewal pricing. The lower premium retention in 2022 was primarily due to a large account renewing with a meaningful reduction in exposure driven by a reduction in the number of facilities.
- (8) We offer custom alternative risk solutions including assumed reinsurance. The increase in premium in 2022 reflected an increase in premiums assumed on a quota share basis through a strategic partnership in place since 2016 with an international medical professional liability insurer. In 2021, we increased our participation in the original program and entered into another program with this insurer in a new international territory. We anticipate the volume of premium assumed through this partnership will continue to grow going forward. In addition, the increase in 2022 reflected an assumed reinsurance arrangement with a regional hospital group entered into during the third quarter of 2022 totaling \$1.3 million. The increase in premium in 2022 as compared to 2021 was partially offset by the impact of a prior year assumed reinsurance arrangement with a regional hospital group which resulted in \$4.5 million of premium written, comprised of \$2.3 million of retroactive premium written and fully earned and \$2.2 million of prospective premium written. Furthermore, premium in both 2022 and 2021 reflected the annual renewal of this arrangement during the third quarter.
- (9) Our Small Business Unit is comprised of premium associated with podiatrists, legal professionals, dentists and chiropractors. Our Small Business Unit premium remained relatively unchanged in 2022 as compared to 2021 as an increase in renewal pricing and new business written were offset by retention losses. The increase in renewal pricing in 2022 was primarily the result of an increase in the rate charged for certain renewed policies in select states.
- (10) 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 stand-alone policies. 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. The amount of tail coverage premium written can vary significantly from period to period.

⁽¹⁾ Our Medical Technology Liability business is marketed throughout the U.S.; coverage is typically 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 is also impacted by the sales volume of insureds. Our Medical Technology Liability premium remained relatively unchanged in 2022 as compared to 2021 as retention losses were more than offset by new business written and an increase in renewal pricing. Renewal pricing increases in 2022 are primarily due to changes in the sales volume and changes in exposure of certain insureds. Retention losses in 2022 are primarily attributable to insureds no longer needing coverage, an increase in competition on terms and pricing, as well as merger activity within the industry.

⁽²⁾ Certain components of our gross premiums written include alternative market premiums. We currently cede either all or a portion of the alternative market premium, net of reinsurance, to three SPCs of our wholly owned Cayman Islands reinsurance subsidiaries, Inova Re and Eastern Re, which are reported in our Segregated Portfolio Cell Reinsurance segment (see further discussion in the Ceded Premiums Written section that follows). The portion not ceded to the SPCs is retained within our Specialty P&C segment.

(\$ in millions)	Year Ended December 31			
	2022	2021	Change	
Standard Physician	\$ —	\$ 2.0	\$ (2.0)	nm
Custom Physician	2.0	—	2.0	nm
Hospitals and Facilities	0.1	0.1	—	—%
Senior Care	4.8	5.2	(0.4)	(7.7%)
Tail Coverages	4.9	0.8	4.1	512.5%
Total	<u>\$ 11.8</u>	<u>\$ 8.1</u>	<u>\$ 3.7</u>	<u>45.7%</u>

Alternative market gross premiums written increased in 2022 as compared to 2021 driven by an increase in tail coverage premium, primarily related to one program. Additionally, alternative market gross premiums during 2022 reflected a \$2.0 million expiring Standard Physician policy in one program renewed as a Custom Physician policy during the second quarter of 2022.

We are committed to a rate structure that will allow us to fulfill our obligations to our insureds, while generating competitive long-term returns for our shareholders. Our pricing continues to be based on expected losses as indicated by our historical loss data and available industry loss data. In recent years, this practice has resulted in rate increases and we anticipate further rate increases due to indications of increasing projected loss severity. Additionally, the pricing of our business includes the effects of filed rates, surcharges and discounts. Renewal pricing reflects changes in our exposure base, deductibles, self-insurance retention limits and other policy terms and conditions. See further explanation of changes in renewal pricing above under the heading "Gross Premiums Written".

The change in renewal pricing for our Specialty P&C segment, including by major component, was as follows:

	Year Ended December 31 2022
Specialty P&C segment	7 %
HCPL	
Standard Physician	7 %
Specialty	10 %
Total HCPL	8 %
Small Business Unit	6 %
Medical Technology Liability	3%

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

<i>(In millions)</i>	Year Ended December 31	
	2022	2021
HCPL		
Standard Physician	\$ 9.8	\$ 4.7
Specialty	19.1	28.2
Total HCPL	28.9	32.9
Small Business Unit	3.8	3.9
Medical Technology Liability	4.6	6.5
Total	\$ 37.3	\$ 43.3

For our Specialty P&C segment, we calculate retention as annualized renewed premium divided by all annualized premium subject to renewal. Retention is affected by a number of factors. We may lose insureds to competitors or to alternative insurance mechanisms such as risk retention groups, captive arrangements 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. See further explanation of changes in retention above under the heading "Gross Premiums Written".

Retention for our Specialty P&C segment, including by major component, was as follows:

	Year Ended December 31	
	2022	2021
Specialty P&C segment	84 %	80 %
HCPL		
Standard Physician	88 %	86 %
Specialty	69 %	58 %
Total HCPL	82 %	77 %
Small Business Unit	91 %	91 %
Medical Technology Liability	90 %	90 %

Ceded Premiums Written

Ceded premiums represent the amounts owed to our reinsurers for their assumption of a portion of our losses. Our HCPL and Medical Technology Liability excess of loss reinsurance arrangements renew annually on October 1. Through our current excess of loss reinsurance arrangements which renewed effective October 1, 2022, we generally retain the first \$2 million in risk insured by us and cede coverages in excess of this amount. For our HCPL coverages in excess of \$2 million, we generally retain from 0% to 5% of the next \$24 million of risk. There were no significant changes in the cost or structure of our HCPL treaty upon the October 2022 renewal. Our HCPL excess of loss reinsurance arrangement that renewed on October 1, 2021 renewed at a lower gross rate and prospectively incorporated NORCAL policies. Prior to October 1, 2021, NORCAL policies were reinsured under separate reinsurance agreements, primarily excess of loss, which have historically renewed annually on January 1. For the NORCAL excess of loss reinsurance arrangement that renewed on January 1, 2021, retention was generally the first \$2 million in risk and coverages in excess of this amount were ceded up to \$24 million. For our Medical Technology Liability treaty which also renewed effective October 1, 2022, we do not retain any of the next \$8 million of risk for coverages in excess of \$2 million.

We pay our reinsurers a ceding premium in exchange for their accepting the risk, and in certain of our excess of loss arrangements, the ultimate amount of which is determined by the loss experience of the business ceded, subject to certain minimum and maximum amounts. 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 a result, we may have an adjustment to our estimate of expected losses and associated recoveries for prior year ceded losses under certain loss sensitive reinsurance agreements. Any changes to estimates of premiums ceded related to prior accident years are fully earned in the period the changes in estimates occur.

Ceded premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Excess of loss reinsurance arrangements ⁽¹⁾	\$ 38,005	\$ 30,622	\$ 7,383	24.1%
Other shared risk arrangements ⁽²⁾	19,049	16,112	2,937	18.2%
Premium ceded to SPCs ⁽³⁾	10,902	7,211	3,691	51.2%
NORCAL premiums ceded since acquisition ⁽⁴⁾	—	2,253	(2,253)	nm
Other ceded premiums written ⁽⁵⁾	6,056	3,100	2,956	95.4%
Adjustment to premiums owed under reinsurance agreements, prior accident years, net ⁽⁶⁾	(2,828)	(3,936)	1,108	(28.2%)
Total ceded premiums written	\$ 71,184	\$ 55,362	\$ 15,822	28.6%

- ⁽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. Premium due to reinsurers is based on a rate factor applied to gross premiums written subject to cession under the arrangement. The increase in ceded premiums written under our excess of loss reinsurance arrangements was driven by the incorporation of NORCAL policies into our existing HCPL excess of loss reinsurance arrangements with the October 1, 2021 renewal, as previously discussed, which contributed \$11.2 million of ceded premiums in 2022 as compared to \$1.9 million in 2021. Excluding NORCAL, ceded premiums written under our excess of loss reinsurance arrangements decreased by approximately \$1.9 million in 2022 as compared to 2021 primarily due to a decrease in the overall volume of gross premiums written subject to cession and, to a lesser extent, the higher retention and reduced rate on the treaty year effective October 1, 2021.
- ⁽²⁾ 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. These arrangements primarily include our Ascension Health program. The increase in ceded premiums written under our shared risk arrangements in 2022 as compared to 2021 was primarily due to an increase in premium ceded to our Ascension Health Program.
- ⁽³⁾ As previously discussed, as a part of our alternative market solutions, all or a portion of certain healthcare premium written is ceded to SPCs in our Segregated Portfolio Cell Reinsurance segment under either excess of loss or quota share reinsurance agreements, depending on the structure of the individual program. See the Segment Results - Segregated Portfolio Cell Reinsurance section for further discussion on the cession to the SPCs from our Specialty P&C segment. Premiums ceded to SPCs in 2022 increased as compared to 2021 driven by the impact of tail coverages, primarily related to one program (see previous discussion in footnote 12 under the heading "Gross Premiums Written").
- ⁽⁴⁾ NORCAL policies written prior to October 1, 2021 were reinsured under separate reinsurance agreements, primarily excess of loss; however, these policies were incorporated into our existing HCPL excess of loss reinsurance arrangements with the October 1, 2021 renewal, as previously discussed. For NORCAL's previous excess of loss agreement, deposit ceded premium, as defined in the contract, was initially estimated and recorded at the inception date of the treaty, generally January 1, as an estimate of ceded premiums written for the full contract year based on information provided by brokers and reinsurers. As a result, the majority of ceded premiums for NORCAL's excess of loss reinsurance arrangement were recorded by NORCAL before the acquisition in their first quarter 2021 results and were expensed pro rata throughout the contract year. However, these initial estimates of ceded premiums were periodically adjusted as new information was received and were fully earned in the period the changes in estimates occurred. NORCAL's ceded premiums written in 2021 related almost entirely to an increase in the estimate of premiums owed in excess of the deposit ceded premium initially recorded by NORCAL prior to acquisition and, to a lesser extent, premium related to cyber liability coverages.
- ⁽⁵⁾ The increase in other ceded premiums written in 2022 as compared to 2021 was primarily driven by the incorporation of NORCAL's cyber liability coverages into our existing HCPL cyber liability arrangement with the January 1, 2022 renewal.

- (6) 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 swing rated excess of loss reinsurance arrangements are subject to the losses ceded under the arrangements. As part of the review of our reserves for 2022 and 2021, we recorded a net decrease in 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.

Ceded Premiums Ratio

As shown in the table below, our ceded premiums ratio was affected in both 2022 and 2021 by revisions to our estimate of premiums owed to reinsurers related to coverages provided in prior accident years. The ceded premiums ratio was as follows:

	Year Ended December 31		
	2022	2021	Change
Ceded premiums ratio	8.5%	8.1%	0.4 pts
Less the effect of adjustments in premiums owed under reinsurance agreements, prior accident years (as previously discussed)	(0.3%)	(0.6%)	0.3 pts
Ratio, current accident year	8.8%	8.7%	0.1 pts

The above table reflects ceded premiums written, excluding the effect of prior year ceded premium adjustments, as previously discussed, as a percent of gross premiums written. Our ceded premiums ratio remained relatively unchanged for 2022 as compared to 2021. See additional discussion above under the heading "Ceded Premiums Written."

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. Because premiums are generally earned pro rata over the entire policy period, fluctuations in premiums earned tend to lag those of premiums written. The majority of our policies carry a term of one year; however, some of our Medical Technology Liability policies have a multi-year term and some of our NORCAL Standard Physician policies have a three-month term. In addition, prior to the third quarter of 2020, we wrote certain Standard Physician policies with a twenty-four month 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. Retroactive coverage premiums are 100% earned at the inception of the contract, as all of the associated underlying loss events occurred in the past. Additionally, any 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.

Net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Gross premiums earned	\$ 834,500	\$ 761,411	\$ 73,089	9.6%
Less: Ceded premiums earned	64,727	66,403	(1,676)	(2.5%)
Net premiums earned	\$ 769,773	\$ 695,008	\$ 74,765	10.8%

Gross premiums earned included earned premium from our acquisition of NORCAL of approximately \$296.5 million in 2022 as compared to \$226.0 million in 2021. Excluding NORCAL premiums, gross premiums earned increased \$2.6 million in 2022 as compared to 2021 driven by our focus on rate adequacy.

Ceded premiums earned during both 2022 and 2021 included prior accident year ceded premium adjustments under swing rated reinsurance agreements (see previous discussion in footnote 6 under the heading "Ceded Premiums Written"). After removing the effect of prior accident year ceded premium adjustments from both years, ceded premiums earned decreased \$2.8 million in 2022 as compared to 2021 driven by a decrease in premium ceded under our shared risk arrangements during the preceding twelve months, partially offset by the pro rata effect of an increase in premium ceded under our excess of loss arrangements during the preceding twelve months.

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.

Accident year refers to the accounting period in which the insured event becomes a liability of the insurer. For claims-made policies, which represent the majority 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 and the policy that is in effect at that time covers the claim. For occurrence policies, the insured event becomes a liability when the event takes place even though the claim may be reported to us at a later date. For retroactive coverages, the insured event becomes a liability at inception of the underlying contract. 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 for our Specialty P&C segment by separating losses between the current accident year and all prior accident years. The net loss ratios for our Specialty P&C segment were as follows:

	Net Loss Ratios ⁽¹⁾		
	Year Ended December 31		
	2022	2021	Change
Calendar year net loss ratio	79.2%	82.8%	(3.6 pts)
Less impact of prior accident years on the net loss ratio	(3.9%)	(4.7%)	0.8 pts
Current accident year net loss ratio ⁽²⁾	83.1 %	87.5 %	(4.4 pts)

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

⁽²⁾ For the year ended December 31, 2022, our current accident year net loss ratio (as shown in the table above), improved 4.4 percentage points as compared to 2021. The change in our current accident year net loss ratio was primarily attributable to the following:

(In percentage points)	Increase (Decrease) 2022 versus 2021
Estimated ratio increase (decrease) attributable to:	
NORCAL Operations	(2.2 pts)
NORCAL Acquisition - Purchase Accounting Amortization	0.3 pts
Change in Estimate of ULAE	(3.3 pts)
Ceded Premium Adjustments, Prior Accident Years	0.2 pts
All other, net	0.6 pts
Decrease in current accident year net loss ratio	(4.4 pts)

- Excluding the impact of the items specifically identified in the table above, our current accident year net loss ratio increased 0.6 percentage points during 2022 as compared to 2021 driven by actuarial analyses performed by both internal and consulting actuaries during 2022. We update and review the data underlying the estimation of our current accident year reserve each reporting period and make adjustments to current accident year net loss ratios that we believe best reflect emerging data. Both our internal and consulting actuaries perform an in-depth review of our current accident year reserve on at least a semiannual basis. As a result of these analyses in 2022, we increased our current accident year net loss ratio, excluding NORCAL, driven by an increase to certain expected loss ratios in our Standard Physician line of business due to higher than anticipated loss severity trends in select jurisdictions, which emerged primarily in the fourth quarter of 2022. The increase in our current accident year net loss ratio was partially offset by our reduction to certain expected loss ratios during the first quarter of 2022 in our Standard Physician and Specialty lines of business primarily reflecting the improvement in pricing and terms that we have obtained in our estimate of expected losses.
- Initial expected loss ratios associated with NORCAL policies are higher than the average for our other books of business in this segment; however, we reduced certain expected NORCAL loss ratios during the fourth quarter of 2021 and also in the third and fourth quarters of 2022 due to favorable frequency trends, some of which, we believe, are attributable to our re-underwriting efforts, leading to a 2.2 percentage point improvement in our segment current accident year net loss ratio in 2022. We completed the process of evaluating the NORCAL book of business and implementing ProAssurance's underwriting strategies during the second quarter of 2022. Furthermore, the 2.2

percentage point improvement also reflected a reduction to our reserve related to NORCAL's DDR coverage endorsements in the fourth quarter of 2022.

- Also as a result of our acquisition of NORCAL, our current accident year net loss ratio in 2022 and 2021 was impacted by the purchase accounting amortization of the negative VOBA associated with NORCAL's assumed unearned premium of \$4.9 million and \$6.7 million, respectively, which is recorded as a reduction to current accident year net losses. As of June 30, 2022, the negative VOBA was fully amortized which resulted in a 0.3 percentage point increase in our current period ratio as compared to the prior year period.
- Beginning in 2022, we revised our process of estimating ULAE as a result of substantially integrating NORCAL into our Specialty P&C segment operations, which accounted for a 3.3 percentage point decrease in our current accident year net loss ratio in 2022 with an offsetting 3.3 percentage point increase in our current period expense ratio with no impact to our combined ratio or segment results during the year ended December 31, 2022 (see discussion on our expense ratio in the following section under the heading "Underwriting, Policy Acquisition and Operating Expenses").
- In 2022 and 2021, we decreased our estimate of premiums owed under reinsurance agreements related to prior accident years which increased net premium earned (the denominator of the current accident year net loss ratio) and accounted for a 0.2 percentage point increase in our current period ratio. See the previous discussion under the heading "Ceded Premiums Written" for additional information.

We re-evaluate our previously established reserve each quarter based upon the most recently completed actuarial analysis supplemented by any new analysis, information or trends that have emerged since the date of that study. We also take into account currently available industry trend information.

The following table shows the components of our net prior accident year reserve development:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Net favorable reserve development	\$ 19,000	\$ 25,035	\$ (6,035)	(24.1%)
NORCAL Acquisition - Purchase Accounting Amortization*	10,819	7,907	2,912	36.8%
Total net favorable reserve development	\$ 29,819	\$ 32,942	\$ (3,123)	(9.5%)

*See Note 2 of the Notes to Consolidated Financial Statements for additional information on the amortization of the NORCAL acquisition purchase accounting adjustments.

- Development recognized during 2022 principally related to accident years 2017 and 2020 through 2021. Net favorable prior accident year reserve development recognized in 2022 included favorable development related to NORCAL's 2021 accident year and, to a lesser extent, our Medical Technology Liability line of business. Net favorable prior accident year reserve development recognized in 2022 was partially offset by unfavorable reserve development in our HCPL line of business, excluding NORCAL, driven by higher than anticipated loss severity trends in select jurisdictions, which emerged primarily in the fourth quarter of 2022. We have not recognized any development related to NORCAL's accident years 2020 or prior since the date of acquisition on May 5, 2021 based on our comparison of expected loss emergence to actual loss emergence.
- Development recognized in 2021 primarily reflected lower than anticipated loss emergence, principally related to accident years 2015 through 2020.
- We reduced our prior accident year IBNR reserve for COVID-19 by \$9.0 million and \$1.0 million during 2022 and 2021, respectively, as early first notices of potential claims related to anticipated COVID losses have not turned into claims. As of December 31, 2022, we no longer carry a specific IBNR reserve for potential COVID-19 related losses. See additional discussion on the COVID-19 IBNR reserve in our Critical Accounting Estimates section under the heading "Reserve for Losses and Loss Adjustment Expenses."
- Net favorable development recognized in 2022 included an increase of \$4.0 million and \$1.0 million in our reserve for potential ECO/XPL claims in 2022 and 2021, respectively.

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 2022 and 2021.

Underwriting, Policy Acquisition and Operating Expenses

Our Specialty P&C segment underwriting, policy acquisition and operating expenses were comprised as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
DPAC amortization	\$ 91,660	\$ 61,662	\$ 29,998	48.6%
Management fees	4,763	3,781	982	26.0%
Other underwriting and operating expenses	95,974	62,266	33,708	54.1%
Total	\$ 192,397	\$ 127,709	\$ 64,688	50.7%

DPAC amortization for 2022 increased due to a higher amount of premiums written driven by our 2021 acquisition of NORCAL. Due to the NORCAL acquisition and application of GAAP purchase accounting rules, the level of DPAC amortization in 2021 was approximately \$13.4 million lower than would have otherwise been recognized. Under these purchase accounting rules, the capitalized policy acquisition costs for policies written prior to the acquisition date were written off through purchase accounting on May 5, 2021 rather than being expensed pro rata over the remaining term of the associated policies. DPAC amortization associated with NORCAL policies in 2022 is approximately \$1.0 million lower than would have otherwise been recognized for the period. The remaining increase in DPAC amortization for 2022 as compared to 2021 reflected an increase in agency commissions due to a higher volume of commissionable premium driven by NORCAL and an increase in compensation-related expenses driven by an increase in headcount due to the addition of NORCAL employees.

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. 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. Due to continued organizational structure enhancements in our Specialty P&C segment during 2021 as well as operational alignments as a result of the integration of NORCAL, the extent to which services are provided exclusively by the Corporate segment to the operating subsidiaries within the segment decreased further effective January 1, 2022. Accordingly, we reduced the fee charged to the operating subsidiaries in 2022. Also effective January 1, 2022, the management agreement included the wholly owned operating subsidiaries of NORCAL contributing to \$1.3 million of additional management fees in 2022.

Other underwriting and operating expenses increased in 2022 primarily due to a revision to our process of estimating ULAE which resulted in approximately \$25.4 million of expenses remaining in operating expenses instead of being allocated to net losses and loss adjustment expenses. As a result, this change in ULAE estimate had offsetting impacts to our loss and expense ratios during 2022 with no impact to our combined ratio or segment results. See additional discussion on this change in ULAE estimate in the previous section under the heading "Losses and Loss Adjustment Expenses." Excluding the impact of the change in ULAE, other underwriting and operating expenses increased in 2022 as compared to 2021. The increase in 2022 was primarily attributable to higher amounts accrued for performance-related incentive plans due to our improved performance metrics, an increase in professional fees, as well as certain one-time expenses of \$3.9 million, partially offset by the benefits from prior organizational restructurings and proactive expense management as well as expense synergies recognized from the NORCAL acquisition. The increase in professional fees in 2022 was primarily attributable to an increase in IT consulting fees. One-time expenses in 2022 were mainly comprised of one-time bonuses, accelerated depreciation associated with a decommissioned IT system, employee severance charges and lease exit costs.

Underwriting Expense Ratio (the Expense Ratio)

Our expense ratio for the Specialty P&C segment was as follows:

	Year Ended December 31		
	2022	2021	Change
Underwriting expense ratio	25.0%	18.4%	6.6 pts

The change in our expense ratio in 2022 as compared to 2021 was primarily attributable to the following:

(In percentage points)	Increase (Decrease) 2022 versus 2021
Estimated ratio increase (decrease) attributable to:	
Change in Net Premiums Earned and DPAC amortization	1.5 pts
NORCAL DPAC Amortization - Prior Period Purchase Accounting Impact	1.9 pts
Change in Estimate of ULAE	3.3 pts
One-Time Expenses	0.5 pts
All other, net	(0.6 pts)
Increase in the underwriting expense ratio	6.6 pts

Excluding the impact of the items specifically identified in the table above, our expense ratio improved in 2022 by 0.6 percentage points primarily due to the benefits from prior organizational restructurings and proactive expense management as well as expense synergies recognized from the NORCAL acquisition, partially offset by higher amounts accrued for performance-related incentive plans and, to a lesser extent, an increase in professional fees, as previously discussed. As shown in the table above, the higher expense ratio for 2022 as compared to 2021 reflects the impact of purchase accounting on prior year DPAC amortization, the current year change in estimate of ULAE and the impact of one-time expenses, as previously discussed. The increase in the expense ratio from higher DPAC amortization, excluding the prior year purchase accounting impact, in relation to net premiums earned for 2022 of 1.5 percentage points primarily reflects an increase in agency commissions due to a higher volume of commissionable premium driven by NORCAL.

Segment Results - Workers' Compensation Insurance

Our Workers' Compensation Insurance segment includes workers' compensation products provided to employers generally with 1,000 or fewer employees, as discussed in Note 16 of the Notes to Consolidated Financial Statements. Workers' compensation products offered include guaranteed cost policies, policyholder dividend policies, retrospectively-rated policies, deductible policies and alternative market programs. Alternative market programs include services related to program design, fronting, claims administration, risk management, SPC rental, asset management and SPC management services. Alternative market program premiums are 100% ceded to either the SPCs within our Segregated Portfolio Cell Reinsurance segment or captive insurers unaffiliated with ProAssurance for two programs. Our Workers' Compensation Insurance segment results reflect pre-tax underwriting profit or loss from these workers' compensation products, exclusive of investment results, which are included in our Corporate segment. Segment results included the following:

<i>(\$ in thousands)</i>	Year Ended December 31			
	2022	2021	Change	
Net premiums written	\$ 160,760	\$ 161,865	\$ (1,105)	(0.7%)
Net premiums earned	\$ 166,371	\$ 164,600	\$ 1,771	1.1%
Other income	2,201	2,211	(10)	(0.5%)
Net losses and loss adjustment expenses	(111,407)	(114,704)	3,297	(2.9%)
Underwriting, policy acquisition and operating expenses	(54,737)	(52,418)	(2,319)	4.4%
Segment results	\$ 2,428	\$ (311)	\$ 2,739	(880.7%)
Net loss ratio	67.0%	69.7%	(2.7 pts)	
Underwriting expense ratio	32.9%	31.8%	1.1 pts	

Premiums Written

Our workers' compensation premium volume is driven by five primary factors: (1) the amount of new business written, (2) retention of our existing book of business, (3) premium rates charged on our renewal book of business, (4) changes in payroll exposure and (5) audit premium.

Gross, ceded and net premiums written were as follows:

<i>(\$ in thousands)</i>	Year Ended December 31			
	2022	2021	Change	
Gross premiums written	\$ 247,132	\$ 240,546	\$ 6,586	2.7%
Less: Ceded premiums written	86,372	78,681	7,691	9.8%
Net premiums written	\$ 160,760	\$ 161,865	\$ (1,105)	(0.7%)

Gross Premiums Written

Gross premiums written by product were as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Traditional business:				
Guaranteed cost	\$ 135,847	\$ 138,756	\$ (2,909)	(2.1%)
Policyholder dividend	21,547	21,468	79	0.4%
Deductible	4,705	4,613	92	2.0%
Retrospective ⁽¹⁾	3,123	2,741	382	13.9%
Other	7,286	6,357	929	14.6%
Change in EBUB estimate	1,450	(1,210)	2,660	219.8%
Total traditional business	173,958	172,725	1,233	0.7%
Alternative market business ⁽²⁾	73,174	67,821	5,353	7.9%
Total	\$ 247,132	\$ 240,546	\$ 6,586	2.7%

⁽¹⁾ The change in retrospectively-rated policies included an adjustment that decreased premium by \$1.7 million and \$1.1 million during the years ended December 31, 2022 and 2021, respectively.

⁽²⁾ A majority of alternative market premiums are ceded to SPCs in our Segregated Portfolio Cell Reinsurance segment. See further discussion on alternative market gross premiums written in our Segment Operating Results - Segregated Portfolio Cell Reinsurance section under the heading "Gross Premiums Written" that follows.

Gross premiums written increased during the year ended December 31, 2022 as compared to 2021, primarily reflecting higher audit premium and changes in the carried EBUB estimate, partially offset by lower renewal and new business premium. Policy audits processed in 2022 resulted in audit premium billed to policyholders totaling \$13.6 million as compared to audit premium returned to policyholders totaling \$0.8 million in 2021. The 2022 audit premium results reflect higher payrolls related to an increased workforce, as well as wage inflation, in our policyholders' businesses. Additionally, the carried EBUB estimate was increased \$1.5 million in 2022 as compared to a reduction of \$1.2 million in 2021. The increase in the carried EBUB estimate during 2022 reflects management's expectation of higher audited payrolls related to wage inflation. Our new business premium, renewal retention and rate change results in 2022 were reflective of the competitive workers' compensation market conditions. Renewal retention in our traditional business was impacted by the loss of a large account with expiring premium totaling \$3.8 million, which decreased the renewal retention 2.2 percentage points.

We retained 100% of the twenty-three workers' compensation alternative market programs that were up for renewal during the year ended December 31, 2022. We wrote one new workers' compensation alternative market program with an unaffiliated captive insurer during 2022 with premiums written totaling \$1.9 million. The policies in this program were written in our traditional book of business during 2021; therefore, there was no impact to gross premiums written in 2022.

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

(\$ in millions)	Year Ended December 31					
	2022			2021		
	Traditional Business	Alternative Market Business	Segment Results	Traditional Business	Alternative Market Business	Segment Results
New business	\$ 14.1	\$ 3.6	\$ 17.7	\$ 17.8	\$ 3.3	\$ 21.1
Audit premium (excluding EBUB)	\$ 8.2	\$ 5.4	\$ 13.6	\$ (1.9)	\$ 1.1	\$ (0.8)
Retention rate ⁽¹⁾	82%	87%	83%	86%	89%	87%
Change in renewal pricing ⁽²⁾	(5%)	(4%)	(5%)	(1%)	(4%)	(2%)

⁽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 market conditions. We continue to base our pricing on expected losses, as indicated by our historical loss data.

Ceded Premiums Written

Ceded premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Premiums ceded to SPCs ⁽¹⁾	\$ 68,035	\$ 64,639	\$ 3,396	5.3%
Premiums ceded to external reinsurers ⁽²⁾	14,177	12,768	1,409	11.0%
Premiums ceded to unaffiliated captive insurers ⁽¹⁾	5,139	3,182	1,957	61.5%
Change in return premium estimate under external reinsurance ⁽³⁾	297	(605)	902	(149.1%)
Estimated revenue share under external reinsurance ⁽⁴⁾	(1,276)	(1,303)	27	(2.1%)
Total ceded premiums written	\$ 86,372	\$ 78,681	\$ 7,691	9.8%

⁽¹⁾ Represents alternative market business that is ceded under 100% quota share reinsurance agreements to the SPCs in our Segregated Portfolio Cell Reinsurance segment. Premiums ceded to unaffiliated captive insurers represent alternative market business for two programs that are ceded under 100% quota share reinsurance agreements. See further discussion on alternative market gross premiums written in our Segment Operating Results - Segregated Portfolio Cell Reinsurance section under the heading "Gross Premiums Written" that follows.

⁽²⁾ Under our external reinsurance treaty for traditional business, we retain the first \$0.5 million in risk insured by us and cede losses in excess of this amount on each loss occurrence, subject to an AAD, equal to 3.5% of subject earned premium for the treaty year effective May 1, 2022. Premiums ceded under our traditional reinsurance treaty are based on premiums earned during the treaty period.

⁽³⁾ Changes in the return premium estimate reflect adjustments to our estimate of expected future recovery of ceded premium based on the underlying loss experience of our reinsurance treaties that include a provision for return premium.

⁽⁴⁾ We are party to a revenue sharing agreement with our reinsurance broker under which we participate in the broker's revenue earned under our reinsurance treaties based on the volume of premium ceded. We estimate the amount of revenue we expect to receive under this agreement as premiums are recognized and ceded to the reinsurers.

Ceded premiums written increased during the year ended December 31, 2022 as compared to the year ended December 31, 2021, primarily reflecting higher alternative market premiums ceded to the Segregated Portfolio Cell Reinsurance segment and unaffiliated captive insurers as well as an increase in reinsurance rates under our external reinsurance treaty. The increase in premiums ceded to unaffiliated captive insurers in 2022 as compared to 2021 reflects the new alternative market program written in 2022 (see previous discussion under the heading "Gross Premiums Written").

Ceded Premiums Ratio

Ceded premiums ratio was as follows:

	Year Ended December 31		
	2022	2021	Change
Ceded premiums ratio, as reported	34.1%	32.4%	1.7 pts
Less the effect of:			
Premiums ceded to SPCs (100%)	24.6%	24.6%	— pts
Premiums ceded to unaffiliated captive insurers (100%)	2.2%	1.7%	0.5 pts
Estimated revenue share	(0.7%)	(0.7%)	— pts
Assumed premiums earned (not ceded to external reinsurers)	(0.3%)	(0.2%)	(0.1 pts)
Ceded premiums ratio (related to external reinsurance), less the effects of above	8.3%	7.0%	1.3 pts

The above table reflects traditional ceded premiums earned as a percent of traditional gross premiums earned. As discussed above, premiums ceded under our traditional reinsurance treaty are based on premiums earned during the treaty period. The increase in the ceded premiums ratio in 2022 as compared to 2021 primarily reflected the higher reinsurance rates and a decrease in the estimated return premium.

Net Premiums Earned

Net premiums earned consist of gross premiums earned less the portion of earned premiums that we cede to SPCs in our Segregated Portfolio Cell Reinsurance segment, external reinsurers (including changes related to the return premium and revenue share estimates) and the unaffiliated captive insurers. 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 term 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 and changes in our estimates related to EBUB and premium adjustments related to retrospectively-rated policies. Payroll audits are conducted subsequent to the end of the policy period and any related premium adjustments processed are recorded as fully earned in the current period. We evaluate our estimates related to EBUB and retrospectively-rated premium adjustments on a quarterly basis with any adjustments being included in written and earned premium in the current period.

Net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Gross premiums earned	\$ 252,452	\$ 243,665	\$ 8,787	3.6%
Less: Ceded premiums earned	86,081	79,065	7,016	8.9%
Net premiums earned	\$ 166,371	\$ 164,600	\$ 1,771	1.1%

Net premiums earned increased during the year ended December 31, 2022 as compared to 2021 primarily reflecting higher audit premium and the change in the carried EBUB estimate, partially offset by the continuation of competitive market conditions.

Losses and Loss Adjustment Expenses

We estimate our current accident year loss and loss adjustment expenses by developing actual reported losses using historical loss development factors, adjusted to reflect current and expected trends based on various internal analyses and supplemental information. 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:

	Year Ended December 31		
	2022	2021	Change
Calendar year net loss ratio	67.0%	69.7%	(2.7 pts)
Less impact of prior accident years on the net loss ratio	(4.8%)	(4.3%)	(0.5 pts)
Current accident year net loss ratio	71.8%	74.0%	(2.2 pts)

The current accident year net loss ratio decreased in 2022 as compared to 2021 primarily reflecting an improvement in loss frequency and severity trends, partially offset by the continuation of intense price competition and the resulting renewal rate decreases. The current accident year net loss ratio in 2021 reflected higher claim activity as workers returned to employment with the easing of pandemic-related restrictions in our operating territories, including the impact of labor shortages on the existing workforce.

Calendar year incurred losses (excluding IBNR) in excess of our per occurrence reinsurance retention, before consideration of the AAD (see previous discussion under the heading "Ceded Premiums Written"), decreased \$8.5 million in 2022 as compared to 2021. We retained losses in excess of our per occurrence retention totaling \$5.0 million for the year ended December 31, 2022 as compared to \$6.6 million in 2021 which reflected losses within the AAD.

We recognized net favorable prior year development of \$8.0 million for the year ended December 31, 2022 as compared to \$7.1 million for 2021. The net favorable prior year reserve development for the years ended December 31, 2022 and 2021 reflected overall favorable trends in claim closing patterns. Net favorable development for the year ended December 31, 2022 primarily related to accident years 2017 through 2020. Net favorable development for the year ended December 31, 2021 primarily related to accident years 2012 through 2017.

Underwriting, Policy Acquisition and Operating Expenses

Underwriting, policy acquisition and operating expenses include the amortization of commissions, premium taxes and underwriting salaries, which are capitalized and deferred over the related workers' compensation policy period, net of 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 our 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.

Our Workers' Compensation Insurance segment underwriting, policy acquisition and operating expenses were comprised as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
DPAC amortization	\$ 29,585	\$ 29,092	\$ 493	1.7%
Management fees	1,853	1,804	49	2.7%
Other underwriting and operating expenses	37,146	34,359	2,787	8.1%
Policyholder dividend expense	902	1,155	(253)	(21.9%)
SPC ceding commission offset	(14,749)	(13,992)	(757)	5.4%
Total	\$ 54,737	\$ 52,418	\$ 2,319	4.4%

The increase in DPAC amortization for the year ended December 31, 2022 as compared to 2021 primarily reflected the increase in gross premiums earned.

The increase in other underwriting and operating expenses for the year ended December 31, 2022 as compared to 2021 primarily reflected an increase in costs related to compensation and business-related travel as well as planned higher marketing costs related to advertising and website-related activities in 2022. The increase in compensation-related costs primarily reflected a higher headcount. The increase in travel-related costs reflected the easing of pandemic-related restrictions and the return to more normal business activity.

As previously discussed, alternative market premiums written by our Workers' Compensation Insurance segment are 100% ceded, less a ceding commission, to either the SPCs in our Segregated Portfolio Cell Reinsurance segment or unaffiliated captive insurers. The ceding commission charged to the SPCs consists of an amount for fronting fees, cell rental fees, commissions, premium taxes, claims administration fees and risk management fees. The fronting fees, commissions, premium taxes and risk management fees are recorded as an offset to underwriting, policy acquisition and operating expenses. Cell rental fees are recorded as a component of other income and claims administration fees are recorded as ceded ULAE. The increase in SPC ceding commissions earned for the year ended December 31, 2022 as compared to 2021, primarily reflected the increase in alternative market ceded earned premium.

Underwriting Expense Ratio (the Expense Ratio)

The underwriting expense ratio included the impact of the following:

	Year Ended December 31		
	2022	2021	Change
Underwriting expense ratio, as reported	32.9%	31.8%	1.1 pts
Less estimated ratio increase (decrease) attributable to:			
Impact of ceding commissions received from SPCs	3.9%	3.3%	0.6 pts
Impact of audit premium	(1.2%)	0.4%	(1.6 pts)
Underwriting expense ratio, less listed effects	30.2%	28.1%	2.1 pts

Excluding the items noted in the table above, the expense ratio increased for the year ended December 31, 2022, primarily reflecting the increase in other underwriting and operating expenses, as previously discussed.

Segment Results - Segregated Portfolio Cell Reinsurance

The Segregated Portfolio Cell Reinsurance segment includes the results (underwriting profit or loss, plus investment results, net of U.S. federal income taxes) of SPCs at Inova Re and Eastern Re, our Cayman Islands SPC operations, as discussed in Note 17 of the Notes to Consolidated Financial Statements. 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. Each SPC is owned, fully or in part, by an individual company, agency, group or association and the results of the SPCs are attributable to the participants of that cell. We participate to a varying degree in the results of selected SPCs and, for the SPCs in which we participate, our participation interest ranges from a low of 15% to a high of 85%. SPC results attributable to external cell participants are reported as an SPC dividend (expense) income in our Segregated Portfolio Cell Reinsurance segment. In addition, our Segregated Portfolio Cell Reinsurance segment includes the investment results of the SPCs as the investments are solely for the benefit of the cell participants and investment results attributable to external cell participants are reflected in the SPC dividend (expense) income. As of December 31, 2022, there were 27 (4 inactive) SPCs. The SPCs assume workers' compensation insurance, healthcare professional liability insurance or a combination of the two from our Workers' Compensation Insurance and Specialty P&C segments. As of December 31, 2022, there were two SPCs that assumed both workers' compensation insurance and healthcare professional liability insurance and one SPC that assumed only healthcare professional liability insurance.

Segment results reflects our share of the underwriting and investment results of the SPCs in which we participate, and included the following:

	Year Ended December 31				
	2022		2021		Change
	(\$ in thousands)				
Net premiums written	\$ 69,357	\$ 63,042	\$ 6,315	10.0%	
Net premiums earned	\$ 69,810	\$ 63,688	\$ 6,122	9.6%	
Net investment income	1,029	814	215	26.4%	
Net investment gains (losses)	(3,067)	4,080	(7,147)	(175.2%)	
Other income	2	3	(1)	(33.3%)	
Net losses and loss adjustment expenses	(39,310)	(32,569)	(6,741)	20.7%	
Underwriting, policy acquisition and operating expenses	(20,316)	(21,635)	1,319	(6.1%)	
SPC U.S. federal income tax expense ⁽¹⁾	(1,759)	(1,947)	188	(9.7%)	
SPC net results	6,389	12,434	(6,045)	(48.6%)	
SPC dividend (expense) income ⁽²⁾	(6,673)	(10,050)	3,377	(33.6%)	
Segment results ⁽³⁾	\$ (284)	\$ 2,384	\$ (2,668)	(111.9%)	
Net loss ratio	56.3%	51.1%	5.2 pts		
Underwriting expense ratio	29.1%	34.0%	(4.9 pts)		

⁽¹⁾ Represents the provision for U.S. federal income taxes for SPCs at Inova Re, which have elected to be taxed as a U.S. corporation under Section 953(d) of the Internal Revenue Code. U.S. federal income taxes are included in the total SPC net results and are paid by the individual SPCs.

⁽²⁾ Represents the net (profit) loss attributable to external cell participants.

⁽³⁾ Represents our share of the net profit (loss) and OCI of the SPCs in which we participate.

Premiums Written

Premiums in our Segregated Portfolio Cell Reinsurance segment are assumed from either our Workers' Compensation Insurance or Specialty P&C segments. Premium volume is driven by five primary factors: (1) the amount of new business written, (2) retention of the existing book of business, (3) premium rates charged on the renewal book of business and, for workers' compensation business, (4) changes in payroll exposure and (5) audit premium.

Gross, ceded and net premiums written were as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Gross premiums written	\$ 78,937	\$ 71,850	\$ 7,087	9.9%
Less: Ceded premiums written	9,580	8,808	772	8.8%
Net premiums written	\$ 69,357	\$ 63,042	\$ 6,315	10.0%

Gross Premiums Written

Gross premiums written reflected reinsurance premiums assumed by component as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Workers' compensation	\$ 68,035	\$ 64,639	\$ 3,396	5.3%
Healthcare professional liability	10,902	7,211	3,691	51.2%
Gross Premiums Written	\$ 78,937	\$ 71,850	\$ 7,087	9.9%

Gross premiums written for the years ended December 31, 2022 and 2021 were primarily comprised of workers' compensation coverages assumed from our Workers' Compensation Insurance segment. Workers' compensation gross premiums written increased during the year ended December 31, 2022 as compared to 2021 reflecting higher audit premium, partially offset by a decrease in renewal premium. The increase in healthcare professional liability gross premiums written in 2022 as compared to 2021 primarily reflected the impact of tail coverage premium related to one program in which we do not participate. See further discussion in our Segment Results - Specialty Property & Casualty section under the heading "Premiums Written." We retained 100% of the twenty-two workers' compensation and three healthcare professional liability alternative market programs up for renewal for the year ended December 31, 2022.

New business, audit premium, retention and renewal price changes for the assumed workers' compensation premium is shown in the table below:

(\$ in millions)	Year Ended December 31	
	2022	2021
New business	\$ 3.6	\$ 3.3
Audit premium	\$ 5.4	\$ 1.1
Retention rate ⁽¹⁾	87%	89%
Change in renewal pricing ⁽²⁾	(4%)	(4%)

⁽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 market conditions. We continue to base our pricing on expected losses, as indicated by our historical loss data.

Ceded Premiums Written

Ceded premiums written were as follows:

(\$ in thousands)	Year Ended December 31		
	2022	2021	Change
Ceded premiums written	\$ 9,580	\$ 8,808	\$ 772 8.8%

For the workers' compensation business, each SPC has in place its own external reinsurance coverage. The healthcare professional liability business is assumed net of reinsurance from our Specialty P&C segment; therefore, there are no ceded premiums related to the healthcare professional liability business reflected in the table above. The risk retention for each loss occurrence for the workers' compensation business ranges from \$0.3 million to \$0.4 million based on the program, with limits up to \$119.7 million. In addition, each program has aggregate reinsurance coverage between \$1.1 million and \$2.1 million on a program year basis. Premiums ceded under our SPC reinsurance treaty are based on premiums written during the treaty period. The change in ceded premiums written in 2022 as compared to 2021 primarily reflected the increase in workers' compensation gross premiums written and the impact of rate increases under the external reinsurance treaty. External reinsurance rates vary based on the alternative market program.

Ceded Premiums Ratio

Ceded premiums ratio was as follows:

	Year Ended December 31		
	2022	2021	Change
Ceded premiums ratio	14.1%	13.6%	0.5 pts

The above table reflects ceded premiums as a percent of gross premiums written for the workers' compensation business only; healthcare professional liability business is assumed net of reinsurance, as discussed above. The ceded premiums ratio reflects the weighted average reinsurance rates of all SPC programs. The increase in the ceded premiums ratio for the year ended December 31, 2022 reflects an increase in reinsurance rates.

Net Premiums Earned

Net premiums earned consist of gross premiums earned less the portion of earned premiums that the SPCs cede to external reinsurers. Because premiums are generally earned pro rata over the entire policy period, fluctuations in premiums earned tend to lag those of premiums written. Policies ceded to the SPCs are twelve month term 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 workers' compensation 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.

Gross, ceded and net premiums earned were as follows:

(\$ in thousands)	Year Ended December 31		
	2022	2021	Change
Gross premiums earned	\$ 79,347	\$ 72,359	\$ 6,988 9.7%
Less: Ceded premiums earned	9,537	8,671	866 10.0%
Net premiums earned	\$ 69,810	\$ 63,688	\$ 6,122 9.6%

The increase in net premiums earned during the year ended December 31, 2022 as compared to 2021, primarily reflected the aforementioned impact of healthcare professional liability tail premium written and fully earned and the increase in workers' compensation audit premium billed to policyholders.

Losses and Loss Adjustment Expenses

The following table summarizes the calendar year net loss ratios by separating losses between the current accident year and all prior accident years. The current accident year net loss ratio reflects the aggregate loss ratio for all programs. Loss reserves and associated reinsurance are estimated for each program on a quarterly basis. Each SPC has in place its own reinsurance agreement, and the attachment point of aggregate reinsurance coverage varies by program. Due to the size of some of the programs, quarterly loss results, including changes in estimated aggregate reinsurance, can create volatility in the current accident year net loss ratio from period to period.

Calendar year and current accident year net loss ratios for the years ended December 31, 2022 and 2021 were as follows:

	Year Ended December 31		
	2022	2021	Change
Calendar year net loss ratio	56.3%	51.1%	5.2 pts
Less impact of prior accident years on the net loss ratio	(9.0%)	(16.0%)	7.0 pts
Current accident year net loss ratio	65.3%	67.1%	(1.8 pts)
Less estimated ratio increase (decrease) attributable to:			
Change in estimated aggregate reinsurance	0.9%	(2.2%)	3.1 pts
Current accident year net loss ratio, excluding the effect of the change in estimated aggregate reinsurance	64.4%	69.3%	(4.9 pts)

During the year ended December 31, 2022, we decreased our estimate of aggregate reinsurance which increased our current accident year net loss ratios as compared to 2021. The decrease in the estimated aggregate reinsurance reflected an improvement in expected ultimate program year losses in certain programs. See additional information regarding the SPC's aggregate reinsurance agreements in our Liquidity section under the heading "Operating Activities and Related Cash Flows."

The current accident year net loss ratio, excluding the effect of changes in estimated aggregate reinsurance, decreased in 2022 as compared to 2021, reflecting a lower workers' compensation current accident year net loss ratio, partially offset by a higher healthcare professional liability current accident year net loss ratio. The improvement in the workers' compensation current accident year net loss ratio for 2022 primarily reflects favorable trends in prior accident year workers' compensation claim results and their impact on our analysis of the current year loss estimate, and the impact of audit premium, partially offset by the continuation of intense price competition and the resulting renewal rate decreases in the workers' compensation business. The increase in the healthcare professional liability current accident year loss ratio for 2022 primarily reflected an increase in expected claim frequency related to one program in which we do not participate.

Calendar year incurred losses (excluding IBNR) ceded to our external reinsurers increased \$2.9 million for the year ended December 31, 2022 as compared to 2021. Current accident year ceded incurred losses (excluding IBNR) increased \$5.1 million for the year ended December 31, 2022 as compared to 2021.

We recognized net favorable prior year reserve development of \$6.3 million and \$10.2 million for the years ended December 31, 2022 and 2021, respectively.

Net favorable prior year reserve development in the workers' compensation business totaled \$7.0 million in 2022 as compared to \$7.6 million in 2021. The 2022 net favorable prior year reserve development in the workers' compensation business reflected overall favorable trends in claim closing patterns primarily in accident years 2016 through 2021. The 2021 net favorable development related primarily to accident year 2015 and accident years 2018 through 2020.

Net unfavorable prior year reserve development in the healthcare professional liability business totaled \$0.7 million in 2022 as compared to \$2.5 million of favorable development in 2021. The 2022 net unfavorable prior year reserve development primarily reflected higher than expected claim frequency in one program in which we do not participate. The 2021 net favorable prior year reserve development related primarily to accident years 2018 through 2020.

Underwriting, Policy Acquisition and Operating Expenses

Our Segregated Portfolio Cell Reinsurance segment underwriting, policy acquisition and operating expenses were comprised as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
DPAC amortization	\$ 20,068	\$ 18,730	\$ 1,338	7.1%
Policyholder dividend expense	167	508	(341)	(67.1%)
Other underwriting and operating expenses	81	2,397	(2,316)	(96.6%)
Total	\$ 20,316	\$ 21,635	\$ (1,319)	(6.1%)

DPAC amortization primarily represents ceding commissions, which vary by program and are paid to our Workers' Compensation Insurance and Specialty P&C segments for premiums assumed. Ceding commissions include an amount for fronting fees, commissions, premium taxes and risk management fees, which are reported as an offset to underwriting, policy acquisition and operating expenses within our Workers' Compensation Insurance and Specialty P&C segments. In addition, ceding commissions paid to our Workers' Compensation Insurance segment include cell rental fees which are recorded as other income and claims administration fees which are recorded as ceded ULAE within our Workers' Compensation Insurance segment.

Other underwriting and operating expenses primarily include bank fees, professional fees and changes in the allowance for expected credit losses. The decrease in other underwriting and operating expenses for the year ended December 31, 2022 as compared to 2021 primarily reflects changes in the allowance for expected credit losses related to the collection of customer accounts that were previously written off.

The decrease in policyholder dividend expense for the year ended December 31, 2022 as compared to 2021, primarily reflects changes in estimated dividends for one SPC program, in which we do not participate.

Underwriting Expense Ratio (the Expense Ratio)

The underwriting expense ratio included the impact of the following:

	Year Ended December 31		
	2022	2021	Change
Underwriting expense ratio, as reported	29.1%	34.0%	(4.9 pts)
Less: impact of audit premium on expense ratio	(2.3%)	(0.5%)	(1.8 pts)
Underwriting expense ratio, excluding the effect of audit premium	31.4%	34.5%	(3.1 pts)

Excluding the effect of audit premium, the underwriting expense ratio decreased for the year ended December 31, 2022. The decrease in the underwriting expense ratio in 2022 primarily reflected the change in the allowance for expected credit losses and policyholder dividend expense, as discussed above.

Segment Results - Lloyd's Syndicates

Our Lloyd's Syndicates segment includes the results from our participation in Syndicate 1729 and Syndicate 6131 at Lloyd's of London. In addition to our participation in Syndicate results, we have investments in and other obligations to our Lloyd's Syndicates consisting of a Syndicate Credit Agreement and FAL requirements. For the 2022 underwriting year, our FAL was comprised of investment securities and cash and cash equivalents deposited with Lloyd's which at December 31, 2022 had a fair value of approximately \$24.8 million, as discussed in Note 4 of the Notes to Consolidated Financial Statements. During the second quarter of 2022 we received a return of approximately \$5.5 million of cash from our FAL balances given Syndicate 6131 ceased underwriting on a quota share basis with Syndicate 1729 as Syndicate 6131's business is retained within Syndicate 1729 beginning with the 2022 underwriting year. The return of FAL during the second quarter of 2022 also related to the settlement of our participation in the results of Syndicate 1729 and Syndicate 6131 for the 2019 underwriting year. Further, during the fourth quarter of 2022, we received a return of approximately \$5.6 million of cash from our FAL balances due to lower capital requirements for the 2023 underwriting year following Lloyd's of London's review of Syndicate 1729's 2023 business plan.

We normally report results from our involvement in Lloyd's Syndicates on a quarter lag, 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.

We provide capital to Syndicate 1729, which covers a range of property and casualty insurance and reinsurance lines in both the U.S. and international markets. The remaining capital for Syndicate 1729 is provided by unrelated third parties, including private names and other corporate members. For each of the 2023 and 2022 underwriting years our participation in the results of Syndicate 1729 is approximately 5%. Syndicate 1729 had a maximum underwriting capacity of £210 million (approximately \$254 million at December 31, 2022) for the 2022 underwriting year, of which £11 million (approximately \$14 million at December 31, 2022) is our allocated underwriting capacity. Effective January 1, 2022, Syndicate 6131 ceased underwriting on a quota share basis with Syndicate 1729, as previously discussed; the results from our participation in Syndicate 6131 from open underwriting years prior to 2022 will continue to earn out pro rata over the entire policy period of the underlying business. Due to the quarter lag, our ceased participation in Syndicate 6131 was not reflected in our results until the second quarter of 2022. Syndicate 1729's maximum underwriting capacity for the 2023 underwriting year is £280 million (approximately \$338 million at December 31, 2022), of which £15 million (approximately \$18 million at December 31, 2022) is our allocated underwriting capacity.

In addition to the results of our participation in Lloyd's Syndicates, as discussed above, our Lloyd's Syndicates segment also includes 100% of the results of our wholly owned subsidiaries that support our operations at Lloyd's. For the years ended December 31, 2022 and 2021, the results of our Lloyd's Syndicates segment were as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Gross premiums written	\$ 20,233	\$ 37,969	\$ (17,736)	(46.7%)
Less: Ceded premiums written	(1,657)	(6,302)	4,645	(73.7%)
Net premiums written	\$ 18,576	\$ 31,667	\$ (13,091)	(41.3%)
Net premiums earned	\$ 23,627	\$ 48,372	\$ (24,745)	(51.2%)
Net investment income	568	1,961	(1,393)	(71.0%)
Net investment gains (losses)	(964)	249	(1,213)	(487.1%)
Other income	119	912	(793)	(87.0%)
Net losses and loss adjustment expenses	(16,130)	(29,812)	13,682	(45.9%)
Underwriting, policy acquisition and operating expenses	(7,412)	(17,957)	10,545	(58.7%)
Segment results	\$ (192)	\$ 3,725	\$ (3,917)	(105.2%)
Net loss ratio	68.3 %	61.6 %	6.7 pts	
Underwriting expense ratio	31.4 %	37.1 %	(5.7 pts)	

Premiums

Changes in premium volume within our Lloyd's Syndicates segment are driven by five primary factors: (1) changes in our participation in the Syndicates, (2) the amount of new business and the channels in which the business is written, (3) the retention of existing business, (4) 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 (5) the timing of premium written through multi-period policies. Gross premiums written in 2022 consisted of property insurance coverages (30% of total gross premiums written), casualty coverages (24%), catastrophe reinsurance coverages (16%), contingency coverages (14%), specialty property

coverages (13%) and property reinsurance coverages (3%). The decrease in net premiums written in 2022 as compared to 2021 was primarily driven by the impact of our decreased participation in the results of Syndicates 1729 and 6131 for the 2021 underwriting year and our ceased participation in Syndicate 6131 for the 2022 underwriting year. The decrease in net premiums written in 2022 was partially offset by volume increases on renewal business and renewal pricing increases, primarily on property and specialty insurance coverages, as well as new business written, primarily on property insurance and casualty coverages.

Net premiums earned consist of gross premiums earned less the portion of earned premiums that the Syndicates cede to reinsurers for their assumption of a portion of losses. Premiums written through open-market channels are generally earned pro rata over the entire policy period, which is predominantly twelve months, whereas premiums written through delegated underwriting authority arrangements are generally earned over the policy period plus twelve months. Therefore, net premiums earned is affected by shifts in the mix of policies written between the open-market and delegated underwriting authority arrangements. Additionally, net premiums earned consists of a mix of policies earned from different open underwriting years. As previously discussed, we participate to a varying degree in each open underwriting year which may cause fluctuations in premiums earned. Furthermore, fluctuations in premiums earned tend to lag those of premiums written. 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 decreased during the year ended December 31, 2022 as compared to 2021 primarily attributable to the pro rata effect of a reduction in net premiums written during the preceding twelve months.

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. The loss ratios may fluctuate due to the mix of earned premium and the timing of earned premium adjustments (see discussion in this section under the heading "Premiums"). 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 cedents 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 following table summarizes calendar year net loss ratios by separating losses between the current accident year and all prior accident years. Net loss ratios for the period were as follows:

	Year Ended December 31		
	2022	2021	<i>Change</i>
Calendar year net loss ratio	68.3%	61.6%	<i>6.7 pts</i>
Less: impact of prior accident years on the net loss ratio	31.1%	9.7%	<i>21.4 pts</i>
Current accident year net loss ratio	37.2%	51.9%	<i>(14.7 pts)</i>

The current accident year net loss ratio decreased in 2022 as compared to 2021 driven by decreases to certain loss estimates during the first quarter of 2022, partially offset by lower reinsurance recoveries as a proportion of gross losses as compared to the prior year period and, to a lesser extent, certain catastrophe losses in the current period.

We recognized \$7.3 million and \$4.7 million of unfavorable prior year development for the years ended December 31, 2022 and 2021, respectively. The unfavorable prior year development for the year ended December 31, 2022 was driven by higher than expected losses and development on certain large claims, primarily catastrophe related losses.

Underwriting, Policy Acquisition and Operating Expenses

For the year ended December 31, 2022, the underwriting expense ratio decreased by 5.7 percentage points as compared to 2021, which primarily reflected the impact of our ceased participation in Syndicate 6131 for the 2022 underwriting year. Syndicate 6131 incurred nominal operating expenses during 2022, whereas the net premiums earned during the same period also includes premium from open underwriting years prior to 2022. The decrease in the underwriting expense ratio in 2022 also reflected the impact of our reduced participation in the results of Syndicate 1729 and Syndicate 6131 for the 2021 underwriting year.

Segment Results - Corporate

Our Corporate segment includes our investment operations excluding those reported in our Segregated Portfolio Cell Reinsurance and Lloyd's Syndicates segments as discussed in Note 16 of the Notes to Consolidated Financial Statements. In addition, this segment includes corporate expenses, interest expense, U.S. income taxes and non-premium revenues generated outside of our insurance entities. Segment results for the year ended December 31, 2022 and 2021 exclude transaction-related costs as well as the associated income tax benefit and, for 2022, the change in fair value of contingent consideration related to the NORCAL acquisition as we do not consider these items in assessing the financial performance of the segment. For additional information on the NORCAL acquisition see Note 2 of the Notes to Consolidated Financial Statements. Segment results for our Corporate segment were net earnings of \$17.7 million and \$91.2 million for the years ended December 31, 2022 and 2021, respectively, and included the following:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Net investment income	\$ 94,375	\$ 67,747	\$ 26,628	39.3%
Equity in earnings (loss) of unconsolidated subsidiaries	\$ 4,888	\$ 48,974	\$ (44,086)	(90.0%)
Net investment gains (losses)	\$ (38,126)	\$ 19,981	\$ (58,107)	(290.8%)
Other income	\$ 6,198	\$ 5,531	\$ 667	12.1%
Operating expense	\$ 34,733	\$ 26,641	\$ 8,092	30.4%
Interest expense	\$ 20,372	\$ 19,719	\$ 653	3.3%
Income tax expense (benefit)	\$ (5,423)	\$ 4,651	\$ (10,074)	(216.6%)

Net Investment Income, Equity in Earnings (Loss) of Unconsolidated Subsidiaries, Net 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, net of investment fees and expenses.

Net investment income (loss) by investment category was as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Fixed maturities	\$ 92,034	\$ 71,451	\$ 20,583	28.8%
Equities	3,706	2,539	1,167	46.0%
Short-term investments, including Other	5,414	1,860	3,554	191.1%
BOLI	1,141	2,699	(1,558)	(57.7%)
Investment fees and expenses	(7,920)	(10,802)	2,882	(26.7%)
Net investment income	\$ 94,375	\$ 67,747	\$ 26,628	39.3%

Fixed Maturities

Income from our fixed maturities increased in 2022 as compared to 2021 driven by higher average book yields as we continue to reinvest at higher rates as our portfolio matures. In addition, the increase in income from our fixed maturities during 2022 reflected higher average investment balances primarily attributable to the addition of fixed maturity securities valued at \$1.1 billion to our portfolio on May 5, 2021 as a result of the NORCAL acquisition. As a result of the NORCAL acquisition, average investment balances over a twelve month period were approximately 17% higher for 2022 as compared to 2021; excluding the impact of the acquisition, average investment balances were approximately 2% higher.

Average yields for our fixed maturity portfolio were as follows:

	Year Ended December 31	
	2022	2021
Average income yield	2.5%	2.3%
Average tax equivalent income yield	2.5%	2.3%

Equities

Income from our equity portfolio increased in 2022 as compared to 2021 which reflected changes in the mix of equities owned.

Short-term Investments and Other Investments

Short-term investments, which have a maturity at purchase of one year or less are carried at fair value, which approximates their cost basis, and are primarily composed of investments in U.S. treasury obligations, commercial paper and money market funds. Income from our short-term and other investments increased during 2022 primarily due to higher yields given the increase in interest rates.

BOLI

We hold BOLI policies that are carried at the current cash surrender value of the policies, which includes the BOLI policies acquired from NORCAL. All insured individuals were members of ProAssurance or NORCAL management at the time the policies were acquired. Income from our BOLI policies decreased in 2022 as compared to 2021 primarily attributable to a decrease in the cash surrender value of policies acquired from NORCAL.

Investment Fees and Expenses

Investment fees and expenses decreased in 2022 as compared to 2021 primarily due to no longer paying an incentive fee on convertibles and the renegotiation of our contract due to the addition of NORCAL.

Equity in Earnings (Loss) of Unconsolidated Subsidiaries

Equity in earnings (loss) of unconsolidated subsidiaries was comprised as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
All other investments, primarily investment fund LPs/LLCs	\$ 11,954	\$ 64,031	\$ (52,077)	(81.3%)
Tax credit partnerships	(7,066)	(15,057)	7,991	(53.1%)
Equity in earnings (loss) of unconsolidated subsidiaries	\$ 4,888	\$ 48,974	\$ (44,086)	(90.0%)

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. For our investments in LPs/LLCs, we record our allocable portion of the partnership operating income or loss as the results of the LPs/LLCs become available, typically following the end of a reporting period. Our investment results from our portfolio of investments in LPs/LLCs for 2022 as compared to 2021 decreased primarily due to the performance of certain LP/LLCs which reflected lower market valuations during 2022.

Our tax credit partnership 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 partnerships and a historic tax credit partnership. We account for our tax credit partnership 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 partnerships, we adjust our estimates of our allocable portion of operating losses periodically as actual operating results of the underlying properties become available. The primary benefit of credits and losses from our historic tax credit partnership are earned in a short period with potential for additional cash flows extending over several years. The results from our tax credit partnership investments for the year ended December 31, 2022 reflected lower partnership operating losses as compared to 2021, partially offset by an increase in our estimate of operating losses by \$1.0 million and \$1.9 million for the years ended December 31, 2022 and 2021, respectively.

The tax benefits received from our tax credit partnerships, which are not reflected in our investment results, reduced our tax expense in 2022 and 2021 as follows:

<i>(In millions)</i>	<u>Year Ended December 31</u>	
	<u>2022</u>	<u>2021</u>
Tax credits recognized during the period	\$ 4.8	\$ 13.2
Tax benefit of tax credit partnership operating losses	\$ 1.5	\$ 3.2

The tax credits generated from our tax credit partnership investments of \$4.8 million for 2022 were deferred for use in future periods due to our expected consolidated loss calculated on a tax basis. For the year ended December 31, 2021, the tax credits generated from our tax credit partnership investments of \$13.2 million were deferred to be utilized in future periods. Not included in the table above is \$0.5 million of tax credits recaptured from the 2019 tax year during the year ended December 31, 2022 due to the carryback of our estimated NOL for the year ended December 31, 2022 to the 2021 tax year. The recaptured tax credits were earned in 2019 but not utilized until 2021 due to NOL's generated in both 2019 and 2020. As of December 31, 2022, we had approximately \$51.2 million of available tax credit carryforwards generated from our investments in tax credit partnerships which we expect to utilize in future years. See further discussion in Note 6 of the Notes to Consolidated Financial Statements.

Tax credits provided by the underlying projects of our historic tax credit partnership 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.

Net Investment Gains (Losses)

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

<i>(In thousands)</i>	<u>Year Ended December 31</u>	
	<u>2022</u>	<u>2021</u>
Total impairment losses		
Corporate debt	\$ (1,331)	\$ —
Asset-backed securities	(441)	—
Portion of impairment losses recognized in other comprehensive income before taxes:		
Asset-backed securities	14	—
Net impairment losses recognized in earnings	(1,758)	—
Gross realized gains, available-for-sale fixed maturities	1,649	13,047
Gross realized (losses), available-for-sale fixed maturities	(3,041)	(1,133)
Net realized gains (losses), equity investments	(5,928)	5,394
Net realized gains (losses), other investments	(222)	8,660
Change in unrealized holding gains (losses), equity investments	(18,483)	(4,697)
Change in unrealized holding gains (losses), convertible securities, carried at fair value as a part of other investments	(10,557)	(1,701)
Other	214	411
Net investment gains (losses)	<u>\$ (38,126)</u>	<u>\$ 19,981</u>

For the year ended December 31, 2022, we recognized \$1.8 million of credit-related impairment losses in earnings and a nominal amount of non-credit impairment losses in OCI. The credit-related impairment losses recognized during the year ended December 31, 2022 related to a corporate bond in the consumer sector as well as certain mortgage-backed and other asset-backed securities. We did not recognize any credit-related impairment losses in earnings or non-credit impairment losses in OCI for the year ended December 31, 2021.

We recognized \$38.1 million of net investment losses for the year ended December 31, 2022 driven by unrealized holding losses resulting from changes in the fair value of our equity investments and convertible securities and, to a lesser extent, realized losses from the sale of equity investments. We recognized \$20.0 million of net investment gains for the year ended December 31, 2021, driven primarily by realized gains on the sale of certain available-for-sale fixed maturities and other investments, partially offset by unrealized holding losses resulting from decreases in the fair value on our equity portfolio.

Operating Expenses

Corporate segment operating expenses were comprised as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Operating expenses	\$ 41,350	\$ 36,007	\$ 5,343	14.8%
Management fee offset	(6,617)	(9,366)	2,749	(29.4%)
Total	\$ 34,733	\$ 26,641	\$ 8,092	30.4%

Operating expenses increased during the year ended December 31, 2022 as compared to 2021 primarily due to an increase in compensation-related costs, professional fees, business-related travel and share-based compensation expenses. The increase in professional fees in 2022 was primarily driven by an increase in consulting fees and, to a lesser extent, an increase in recruiting and employee placement fees as a result of filling open positions across the organization. Prior to 2022, recruiting and employee placement fees were allocated to the operating segments. The increase in compensation-related costs during 2022 was driven by an increase in segment headcount due to the addition of Corporate NORCAL employees. Subsequent to acquisition on May 5, 2021, compensation-related costs of all NORCAL employees were reported in our Specialty P&C segment. Beginning in 2022, compensation-related costs for Corporate NORCAL employees are reported in our Corporate segment. In addition, the increase in compensation-related costs also reflected higher amounts accrued for performance-related incentive plans due to our improved performance metrics. The increase in share-based compensation expenses in 2022 was attributable to the effect of the incorporation of certain NORCAL employees into our share-based compensation plans beginning in 2022.

Operating subsidiaries within our Specialty P&C segment and our Workers' Compensation Insurance segment 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. 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. Due to continued organizational structure enhancements in our Specialty P&C segment during 2021 as well as operational alignments as a result of the integration of NORCAL, the extent to which services are provided exclusively by the Corporate segment to the operating subsidiaries within the Specialty P&C segment decreased further effective January 1, 2022. Accordingly, we reduced the fee charged to the operating subsidiaries within the Specialty P&C segment during the first quarter of 2022. Also effective January 1, 2022, the management agreement included the wholly owned operating subsidiaries of NORCAL contributing to \$1.3 million of additional management fees during 2022. There were no changes to the extent to which services are provided exclusively by the Corporate segment to the operating subsidiaries within our Workers' Compensation Insurance segment in 2022.

Interest Expense

Consolidated interest expense for the years ended December 31, 2022 and 2021 was comprised as follows:

(\$ in thousands)	Year Ended December 31			
	2022	2021	Change	
Senior Notes due 2023	\$ 13,429	\$ 13,429	\$ —	—%
Contribution Certificates (including accretion) ⁽¹⁾	7,332	5,046	2,286	45.3%
Revolving Credit Agreement (including fees and amortization) ⁽²⁾	1,016	1,120	(104)	(9.3%)
Mortgage Loans (including amortization)	—	444	(444)	nm
(Gain)/loss on interest rate cap	(1,405)	(320)	(1,085)	(339.1%)
Interest expense	<u>\$ 20,372</u>	<u>\$ 19,719</u>	<u>\$ 653</u>	<u>3.3%</u>

⁽¹⁾ Includes accretion of approximately \$1.8 million and \$1.2 million for the years ended December 31, 2022 and 2021, respectively, which is recorded as an increase to interest expense as a result of the difference between the recorded acquisition date fair value and the principal balance of the Contribution Certificates associated with our acquisition of NORCAL.

⁽²⁾ There were no outstanding borrowings on our Revolving Credit Agreement during the year ended December 31, 2022. During the third quarter of 2021, we repaid the balance outstanding on the Revolving Credit Agreement of \$15.0 million. Interest expense in both 2022 and 2021 primarily reflected unused commitment fees.

Consolidated interest expense increased during 2022 as compared to 2021 driven by the Contribution Certificates associated with our acquisition of NORCAL on May 5, 2021 (see Note 2 and Note 11 of the Notes to Consolidated Financial Statements), partially offset by the change in the fair value of our interest rate cap which was terminated in the second quarter of 2022. See further discussion of our interest rate cap agreement in Note 3 and further discussion on our outstanding debt in Note 11 of the Notes to Consolidated Financial Statements.

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. Any U.K. tax expense incurred by the U.K. based subsidiaries of our Lloyd's Syndicates segment is allocated to that segment. The SPCs at Inova Re, one of our Cayman Islands reinsurance subsidiaries, have each made a 953(d) election under the U.S. Internal Revenue Code and are subject to U.S. federal income tax; therefore, tax expense allocated to our Corporate segment also includes tax expense incurred from any SPC at Inova Re in which we have a participation interest of 80% or greater as those SPCs are required to be included in our consolidated tax return. Consolidated tax expense (benefit) reflects the tax expense (benefit) of both segments and the tax impact of items excluded from segment reporting, as shown in the table below:

(In thousands)	Year Ended December 31	
	2022	2021
Corporate segment income tax expense (benefit)	\$ (5,423)	\$ 4,651
Income tax expense (benefit) - transaction-related costs*	(391)	(2,168)
Consolidated income tax expense (benefit)	<u>\$ (5,814)</u>	<u>\$ 2,483</u>

*Represents the income tax benefit associated with the transaction-related costs related to our acquisition of NORCAL that are not included in a segment as we do not consider these costs in assessing the financial performance of any of our operating or reportable segments. See Note 16 of the Notes to Consolidated Financial Statements for a reconciliation of our segment results to our consolidated results.

Listed below are the primary factors affecting our consolidated effective tax rate for the years ended December 31, 2022 and 2021. The comparability of each factor's impact on our effective tax rate is affected by the consolidated pre-tax loss recognized during 2022 as compared to the consolidated pre-tax income recognized during 2021. Factors that have the same directional impact on income tax expense (benefit) in each period have an opposite impact on our effective tax rate due to the effective tax rate being calculated based upon a pre-tax loss during the year ended December 31, 2022 versus the pre-tax income during the year ended December 31, 2021. These factors include the following:

<i>(\$ in thousands)</i>	Year Ended December 31			
	2022		2021	
	Income tax (benefit) expense	Rate Impact	Income tax (benefit) expense	Rate Impact
Computed "expected" tax expense (benefit) at statutory rate	\$ (1,305)	21.0%	\$ 30,787	21.0%
Tax-exempt income ⁽¹⁾	(1,072)	17.2%	(1,298)	(0.9%)
Tax credits	(4,805)	77.3%	(13,160)	(9.0%)
Non-U.S. operating results	(411)	6.6%	(1,322)	(0.9%)
Tax deficiency (excess tax benefit) on share-based compensation	309	(5.0%)	286	0.2%
Non-taxable gain on bargain purchase ⁽²⁾	—	—%	(15,626)	(10.7%)
Non-taxable contingent consideration ⁽³⁾	(1,890)	30.4%	—	—%
Provision-to-return and other differences	1,112	(17.9%)	3,574	2.4%
Change in uncertain tax positions	780	(12.5%)	(1,909)	(1.3%)
Change in limitation of future deductibility of certain executive compensation	708	(11.4%)	303	0.3%
GILTI and subpart F income	556	(8.9%)	721	0.6%
State income taxes	105	(1.7%)	460	0.3%
Other	99	(1.6%)	(333)	(0.3%)
Total income tax expense (benefit)	<u>\$ (5,814)</u>	<u>93.5%</u>	<u>\$ 2,483</u>	<u>1.7%</u>

⁽¹⁾ Includes tax-exempt interest, dividends received deduction and change in cash surrender value of BOLI.

⁽²⁾ Represents the tax impact of the non-taxable gain on bargain purchase as a result of our acquisition of NORCAL on May 5, 2021. See further discussion on the gain on bargain purchase in Note 2 of the Notes to Consolidated Financial Statements.

⁽³⁾ Represents the tax impact of the change in the fair value of contingent consideration issued in connection with the NORCAL acquisition, all of which is non-taxable. See further discussion on the contingent consideration in Note 2 and Note 3 of the Notes to Consolidated Financial Statements.

Our consolidated effective tax rates for 2022 and 2021, as shown in the table above, differed from the statutory federal income tax rate of 21% in each respective year typically due to the benefit recognized from the tax credits transferred to us from our tax credit partnership investments. Tax credits recognized for the year ended December 31, 2022 were \$4.8 million as compared to \$13.2 million in 2021. While projected tax credits for 2022 are less than 2021, they continue to have a significant impact on the effective tax rate for 2022. Additionally, our effective tax rate for 2022 was impacted by a gain of \$9.0 million related to the change in fair value of contingent consideration issued in connection with the NORCAL acquisition, all of which was non-taxable. Our effective tax rate for 2021 was also affected by the gain on bargain purchase of \$74.4 million related to the NORCAL acquisition, all of which was non-taxable. See further discussion on the contingent consideration and the gain on bargain purchase in Note 2 of the Notes to Consolidated Financial Statements. There were no other individually significant items impacting our effective tax rates for 2022 or 2021.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

We believe that we are principally exposed to two types of market risk: interest rate risk and credit risk. We have limited exposure to foreign currency risk as we issue few insurance contracts denominated in currencies other than the U.S. dollar and we have few monetary or non-monetary assets or obligations denominated in foreign currencies.

Interest Rate Risk

Investments

Our fixed maturities portfolio is exposed to interest rate risk. Fluctuations in interest rates have a direct impact on the market valuation of these securities. As interest rates rise, market values of fixed income portfolios fall and vice versa. Certain of the securities are held in an unrealized loss position; we do not intend to sell and believe we will not be required to sell any debt security held in an unrealized loss position before its anticipated recovery. If recovery is not anticipated, we will record an impairment loss through earnings either by establishing a credit allowance or by directly reducing the security's amortized cost basis if there is an intent to sell.

The following tables summarize estimated changes in the fair value of our available-for-sale fixed maturity securities for specific hypothetical changes in interest rates by asset class at December 31, 2022 and December 31, 2021. There are principally two factors that determine interest rates on a given security: changes in the level of yield curves and credit spreads. As different asset classes can be affected in different ways by movements in those two factors, we have separated our portfolio by asset class in the following tables.

(\$ in millions)	Interest Rate Shift in Basis Points				
	December 31, 2022				
	(200)	(100)	Current	100	200
Fair Value:					
Fixed maturities, available-for-sale:					
U.S. Treasury obligations	\$ 236	\$ 229	\$ 222	\$ 215	\$ 208
U.S. Government-sponsored enterprise obligations	21	21	20	19	19
State and municipal bonds	476	458	439	422	404
Corporate debt	1,919	1,848	1,781	1,718	1,658
Asset-backed securities	1,072	1,041	1,010	979	949
Total fixed maturities, available-for-sale	\$ 3,724	\$ 3,597	\$ 3,472	\$ 3,353	\$ 3,238
Duration:					
Fixed maturities, available-for-sale:					
U.S. Treasury obligations	3.41	3.36	3.30	3.25	3.20
U.S. Government-sponsored enterprise obligations	3.41	3.45	3.43	3.38	3.32
State and municipal bonds	3.91	3.99	4.10	4.21	4.30
Corporate debt	3.79	3.74	3.68	3.60	3.52
Asset-backed securities	2.76	2.87	2.97	3.00	3.01
Total fixed maturities, available-for-sale	3.48	3.50	3.50	3.48	3.45

(\$ in millions)	Interest Rate Shift in Basis Points				
	December 31, 2021				
	(200)	(100)	Current	100	200
Fair Value:					
Fixed maturities, available-for-sale:					
U.S. Treasury obligations	\$ 260	\$ 249	\$ 239	\$ 229	\$ 219
U.S. Government-sponsored enterprise obligations	21	21	20	20	19
State and municipal bonds	564	541	519	498	478
Corporate debt	2,063	1,979	1,899	1,821	1,748
Asset-backed securities	1,211	1,186	1,157	1,123	1,087
Total fixed maturities, available-for-sale	\$ 4,119	\$ 3,976	\$ 3,834	\$ 3,691	\$ 3,551
Duration:					
Fixed maturities, available-for-sale:					
U.S. Treasury obligations	4.42	4.33	4.25	4.18	4.10
U.S. Government-sponsored enterprise obligations	1.58	1.63	2.64	2.84	2.85
State and municipal bonds	4.22	4.20	4.26	4.36	4.49
Corporate debt	4.17	4.13	4.13	4.14	4.11
Asset-backed securities	2.33	2.25	2.67	3.13	3.39
Total fixed maturities, available-for-sale	3.64	3.58	3.71	3.86	3.93

Computations of prospective effects of hypothetical interest rate changes are based on numerous assumptions, including the maintenance of the existing level and composition of fixed income security assets, and should not be relied on as indicative of future results.

Certain shortcomings are inherent in the method of analysis presented in the computation of the fair value of fixed rate instruments. Actual values may differ from the projections presented should market conditions vary from assumptions used in the calculation of the fair value of individual securities, including non-parallel shifts in the term structure of interest rates and changing individual issuer credit spreads.

At December 31, 2022, our fixed maturities portfolio includes fixed maturities classified as trading securities which do not have a significant amount of exposure to market interest rates or credit spreads.

Our cash and short-term investments at December 31, 2022 were carried at fair value which approximates their cost basis due to their short-term nature. Our cash and short-term investments lack significant interest rate sensitivity due to their short duration.

Debt

Our Revolving Credit Agreement is exposed to interest rate risk as it is LIBOR based and a 1% change in LIBOR will impact annual interest expense only to the extent that there is an outstanding balance. For every \$100 million drawn on our Revolving Credit Agreement, a 1% change in interest rates will change our annual interest expense by \$1 million. Any outstanding balances on the Revolving Credit Agreement can be repaid on each maturity date, which has typically ranged from one to three months. As of December 31, 2022, no borrowings were outstanding under our Revolving Credit Agreement.

Defined Benefit Pension Plan

We are exposed to certain economic risks related to the costs of our defined benefit pension plan, including changes in discount rates for high quality corporate bonds and changes in the expected return on plan assets. See further discussion in Item 7, Management's Discussion and Analysis, in the Critical Accounting Estimates section under the heading "Pension."

Credit Risk

We have exposure to credit risk primarily as a holder of fixed income securities. We control this exposure by emphasizing investment grade credit quality in the fixed income securities we purchase.

As of December 31, 2022, 92% of our fixed maturity securities were rated investment grade as determined by NRSROs, such as Fitch, Moody's and Standard & Poor's. We believe that this concentration in investment grade securities reduces our exposure to credit risk on our fixed income investments to an acceptable level. However, investment grade securities, in spite of their rating, can rapidly deteriorate and result in significant losses. Ratings published by the NRSROs are one of the tools used to evaluate the creditworthiness of our securities. The ratings reflect the subjective opinion of the rating agencies as to the creditworthiness of the securities; therefore, we may be subject to additional credit exposure should the ratings prove to be unreliable.

We also have exposure to credit risk related to our premiums receivable and receivables from reinsurers; however, to-date we have not experienced any significant amount of credit losses. At December 31, 2022, our premiums receivable was approximately \$246 million, net of an allowance for expected credit losses of approximately \$8 million. See Note 1 of the Notes to Consolidated Financial Statements for further information on our allowance for expected credit losses related to our premiums receivable. Our receivables from reinsurers (with regard to both paid and unpaid losses) approximated \$447 million at December 31, 2022 and \$466 million at December 31, 2021. We monitor the credit risk associated with our reinsurers using publicly available financial and rating agency data. We have not historically experienced material credit losses due to the financial condition of a reinsurer, and as of December 31, 2022 our expected credit losses associated with our receivables from reinsurers were nominal in amount.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

Index to Consolidated Financial Statements

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ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

Not Applicable.

ITEM 9A. CONTROLS AND PROCEDURES.

Disclosure Controls

Under the supervision and with the participation of management, including the principal executive and principal financial officers, the Company has evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the fiscal year ended December 31, 2022. Based on that evaluation, the principal executive and principal financial officers have concluded that these controls and procedures are effective.

Disclosure controls and procedures are defined in Exchange Act Rule 13a-15(e) and include the Company's controls and other procedures that are designed to ensure that information, required to be disclosed by the Company in the reports that it files or submits under the Exchange Act, is accumulated and communicated to management, including the principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including our principal executive and principal financial officers, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022 based on the framework in Internal Control–Integrated Framework issued by the COSO (2013 Framework). Based on that evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2022 and that there was no change in the Company's internal controls during the fiscal year then ended that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Ernst & Young LLP, an independent registered public accounting firm, has audited the effectiveness of our internal controls over financial reporting as of December 31, 2022 as stated in their report which is included elsewhere herein.

ITEM 9B. OTHER INFORMATION

None.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of ProAssurance Corporation

Opinion on Internal Control Over Financial Reporting

We have audited ProAssurance Corporation and subsidiaries' internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (the COSO criteria). In our opinion, ProAssurance Corporation and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets as of December 31, 2022 and 2021, the related consolidated statements of changes in capital, income and comprehensive income and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and financial statement schedules listed in the Index at Item 15(c) (collectively referred to as the “financial statements”) of the Company and our report dated February 27, 2023, expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP

Birmingham, Alabama
February 27, 2023

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE OF THE REGISTRANT.

The information required by this Item regarding executive officers is included in Part I of the Form 10-K in accordance with Instruction 3 of the Instructions to Paragraph (b) of Item 401 of Regulation S-K.

The information required by this Item regarding directors is incorporated by reference pursuant to General Instruction G (3) of Form 10-K from ProAssurance's definitive proxy statement for the 2023 Annual Meeting of its Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A on or about April 7, 2023.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by this Item is incorporated by reference pursuant to General Instruction G (3) of Form 10-K from ProAssurance's definitive proxy statement for the 2023 Annual Meeting of its Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A on or about April 7, 2023.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information required by this Item is incorporated by reference pursuant to General Instruction G (3) of Form 10-K from ProAssurance's definitive proxy statement for the 2023 Annual Meeting of its Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A on or about April 7, 2023.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The information required by this Item is incorporated by reference pursuant to General Instruction G (3) of Form 10-K from ProAssurance's definitive proxy statement for the 2023 Annual Meeting of its Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A on or about April 7, 2023.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The information required by this Item is incorporated by reference pursuant to General Instruction G (3) of Form 10-K from ProAssurance's definitive proxy statement for the 2023 Annual Meeting of its Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A on or about April 7, 2023.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

- (a) Financial Statements. The following consolidated financial statements of ProAssurance Corporation and subsidiaries are included herein in accordance with Item 8 of Part II of this report.

Report of Registered Public Accounting Firm

Consolidated Balance Sheets – December 31, 2022 and 2021

Consolidated Statements of Changes in Capital – years ended December 31, 2022, 2021 and 2020

Consolidated Statements of Income and Comprehensive Income – years ended December 31, 2022, 2021 and 2020

Consolidated Statements of Cash Flows – years ended December 31, 2022, 2021 and 2020

Notes to Consolidated Financial Statements

- (b) The exhibits required to be filed by Item 15(b) are listed herein in the Exhibit Index.

- (c) Financial Statement Schedules. The following consolidated financial statement schedules of ProAssurance Corporation and subsidiaries are included herein in accordance with Rule 14a-3(b):

Schedule I – Summary of Investments – Other than Investments in Related Parties

Schedule II – Condensed Financial Information of ProAssurance Corporation (Registrant Only)

Schedule III – Supplementary Insurance Information

Schedule IV – Reinsurance

All other schedules to the consolidated financial statements required by Article 7 of Regulation S-X are not required under the related instructions or are inapplicable and therefore have been omitted.

SIGNATURES

Pursuant to the requirements of Section 13 of 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on this the 27th day of February 2023.

PROASSURANCE CORPORATION

By: /s/ EDWARD L. RAND, JR.
Edward L. Rand, Jr.

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

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u> /s/ EDWARD L. RAND, JR. </u> Edward L. Rand, Jr.	President and Chief Executive Officer (Principal Executive Officer)	February 27, 2023
<u> /s/ DANA S. HENDRICKS </u> Dana S. Hendricks	Chief Financial Officer (Principal Financial and Accounting Officer)	February 27, 2023
<u> /s/ SAMUEL A. DI PIAZZA, JR. </u> Samuel A. Di Piazza, Jr.	Director	February 27, 2023
<u> /s/ M. JAMES GORRIE </u> M. James Gorrie	Director	February 27, 2023
<u> /s/ BRUCE D. ANGIOLILLO, J.D. </u> Bruce D. Angiolillo, J.D.	Director	February 27, 2023
<u> /s/ MAYE HEAD FREI </u> Maye Head Frei	Director	February 27, 2023
<u> /s/ KATISHA T. VANCE, M.D. </u> Katisha T. Vance, M.D.	Director	February 27, 2023
<u> /s/ FRANK A. SPINOSA, D.P.M. </u> Frank A. Spinosa, D.P.M.	Director	February 27, 2023
<u> /s/ ZIAD R. HAYDAR, M.D. </u> Ziad R. Haydar, M.D.	Director	February 27, 2023
<u> /s/ THOMAS A.S. WILSON, JR., M.D. </u> Thomas A. S. Wilson, Jr., M.D.	Director	February 27, 2023
<u> /s/ KEDRICK D. ADKINS, JR. </u> Kedrick D. Adkins, Jr.	Director	February 27, 2023
<u> /s/ FABIOLA COBARRUBIAS, M.D. </u> Fabiola Cobarrubias, M.D.	Director	February 27, 2023
<u> /s/ SCOTT C. SYPHAX </u> Scott C. Syphax	Director	February 27, 2023

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of ProAssurance Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of ProAssurance Corporation and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of changes in capital, income and comprehensive income, and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and the financial statement schedules listed in the Index at Item 15(c) (collectively referred to as the “(consolidated) financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) and our report dated February 27, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of reserve for losses and loss adjustment expenses

Description of the Matter At December 31, 2022, the Company's gross reserve for losses and loss adjustment expenses was \$3.5 billion. As explained in Notes 1 and 8 to the financial statements, the reserve for losses and loss adjustment expenses represents the estimated ultimate costs of all reported and unreported losses and loss adjustment expenses incurred and unpaid as of the reporting date. The reserve for losses and loss adjustment expenses is determined based on individual claims and payments thereon as well as actuarially determined estimates of ultimate losses. The Company updates the data underlying the estimation of the reserve for losses each reporting period and adjusts loss estimation assumptions that best reflect emerging data. Both internal and consulting actuaries perform an in-depth review of the reserve for losses on at least a semi-annual basis using the Company's loss and exposure data. The actuarial process is highly judgmental, both as to the selection of the various actuarial methodologies, and the significant assumptions within those methodologies, which are based on historical paid and incurred development trends, and in the interpretation of the output of the various methods used.

Auditing management's reserve for losses and loss adjustment expenses required the involvement of our actuarial specialists and was complex and highly judgmental due to sensitivity of the significant assumptions supporting the valuation of the reserve for losses and loss adjustment expenses.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested controls that address the risks of material misstatement related to the valuation of the reserve for losses and loss adjustment expenses. This included testing management's controls over the review and approval processes that management has in place for the methods and significant assumptions used in estimating the reserve.

To test the reserve for losses and loss adjustment expenses, we performed audit procedures that included, among others, evaluating, with the assistance of our actuarial specialists, the Company's selection of methods against those used in prior periods and used in the industry for similar types of insurance. We evaluated significant assumptions, based on historical paid and incurred loss development trends, relative to the Company's historical experience and to the extent required compared to industry experience. We involved our actuarial specialists to independently calculate a range of reasonable losses and loss adjustment expense reserve estimates and compared this range to the Company's recorded reserve for losses and loss adjustment expenses. We also performed a review of the development of prior years' reserve estimates.

Deferred tax assets valuation allowance

Description of the Matter

As described in Note 6 to the consolidated financial statements, the Company had total deferred tax assets of \$262.3 million. As described in Note 1 to the consolidated financial statements, these deferred tax assets represent the tax benefit of future deductible temporary differences, net operating loss carryforwards, and tax credit carryforwards. Deferred tax assets are reduced by a valuation allowance if, based on the weight of all available evidence, it is more likely than not that some portion, or all, of the deferred tax assets will not be realized. In evaluating the need for a valuation allowance, the Company considers many factors, including the future reversal of existing temporary differences and the identification and use of available tax planning strategies. If those sources are insufficient to support the recoverability of the deferred tax assets, the Company then considers its projections of future taxable income, which involves significant management judgment.

Auditing management's assessment of the realizability of its deferred tax assets was complex because management's projection of future taxable income includes forward-looking assumptions which are inherently judgmental as they may be affected by future market or other economic conditions.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design, and tested the operating effectiveness of the controls related to the realizability of deferred tax assets, which included, among others, controls related to the review and approval of future projected taxable income and the assumptions used in the Company's model.

Among other audit procedures performed, we evaluated the assumptions used by the Company to develop projections of future taxable income and tested the completeness and accuracy of the underlying data used in its projections. For example, we compared the projections of future taxable income with the actual results of prior periods, as well as management's consideration of current industry and economic trends. We also assessed the historical accuracy of management's projections and compared the projections of future taxable income with other forecasted financial information prepared by the Company. Further, we utilized tax professionals to assist us in our audit procedures.

/s/ Ernst & Young, LLP

We have served as the Company's auditor since 1977.
Birmingham, Alabama
February 27, 2023

ProAssurance Corporation and Subsidiaries
Consolidated Balance Sheets
(In thousands, except share data)

	December 31, 2022	December 31, 2021
Assets		
Investments		
Fixed maturities, available-for-sale, at fair value (amortized cost, \$3,852,411 and \$3,814,847, respectively; allowance for expected credit losses, \$427 as of December 31, 2022 and none as of December 31, 2021)	\$ 3,472,472	\$ 3,833,722
Fixed maturities, trading, at fair value (cost, \$45,048 and \$43,914, respectively)	43,434	43,670
Equity investments, at fair value (cost, \$162,429 and \$211,356, respectively)	143,738	214,807
Short-term investments	245,313	216,987
Business owned life insurance	81,746	81,767
Investment in unconsolidated subsidiaries	305,210	335,576
Other investments (at fair value, \$92,447 and \$98,611, respectively, otherwise at cost or amortized cost)	95,770	101,794
Total Investments	4,387,683	4,828,323
Cash and cash equivalents	29,959	143,602
Premiums receivable, net (allowance for expected credit losses, \$7,658 as of December 31, 2022 and \$7,436 as of December 31, 2021)	246,094	241,095
Receivable from reinsurers on paid losses and loss adjustment expenses	15,313	14,599
Receivable from reinsurers on unpaid losses and loss adjustment expenses	431,889	451,741
Prepaid reinsurance premiums	29,120	24,571
Deferred policy acquisition costs	58,148	58,940
Deferred tax asset, net	209,535	117,613
Real estate, net	29,968	30,342
Operating lease ROU assets	18,987	19,595
Intangible assets, net	66,835	73,336
Goodwill	49,610	49,610
Other assets	126,858	138,110
Total Assets	\$ 5,699,999	\$ 6,191,477
Liabilities and Shareholders' Equity		
Liabilities		
Policy liabilities and accruals		
Reserve for losses and loss adjustment expenses	\$ 3,471,147	\$ 3,579,940
Unearned premiums	422,950	433,961
Reinsurance premiums payable	28,514	22,627
Total Policy Liabilities and Accruals	3,922,611	4,036,528
Operating lease liabilities	20,008	20,844
Other liabilities	226,379	280,732
Debt less unamortized debt issuance costs	426,983	424,986
Total Liabilities	4,595,981	4,763,090
Shareholders' Equity		
Common shares (par value \$0.01 per share, 100,000,000 shares authorized, 63,427,796 and 63,308,741 shares issued, respectively)	634	633
Additional paid-in capital	397,919	392,941
Accumulated other comprehensive income (loss) (net of deferred tax expense (benefit) of (\$80,810) and \$4,423, respectively)	(298,607)	16,284
Retained earnings	1,423,286	1,434,491
Treasury shares, at cost (9,464,160 and 9,325,180 shares, respectively)	(419,214)	(415,962)
Total Shareholders' Equity	1,104,018	1,428,387
Total Liabilities and Shareholders' Equity	\$ 5,699,999	\$ 6,191,477

See accompanying notes.

ProAssurance Corporation and Subsidiaries
Consolidated Statements of Changes in Capital
(In thousands)

	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Treasury Stock	Total
Balance at January 1, 2020	\$ 631	\$ 384,551	\$ 36,955	\$ 1,505,738	\$ (415,962)	\$ 1,511,913
Cumulative-effect adjustment- ASU 2016-13 adoption	—	—	—	(4,076)	—	(4,076)
Common shares issued for compensation	—	691	—	—	—	691
Share-based compensation	—	3,845	—	—	—	3,845
Net effect of restricted and performance shares issued	1	(937)	—	—	—	(936)
Dividends to shareholders	—	—	—	(24,772)	—	(24,772)
Other comprehensive income (loss)	—	—	38,272	—	—	38,272
Net income (loss)	—	—	—	(175,727)	—	(175,727)
Balance at December 31, 2020	632	388,150	75,227	1,301,163	(415,962)	1,349,210
Common shares issued for compensation	—	700	—	—	—	700
Share-based compensation	—	4,379	—	—	—	4,379
Net effect of restricted and performance shares issued	1	(288)	—	—	—	(287)
Dividends to shareholders	—	—	—	(10,796)	—	(10,796)
Other comprehensive income (loss)	—	—	(58,943)	—	—	(58,943)
Net income (loss)	—	—	—	144,124	—	144,124
Balance at December 31, 2021	633	392,941	16,284	1,434,491	(415,962)	1,428,387
Common Shares reacquired	—	—	—	—	(3,252)	(3,252)
Common shares issued for compensation	—	1,078	—	—	—	1,078
Share-based compensation	—	4,828	—	—	—	4,828
Net effect of restricted and performance shares issued	1	(928)	—	—	—	(927)
Dividends to shareholders	—	—	—	(10,803)	—	(10,803)
Other comprehensive income (loss)	—	—	(314,891)	—	—	(314,891)
Net income (loss)	—	—	—	(402)	—	(402)
Balance at December 31, 2022	\$ 634	\$ 397,919	\$ (298,607)	\$ 1,423,286	\$ (419,214)	\$ 1,104,018

See accompanying notes.

ProAssurance Corporation and Subsidiaries
Consolidated Statements of Income and Comprehensive Income
(In thousands, except per share data)

	Year Ended December 31		
	2022	2021	2020
Revenues			
Net premiums earned	\$ 1,029,581	\$ 971,668	\$ 792,715
Net investment income	95,972	70,522	71,998
Equity in earnings (loss) of unconsolidated subsidiaries	4,888	48,974	(11,921)
Net investment gains (losses):			
Impairment losses	(1,772)	—	(1,745)
Portion of impairment losses recognized in other comprehensive income (loss) before taxes	14	—	237
Net impairment losses recognized in earnings	(1,758)	—	(1,508)
Other net investment gains (losses)	(31,399)	24,310	17,186
Total net investment gains (losses)	(33,157)	24,310	15,678
Other income	9,404	8,936	6,470
Total revenues	1,106,688	1,124,410	874,940
Expenses			
Net losses and loss adjustment expenses	776,762	752,249	661,447
Underwriting, policy acquisition and operating expenses:			
Operating expense	174,163	157,641	127,316
DPAC amortization	133,175	110,605	110,565
SPC U.S. federal income tax expense	1,759	1,947	1,746
SPC dividend expense (income)	6,673	10,050	14,304
Interest expense	20,372	19,719	15,503
Goodwill impairment	—	—	161,115
Total expenses	1,112,904	1,052,211	1,091,996
Gain on bargain purchase	—	74,408	—
Income (loss) before income taxes	(6,216)	146,607	(217,056)
Provision for income taxes:			
Current expense (benefit)	807	1,164	(20,181)
Deferred expense (benefit)	(6,621)	1,319	(21,148)
Total income tax expense (benefit)	(5,814)	2,483	(41,329)
Net income (loss)	(402)	144,124	(175,727)
Other comprehensive income (loss), after tax, net of reclassification adjustments	(314,891)	(58,943)	38,272
Comprehensive income (loss)	\$ (315,293)	\$ 85,181	\$ (137,455)
Earnings (loss) per share:			
Basic	\$ (0.01)	\$ 2.67	\$ (3.26)
Diluted	\$ (0.01)	\$ 2.67	\$ (3.26)
Weighted average number of common shares outstanding:			
Basic	54,008	53,962	53,863
Diluted	54,140	54,058	53,906
Cash dividends declared per common share	\$ 0.20	\$ 0.20	\$ 0.46

See accompanying notes.

ProAssurance Corporation and Subsidiaries
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31		
	2022	2021	2020
Operating Activities			
Net income (loss)	\$ (402)	\$ 144,124	\$ (175,727)
Adjustments to reconcile net income (loss) to net cash provided (used) by operating activities:			
Goodwill impairment	—	—	161,115
Gain on bargain purchase	—	(74,408)	—
Depreciation and amortization, net of accretion	38,063	37,247	21,375
(Increase) decrease in cash surrender value of BOLI	21	(1,339)	(1,735)
Net investment (gains) losses	33,157	(24,310)	(15,678)
Share-based compensation	4,829	4,390	3,840
Deferred income tax expense (benefit)	(6,621)	1,319	(21,148)
Policy acquisition costs, net of amortization (net deferral)	792	(11,744)	8,371
Equity in (earnings) loss of unconsolidated subsidiaries	(4,888)	(48,974)	11,921
Distributed earnings from unconsolidated subsidiaries	30,278	35,164	36,672
Other, net	(571)	(401)	2,409
Change in:			
Premiums receivable	(4,999)	71,205	42,985
Reinsurance related assets and liabilities	20,476	16,925	(2,047)
Other assets	12,076	12,713	(13,721)
Reserve for losses and loss adjustment expenses	(108,793)	(19,684)	70,653
Unearned premiums	(11,011)	(105,986)	(51,539)
Other liabilities	(32,248)	37,729	14,597
Net cash provided (used) by operating activities	<u>(29,841)</u>	<u>73,970</u>	<u>92,343</u>
Investing Activities			
Purchases of:			
Fixed maturities, available-for-sale	(607,790)	(1,438,169)	(917,037)
Equity investments	(34,907)	(156,747)	(69,406)
Other investments	(38,873)	(73,957)	(35,616)
Investment in unconsolidated subsidiaries	(39,488)	(49,650)	(40,093)
Proceeds from sales or maturities of:			
Fixed maturities, available-for-sale	542,855	1,077,379	801,580
Equity investments	78,550	440,921	196,762
Other investments	34,794	59,055	35,524
Net sales or (purchases) of fixed maturities, trading	(499)	4,236	(383)
Return of invested capital from unconsolidated subsidiaries	44,464	65,362	40,068
Net sales or maturities (purchases) of short-term investments	(27,789)	181,619	2,361
Unsettled security transactions, net change	(6,302)	29,841	(12,756)
Purchases of capital assets	(4,353)	(3,840)	(7,478)
Cash paid for acquisitions, net of cash acquired	—	(221,576)	—
Other	(2,659)	—	(2,010)
Net cash provided (used) by investing activities	<u>(61,997)</u>	<u>(85,526)</u>	<u>(8,484)</u>

Continued on the following page.

Year Ended December 31

	2022	2021	2020
Repayments of Mortgage Loans	—	(36,113)	(1,502)
Repurchase of common stock	(3,252)	—	—
Dividends to shareholders	(10,768)	(10,758)	(38,664)
Capital contribution received from (return of capital to) external segregated portfolio cell participants	(8,928)	(10,376)	(2,345)
Purchase of non-controlling interest	—	(3,089)	—
Other	1,143	(288)	(935)
Net cash provided (used) by financing activities	(21,805)	(60,624)	(43,446)
Increase (decrease) in cash and cash equivalents	(113,643)	(72,180)	40,413
Cash and cash equivalents at beginning of period	143,602	215,782	175,369
Cash and cash equivalents at end of period	<u>\$ 29,959</u>	<u>\$ 143,602</u>	<u>\$ 215,782</u>

Continued from the previous page.

Financing Activities

Supplemental Disclosure of Cash Flow Information

Cash paid (refunded) during the year for income taxes, net	\$ 2,340	\$ (9,512)	\$ (8,832)
Cash paid during the year for interest	\$ 19,679	\$ 14,502	\$ 14,712

Significant Non-Cash Transactions

Operating ROU assets obtained in exchange for operating lease liabilities	\$ 3,133	\$ 5,687	\$ 1,351
Dividends declared and not yet paid	\$ 2,698	\$ 2,698	\$ 2,694
Fair value of Contribution Certificates issued in NORCAL acquisition	\$ —	\$ 174,999	\$ —
Fair value of contingent consideration in NORCAL acquisition	\$ —	\$ 24,000	\$ —
Increase (decrease) in fair value of contingent consideration issued in NORCAL acquisition	\$ (9,000)	\$ —	\$ —

See accompanying notes.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

1. Accounting Policies

Organization and Nature of Business

ProAssurance Corporation (ProAssurance, PRA or the Company), a Delaware corporation, is an insurance holding company primarily for wholly owned specialty property and casualty and workers' compensation insurance entities including an entity that provides capital to Syndicate 1729 at Lloyd's. Risks insured are primarily liability risks located within the U.S.

ProAssurance operates in five reportable segments as follows: Specialty P&C, Workers' Compensation Insurance, Segregated Portfolio Cell Reinsurance, Lloyd's Syndicates and Corporate. For more information on the Company's segment reporting, including the nature of products and services provided and financial information by segment, refer to Note 16.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of ProAssurance Corporation, its wholly owned subsidiaries and VIEs in which ProAssurance is the primary beneficiary. See Note 14 for more information on ProAssurance's VIE interests. Investments in entities where ProAssurance holds a greater than minor interest but does not hold a controlling interest are accounted for using the equity method. All significant intercompany accounts and transactions are eliminated in consolidation. ProAssurance subsidiaries located in the U.K. are normally reported on a quarter lag due to timing issues regarding the availability of information, except when information is available that is material to the current period. Furthermore, investment results associated with ProAssurance's FAL investments and certain U.S. paid administrative expenses are reported concurrently as that information is available on an earlier time frame.

Basis of Presentation

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses, and disclosures related to these amounts at the date of the financial statements.

Change in Accounting Estimate

Beginning in 2022, ProAssurance revised its process for estimating ULAE as a result of substantially integrating NORCAL into the Specialty P&C segment operations. ULAE are costs that cannot be attributed to processing a specific claim and are allocated to net losses and loss adjustment expenses on the Consolidated Statement of Income and Comprehensive Income. ProAssurance accounted for this change prospectively as a change in accounting estimate. Changes in accounting estimate are reflected prospectively beginning in the period the change in estimate occurs. For the year ended December 31, 2022, the change in the Company's estimate of ULAE resulted in an increase of \$25.4 million to underwriting, policy acquisition and operating expenses with an offsetting decrease of \$25.4 million to net losses and loss adjustment expenses when compared to amounts that would have been estimated as ULAE under the Company's previous methodology. There was no impact on total expenses or net income (loss) in the Company's Consolidated Statement of Income and Comprehensive Income for the year ended December 31, 2022 as a result of this change in the estimate.

Accounting Policies

The significant accounting policies followed by ProAssurance in making estimates that materially affect financial reporting are summarized in these Notes to Consolidated Financial Statements. The Company evaluates these estimates and assumptions on an ongoing basis based on current and historical developments, market conditions, industry trends and other information that the Company believes to be reasonable under the circumstances. The Company can make no assurance that actual results will conform to its estimates and assumptions; reported results of operations may be materially affected by changes in these estimates and assumptions.

Recognition of Revenues

Insurance premiums are recognized as revenues pro rata over the terms of the policies, which are principally one year in duration.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

Losses and Loss Adjustment Expenses

ProAssurance establishes its reserve for losses and LAE ("reserve for losses" or "reserve") based on estimates of the future amounts necessary to pay claims and expenses associated with the investigation and settlement of claims. The reserve for losses is determined on the basis of individual claims and payments thereon as well as actuarially determined estimates of future losses based on past loss experience, available industry data and projections as to future claims frequency, severity, inflationary trends, judicial trends, legislative changes and settlement patterns.

Management establishes the reserve for losses after taking into consideration a variety of factors including premium rates, historical paid and incurred loss development trends, and management's evaluation of the current loss environment including frequency, severity, expected effect of inflation, general economic and social trends, and the legal and political environment. Management also takes into consideration the conclusions reached by internal and consulting actuaries. Management updates and reviews the data underlying the estimation of the reserve for losses each reporting period and makes adjustments to loss estimation assumptions that best reflect emerging data. Both internal and consulting actuaries perform an in-depth review of the reserve for losses on at least a semi-annual basis using the loss and exposure data of ProAssurance's subsidiaries. Consulting actuaries provide reports to management regarding the adequacy of reserves.

Estimating casualty insurance reserves, and particularly long-tailed insurance reserves, is a complex process. Long-tailed insurance is characterized by the extended period of time typically required both to assess the viability of a claim and potential damages, if any, and to reach a resolution of the claim. For a high proportion of the risks insured or reinsured by ProAssurance, the period of time required to resolve a claim is often five years or more, and claims may be subject to litigation. Estimating losses for these long-tailed claims requires ProAssurance to make and revise judgments and assessments regarding multiple uncertainties over an extended period of time. As a result, reserve estimates may vary significantly from the eventual outcome. Reserve estimates and the assumptions on which these estimates are predicated are regularly reviewed and updated as new information becomes available. Any adjustments necessary are reflected in current operations. Due to the size of ProAssurance's reserve for losses, even a small percentage adjustment to these estimates could have a material effect on earnings in the period in which the adjustment is made, as was the case in 2022, 2021 and 2020. See Note 8 for additional information on ProAssurance's reserve for losses and LAE.

The effect of adjustments made to reinsured losses is mitigated by the corresponding adjustment that is made to reinsurance recoveries. Thus, in any given year, ProAssurance may make significant adjustments to gross losses that have little effect on its net losses.

Reinsurance Receivables

ProAssurance enters into reinsurance agreements whereby other insurance entities agree to assume a portion of the risk associated with certain policies issued by ProAssurance. In return, ProAssurance agrees to pay a premium to the reinsurer. ProAssurance uses reinsurance to provide capacity to write larger limits of liability, to provide reimbursement for losses incurred under the higher limit coverages the Company offers, to provide protection against losses in excess of policy limits, and, in the case of risk sharing arrangements, to align the Company's objectives with those of its strategic business partners and to provide custom insurance solutions for large customer groups.

Receivable from reinsurers on paid losses and LAE is the estimated amount of losses already paid that will be recoverable from reinsurers. Receivable from reinsurers on unpaid losses and LAE is the estimated amount of future loss payments that will be recoverable from reinsurers. Reinsurance recoveries are the portion of losses incurred during the period that are estimated to be allocable to reinsurers. Premiums ceded are the estimated premiums that will be due to reinsurers with respect to premiums earned and losses incurred during the period.

These estimates are based upon management's estimates of ultimate losses and the portion of those losses that are allocable to reinsurers under the terms of the related reinsurance agreements. Given the uncertainty inherent in management's estimate of the ultimate amounts of losses, these estimates may vary significantly from the ultimate outcome. Management regularly reviews these estimates and any adjustments necessary are reflected in the period in which the estimate is changed. Due to the size of the receivable from reinsurers, an adjustment to these estimates could have a material effect on ProAssurance's results of operations for the period in which the adjustment is made.

Reinsurance contracts do not relieve ProAssurance from its obligations to policyholders. ProAssurance continually monitors its reinsurers to minimize its exposure to significant credit losses from reinsurer insolvencies (see additional discussion below under the heading "Credit Losses"). Any amount determined to be uncollectible is written off in the period in which the uncollectible amount is identified. See Note 5 for further information.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

Credit Losses

ProAssurance's premiums receivable and reinsurance receivables are exposed to credit losses, but to-date have not experienced any significant amount of credit losses. ProAssurance measures expected credit losses on its premiums receivables and reinsurance receivables on a collective (pool) basis when similar risk characteristics exist, and the Company will reassess its pools each reporting period to ensure all receivables within the pool continue to share similar risk characteristics. If the Company determines that a receivable does not share risk characteristics with its other receivables within a pool, it will evaluate that receivable for expected credit losses on an individual basis. ProAssurance measures expected credit losses associated with its premium receivables at the segment level as each segment's premium receivables share similar risk characteristics including term, type of financial asset and similar historical and expected credit loss patterns. ProAssurance measures expected credit losses associated with its reinsurance receivables (related to both paid and unpaid losses) at the consolidated level as its reinsurance receivables share similar risk characteristics including type of financial asset, type of industry and similar historical and expected credit loss patterns.

ProAssurance measures expected credit losses over the contractual term of each pool utilizing a loss rate method. Historical internal credit loss experience for each pool is the basis for the Company's assessment of expected credit losses; however, the Company may also consider historical credit loss information from external sources. In addition to historical credit loss data, the Company also considers reasonable and supportable forecasts of future economic conditions in its estimate of expected credit losses by utilizing industry and macroeconomic factors that it believes most relevant to the collectability of each pool.

ProAssurance's available-for-sale fixed maturity investments are also exposed to credit losses. See Note 4 for information on ProAssurance's allowance for expected credit losses on its available-for-sale fixed maturities.

ProAssurance's premiums receivable on its Consolidated Balance Sheet as of December 31, 2022 and 2021 is reported net of the related allowance for expected credit losses of \$7.7 million and \$7.4 million, respectively. The following tables present a roll forward of the allowance for expected credit losses related to the Company's premiums receivable for the years ended December 31, 2022 and 2021.

<i>(In thousands)</i>	Premiums Receivable, Net	Allowance for Expected Credit Losses
Balance, December 31, 2021	\$ 241,095	\$ 7,436
Provision for expected credit losses		564
Write offs charged against the allowance		(674)
Recoveries of amounts previously written off		332
Balance, December 31, 2022	\$ 246,094	\$ 7,658

<i>(In thousands)</i>	Premiums Receivable, Net	Allowance for Expected Credit Losses
Balance, December 31, 2020	\$ 201,395	\$ 6,131
Initial allowance recognized in the period for NORCAL premiums receivable ⁽¹⁾		2,137
Provision for expected credit losses		439
Write offs charged against the allowance		(1,533)
Recoveries of amounts previously written off		262
Balance, December 31, 2021	\$ 241,095	\$ 7,436

⁽¹⁾ Represents an initial allowance for expected credit losses recognized during the second quarter of 2021 for NORCAL's premiums receivable to conform NORCAL to ProAssurance's accounting policies.

ProAssurance's expected credit losses associated with its reinsurance receivables (related to both paid and unpaid losses) were nominal in amount as of December 31, 2022 and 2021. ProAssurance has other financial assets and off-balance-sheet commitments that are exposed to credit losses; however, expected credit losses associated with these assets and commitments were nominal in amount as of December 31, 2022 and 2021.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

Retroactive Insurance Contracts

In certain instances, ProAssurance's insurance contracts cover losses both on a prospective basis and retroactive basis, and accordingly, ProAssurance bifurcates the prospective and retroactive provisions of these contracts and accounts for each component separately, where practicable.

Under the retroactive provisions of a contract, all premiums received and losses assumed are recognized immediately in earnings at the inception of the contract as all of the underlying loss events occurred in the past. If the estimated losses assumed differ from the premium received related to the retroactive provision of a contract, the resulting difference is deferred and recognized over the estimated claim payment period with the periodic amortization reflected in earnings as a component of net losses and LAE. Deferred gains are included as a component of the reserve for losses and LAE, and deferred losses are included as a component of other assets on the Consolidated Balance Sheets. Subsequent changes to the estimated timing or amount of future loss payments in relation to the losses assumed under retroactive provisions also produce changes in deferred balances. Changes in such estimates are applied retrospectively, and the resulting changes in deferred balances, together with periodic amortization, are included in earnings in the period of change.

Investments

Recurring Fair Value Measurements

Fair values of investment securities are primarily provided by independent pricing services. The pricing services provide an exchange-traded price, if available, or provide an estimated price determined using multiple observable inputs, including exchange-traded prices for similar assets. Management reviews valuations of securities obtained from the pricing services for accuracy based upon the specifics of the security, including class, maturity, credit rating, durations, collateral and comparable markets for similar securities. Multiple observable inputs are not available for certain of the Company's investments, including corporate debt not actively traded, certain asset-backed securities and investments in LPs/LLCs. Management values the corporate debt not actively traded and the other asset-backed securities either using dealer quotes for similar securities or discounted cash flow models using yields currently available for similar securities. Management values certain investment funds, primarily LPs/LLCs, based on the NAV of the interest held, as provided by the fund.

Nonrecurring Fair Value Measurements

Management measures the fair value of certain assets on a nonrecurring basis when events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. These assets include investments carried principally at cost, investments in tax credit partnerships, fixed assets, goodwill and other intangible assets. These assets would also include any equity method investments that do not provide a NAV.

Fixed Maturities

Fixed maturities are considered as either available-for-sale or trading securities.

Available-for-sale securities are carried at fair value, determined as described above and in Note 3. Exclusive of impairment losses, discussed in a separate section that follows, unrealized holding gains and losses on available-for-sale securities are included, net of related tax effects, as a component of OCI in the Consolidated Statement of Income and Comprehensive Income during the period of change and as a component of AOCI in shareholders' equity on the Consolidated Balance Sheet.

Investment income includes amortization of premium and accretion of discount related to available-for-sale debt securities acquired at other than par value. Debt securities and mandatorily redeemable preferred stock with maturities beyond one year when purchased are classified as fixed maturities.

Trading securities are carried at fair value, determined as described above, with the unrealized holding gains and losses included as a component of net investment gains (losses) in the Consolidated Statement of Income and Comprehensive Income during the period of change.

Equity Investments

Equity investments are carried at fair value, as described above, with the holding gains and losses included as a component of net investment gains (losses) in the Consolidated Statement of Income and Comprehensive Income during the period of change. Equity investments are primarily comprised of bond funds, stocks, and investment funds.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

Short-term Investments

Short-term investments, which have a maturity at purchase of one year or less, are primarily comprised of investments in U.S. Treasury obligations, commercial paper and money market funds. All balances are carried at fair value which approximates the cost of the securities due to their short-term nature.

Other Investments

Investments in convertible bond securities are carried at fair value as permitted by the accounting guidance for hybrid financial instruments, with changes in fair value recognized in earnings as a component of net investment gains (losses) during the period of change. Interest on convertible bond securities is recorded on an accrual basis based on contractual interest rates and is included in net investment income.

Investment in Unconsolidated Subsidiaries

Equity investments, primarily investments in LPs/LLCs, where ProAssurance is deemed to have influence because it holds a greater than a minor interest are accounted for using the equity method. Under the equity method, the recorded basis of the investment is adjusted each period for the investor's pro rata share of the investee's income or loss. Investments in unconsolidated subsidiaries include tax credit partnerships accounted for using the equity method, whereby ProAssurance's proportionate share of income or loss is included in equity in earnings (loss) of unconsolidated subsidiaries. Tax credits received from the partnerships are recognized in the period received in the Consolidated Statements of Income and Comprehensive Income as either a reduction to current tax expense or as a component of deferred tax expense if they cannot be utilized in the period received.

Business Owned Life Insurance

ProAssurance owns life insurance contracts on certain management employees, which includes policies acquired from NORCAL. The life insurance contracts are carried at their current cash surrender value. Changes in the cash surrender value are included in earnings in the current period as investment income. Death benefit proceeds from the contracts are recorded when the proceeds become payable under the policy terms.

Realized Gains and Losses

Realized investment gains and losses are recognized on the first-in, first-out basis for GAAP purposes and on the specific identification basis for tax purposes.

Impairments

ProAssurance evaluates its available-for-sale investment securities, which at December 31, 2022 and 2021 consisted entirely of fixed maturity securities, on at least a quarterly basis for the purpose of determining whether declines in fair value below recorded cost basis represent a credit loss. The Company considers a credit loss 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; or
- 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 is expected to be recovered requires the Company 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 the Company's current estimates of those credit losses. Methodologies used to estimate the present value of expected cash flows are:

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. ProAssurance considers 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;

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

- 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 ProAssurance's 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;
- recoveries or additional declines in fair value subsequent to the balance sheet date;
- adverse legal or regulatory events;
- significant deterioration in the market environment that may affect the value of collateral (e.g., decline in real estate prices);
- significant deterioration in economic conditions; and
- disruption in the business model resulting from changes in technology or new entrants to the industry.

If deemed appropriate and necessary, a discounted cash flow analysis is performed to confirm whether a credit loss exists and, if so, the amount of the credit loss. ProAssurance uses the single best estimate approach for available-for-sale debt securities and considers all reasonably available data points, including industry analyses, credit ratings, expected defaults and the remaining payment terms of the debt security. For fixed rate available-for-sale debt securities, cash flows are discounted at the security's effective interest rate implicit in the security at the date of acquisition. If the available-for-sale debt security's contractual interest rate varies based on subsequent changes in an independent factor, such as an index or rate, for example, the prime rate, the LIBOR, or the U.S. Treasury bill weekly average, that security's effective interest rate is calculated based on the factor as it changes over the life of the security.

If ProAssurance intends to sell a debt security or believes it will more likely than not be required to sell a debt security before the amortized cost basis is recovered, any existing allowance will be written off against the security's amortized cost basis, with any remaining difference between the debt security's amortized cost basis and fair value recognized as an impairment loss in earnings.

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, impairment for debt securities is separated into a credit component and a non-credit component. The credit component of an impairment 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. An allowance for expected credit losses will be recorded for the expected credit losses through income and the non-credit component is recognized in OCI. The amount of impairment recognized is limited to the excess of the amortized cost over the fair value of the available-for-sale debt security.

Cash and Cash Equivalents

For purposes of the Consolidated Balance Sheets and Consolidated Statements of Cash Flows, ProAssurance considers all demand deposits and overnight investments to be cash equivalents.

Foreign Currency

The functional currency of all ProAssurance foreign subsidiaries is the U.S. dollar. In recording foreign currency transactions, revenue and expense items are converted to U.S. dollars at the exchange rate prevailing at the transaction date. Monetary assets and liabilities originating in currencies other than the U.S. dollar are remeasured to U.S. dollars at the rates of exchange in effect as of the balance sheet date. The resulting foreign currency gains or losses are recognized in the Consolidated Statements of Income and Comprehensive Income as a component of other income. Monetary assets and liabilities include investments, cash and cash equivalents, accrued expenses and other liabilities. In addition, monetary assets and liabilities include certain premiums receivable and reserve for losses and LAE as a result of reinsurance transactions conducted with foreign cedents denominated in their local functional currencies.

Pension

As a result of the NORCAL acquisition, the Company sponsors a frozen qualified defined benefit pension plan which covers substantially all NORCAL employees (except those that were previous employees of Medicus Insurance Company and

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

FD Insurance Company, employees of PPM RRG as well as new hires after December 31, 2013). Accounting for pension benefits requires the use of assumptions for the valuation of the PBO and the expected performance of the plan assets.

The Company uses December 31 as the measurement date for calculating its obligation related to this defined benefit pension plan and for estimating net periodic benefit cost (income) for the subsequent year. The PBO for pension benefits represents the present value of all future benefits earned as of the measurement date for vested and non-vested employees. At each measurement date, the Company reviews the various assumptions impacting the amounts recorded for the pension plan including the discount rates, which impacts the recorded value of the PBO and interest costs, and the expected return on plan assets.

To estimate the discount rate at the measurement date, the Company uses a bond yield curve model, developed based on pricing and yield information for high quality corporate bonds. The assumption for the expected return on plan assets is based on the anticipated returns that will be earned by the portfolio over the long term. The expected return is influenced, but not determined, by historical portfolio performance.

Accounting standards provide for the delayed recognition of differences between actual results and expected or estimated results. This delayed recognition of the differences is amortized into earnings over time. The differences between actual results and expected or estimated results are recognized in full in AOCI. Amounts recognized in AOCI are reclassified to earnings in a systematic manner over the average future service period of participants.

Deferred Policy Acquisition Costs; Ceding Commission Income

Costs that vary with and are directly related to the successful production of new and renewal premiums (primarily premium taxes, commissions and underwriting salaries) are deferred to the extent they are recoverable against unearned premiums and are amortized as related premiums are earned. Unearned ceding commission income is reported as an offset to DPAC, and ceding commission earned is reported as an offset to DPAC amortization.

ProAssurance evaluates the recoverability of DPAC typically at the segment level each reporting period, or in a manner that is consistent with the way the Company manages its business. Any amounts estimated to be unrecoverable are charged to expense in the current period. As part of the evaluation of the recoverability of DPAC, ProAssurance also evaluates unearned premium for premium deficiencies. A premium deficiency is recognized if the sum of anticipated losses and loss adjustment expenses, unamortized DPAC and maintenance costs, net of anticipated investment income, exceeds the related unearned premium. If a premium deficiency is identified, the associated DPAC is written off, and a PDR is recorded for the excess deficiency as a component of net losses and loss adjustment expenses in the Consolidated Statements of Income and Comprehensive Income and as a component of the reserve for losses on the Consolidated Balance Sheets.

Income Taxes/Deferred Taxes

ProAssurance files a consolidated federal income tax return. Tax-related interest and penalties are recognized as components of tax expense.

ProAssurance evaluates tax positions taken on tax returns and recognizes positions in the financial statements when it is more likely than not that the position will be sustained upon resolution with a taxing authority. If recognized, the benefit is measured as the largest amount of benefit that has a greater than fifty percent probability of being realized. Uncertain tax positions are reviewed each period by considering changes in facts and circumstances, such as changes in tax law, interactions with taxing authorities and developments in case law, and adjustments would be made if considered necessary. Adjustments to unrecognized tax benefits may affect income tax expense, and the settlement of uncertain tax positions may require the use of cash. Other than differences related to timing, no significant adjustments were considered necessary during the years ended December 31, 2022 or 2021.

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. ProAssurance's temporary differences principally relate to loss reserves, unearned and advanced premiums, DPAC, NOL and tax credit carryforwards, compensation related items, unrealized investment gains (losses) and basis differentials in fixed assets, intangible assets and operating leases. Deferred tax assets and liabilities are measured using the enacted tax rates expected to be in effect when such benefits are realized. ProAssurance reviews its deferred tax assets quarterly for impairment. If management determines 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 the future operations of ProAssurance based on historical experience and information as of the measurement period regarding reversal of existing temporary differences, carryback capacity, future taxable income of the appropriate character (including its capital and operating characteristics) and tax planning strategies.

ProAssurance Corporation and Subsidiaries
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Goodwill/Intangibles

Intangible Assets

Intangible assets with definite lives are amortized over the estimated useful life of the asset. Amortizable intangible assets primarily consist of policyholder relationships, renewal rights and trade names. Intangible assets with an indefinite life, primarily state licenses, are not amortized. Indefinite lived intangible assets are evaluated for impairment on an annual basis or upon the occurrence of certain triggering events or substantive changes in circumstances that indicate the intangible asset may be impaired. Amortizable intangible assets and other long-lived assets are tested for impairment at the asset group level upon the occurrence of certain triggering events or substantive changes in circumstances that indicate the carrying amount of the asset group may not be recoverable. An impairment loss is recognized when estimated undiscounted future cash flows expected to result from the use of the asset group are less than the carrying amounts of the related asset group. Impairment losses are measured as the amount by which the carrying amount of the asset groups exceed their fair values. The Company's asset groups generally correspond to the same level at which goodwill is tested for impairment. The following table provides additional information regarding ProAssurance's intangible assets.

<i>(In millions)</i>	Gross Carrying Value		Accumulated Amortization		Amortization Expense		
	December 31		December 31		Year Ended December 31		
	2022	2021	2022	2021	2022	2021	2020
Intangible Assets							
Non-amortizable	\$ 38.2	\$ 38.2					
Amortizable	100.3	100.3	\$ 71.7	\$ 65.2	\$ 6.5	\$ 6.4	\$ 6.2
Total Intangible Assets	<u>\$ 138.5</u>	<u>\$ 138.5</u>					

Aggregate amortization expense for intangible assets is estimated to be \$6.5 million for the year ended December 31, 2023, \$6.1 million for the year ended December 31, 2024, \$5.7 million for the year ended December 31, 2025, \$3.7 million for the year ended December 31, 2026 and \$3.4 million for the year ended December 31, 2027.

Goodwill

Goodwill is tested for impairment annually or more frequently if circumstances indicate an impairment may have occurred. The date of the Company's annual goodwill impairment testing is October 1.

Impairment of goodwill is tested at the reporting unit level, which is consistent with the Company's reportable segments identified in Note 16. Of the Company's five reporting units, two have net goodwill: Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance. See Note 7 for additional information about the Company's assessment of goodwill.

Annual Impairment Assessment

When testing goodwill for impairment on the Company's annual test date, it has 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 the Company elects to perform a qualitative assessment and determine that an impairment is more likely than not, the Company is then required to perform a quantitative impairment test; otherwise, no further analysis is required. The Company also may elect not to perform the qualitative assessment and, instead, proceed directly to the quantitative impairment test.

Performance of the qualitative goodwill impairment assessment requires judgment in identifying and considering the significance of relevant key factors, events, and circumstances that affect the fair values of the Company's reporting units. This requires consideration and assessment of external factors such as macroeconomic, industry, and market conditions, as well as entity-specific factors, such as the Company's actual and planned financial performance. The Company also gives consideration to the difference between each reporting unit's fair value and carrying value as of the most recent date that a fair value measurement was performed. If the results of the qualitative assessment conclude that it is not more likely than not that the fair value of a reporting unit exceeds its carrying value, additional quantitative impairment testing is performed.

The quantitative goodwill impairment test involves comparing the fair value of a reporting unit with its carrying value including goodwill. If the fair value of a reporting unit exceeds its carrying value, the reporting unit's goodwill is considered not to be impaired. However, if the carrying value of a reporting unit exceeds its fair value, an impairment loss is recorded in an amount equal to that excess. Any impairment charge recognized is limited to the amount of the respective reporting unit's allocated goodwill.

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Determining the fair value of a reporting unit under the quantitative goodwill impairment test requires judgment and often involves the use of significant estimates and assumptions, including an assessment of external factors such as macroeconomic, industry, and market conditions, as well as entity-specific factors, such as actual and planned financial performance. These estimates and assumptions could have a significant impact on whether or not an impairment charge is recognized and the magnitude of any such charge. To assist management in the process of determining any potential goodwill impairment, the Company may review and consider appraisals from accredited independent valuation firms. Estimates of fair value are primarily determined using discounted cash flows and market comparisons. These approaches involve significant estimates and assumptions, including projected future cash flows (including timing), discount rates reflecting the risks inherent in those future cash flows, perpetual growth rates, and selection of appropriate market comparable metrics and transactions.

Business Combinations

The Company accounted for its acquisition of NORCAL in accordance with GAAP relating to business combinations which required management to make certain estimates and assumptions including determining the fair value of the non-cash components of the acquisition consideration and the acquisition date fair values of the acquired tangible and identifiable intangible assets and assumed liabilities of NORCAL.

Contingent Consideration

Contingent consideration in a business combination that is classified as a liability carried as a component of other liabilities on ProAssurance's Consolidated Balance Sheet. Contingent consideration is measured at fair value on the date of acquisition and remeasured at fair value each subsequent reporting period.

Given the contingent consideration associated with the NORCAL acquisition is dependent upon the after-tax development of NORCAL's ultimate net losses between December 31, 2020 and December 31, 2023, the Company will bifurcate changes in the contingent consideration each period between fair value changes and, if applicable, changes in estimates of NORCAL's ultimate net losses for accident years 2020 and prior. Changes in fair value are recognized in earnings as a component of net investment gains (losses) and changes in estimates of NORCAL's ultimate net losses for accident years 2020 and prior are recognized in earnings as component of operating expenses.

VOBA

VOBA is based on actuarially determined projections and reflects the estimated fair value of in-force contracts acquired in a business combination. VOBA is recorded as an asset when the in-force contracts acquired are expected to generate underwriting income and is recorded as a liability when the in-force contracts acquired are expected to generate an underwriting loss. VOBA liabilities (negative VOBA) are recorded as a component of the reserve for losses and loss adjustment expenses on the Consolidated Balance Sheets. To the extent negative VOBA relates to unearned premium, it is amortized over a period in proportion to the earn-out of the premium as a reduction to current accident year net losses and loss adjustment expenses. To the extent negative VOBA relates to the DDR reserve, it is amortized over a period in proportion to the approximate consumption of losses as a reduction to prior accident year net losses and loss adjustment expenses. See Note 2 for more information.

Leases

ProAssurance is involved in a number of leases, primarily for office facilities. The Company determines if an arrangement is a lease at the inception date of the contract and classifies all leases as either financing or operating. Operating leases are included in operating lease ROU assets and operating lease liabilities on the Consolidated Balance Sheets. The ROU asset represents the right to use the underlying asset for the lease term. As of December 31, 2022, ProAssurance has no leases that are classified as financing leases.

Operating ROU assets and operating lease liabilities are initially recognized as of the lease commencement date based on the present value of the remaining lease payments, discounted over the term of the lease using a discount rate determined based on information available as of the commencement date. As the majority of ProAssurance's lessors do not provide an implicit discount rate, the Company uses its collateralized incremental borrowing rate in determining the present value of remaining lease payments. Due to the adoption of ASU 2016-02, the Company used its collateralized incremental borrowing rate as of January 1, 2019 for operating leases that commenced prior to that date. Subsequent to the initial recognition, the operating ROU asset and operating lease liability are amortized and accreted, respectively, over the lease term in a manner that results in a straight-line operating lease expense. Operating lease expense is included as a component of operating expense on the Consolidated Statements of Income and Comprehensive Income for the years ended December 31, 2022, 2021 and 2020. Leases with an initial term of twelve months or less are considered short-term and are not recorded on the Consolidated Balance

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Sheet; lease expense for these leases is also recognized on a straight-line basis over the lease term. Additionally, for leases entered into or reassessed after the adoption of ASU 2016-02 on January 1, 2019, ProAssurance accounts for lease and non-lease components of a contract as a single lease component.

Operating lease ROU assets are evaluated for impairment at the asset group level whenever events or changes in circumstances indicate that the carrying amount of the asset group may not be recoverable. The carrying amount of an asset group, which includes the operating lease ROU asset and the related operating lease liability, is not recoverable if the carrying amount exceeds the sum of the undiscounted cash flows expected to result from the use of the asset group over the life of the primary asset in the asset group. That assessment is based on the carrying amount of the asset group, including the operating lease ROU asset and the related operating lease liability, at the date it is tested for recoverability and an impairment loss is measured and recognized as the amount by which the carrying amount of the asset group exceeds its fair value. Any impairment loss is allocated to each asset in the asset group, including the operating ROU asset.

When a lease of an office facility is to be abandoned and will not be subleased, the Company first evaluates whether or not the operating lease ROU asset's inclusion in an existing asset group continues to be appropriate and if the commitment to abandon the lease constitutes a change in circumstances requiring the operating lease ROU asset, or the larger asset group, to be tested for impairment. If an impairment test is required, it is performed in the same manner as discussed above. Any remaining carrying value of the operating lease ROU asset is amortized from the date the Company commits to a plan to abandon the lease to the expected date that the Company will cease to use the leased property. Leases to be abandoned in which the Company has the intent or practical ability to sublease continue to be accounted for under a held and use model, with no change to the amortization period of the operating lease ROU asset, and are evaluated for impairment as a separate asset group at the date the sublease is executed.

Real Estate

Real Estate balances are reported at cost or, for properties acquired in business combinations, estimated fair value on the date of acquisition, less accumulated depreciation. Real estate principally consists of properties in use as corporate offices. Depreciation is computed over the estimated useful lives of the related property using the straight-line method. Excess office capacity is leased or made available for lease; rental income is included in other income, and real estate expenses are included in operating expense.

Real estate accumulated depreciation was approximately \$28.3 million and \$27.4 million at December 31, 2022 and 2021, respectively. Real estate depreciation expense was \$0.9 million for each of the years ended December 31, 2022, 2021 and 2020.

Earned But Unbilled Premiums

Workers' compensation premiums are determined based upon the payroll of the insured, the 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. ProAssurance tracks, by policy, the amount of additional premium billed in final audit invoices as a percentage of payroll exposure and uses this information to estimate the probable additional amount of EBUB as of the balance sheet date. Changes to the EBUB estimate are included in net premiums written and earned in the period recognized. As of December 31, 2022 and 2021, ProAssurance carried EBUB of \$3.3 million and \$1.8 million, respectively, as a part of premiums receivable. ProAssurance will continue to monitor and adjust the estimate, if necessary, based on changes in insured payrolls and economic conditions, as experience develops or new information becomes known; however, the length and magnitude of such changes depends on future developments, which are highly uncertain and cannot be predicted.

Lloyd's Premium Estimates

For certain insurance policies and reinsurance contracts written in the Lloyd's Syndicates segment, premiums are initially recognized based upon estimates of ultimate premium. Estimated ultimate premium consists primarily of premium written under delegated underwriting authority arrangements, which consist primarily of binding authorities, 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.

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Other Assets and Liabilities

Other assets in 2021 included investments in a deferred compensation rabbi trust which were carried at fair value. These rabbi trust assets were related to other liabilities associated with funded deferred compensation agreements with NORCAL employees and previous members of NORCAL's Board of Directors. The deferred compensation assets and liabilities were terminated during the first quarter of 2022. The reported balance of the liability was determined based on the amount of elective deferrals and employer contributions adjusted for periodic changes in fair value of the participant balances based on the performance of the funds selected by the participants. See additional information on the deferred compensation assets and liabilities in Note 3.

ProAssurance recognized the net change in the fair value of the rabbi trust assets and associated deferred compensation liabilities as a component of net investment income during the period of change.

Other liabilities at December 31, 2022 and 2021 consisted of the following:

<i>(In thousands)</i>	2022	2021
SPC dividends payable	\$ 59,901	\$ 66,456
Deferred compensation liabilities	27,905	52,332
Contingent consideration	15,000	24,000
All other	123,573	137,944
Total other liabilities	\$ 226,379	\$ 280,732

SPC dividends payable represents the undistributed equity contractually payable to the external cell participants of SPCs operated by ProAssurance's Cayman Islands subsidiaries, Inova Re and Eastern Re.

Deferred compensation liabilities represent the amount of elective deferrals and employer contributions adjusted for periodic changes in the fair value of the participant balances based on the performance of the funds selected by the participants.

Contingent consideration represents a portion of the purchase consideration for the NORCAL acquisition and depends on the after-tax development of NORCAL's ultimate net losses over a three year period beginning on December 31, 2020, as previously discussed. See additional information on the contingent consideration in Note 2.

Treasury Shares

Treasury shares are reported at cost and are reflected on the Consolidated Balance Sheets as an unallocated reduction of total equity.

Share-Based Payments

Compensation cost for share-based payments is measured based on the grant-date fair value of the award, recognized over the period in which the employee is required to provide service in exchange for the award. Excess tax benefits (tax deductions realized in excess of the compensation costs recognized for the exercise of the awards, multiplied by the incremental tax rate) are reported as operating cash inflows.

Subsequent Events

ProAssurance evaluates events that occurred subsequent to December 31, 2022 for recognition or disclosure in its Consolidated Financial Statements.

Accounting Changes Adopted

ProAssurance has not adopted any accounting changes during the year ended December 31, 2022 that had a material effect on its results of operations, financial position or cash flows.

Accounting Changes Not Yet Adopted

Reference Rate Reform - Deferral of LIBOR Sunset Date (ASU 2022-06)

Effective for fiscal years beginning after December 31, 2022 and interim periods within those fiscal years, the FASB amended guidance which defers the LIBOR transition date from December 31, 2022 to December 31, 2024. ProAssurance has exposure to LIBOR in its available-for-sale fixed maturities portfolio which represented approximately 6% of total investments,

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or \$255 million as of December 31, 2022; 63% of these investments with exposure to LIBOR were issued since 2020 and include provisions for an alternative benchmark rate. ProAssurance plans to adopt the guidance beginning January 1, 2023, and the adoption is not expected to have a material effect on ProAssurance's results of operations, financial position or cash flows.

2. Business Combination

On May 5, 2021, ProAssurance completed its acquisition of NORCAL by purchasing 98.8% of its stock in exchange for total consideration transferred of \$448.8 million. On September 16, 2021, ProAssurance acquired the remaining 1.2% interest in NORCAL for \$3.1 million of cash. ProAssurance accounted for its acquisition of NORCAL in accordance with GAAP relating to business combinations. No entities were acquired during 2022.

The NORCAL transaction provides strategic and financial benefits including additional scale and geographic diversification in the physician professional liability market. On May 5, 2021, ProAssurance funded the acquisition with \$248.0 million of cash on hand, and NORCAL paid \$1.8 million to policyholders who elected to receive a discounted cash option for their allocated share of the converted company's equity. Additional consideration transferred, with a principal amount of \$191.0 million and a fair value of \$175.0 million, was in the form of Contribution Certificates issued to certain NORCAL policyholders in the conversion, and those instruments are an obligation of NORCAL Insurance Company, the successor of NORCAL Mutual Insurance Company (see Note 11 for further discussion of the terms of the Contribution Certificates). Policyholders who tendered NORCAL stock to ProAssurance are also eligible for a share of contingent consideration in an amount of up to approximately \$84.0 million depending upon the after-tax development of NORCAL's ultimate net losses between December 31, 2020 and December 31, 2023. During the fourth quarter of 2022, the Company recorded a gain of \$9.0 million related to the change in fair value of this contingent consideration as a component of net investment gains (losses) in ProAssurance's Consolidated Statements of Income and Comprehensive Income. The estimated fair value of this contingent consideration was \$15.0 million as of December 31, 2022 and \$24.0 million as of May 5, 2021 and December 31, 2021 carried as a component of other liabilities on ProAssurance's Consolidated Balance Sheet (see Note 3).

ProAssurance's results for the years ended December 31, 2022 and 2021 included NORCAL's results (revenue of \$299.1 million and \$230.3 million, respectively, and net income of \$12.6 million and \$9.7 million, respectively). ProAssurance incurred expenses related to the acquisition of approximately \$1.9 million, \$25.0 million, and \$1.8 million during the years ended December 31, 2022, 2021 and 2020, respectively. These expenses were included as a component of operating expenses in the period incurred in ProAssurance's Consolidated Statements of Income and Comprehensive Income.

A \$74.4 million gain on bargain purchase was recognized on the date of the acquisition as the fair value of the consideration transferred was less than the fair value of the net assets acquired. This gain is presented as a separate line item in ProAssurance's Consolidated Statements of Income and Comprehensive Income for the year ended December 31, 2021. ProAssurance believes it was able to acquire NORCAL for less than the fair value of its net assets due to several contributing factors including the soft medical professional liability market at the time the transaction was initially announced and the value attributed to certain assets.

The fair value of the reserve for losses and loss adjustment expenses and related reinsurance recoverables was based on three components: an actuarial estimate of the expected future net cash flows, a reduction to those cash flows for the time value of money determined utilizing the U.S. Treasury Yield Curve and a risk margin adjustment to reflect the net present value of profit that an investor would demand in return for the assumption of the development risk associated with the reserve. The fair value of the net reserve, including the risk margin adjustment and related reinsurance receivables, exceeded the actuarial estimate of NORCAL's undiscounted loss reserve as of May 5, 2021. On May 5, 2021, the fair value adjustment on the gross reserve of approximately \$42.2 million was recorded to the reserve for losses and loss adjustment expenses and the fair value adjustment on the related reinsurance recoverables of approximately \$3.5 million was recorded to the receivable from reinsurers on unpaid losses and loss adjustment expenses on the Consolidated Balance Sheets. These net fair value adjustments of \$38.7 million will be amortized over a period utilizing loss payment patterns as a net reduction to prior accident year net losses and loss adjustment expenses.

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The fair values of intangible assets were determined based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Intangible assets were identified that met either the separability criterion or the contractual-legal criterion under the acquisition method of accounting. Intangible assets acquired included the following:

<i>(In thousands)</i>	Fair Value on Acquisition Date	Useful Life
Trade name	\$ 1,000	3
Licenses	13,000	Indefinite
Total	\$ 14,000	

The fair value of VOBA was determined based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date estimated using the income approach. The estimated negative VOBA recorded on the assumed unearned premium of \$12.4 million was recorded to the reserve for losses and loss adjustment expenses and the fair value adjustment on the related reinsurance recoverables of \$0.7 million was recorded to receivable from reinsurers on unpaid losses and loss adjustment expenses on the Consolidated Balance Sheets. The net VOBA on unearned premium of \$11.7 million will be amortized over a period in proportion to the earn-out of the premium as a reduction to current accident year net losses and loss adjustment expenses. The negative VOBA recorded on the assumed DDR reserve totaling \$3.5 million was also recorded to the reserve for losses and loss adjustment expenses on the Consolidated Balance Sheets and will be amortized over a period in proportion to the approximate consumption of losses as a reduction to prior accident year net losses and loss adjustment expenses.

ProAssurance recognized a total of approximately \$15.8 million and \$14.6 million during the years ended December 31, 2022 and 2021, respectively, related to the amortization of the fair value adjustment on the net reserve for losses and loss adjustment expenses, the negative net VOBA recorded on the assumed unearned premium and negative VOBA recorded on the DDR reserve. The following table details the amortization of the fair value adjustments recognized for the year ended December 31, 2022 and the remaining expected amortization of these adjustments for the three years following December 31, 2022 and thereafter.

<i>(In thousands)</i>	Amount at May 5, 2021	Amortization period (years)	2022	Remaining expected pre-tax amortization			
				2023	2024	2025	Thereafter
Fair value adjustment on reserves, net ⁽¹⁾	\$ 38,701	7	\$ 10,595	\$ 8,090	\$ 5,083	\$ 3,107	\$ 4,058
Unearned premium VOBA, net ⁽²⁾	11,676	1	4,939	—	—	—	—
DDR reserve VOBA ⁽¹⁾	3,467	15	224	243	243	243	2,375
Total	\$ 53,844		\$ 15,758	\$ 8,333	\$ 5,326	\$ 3,350	\$ 6,433

⁽¹⁾ Amortization will be recorded as a reduction to prior accident year net losses and loss adjustment expenses.

⁽²⁾ Amortization was recorded as a reduction to current accident year net losses and loss adjustment expenses. As of June 30, 2022, the negative VOBA was fully amortized.

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Unaudited Supplemental Pro Forma Information

The following table provides Pro Forma Consolidated Results and Actual Consolidated Results for the years ended December 31, 2021 and 2020 as if the NORCAL transaction had occurred on January 1, 2020.

The pro forma financial information is presented for comparative purposes only and is not necessarily indicative of the operating results that may have actually occurred had the acquisition of NORCAL been completed on January 1, 2020. In addition, the unaudited pro forma financial information does not give effect to any anticipated cost savings, operating efficiencies or other synergies that may be associated with the acquisition, or any estimated costs that have been or will be incurred to integrate the assets and operations of NORCAL.

<i>(In thousands)</i>	Year Ended December 31	
	2021	2020
Revenue:		
ProAssurance Pro Forma Consolidated Results	\$ 1,247,272	\$ 1,275,459
ProAssurance Actual Consolidated Results	\$ 1,124,410	\$ 874,940
Net income (loss):		
ProAssurance Pro Forma Consolidated Results	\$ 88,223	\$ (113,557)
ProAssurance Actual Consolidated Results	\$ 144,124	\$ (175,727)

The ProAssurance Pro Forma Consolidated Results reflect pro forma adjustments, net of related tax effects, to give effect to certain events that are directly attributable to the acquisition. These pro forma adjustments primarily include:

- The addition of NORCAL's operating results prior to the acquisition to ProAssurance's Actual Consolidated Results in all periods shown.
- A reduction in expenses for the year ended December 31, 2021 and a corresponding increase for the year ended December 31, 2020 for transaction-related costs, including other costs associated with the acquisition such as compensation costs related to change in control payments.
- The effect of the amortization of intangible assets, VOBA and the fair value adjustment on the reserve. See previous amortization schedules for reference.
- The non-taxable gain on bargain purchase of \$74.4 million that was included in ProAssurance's Actual Consolidated Results for the year ended December 31, 2021 has been reported in the Pro Forma Consolidated Results as being recognized during the year ended December 31, 2020.
- An adjustment to net investment income for the amortization of the fair value adjustment to NORCAL's investments.
- An increase to interest expense for the interest on the Contribution Certificates (see Note 11 for further discussion of the terms of the Contribution Certificates).

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3. Fair Value Measurement

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. A three level hierarchy has been established for valuing assets and liabilities based on how transparent (observable) the inputs are that are used to determine fair value, with the inputs considered most observable categorized as Level 1 and those that are the least observable categorized as Level 3. Hierarchy levels are defined as follows:

- Level 1: quoted (unadjusted) market prices in active markets for identical assets and liabilities. For ProAssurance, Level 1 inputs are generally quotes for securities actively traded in exchange or over-the-counter markets.
- Level 2: market data obtained from sources independent of the reporting entity (observable inputs). For ProAssurance, Level 2 inputs generally include quoted prices in markets that are not active, quoted prices for similar assets or liabilities, and results from pricing models that use observable inputs such as interest rates and yield curves that are generally available at commonly quoted intervals.
- Level 3: the reporting entity's own assumptions about market participant assumptions based on the best information available in the circumstances (non-observable inputs). For ProAssurance, Level 3 inputs are used in situations where little or no Level 1 or 2 inputs are available or are inappropriate given the particular circumstances. Level 3 inputs include results from pricing models for which some or all of the inputs are not observable, discounted cash flow methodologies, single non-binding broker quotes and adjustments to externally quoted prices that are based on management judgment or estimation.

Fair values of assets measured at fair value on a recurring basis as of December 31, 2022 and December 31, 2021 are shown in the following tables. Where applicable, the tables also indicate the fair value hierarchy of the valuation techniques utilized to determine those fair values. For some assets, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. When this is the case, the asset is categorized based on the level of the most significant input to the fair value measurement. Assessments of the significance of a particular input to the fair value measurement require judgment and consideration of factors specific to the assets being valued.

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<i>(In thousands)</i>	December 31, 2022			
	Fair Value Measurements Using			Total
	Level 1	Level 2	Level 3	Fair Value
Assets:				
Fixed maturities, available-for-sale				
U.S. Treasury obligations	\$ —	\$ 221,608	\$ —	\$ 221,608
U.S. Government-sponsored enterprise obligations	—	19,934	—	19,934
State and municipal bonds	—	439,450	—	439,450
Corporate debt, multiple observable inputs	—	1,717,479	—	1,717,479
Corporate debt, limited observable inputs	—	—	63,973	63,973
Residential mortgage-backed securities	—	389,291	249	389,540
Agency commercial mortgage-backed securities	—	9,704	—	9,704
Other commercial mortgage-backed securities	—	194,090	—	194,090
Other asset-backed securities	—	413,989	2,705	416,694
Fixed maturities, trading	—	43,434	—	43,434
Equity investments				
Financial	9,850	2,219	303	12,372
Utilities/Energy	854	—	—	854
Industrial	—	—	2,500	2,500
Bond funds	112,136	—	—	112,136
All other	15,876	—	—	15,876
Short-term investments	181,937	63,376	—	245,313
Other investments	1,881	88,783	1,783	92,447
Total assets categorized within the fair value hierarchy	\$ 322,534	\$ 3,603,357	\$ 71,513	3,997,404
Assets carried at NAV, which approximates fair value and which are not categorized within the fair value hierarchy, reported as a part of:				
Investment in unconsolidated subsidiaries				262,485
Total assets at fair value				\$ 4,259,889
Liabilities:				
Other liabilities	\$ —	\$ —	\$ 15,000	\$ 15,000
Total liabilities categorized within the fair value hierarchy	\$ —	\$ —	\$ 15,000	\$ 15,000

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(In thousands)	December 31, 2021			
	Fair Value Measurements Using			Total
	Level 1	Level 2	Level 3	Fair Value
Assets:				
Fixed maturities, available-for-sale				
U.S. Treasury obligations	\$ —	\$ 238,507	\$ —	\$ 238,507
U.S. Government-sponsored enterprise obligations	—	20,234	—	20,234
State and municipal bonds	—	519,196	—	519,196
Corporate debt, multiple observable inputs	—	1,851,427	—	1,851,427
Corporate debt, limited observable inputs	—	—	47,129	47,129
Residential mortgage-backed securities	—	453,644	297	453,941
Agency commercial mortgage-backed securities	—	14,141	—	14,141
Other commercial mortgage-backed securities	—	231,483	—	231,483
Other asset-backed securities	—	451,459	6,205	457,664
Fixed maturities, trading	—	43,670	—	43,670
Equity investments				
Financial	6,615	855	—	7,470
Industrial	—	—	2,500	2,500
Bond funds	187,059	—	—	187,059
All other	17,778	—	—	17,778
Short-term investments	174,944	42,043	—	216,987
Other investments	1,889	95,288	1,434	98,611
Other assets	—	649	—	649
Total assets categorized within the fair value hierarchy	<u>\$ 388,285</u>	<u>\$ 3,962,596</u>	<u>\$ 57,565</u>	4,408,446
Assets carried at NAV, which approximates fair value and which are not categorized within the fair value hierarchy, reported as a part of:				
Investment in unconsolidated subsidiaries				270,816
Total assets at fair value				<u>\$ 4,679,262</u>
Liabilities:				
Other liabilities	\$ —	\$ —	\$ 24,000	\$ 24,000
Total liabilities categorized within the fair value hierarchy	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 24,000</u>	<u>\$ 24,000</u>

The fair values for securities included in the Level 2 category, with the few exceptions described below, were developed by one of several third-party, nationally recognized pricing services, including services that price only certain types of securities. Each service uses complex methodologies to determine values for securities and subject the values they develop to quality control reviews. Management selected a primary source for each type of security in the portfolio and reviewed the values provided for reasonableness by comparing data to alternate pricing services and to available market and trade data. Values that appeared inconsistent were further reviewed for appropriateness. Any value that did not appear reasonable was discussed with the service that provided the value and adjusted, if necessary. There were no material changes to the values supplied by the pricing services during the years ended December 31, 2022 and 2021.

Level 2 Valuations

Below is a summary description of the valuation methodologies primarily used by the pricing services for securities in the Level 2 category, by security type:

U.S. Treasury obligations were valued based on quoted prices for identical assets, or, in markets that are not active, quotes for similar assets, taking into consideration adjustments for variations in contractual cash flows and yields to maturity.

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U.S. Government-sponsored enterprise obligations were valued using pricing models that consider current and historical market data, normal trading conventions, credit ratings and the particular structure and characteristics of the security being valued, such as yield to maturity, redemption options, and contractual cash flows. Adjustments to model inputs or model results were included in the valuation process when necessary to reflect recent regulatory, government or corporate actions or significant economic, industry or geographic events affecting the security's fair value.

State and municipal bonds were valued using a series of matrices that considered credit ratings, the structure of the security, the sector in which the security falls, yields and contractual cash flows. Valuations were further adjusted, when necessary, to reflect the expected effect on fair value of recent significant economic or geographic events or ratings changes.

Corporate debt, multiple observable inputs consisted primarily of corporate bonds. The methodology used to value Level 2 corporate bonds was the same as the methodology previously described for U.S. Government-sponsored enterprise obligations. Bank loans were valued based on an average of broker quotes for the loans in question, if available. If quotes were not available, the loans were valued based on quoted prices for comparable loans or, if the loan was newly issued, by comparison to similar seasoned issues. Broker quotes were compared to actual trade prices to permit assessment of the reliability of the quotes; unreliable quotes were not considered in quoted averages.

Residential and commercial mortgage-backed securities were valued using a pricing matrix which considers the issuer type, coupon rate and longest cash flows outstanding. The matrix used was based on the most recently available market information. Agency and non-agency collateralized mortgage obligations were both valued using models that consider the structure of the security, current and historical information regarding prepayment speeds, ratings and ratings updates, and current and historical interest rate and interest rate spread data.

Other asset-backed securities were valued using models that consider the structure of the security, monthly payment information, current and historical information regarding prepayment speeds, ratings and ratings updates, and current and historical interest rate and interest rate spread data. Spreads and prepayment speeds consider collateral type.

Fixed maturities, trading are held by the Lloyd's Syndicates segment and include U.S. Treasury obligations, corporate debt with multiple observable inputs and other asset-backed securities. These securities were valued using the respective valuation methodologies discussed above for each security type.

Equity investments were securities not traded on an exchange on the valuation date. The securities were valued using the most recently available quotes for the securities.

Short-term investments were securities maturing within one year, carried at fair value which approximated the cost of the securities due to their short-term nature.

Other investments consisted primarily of convertible bonds valued using a pricing model that incorporated selected dealer quotes as well as current market data regarding equity prices and risk free rates. If dealer quotes were unavailable for the security being valued, quotes for securities with similar terms and credit status were used in the pricing model. Dealer quotes selected for use were those considered most accurate based on parameters such as underwriter status and historical reliability.

Other assets consisted of an interest rate cap derivative instrument valued using a model which considers the volatilities from other instruments with similar maturities, strike prices, durations and forward yield curves. Under the terms of the interest rate cap agreement, ProAssurance paid a premium of \$2 million for the right to receive cash payments based upon a notional amount of \$35 million if and when the three-month LIBOR exceeded 2.35%. In April 2022, ProAssurance terminated its interest rate cap agreement.

Level 3 Valuations

Below is a summary description of the valuation methodologies used as well as quantitative information regarding securities in the Level 3 category, by security type:

Level 3 Valuation Methodologies

Corporate debt, limited observable inputs consisted of corporate bonds valued using dealer quotes for similar securities or discounted cash flow models using yields currently available for similar securities. Similar securities are defined as securities of comparable credit quality that have like terms and payment features. Assessments of credit quality were based on NRSRO ratings, if available, or were determined by management if not available. At December 31, 2022, 100% of the securities were rated and the average rating was BBB+. At December 31, 2021, 100% of the securities were rated and the average rating was BBB.

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Residential mortgage-backed and other asset-backed securities consisted of securitizations of receivables valued using dealer quotes for similar securities or discounted cash flow models using yields currently available for similar securities. Similar securities are defined as securities of comparable credit quality that have like terms and payment features. Assessments of credit quality were based on NRSRO ratings, if available, or were subjectively determined by management if not available. At December 31, 2022, 100% of the securities were rated and the average rating was BBB-. At December 31, 2021, 100% of the securities were rated and the average rating was BBB+.

Equity investments consisted of preferred stock for which limited observable inputs were available at December 31, 2022 and December 31, 2021. The equity securities were primarily priced using broker/dealer quotes and internal models with some inputs that are unobservable.

Other investments consisted of convertible securities for which limited observable inputs were available at December 31, 2022 and December 31, 2021. The securities were valued internally based on expected cash flows, including the expected final recovery, discounted at a yield that considered the lack of liquidity and the financial status of the issuer.

Other liabilities consisted of contingent consideration associated with the NORCAL acquisition and is recorded at fair value each reporting period. The ultimate payout under the contingent consideration is dependent on the after-tax development of NORCAL's ultimate net losses over a three-year period beginning December 31, 2021 and may total up to \$84 million. See further discussion around the contingent consideration in Note 2 and Note 9.

Quantitative Information Regarding Level 3 Valuations

(\$ in thousands)	Fair Value at		Valuation Technique	Unobservable Input	Range (Weighted Average)
	December 31, 2022	December 31, 2021			
Assets:					
Corporate debt, limited observable inputs	\$63,973	\$47,129	Market Comparable Securities	Comparability Adjustment	0% - 5% (2.5%)
			Discounted Cash Flows	Comparability Adjustment	0% - 5% (2.5%)
Residential mortgage-backed securities	\$249	\$297	Market Comparable Securities	Comparability Adjustment	0% - 5% (2.5%)
			Discounted Cash Flows	Comparability Adjustment	0% - 5% (2.5%)
Other asset-backed securities	\$2,705	\$6,205	Market Comparable Securities	Comparability Adjustment	0% - 5% (2.5%)
			Discounted Cash Flows	Comparability Adjustment	0% - 5% (2.5%)
Equity investments	\$2,803	\$2,500	Discounted Cash Flows	Comparability Adjustment	0% - 10% (5%)
Other investments	\$1,783	\$1,434	Discounted Cash Flows	Comparability Adjustment	0% - 10% (5%)
Liabilities:					
Other liabilities	\$15,000	\$24,000	Stochastic Model/ Discounted Cash Flows	Weighted Average Cost of Capital	0% - 10% (9%)

The significant unobservable inputs used in the fair value measurement of the above listed securities were the valuations of comparable securities with similar issuers, credit quality and maturity. Changes in the availability of comparable securities could result in changes in the fair value measurements.

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Fair Value Measurements - Level 3 Assets & Liabilities

The following tables present summary information regarding changes in the fair value of assets and liabilities measured using Level 3 inputs.

<i>(In thousands)</i>	December 31, 2022							
	Level 3 Fair Value Measurements							
	Assets						Liabilities	
	State and Municipal Bonds	Corporate Debt	Asset- backed Securities	Equity Investments	Other Investments	Total Assets	Other Liabilities	Total Liabilities
Balance, December 31, 2021	\$ —	\$ 47,129	\$ 6,502	\$ 2,500	\$ 1,434	\$ 57,565	\$(24,000)	\$(24,000)
Total gains (losses) realized and unrealized:								
Included in earnings, as a part of:								
Net investment income (loss)	—	(1)	8	—	—	7	—	—
Net investment gains (losses)	—	—	—	102	(553)	(451)	9,000	9,000
Included in other comprehensive income (loss)	(19)	(4,324)	(601)	—	—	(4,944)	—	—
Purchases	750	34,805	10,907	17	3,292	49,771	—	—
Sales	—	(5,153)	(287)	—	(1,167)	(6,607)	—	—
Transfers in	—	18,828	570	2,377	529	22,304	—	—
Transfers out	(731)	(27,311)	(14,145)	(2,193)	(1,752)	(46,132)	—	—
Balance, December 31, 2022	\$ —	\$ 63,973	\$ 2,954	\$ 2,803	\$ 1,783	\$ 71,513	\$(15,000)	\$(15,000)
Change in unrealized gains (losses) included in earnings for the above period for Level 3 assets and liabilities held at period-end	\$ —	\$ —	\$ —	\$ 101	\$ (822)	\$ (721)	\$ —	\$ —

<i>(In thousands)</i>	December 31, 2021							
	Level 3 Fair Value Measurements							
	Assets						Liabilities	
	Corporate Debt	Asset- backed Securities	Equity Investments	Other Investments	Total Assets	Other Liabilities	Total Liabilities	
Balance, December 31, 2020	\$ 3,265	\$ 8,693	\$ —	\$ —	\$ 11,958	\$ —	\$ —	
Total gains (losses) realized and unrealized:								
Included in earnings, as a part of:								
Net investment income (loss)	1	(3)	—	—	(2)	—	—	
Net investment gains (losses)	(14)	(11)	15	(774)	(784)	—	—	
Included in other comprehensive income (loss)	27	(403)	—	—	(376)	—	—	
Purchases	57,586	31,204	9,083	205	98,078	—	—	
Sales	(3,277)	(800)	(5,799)	—	(9,876)	—	—	
Transfers in	858	—	69	3,586	4,513	—	—	
Transfers out	(11,317)	(32,178)	(868)	(1,583)	(45,946)	—	—	
Business Combination (See Note 2)	—	—	—	—	—	(24,000)	(24,000)	
Balance, December 31, 2021	\$ 47,129	\$ 6,502	\$ 2,500	\$ 1,434	\$ 57,565	\$(24,000)	\$(24,000)	
Change in unrealized gains (losses) included in earnings for the above period for Level 3 assets and liabilities held at period-end	\$ —	\$ —	\$ 10	\$ (774)	\$ (764)	\$ —	\$ —	

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Transfers

Transfers shown in the preceding Level 3 tables were as of the end of the period in which the transfer occurred. All transfers were to or from Level 2.

All transfers in and out of Level 3 during 2022 and 2021 related to securities held for which the level of market activity for identical or nearly identical securities varies from period to period. The securities were valued using multiple observable inputs when those inputs were available; otherwise the securities were valued using limited observable inputs.

Fair Values Not Categorized

At December 31, 2022 and 2021, certain LPs/LLCs and investment funds measure fund assets at fair value on a recurring basis and provide a NAV for ProAssurance's interest. The carrying value of these interests is based on the NAV provided and was considered to approximate the fair value of the interests. For investment in unconsolidated subsidiaries, ProAssurance recognizes any changes in the NAV of its interests in equity in earnings (loss) of unconsolidated subsidiaries during the period of change. In accordance with GAAP, the fair value of these investments was not classified within the fair value hierarchy. The amount of ProAssurance's unfunded commitments related to these investments as of December 31, 2022 and fair values of these investments as of December 31, 2022 and 2021 were as follows:

<i>(In thousands)</i>	Unfunded Commitments	Fair Value	
	December 31, 2022	December 31, 2022	December 31, 2021
Investment in unconsolidated subsidiaries:			
Private debt funds ⁽¹⁾	\$2,125	\$ 19,620	\$ 18,465
Long/short equity funds ⁽²⁾	None	5,089	655
Non-public equity funds ⁽³⁾	\$50,856	144,560	160,219
Credit funds ⁽⁴⁾	\$36,460	49,245	47,300
Strategy focused funds ⁽⁵⁾	\$14,500	43,971	44,177
Total investments carried at NAV		\$ 262,485	\$ 270,816

Below is additional information regarding each of the investments listed in the table above as of December 31, 2022.

- ⁽¹⁾This investment is comprised of interests in two unrelated LP funds that are structured to provide interest distributions primarily through diversified portfolios of private debt instruments. One LP allows redemption by special consent, while the other does not permit redemption. Income and capital are to be periodically distributed at the discretion of the LPs over an anticipated time frame that spans from three to eight years.
- ⁽²⁾This investment is comprised of interests in two unrelated LP funds. One LP fund holds primarily long and short North American equities and targets absolute returns using strategies designed to take advantage of market opportunities. The other LP holds long and short publicly traded securities that will passively generate income. Redemptions are permitted; one with 30 days written notice if outside of a lock-up period and the other above specified thresholds (lowest threshold is 90%) which may be only partially payable until after a fund audit is completed and are then payable within 30 days.
- ⁽³⁾This investment is comprised of interests in multiple unrelated LP funds, each structured to provide capital appreciation through diversified investments in private equity, which can include investments in buyout, venture capital, debt including senior, second lien and mezzanine, distressed debt, collateralized loan obligations and other private equity-oriented LPs. Two of the LPs allow redemption by terms set forth in the LP agreements; the others do not permit redemption. Income and capital are to be periodically distributed at the discretion of the LP over time frames that are anticipated to span up to ten years.
- ⁽⁴⁾This investment is comprised of multiple unrelated LP funds. Two funds seek to obtain superior risk-adjusted absolute returns through a diversified portfolio of debt securities, including bonds, loans and other asset-backed instruments. The remaining funds focus on private middle market company mezzanine and senior secured loans, opportunities across the credit spectrum, mortgage backed-loans, as well as various types of loan-backed investments. One fund allows redemptions at any quarter-end with prior notice requirements of 180 days, while two other funds allow for redemptions with consent of the General Partner. The remaining funds do not allow redemptions. For the funds that do not allow redemptions, income and capital are to be periodically distributed at the discretion of the LP over time frames throughout the remaining life of the funds.

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⁽⁵⁾This investment is comprised of multiple unrelated LPs/LLCs funds. One fund is an LLC focused on investing in North American consumer products companies, comprised of equity and equity-related securities, as well as debt instruments. A second fund is focused on aircraft investments, along with components and assets related to aircrafts. For both funds, redemptions are not permitted. Another fund is an LP focused on North American energy infrastructure assets that allows redemption with consent of the General Partner. The remaining funds are real estate focused LPs, one of which allows for redemption with prior notice.

ProAssurance may not sell, transfer or assign its interest in any of the above LPs/LLCs without special consent from the LPs/LLCs.

Nonrecurring Fair Value Measurement

ProAssurance did not have any assets or liabilities that were measured at fair value on a nonrecurring basis at December 31, 2022 or 2021.

Financial Instruments - Methodologies Other Than Fair Value

The following table provides the estimated fair value of the Company's financial instruments that, in accordance with GAAP for the type of investment, are measured using a methodology other than fair value. Fair values provided primarily fall within the Level 3 fair value category.

<i>(In thousands)</i>	December 31, 2022		December 31, 2021	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Financial assets:				
BOLI	\$ 81,746	\$ 81,746	\$ 81,767	\$ 81,767
Other investments	\$ 3,322	\$ 3,322	\$ 3,183	\$ 3,183
Other assets	\$ 28,819	\$ 28,790	\$ 40,581	\$ 40,583
Financial liabilities:				
Senior notes due 2023*	\$ 250,000	\$ 248,153	\$ 250,000	\$ 264,000
Contribution Certificates	\$ 177,525	\$ 134,479	\$ 175,900	\$ 179,892
Other liabilities	\$ 27,905	\$ 27,905	\$ 52,332	\$ 52,332

* Carrying value excludes unamortized debt issuance costs.

The fair value of the BOLI was equal to the cash surrender value associated with the policies on the valuation date.

Other investments listed in the table above include FHLB common stock carried at cost and an annuity investment carried at amortized cost. Three of ProAssurance's insurance subsidiaries are members of an FHLB. The estimated fair value of the FHLB common stock was based on the amount the subsidiaries would receive if their memberships were canceled, as the memberships cannot be sold. The fair value of the annuity represents the present value of the expected future cash flows discounted using a rate available in active markets for similarly structured instruments.

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Other assets and other liabilities primarily consisted of related investment assets and liabilities associated with funded deferred compensation agreements. The fair value of the funded deferred compensation assets was based upon quoted market prices, which is categorized as a Level 1 valuation, and had a fair value of \$27.9 million and \$39.5 million at December 31, 2022 and 2021, respectively. The fair value of the funded deferred compensation assets at December 31, 2021 included assets from a rabbi trust acquired in the NORCAL acquisition that was terminated during the first quarter of 2022. The rabbi trust assets consisted entirely of cash equivalents and mutual funds and had a total fair value of \$5.2 million as of December 31, 2021 (see Note 2 for additional information on the NORCAL acquisition). Other assets also included an unsecured note receivable. The fair value of the note receivable was based on the present value of expected cash flows from the note receivable, discounted at market rates on the valuation date for receivables with similar credit standings and similar payment structures. Other liabilities primarily consisted of liabilities associated with funded deferred compensation agreements. The reported balance is determined based on the amount of elective deferrals and employer contributions adjusted for periodic changes in the fair value of the participant balances based on the performance of the funds selected by the participants and had a fair value of \$27.9 million and \$52.3 million at December 31, 2022 and December 31, 2021, respectively. The fair value of the funded deferred compensation liabilities at December 31, 2021 included liabilities from deferred compensation arrangements assumed in the NORCAL acquisition that were terminated during the first quarter of 2022 using the associated rabbi trust assets and cash; the termination of these deferred compensation arrangements did not result in a gain or loss during the year ended December 31, 2022. The NORCAL funded deferred compensation liabilities had a total fair value of \$18.4 million as of December 31, 2021 (see Note 2 for additional information on the NORCAL acquisition).

The fair value of the debt, excluding the Contribution Certificates, was estimated based on the present value of expected future cash outflows, discounted at rates available on the valuation date for similar debt issued by entities with a similar credit standing to ProAssurance.

The fair value of the Contribution Certificates was estimated based on a binomial option pricing model. The Contribution Certificates were a portion of the purchase consideration for the NORCAL acquisition and were issued to certain NORCAL policyholders in the conversion, and those instruments are an obligation of NORCAL Insurance Company, the successor of NORCAL Mutual Insurance Company (see Note 2 and 9 for further discussion of the terms of the Contribution Certificates).

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4. Investments

Available-for-sale fixed maturities at December 31, 2022 and December 31, 2021 included the following:

<i>(In thousands)</i>	December 31, 2022				
	Amortized Cost	Allowance for Expected Credit Losses	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Fixed maturities, available-for-sale					
U.S. Treasury obligations	\$ 243,999	\$ —	\$ 8	\$ 22,399	\$ 221,608
U.S. Government-sponsored enterprise obligations	21,562	—	—	1,628	19,934
State and municipal bonds	483,584	—	177	44,311	439,450
Corporate debt	1,980,579	—	735	199,862	1,781,452
Residential mortgage-backed securities	450,870	229	555	61,656	389,540
Agency commercial mortgage-backed securities	10,576	—	—	872	9,704
Other commercial mortgage-backed securities	217,021	—	63	22,994	194,090
Other asset-backed securities	444,220	198	289	27,617	416,694
	\$3,852,411	\$ 427	\$ 1,827	\$ 381,339	\$3,472,472
<i>(In thousands)</i>	December 31, 2021				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	
Fixed maturities, available-for-sale					
U.S. Treasury obligations	\$ 239,765	\$ 1,166	\$ 2,424	\$ 238,507	
U.S. Government-sponsored enterprise obligations	20,467	29	262	20,234	
State and municipal bonds	511,750	9,620	2,174	519,196	
Corporate debt	1,884,455	29,050	14,949	1,898,556	
Residential mortgage-backed securities	455,438	4,254	5,751	453,941	
Agency commercial mortgage-backed securities	13,909	294	62	14,141	
Other commercial mortgage-backed securities	231,226	2,530	2,273	231,483	
Other asset-backed securities	457,837	2,747	2,920	457,664	
	\$ 3,814,847	\$ 49,690	\$ 30,815	\$ 3,833,722	

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The recorded cost basis and estimated fair value of available-for-sale fixed maturities at December 31, 2022, by contractual maturity, are shown below. Actual maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

<i>(In thousands)</i>	Amortized Cost	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years	Total Fair Value
Fixed maturities, available-for-sale						
U.S. Treasury obligations	\$ 243,999	\$ 23,523	\$ 139,958	\$ 56,909	\$ 1,218	\$ 221,608
U.S. Government-sponsored enterprise obligations	21,562	2,195	13,790	3,949	—	19,934
State and municipal bonds	483,584	37,427	144,161	151,294	106,568	439,450
Corporate debt	1,980,579	174,542	854,788	654,558	97,564	1,781,452
Residential mortgage-backed securities	450,870					389,540
Agency commercial mortgage-backed securities	10,576					9,704
Other commercial mortgage-backed securities	217,021					194,090
Other asset-backed securities	444,220					416,694
	<u>\$ 3,852,411</u>					<u>\$ 3,472,472</u>

Excluding obligations of the U.S. Government, U.S. Government-sponsored enterprises and a U.S. Government obligations money market fund, no investment in any entity or its affiliates exceeded 10% of shareholders' equity at December 31, 2022.

Cash and securities with a carrying value of \$51.6 million at December 31, 2022 were on deposit with various state insurance departments to meet regulatory requirements. ProAssurance also held securities with a carrying value of \$31.3 million at December 31, 2022 that are pledged as collateral security for advances under the Company's borrowing relationships with FHLBs.

As a member of Lloyd's, ProAssurance is required to maintain capital at Lloyd's, referred to as FAL, to support underwriting by Syndicate 1729. At December 31, 2022, ProAssurance's FAL investments were comprised of available-for-sale fixed maturities with a fair value of \$23.8 million and cash and cash equivalents of \$1.0 million on deposit with Lloyd's in order to satisfy these FAL requirements. During the second quarter of 2022, ProAssurance received a return of approximately \$5.5 million of cash from its FAL balances given Syndicate 6131 ceased underwriting on a quota share basis with Syndicate 1729 as Syndicate 6131's business is retained within Syndicate 1729 beginning with the 2022 underwriting year. The return of FAL during the second quarter of 2022 also related to the settlement of the Company's participation in the results of Syndicate 1729 and Syndicate 6131 for the 2019 underwriting year. Further, during the fourth quarter of 2022, ProAssurance received a return of approximately \$5.6 million of cash from its FAL balances due to lower capital requirements for the 2023 underwriting year following Lloyd's of London's review of Syndicate 1729's 2023 business plan.

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Investments Held in a Loss Position

The following tables provide summarized information with respect to investments held in an unrealized loss position at December 31, 2022 and December 31, 2021, including the length of time the investment had been held in a continuous unrealized loss position.

<i>(In thousands)</i>	December 31, 2022					
	Total		Less than 12 months		12 months or longer	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Fixed maturities, available-for-sale						
U.S. Treasury obligations	\$ 220,991	\$ 22,399	\$ 53,199	\$ 2,393	\$ 167,792	\$ 20,006
U.S. Government-sponsored enterprise obligations	19,934	1,628	8,082	663	11,852	965
State and municipal bonds	421,769	44,311	177,393	12,352	244,376	31,959
Corporate debt	1,708,529	199,862	687,947	42,977	1,020,582	156,885
Residential mortgage-backed securities	363,945	61,656	155,212	15,275	208,733	46,381
Agency commercial mortgage-backed securities	9,704	872	3,086	110	6,618	762
Other commercial mortgage-backed securities	192,359	22,994	53,270	4,087	139,089	18,907
Other asset-backed securities	396,452	27,617	162,192	7,050	234,260	20,567
	\$ 3,333,683	\$ 381,339	\$ 1,300,381	\$ 84,907	\$ 2,033,302	\$ 296,432

<i>(In thousands)</i>	December 31, 2021					
	Total		Less than 12 months		12 months or longer	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Fixed maturities, available-for-sale						
U.S. Treasury obligations	\$ 190,054	\$ 2,424	\$ 181,689	\$ 2,206	\$ 8,365	\$ 218
U.S. Government-sponsored enterprise obligations	16,287	262	16,287	262	—	—
State and municipal bonds	175,442	2,174	171,930	2,039	3,512	135
Corporate debt	945,196	14,949	866,731	11,828	78,465	3,121
Residential mortgage-backed securities	326,248	5,751	290,019	4,320	36,229	1,431
Agency commercial mortgage-backed securities	4,529	62	4,355	54	174	8
Other commercial mortgage-backed securities	151,827	2,273	145,467	1,884	6,360	389
Other asset-backed securities	278,915	2,920	271,463	2,796	7,452	124
	\$ 2,088,498	\$ 30,815	\$ 1,947,941	\$ 25,389	\$ 140,557	\$ 5,426

As of December 31, 2022, excluding U.S. Government or U.S. Government-sponsored enterprise obligations, there were 2,901 debt securities (74.4% of all available-for-sale fixed maturity securities held) in an unrealized loss position representing 1,433 issuers. The greatest and second greatest unrealized loss positions among those securities were approximately \$5.7 million and \$4.1 million, respectively. The securities were evaluated for impairment as of December 31, 2022.

As of December 31, 2021, excluding U.S. Government or U.S. Government-sponsored enterprise obligations, there were 1,766 debt securities (45.8% of all available-for-sale fixed maturity securities held) in an unrealized loss position representing 998 issuers. The greatest and second greatest unrealized loss positions among those securities were each approximately \$0.4 million. The securities were evaluated for impairment as of December 31, 2021.

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Each quarter, ProAssurance performs a detailed analysis for the purpose of assessing whether any of the securities it holds in an unrealized loss position has suffered an impairment due to credit or non-credit factors. A detailed discussion of the factors considered in the assessment is included in Note 1.

Fixed maturity securities held in an unrealized loss position at December 31, 2022, excluding asset-backed securities, have paid all scheduled contractual payments and are expected to continue. Expected future cash flows of asset-backed securities, excluding those issued by GNMA, FNMA and FHLMC, held in an unrealized loss position were estimated as part of the December 31, 2022 impairment evaluation using the most recently available six-month historical performance data for the collateral (loans) underlying the security or, if historical data was not available, sector based assumptions, and equaled or exceeded the current amortized cost basis of the security.

The following tables present a roll forward of the allowance for expected credit losses on available-for-sale fixed maturities for the years ended December 31, 2022 and 2021.

<i>(In thousands)</i>	Year Ended December 31, 2022			
	Corporate Debt	Residential mortgage-backed securities	Other asset-backed securities	Total
Balance, at December 31, 2021	\$ —	\$ —	\$ —	\$ —
Additional credit losses related to securities for which:				
No allowance for credit losses has been previously recognized	553	229	198	980
Reductions related to:				
Securities for which there is an intent to sell or will more likely than not be sold before recovery of its amortized cost	(553)	—	—	(553)
Balance, at December 31, 2022	\$ —	\$ 229	\$ 198	\$ 427

<i>(In thousands)</i>	Year Ended December 31, 2021	
	Corporate Debt	Total
Balance, at December 31, 2020	\$ 552	\$ 552
Reductions related to:		
Securities sold during the period	(552)	(552)
Balance, at December 31, 2021	\$ —	\$ —

Other information regarding sales and purchases of fixed maturity available-for-sale securities is as follows:

<i>(In millions)</i>	Year Ended December 31		
	2022	2021	2020
Proceeds from sales (exclusive of maturities and paydowns)	\$ 131.0	\$ 504.0	\$ 354.4
Purchases	\$ 607.8	\$ 1,438.2	\$ 917.0

Equity Investments

ProAssurance's equity investments are carried at fair value with changes in fair value recognized in income as a component of net investment gains (losses) during the period of change. Equity investments on the Consolidated Balance Sheets as of December 31, 2022 and 2021 primarily included bond funds and, to a lesser degree, stocks and investment funds.

Short-term Investments

ProAssurance's short-term investments, which have a maturity at purchase of one year or less, are primarily comprised of investments in U.S. treasury obligations, commercial paper and money market funds. Short-term investments are carried at fair value which approximates the cost of the securities due to their short-term nature.

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BOLI

ProAssurance holds BOLI policies that are carried at the current cash surrender value of the policies (original cost \$42 million), which includes the BOLI policies acquired from NORCAL (original cost \$10 million). All insured individuals were members of ProAssurance or NORCAL management at the time the policies were acquired. The primary purpose of the program is to offset future employee benefit expenses through earnings on the cash value of the policies. ProAssurance is the owner and beneficiary of these policies.

Net Investment Income

Net investment income by investment category was as follows:

<i>(In thousands)</i>	Year Ended December 31		
	2022	2021	2020
Fixed maturities	\$ 93,736	\$ 74,437	\$ 69,308
Equities	3,706	2,539	4,369
Short-term investments, including Other	5,681	1,969	2,683
BOLI	1,141	2,698	2,023
Investment fees and expenses	(8,292)	(11,121)	(6,385)
Net investment income	<u>\$ 95,972</u>	<u>\$ 70,522</u>	<u>\$ 71,998</u>

Investment in Unconsolidated Subsidiaries

ProAssurance's investment in unconsolidated subsidiaries were as follows:

<i>(In thousands)</i>	December 31, 2022	Carrying Value	
	Percentage Ownership	December 31, 2022	December 31, 2021
Qualified affordable housing project tax credit partnerships	See below	\$ 4,088	\$ 12,424
All other investments, primarily investment fund LPs/LLCs	See below	301,122	323,152
		<u>\$ 305,210</u>	<u>\$ 335,576</u>

Qualified affordable housing project tax credit partnership interests held by ProAssurance generate investment returns by providing tax benefits to fund investors in the form of tax credits and project operating losses. The carrying value of these investments reflects ProAssurance's total commitments (both funded and unfunded) to the partnerships, less any amortization. At December 31, 2022, ProAssurance did not have an ownership percentage greater than 20% in any tax credit partnership interests. At December 31, 2021, ProAssurance's ownership percentage relative to two of the tax credit partnership interests was almost 100%; these interests had a carrying value of \$3.2 million at December 31, 2021. ProAssurance's ownership percentage relative to the remaining tax credit partnership interests is less than 20%; these interests had a carrying value of \$4.1 million and \$9.2 million at December 31, 2022 and 2021, respectively. Since ProAssurance has the ability to exert influence over the partnerships but does not control them, all are accounted for using the equity method. See further discussion of the entities in which ProAssurance holds passive interests in Note 14.

ProAssurance holds interests in investment fund LPs/LLCs and other equity method investments and LPs/LLCs which are not considered to be investment funds. ProAssurance's ownership percentage relative to three of the LPs/LLCs is greater than 25%, which is expected to be reduced as the funds mature and other investors participate in the funds; these investments had a carrying value of \$36.0 million and \$49.0 million at December 31, 2022 and 2021, respectively. ProAssurance's ownership percentage relative to the remaining investments and LPs/LLCs is less than 25%; these interests had a carrying value of \$265.1 million and \$274.2 million at December 31, 2022 and 2021, respectively. ProAssurance does not have the ability to exert control over any of these funds.

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Equity in Earnings (Loss) of Unconsolidated Subsidiaries

Equity in earnings (loss) of unconsolidated subsidiaries included losses from qualified affordable housing project tax credit partnerships and a historic tax credit partnership. Investment results recorded reflect ProAssurance's allocable portion of partnership operating results. Tax credits reduce income tax expense in the period they are utilized. The results recorded and tax credits recognized related to ProAssurance's tax credit partnership investments were as follows:

<i>(In thousands)</i>	Year Ended December 31		
	2022	2021	2020
Qualified affordable housing project tax credit partnerships			
Losses recorded	\$ 8,278	\$ 15,239	\$ 18,684
Tax credits recognized	\$ 4,805	\$ 13,160	\$ 17,465
Historic tax credit partnership*			
Losses (gains) recorded	\$ (1,212)	\$ (182)	\$ 1,092
Tax credits recognized	\$ —	\$ —	\$ 412

*ProAssurance holds a historic tax credit partnership which was fully amortized in 2020. This partnership generated investment returns by providing benefits to partnership investors in the form of tax credits, tax deductible project operating losses and distributions resulting from positive cash flows. ProAssurance received a distribution associated with this investment during the second quarter of 2022 and the first quarter of 2021, as a result of positive cash flows from a completed project, which was recognized as an operating gain in each respective period.

The tax credits generated from the Company's tax credit partnership investments of \$4.8 million, \$13.2 million and \$17.9 million for the years ended December 31, 2022, 2021 and 2020, respectively, were deferred and are expected to be utilized in future periods. Not included in the table above is \$0.5 million of tax credits recaptured from the 2019 tax year during the year ended December 31, 2022 due to the carryback of the Company's estimated NOL for the year ended December 31, 2022 to the 2021 tax year. The recaptured tax credits were earned in 2019 but not utilized until 2021 due to NOL's generated in both 2019 and 2020. As of December 31, 2022, the Company had approximately \$51.2 million of available tax credit carryforwards generated from its investments in tax credit partnerships which they expect to utilize in future periods (see further discussion in Note 6).

Tax credits provided by the underlying projects of the Company's historic tax credit partnership 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.

Equity Method Investees

As previously discussed, ProAssurance holds certain investments that are measured using the equity method of accounting, primarily investments in LPs/LLCs, which are carried as a part of investment in unconsolidated subsidiaries on the Consolidated Balance Sheets. As of December 31, 2022, the following equity method investees represent the largest funds on an absolute basis contributing to ProAssurance's equity in earnings (loss) of unconsolidated subsidiaries:

- NB Co Investment Fund II, LP is a private equity fund that is a co-investor in small and mid-cap companies.
- NB Real Estate Secondary Opportunities Fund, LP is an equity fund that invests in real estate private equity investments.
- NB Private Equity Credit Opportunities Fund II makes credit and equity investments in private equity owned companies.
- Prime Storage Fund II, LP primarily invests in self-storage real estate.
- Sageview Capital Partners II, LP is a private equity fund that primarily invests in technology, financial services and business services mid-cap companies.
- USB LIHTC is a fund that invests in tax credit entities in low-income residential rental properties.

The following tables presents aggregated gross summarized financial information for the funds as of December 31, 2022, including the portion not attributable to ProAssurance, derived from the funds' financial statements which are prepared in accordance with GAAP. As the majority of ProAssurance's equity method investments report their results to the Company on a one quarter lag, the majority of the summarized financial information below is for the twelve months ended September 30, 2022 and 2021.

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Balance Sheet Information

<i>(In thousands)</i>	<u>September 30, 2022</u>	<u>September 30, 2021</u>
Total assets	\$ 2,727,876	\$ 3,544,866
Total liabilities	\$ 140,157	\$ 230,133
Total partners' capital	\$ 2,587,719	\$ 3,314,733

Income Statement Information

<i>(In thousands)</i>	<u>Year Ended September 30</u>		
	<u>2022</u>	<u>2021</u>	<u>2020</u>
Net investment income (loss)	\$ 13,009	\$ 2,506	\$ (16,557)
Net investment gains (losses)	47,824	219,089	655
Net change in unrealized appreciation (depreciation)	135,218	490,761	123,942
Operating Expenses	4,870	6,527	7,528
Net gain (loss)	<u>\$ 191,181</u>	<u>\$ 705,829</u>	<u>\$ 100,512</u>
Net gain (loss) attributable to ProAssurance ⁽¹⁾	<u>\$ (375)</u>	<u>\$ 10,171</u>	<u>\$ (8,296)</u>

⁽¹⁾ Represents ProAssurance's share of the funds' aggregate income or loss, which is included as a component of equity in earnings (loss) of unconsolidated subsidiaries in its Consolidated Statements of Income and Comprehensive Income for the year ended December 31, 2022 and 2021.

Net Investment Gains (Losses)

Realized investment gains and losses are recognized on the first-in, first-out basis. The following table provides detailed information regarding net investment gains (losses):

<i>(In thousands)</i>	<u>Year Ended December 31</u>		
	<u>2022</u>	<u>2021</u>	<u>2020</u>
Total impairment losses:			
Corporate debt	\$ (1,331)	\$ —	\$ (1,745)
Asset-backed securities	(441)	—	—
Portion of impairment losses recognized in other comprehensive income before taxes:			
Corporate debt	—	—	237
Asset-backed securities	14	—	—
Net impairment losses recognized in earnings	<u>(1,758)</u>	<u>—</u>	<u>(1,508)</u>
Gross realized gains, available-for-sale fixed maturities	1,740	14,311	13,855
Gross realized (losses), available-for-sale fixed maturities	(3,387)	(1,218)	(2,501)
Net realized gains (losses), trading fixed maturities	(155)	(20)	288
Net realized gains (losses), equity investments	(5,252)	7,337	13,192
Net realized gains (losses), other investments	(222)	8,660	3,883
Change in unrealized holding gains (losses), trading fixed maturities	(613)	(529)	501
Change in unrealized holding gains (losses), equity investments	(22,166)	(2,941)	(16,287)
Change in unrealized holding gains (losses), convertible securities, carried at fair value	(10,557)	(1,701)	3,850
Other ⁽¹⁾	9,213	411	405
Net investment gains (losses)	<u>\$ (33,157)</u>	<u>\$ 24,310</u>	<u>\$ 15,678</u>

⁽¹⁾ Includes a gain of \$9.0 million recognized during the fourth quarter of 2022 reflecting the change in the fair value of contingent consideration issued in connection with the NORCAL acquisition. See further discussion on the contingent consideration in Note 2 and Note 3.

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For the year ended December 31, 2022, ProAssurance recognized credit-related impairment losses in earnings of \$1.8 million and a nominal amount of non-credit impairment losses in OCI. The credit-related impairment losses recognized in 2022 related to a corporate bond in the consumer sector as well as certain mortgage-backed and other asset backed securities. For the year ended December 31, 2021, ProAssurance did not recognize any credit-related impairment losses in earnings or non-credit impairment losses in OCI. For the year ended December 31, 2020, ProAssurance recognized credit-related impairment losses in earnings of \$1.5 million and nominal amount of non-credit impairment losses in OCI. The credit-related impairment losses recognized in 2020 primarily related to corporate bonds in the energy and consumer sectors. Additionally, 2020 included credit-related impairment losses related to four corporate bonds in various sectors, which were sold during 2020. The non-credit impairment losses recognized in 2020 related to three corporate bonds in the energy and consumer sectors.

The following table presents a roll forward of cumulative credit losses recorded in earnings related to impaired debt securities for which a portion of the impairment was recorded in OCI.

<i>(In thousands)</i>	Year Ended December 31		
	2022	2021	2020
Balance beginning of period	\$ —	\$ 552	\$ 470
Additional credit losses recognized during the period, related to securities for which:			
No impairment has been previously recognized	610	—	1,064
Impairment has been previously recognized	—	—	258
Reductions due to:			
Securities sold during the period (realized)	—	(552)	(1,240)
Securities for which there is an intent to sell or will more likely than not be sold before recovery of amortized cost	(553)	—	—
Balance December 31	\$ 57	\$ —	\$ 552

5. Reinsurance

ProAssurance purchases reinsurance from third-party reinsurers and insurance enterprises in order to reduce its net exposure to losses, to provide capacity to write larger limits of liability, to provide reimbursement for losses incurred under the higher limit coverages the Company offers and as a mechanism for providing custom insurance solutions. ProAssurance also uses reinsurance arrangements as a mechanism for sharing risk with insureds or their affiliates.

The effects of reinsurance for the years ended December 31, 2022, 2021 and 2020 were as follows:

<i>(In thousands)</i>	Year Ended December 31		
	2022	2021	2020
Direct	\$ 1,048,690	\$ 912,387	\$ 814,298
Assumed	55,304	47,637	40,124
Ceded	(89,857)	(77,303)	(106,721)
Net premiums written	\$ 1,014,137	\$ 882,721	\$ 747,701
Direct	\$ 1,058,263	\$ 1,020,107	\$ 862,742
Assumed	56,175	45,559	43,555
Ceded	(84,857)	(93,998)	(113,582)
Net premiums earned	\$ 1,029,581	\$ 971,668	\$ 792,715
Losses and loss adjustment expenses	\$ 839,717	\$ 798,893	\$ 741,719
Reinsurance recoveries	(62,955)	(46,644)	(80,272)
Net losses and loss adjustment expenses	\$ 776,762	\$ 752,249	\$ 661,447

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The receivable from reinsurers on unpaid losses and LAE represents management's estimated amount of future loss payments that will be recoverable under ProAssurance reinsurance agreements. Certain of the Company's reinsurance agreements base the amount of premium that is due to the reinsurer in part on losses reimbursed or to be reimbursed under the agreement, and terms may also include minimum and maximum amounts of ceded premium. Ceded premium amounts are estimated based on management's expectation of ultimate losses and the portion of those losses that are allocable to reinsurers according to the terms of the agreements, including any minimums or maximums. Given the uncertainty of the ultimate amounts of losses, management's estimates of losses and related amounts recoverable may vary significantly from the eventual outcome. Due to changes in management's estimates of amounts due to reinsurers related to prior accident year loss recoveries, ProAssurance decreased premiums ceded in its Specialty P&C segment by \$2.8 million and \$3.9 million during the years ended December 31, 2022 and 2021, respectively, and increased premiums ceded by \$0.7 million during the year ended December 31, 2020.

Reinsurance contracts do not relieve ProAssurance from its obligations to policyholders, and ProAssurance remains liable to its policyholders whether or not reinsurers honor their contractual obligations. ProAssurance continually monitors its reinsurers to minimize its exposure to significant losses from reinsurer insolvencies.

At December 31, 2022, the net total amounts due from reinsurers was \$447.8 million (receivables related to paid and unpaid losses and LAE and prepaid reinsurance premiums, less reinsurance premiums payable). No single reinsurer had an individual balance which exceeded \$54.8 million.

At December 31, 2022 reinsurance recoverables totaling approximately \$90.6 million were collateralized by letters of credit or funds withheld. Expected credit losses associated with the Company's reinsurance receivables (related to both paid and unpaid losses) were nominal in amount as of December 31, 2022, 2021 and 2020. During the years ended December 31, 2022, 2021 or 2020, no reinsurance balances were written off for credit reasons. For further information on the Company's allowance for expected credit losses related to its receivables from reinsurers see Note 1.

During the fourth quarter of 2020, ProAssurance commuted a quota share reinsurance agreement with one of its reinsurers which resulted in a net cash receipt of approximately \$6.8 million and reduced its receivable from reinsurers on unpaid losses and LAE by approximately \$7.0 million.

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6. Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of ProAssurance's deferred tax assets and liabilities were as follows:

<i>(In thousands)</i>	December 31	
	2022	2021
Deferred tax assets		
Unpaid loss discount	\$ 48,735	\$ 51,562
Unearned premium adjustment	22,188	22,846
Compensation related	12,285	18,575
Unrealized losses on investments, net	80,422	—
Basis differentials-investments	2,962	—
Intangibles	9,681	13,915
Operating lease liabilities	4,124	4,290
Tax credit carryforward	53,240	48,701
Net operating loss carryforward	27,891	18,596
Other	815	909
Total gross deferred tax assets	262,343	179,394
Valuation allowance	(18,384)	(8,945)
Total deferred tax assets, net of valuation allowance	243,959	170,449
Deferred tax liabilities		
Deferred policy acquisition costs	(12,511)	(12,284)
Unpaid loss discount-transition	(5,270)	(7,276)
Unrealized gains on investments, net	—	(4,100)
Fixed assets	(3,865)	(4,013)
Operating lease ROU assets	(3,911)	(4,030)
Basis differentials-investments	—	(11,277)
Basis differentials-foreign operations	(928)	(828)
Intangibles	(7,939)	(9,028)
Total deferred tax liabilities	(34,424)	(52,836)
Net deferred tax assets (liabilities)	\$ 209,535	\$ 117,613

As of December 31, 2022, ProAssurance had U.S. Federal, U.S. state and U.K. income tax NOL carryforwards of approximately \$65.1 million, \$126.8 million and \$27.7 million, respectively. The U.K. NOL carryforwards do not expire while the U.S. Federal and state NOL carryforwards will begin to expire in 2035 and 2031, respectively.

As a result of the NORCAL acquisition, the Company has U.S. federal NOL carryforwards which as of December 31, 2022 were approximately \$36.1 million. These NOL carryforwards are subject to limitation by Internal Revenue Code Section 382 and will begin to expire in 2035.

ProAssurance had \$51.2 million of available tax credit carryforwards generated from the Company's investments in tax credit partnerships all of which may be carried forward until they begin to expire in December 31, 2039. These tax credits have been deferred and carried forward due to the Company's expected consolidated loss calculated on a tax basis. The available tax credit carryforwards include \$0.5 million of tax credits recaptured from the 2019 tax year during the year ended December 31, 2022 due to the carryback of the Company's estimated NOL for the year ended December 31, 2022 to the 2021 tax year. The recaptured tax credits were earned in 2019 but not utilized until 2021 due to NOL's generated in both 2019 and 2020.

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The Company's total valuation allowance increased by \$9.4 million and \$0.4 million for the years ended December 31, 2022 and 2021, respectively.

In 2022 and 2021, management evaluated the realizability of the deferred tax assets related to the NOL carryforwards of the Company's Lloyd's corporate member subsidiary and concluded that it was more likely than not that the deferred tax assets will not be realized; therefore, a valuation allowance was recorded against the full value of the deferred tax assets related to the U.S. Federal and U.K. NOL carryforwards in 2022 and 2021 of \$11.9 million and \$5.0 million, respectively. The increase in the valuation allowance related to the U.S. Federal and U.K. NOL carryforwards in 2022 as compared to 2021 was partially due to current year activity and an increase in the U.K. corporate income tax rate.

In 2022 and 2021, management evaluated the realizability of the deferred tax asset related to the U.S. state NOL carryforwards and concluded that it was more likely than not that a portion of the deferred tax asset will not be realized; therefore, a valuation allowance was recorded against a portion of the deferred tax asset related to the U.S. state NOL carryforwards in 2022 and 2021 of \$5.8 million and \$3.2 million, respectively. The increase in the valuation allowance related to the U.S. state NOL carryforwards in 2022 as compared to 2021 was primarily due to current year activity.

Deferred tax assets and liabilities include SPCs the Company participates in at Inova Re, net of a valuation allowance \$0.5 million and \$0.6 million at December 31, 2022 and 2021, respectively. Due to the limited operations of these SPCs as of December 31, 2022 and 2021, management concluded that a valuation allowance was required against the DTAs of certain SPCs.

In 2022 and 2021, management evaluated the realizability of the deferred tax assets of ProAssurance American Mutual, a Risk Retention Group, and concluded that it was more likely than not that the net deferred tax assets will not be realized; therefore a nominal valuation allowance was recorded in 2022 and 2021. ProAssurance American Mutual, a Risk Retention Group, is a taxpayer separate from the consolidated group and this entity has experienced cumulative losses in recent years.

ProAssurance files income tax returns in various states, the U.S. federal jurisdiction and the U.K. ProAssurance had a receivable for U.S. federal and U.K. income taxes of \$8.0 million at December 31, 2022 and \$7.9 million at December 31, 2021, both carried as a part of other assets.

The statute of limitations is now closed for all tax years prior to 2019.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits for 2022, 2021 and 2020, were as follows:

<i>(In thousands)</i>	2022	2021	2020
Balance at January 1	\$ 3,020	\$ 5,199	\$ 5,070
Decreases for tax positions taken during the current year	(99)	(1,630)	(4,853)
Increases for tax positions taken during prior years	1,839	—	5,342
Decreases relating to a lapse of the applicable statute of limitations	(1,137)	(549)	(360)
Balance at December 31	<u>\$ 3,623</u>	<u>\$ 3,020</u>	<u>\$ 5,199</u>

At December 31, 2022 and 2021, approximately \$0.3 million of ProAssurance's uncertain tax positions in each period, if recognized, would affect the effective tax rate. As with any uncertain tax position, there is a possibility that the ultimate benefit realized could differ from the estimate management has established. Management believes that it is reasonably possible that a portion of unrecognized tax benefits at December 31, 2022 may change during the next twelve months. However, an estimate of the change cannot be made at this time.

ProAssurance recognizes interest and/or penalties related to income tax matters as a component of income tax expense. Interest and penalties recognized in the Consolidated Statements of Income and Comprehensive Income were nominal for each of the years ended December 31, 2022, 2021 and 2020. The accrued liability for interest was approximately \$0.5 million and \$0.4 million at December 31, 2022 and 2021, respectively.

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Income tax expense (benefit) for each of the years ended December 31, 2022, 2021 and 2020 consisted of the following:

<i>(In thousands)</i>	2022	2021	2020
Provision for income taxes:			
Current expense (benefit)			
Federal and foreign	\$ 793	\$ 885	\$ (19,885)
State	14	279	(296)
Total current expense (benefit)	807	1,164	(20,181)
Deferred expense (benefit)			
Federal and foreign	(6,826)	1,290	(20,476)
State	205	29	(672)
Total deferred expense (benefit)	(6,621)	1,319	(21,148)
Total income tax expense (benefit)	<u>\$ (5,814)</u>	<u>\$ 2,483</u>	<u>\$ (41,329)</u>

A reconciliation of “expected” federal income tax expense (benefit) to actual income tax expense (benefit) for each of the years ended December 31, 2022, 2021 and 2020 were as follows:

<i>(In thousands)</i>	2022	2021	2020
Computed “expected” tax expense (benefit)	\$ (1,305)	\$ 30,787	\$ (45,582)
Tax-exempt income ⁽¹⁾	(1,072)	(1,298)	(976)
Tax credits	(4,805)	(13,160)	(17,876)
Non-U.S. operating results	(411)	(1,322)	(1,307)
Tax deficiency (excess tax benefit) on share-based compensation	309	286	457
Tax rate differential on loss carryback ⁽²⁾	—	—	(7,758)
Goodwill impairment ⁽³⁾	—	—	31,413
Change in limitation of future deductibility of certain executive compensation	708	303	75
Non-taxable gain on bargain purchase ⁽⁴⁾	—	(15,626)	—
Non-taxable contingent consideration ⁽⁵⁾	(1,890)	—	—
GILTI and subpart F income	556	721	800
Provision-to-return and other differences	1,112	3,574	1,217
Change in uncertain tax positions	780	(1,909)	(1,674)
State income taxes	105	460	(561)
Other	99	(333)	443
Total income tax expense (benefit)	<u>\$ (5,814)</u>	<u>\$ 2,483</u>	<u>\$ (41,329)</u>

⁽¹⁾ Includes tax-exempt interest, dividends received deduction and change in cash surrender value of BOLI.

⁽²⁾ The tax rate differential on loss carryback for the year ended December 31, 2020 represents the additional tax rate differential of 14% on the carryback of the 2020 and 2019 NOLs to the 2015 and 2014 tax years, respectively, as a result of changes made by the CARES Act to the NOL provisions of the tax law (see further discussion in this section under the heading “Coronavirus Aid, Relief and Economic Security Act”).

⁽³⁾ Represents the tax impact of the impairment of non-deductible goodwill in relation to the Specialty P&C reporting unit during the third quarter of 2020. Of the \$161.1 million goodwill impairment, \$149.6 million was non-deductible for which no tax benefit was recognized while the remaining \$11.5 million was deductible for which a 21% tax benefit was recognized on the related tax amortization (see further discussion on the impairment charge in Note 7).

⁽⁴⁾ Represents the tax impact of the non-taxable gain on bargain purchase as a result of the Company's acquisition of NORCAL on May 5, 2021. See further discussion on the gain on bargain purchase in Note 2.

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⁽⁵⁾ Represents the tax impact of the change in the fair value of contingent consideration issued in connection with the NORCAL acquisition, all of which is non-taxable. See further discussion on the contingent consideration in Note 2 and Note 3 of the Notes to Consolidated Financial Statements.

Coronavirus Aid, Relief and Economic Security Act

In response to COVID-19, the CARES Act was signed into law on March 27, 2020 and contains several provisions for corporations and eased certain deduction limitations originally imposed by the TCJA. The CARES Act, among other things, includes temporary changes regarding the prior and future utilization of NOLs, temporary changes to the prior and future limitations on interest deductions, temporary suspension of certain payment requirements for the employer portion of Social Security taxes and the creation of certain refundable employee retention credits. As a result of the CARES Act, ProAssurance was permitted to carryback NOLs generated in tax years 2019 and 2020 for up to five years. ProAssurance generated an NOL of approximately \$33.3 million from the 2020 tax year that was carried back to the 2015 tax year which resulted in a tax refund of approximately \$11.7 million received in February 2023. Additionally, ProAssurance had an NOL of approximately \$25.6 million from the 2019 tax year that was carried back to the 2014 tax year which resulted in a tax refund of approximately \$9.0 million received in February 2021.

7. Goodwill

Goodwill is recognized in conjunction with business acquisitions as the excess of the purchase consideration for the business acquisition over the fair value of identifiable assets acquired and liabilities assumed. The fair value of identifiable assets acquired and liabilities assumed, and thus goodwill, is subject to redetermination within a measurement period of up to one year following completion of a business acquisition.

Goodwill is tested for impairment annually or more frequently if circumstances indicate an impairment may have occurred. The date of the Company's annual goodwill impairment test is October 1. Impairment of goodwill is tested at the reporting unit level, which is consistent with the Company's reportable segments identified in Note 16. Of the Company's five reporting units, two have net goodwill: Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance.

Interim Impairment Assessments

During the third quarter of 2020, management performed interim impairment assessments of the goodwill in the Company's Specialty P&C, Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance reporting units due to the significant market volatility impacting its actual and projected results along with a decline in its stock price. The goodwill analysis indicated an impairment of the goodwill associated with the Company's Specialty P&C reporting unit and accordingly it recorded a \$161.1 million charge to goodwill.

Annual Impairment Assessments

Subsequent to performing the interim impairment assessments, the Company performed its annual goodwill impairment assessment on October 1, 2020. As of the goodwill impairment test performed on October 1, 2020, the Company elected to perform a qualitative goodwill impairment test for its Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance reporting units. These reporting units have historically had an excess of fair value over book value and based on current operations are expected to continue to do so; therefore, the Company's annual impairment test for these reporting units 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 each of the Company's two reporting units that have net goodwill was less than the carrying value of each reporting unit as of the testing date; therefore, no further impairment testing was required.

Management performed a quantitative impairment test for both the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance reporting units on October 1, 2022 and October 1, 2021. In applying the quantitative approach, management estimated the fair value of the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance reporting units using both an income approach and market approach based on the valuation methodologies and process for developing assumptions described in Note 1. To corroborate the reporting units' valuation, a reconciliation of the estimate of the aggregate fair value of the reporting units to ProAssurance's market capitalization was performed, including consideration of a control premium. As a result of the quantitative assessments, management concluded that the fair value of each of the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance reporting units exceeded the carrying value as of the testing date; therefore, goodwill was not impaired and no further goodwill impairment testing was required. No goodwill

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impairment was recorded during the years ended December 31, 2022 or 2021. See Note 1 for further information on how the Company tests goodwill for impairment.

The table below presents the carrying amount of goodwill and accumulated impairment losses by reporting unit at December 31, 2022 and 2021:

<i>(In thousands)</i>	Reporting Unit			
	Specialty P&C	Workers' Compensation Insurance	Segregated Portfolio Cell Reinsurance	Total
Goodwill, gross as of January 1, 2021	\$ —	\$ 44,110	\$ 5,500	\$ 49,610
Accumulated impairment losses	—	—	—	—
Goodwill, net as of December 31, 2021	\$ —	\$ 44,110	\$ 5,500	\$ 49,610
Accumulated impairment losses	—	—	—	—
Goodwill, net as of December 31, 2022	\$ —	\$ 44,110	\$ 5,500	\$ 49,610

8. Reserve for Losses and Loss Adjustment Expenses

The reserve for losses is established based on estimates of individual claims and actuarially determined estimates of future losses based on ProAssurance's past loss experience, available industry data and projections as to future claims frequency, severity, inflationary trends and settlement patterns. Estimating the reserve, particularly the reserve appropriate for liability exposures, is a complex process. For a high proportion of the risks insured or reinsured by ProAssurance, claims may be resolved over an extended period of time, often five years or more, and may be subject to litigation. Estimating losses requires ProAssurance to make and revise judgments and assessments regarding multiple uncertainties over an extended period of time. As a result, the reserve estimate may vary considerably from the eventual outcome. The assumptions used in establishing ProAssurance's reserve are regularly reviewed and updated by management as new data becomes available. Changes to estimates of previously established reserves are included in earnings in the period in which the estimate is changed.

ProAssurance believes that the methods it uses to establish reserves are reasonable and appropriate. Each year, ProAssurance uses internal actuaries to review the reserve for losses of each insurance subsidiary. ProAssurance also engages consulting actuaries to review ProAssurance claims data and provide observations regarding cost trends, rate adequacy and ultimate loss costs. The statutory filings of each insurance company with the insurance regulators must be accompanied by a consulting actuary's certification as to their respective reserves. ProAssurance considers the views of the actuaries as well as other factors, such as premium rates, historical paid and incurred loss development trends and an evaluation of the current loss environment including frequency, severity, expected effect of inflation, general economic and social trends, and the legal and political environment in establishing the amount of its reserve for losses. The effect of COVID-19 on recent historical trends regarding timing and severity of claims may also impact certain of these factors and the Company's ultimate estimation of losses (see "Item 1A, Risk Factors" included in this report for additional information). As a result of COVID-19, the industry has experienced new conditions, including the postponement of court cases and changes in settlement trends. ProAssurance's booked reserves as of December 31, 2022 include consideration of these factors, but the duration and degree to which these issues persist, along with potential legislative, regulatory or judicial actions, could result in significant changes to the Company's reserve estimates in future periods.

ProAssurance partitions its reserve by accident year, which is the year in which the claim becomes its liability. For claims-made policies, the insured event generally becomes a liability when the event is first reported to the Company. For occurrence policies, the insured event becomes a liability when the event takes place. For retroactive coverages, the insured event becomes a liability at inception of the underlying contract. As claims are incurred (reported) and claim payments are made, they are aggregated by accident year for analysis purposes. ProAssurance also partitions its reserve by reserve type: case reserves and IBNR reserves. Case reserves are established by the claims department based upon the particular circumstances of each reported claim and represent ProAssurance's 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; a reported loss for an individual claim equates to the case reserve at any point in time plus the claim payments that have been made to date. IBNR reserves represent an estimate, in the aggregate, of future development on losses that have been reported to ProAssurance plus an estimate of losses that have been incurred but not reported.

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Acquired Reserve

The acquisition of NORCAL increased ProAssurance's net reserves by \$1.1 billion which represented the fair value of NORCAL's reserve, net of the fair value of related reinsurance recoverables, at the time of acquisition including a fair value adjustment on the reserve as well as negative VOBA recorded on NORCAL's unearned premium and DDR reserve. The reserve fair value adjustment will be amortized utilizing loss payment patterns and the negative VOBAs will be amortized over a period in proportion to the earn-out of the premium or in-line with the approximate consumption of losses. Such amortization is recorded as a reduction to net losses and loss adjustment expenses.

Development of Prior Accident Years

In addition to setting the initial reserve for the current accident year, each period ProAssurance reassesses the amount of reserve required for prior accident years. The foundation of ProAssurance's reserve re-estimation process is an actuarial analysis that is performed by both the internal and consulting actuaries. This 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. ProAssurance believes that the use of consulting actuaries provides an independent view of the loss data as well as a broader perspective on industry loss trends.

Reserving Methodologies

For the HCPL, Medical Technology Liability and Workers' Compensation lines of business, the analysis performed by the consulting actuaries analyzes each partition of the 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 (Incurred) Development Method, Average Paid Value Method and Average Reported Value Method. Generally, methods such as the Bornhuetter-Ferguson Method are used on more recent accident years where there is less data available on which to base the analysis. As time progresses and an increased amount of data is available for a given accident year, management gives more confidence to the development and average methods, as these methods typically rely more heavily on ProAssurance's own historical data. These methods emphasize different aspects of loss reserve estimation and provide a variety of perspectives for ProAssurance's decisions.

For the Workers' Compensation line of business in both the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance segments, ProAssurance utilizes the Reported (Incurred) Development Method, Paid Loss Development Method and Bornhuetter-Ferguson Method, to develop the reserve for each accident year. The actuarial review includes the stratification of claims data (lost time claims and medical only claims) using different variations that allow for identification of 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 ProAssurance's historical reported and paid loss development patterns. As accident years mature, the various actuarial methodologies produce more consistent loss estimates.

For the Lloyd's Syndicates segment business, losses are initially estimated using the loss assumptions by risk category incorporated into the business plan submitted to Lloyd's with consideration given to loss experience incurred to date. These assumptions were influenced by loss results reflected in Lloyd's historical data for similar risks. As losses are reported and resolved and loss experience becomes more credible from a statistical perspective, actual loss experience is incorporated into the estimates.

Certain of the methodologies utilized to estimate the ultimate losses for each partition of the reserve 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 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, ProAssurance performs statistical reviews of claims data such as claim counts, average settlement costs and severity trends when establishing the reserve.

Selected point estimates of ultimate losses are utilized to develop estimates of ultimate losses recoverable from reinsurers, based on the terms and conditions of ProAssurance's reinsurance agreements. An overall estimate of the amount receivable from reinsurers is determined by combining the individual estimates. ProAssurance's net reserve estimate is the gross reserve point estimate less the estimated reinsurance recovery.

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Activity in the reserve for losses and loss adjustment expenses is summarized as follows:

<i>(In thousands)</i>	2022	2021	2020
Balance, beginning of year	\$ 3,579,940	\$ 2,417,179	\$ 2,346,526
Less reinsurance recoverables on unpaid losses and loss adjustment expenses	451,741	385,087	390,708
Net balance, beginning of year	3,128,199	2,032,092	1,955,818
Net reserves acquired from acquisitions	—	1,089,103	—
Net losses:			
Current year ⁽¹⁾⁽³⁾	813,515	797,732	711,846
Favorable development of reserves established in prior years, net ⁽²⁾	(36,753)	(45,483)	(50,399)
Total	776,762	752,249	661,447
Paid related to:			
Current year ⁽⁴⁾	(108,139)	(109,925)	(83,204)
Prior years ⁽⁴⁾	(757,564)	(635,320)	(501,969)
Total paid	(865,703)	(745,245)	(585,173)
Net balance, end of year	3,039,258	3,128,199	2,032,092
Plus reinsurance recoverables on unpaid losses and loss adjustment expenses	431,889	451,741	385,087
Balance, end of year	\$ 3,471,147	\$ 3,579,940	\$ 2,417,179

⁽¹⁾ Current year net losses for the years ended December 31, 2022 and 2021 included \$4.9 million and \$6.7 million, respectively, of purchase accounting amortization of the negative VOBA associated with NORCAL's assumed unearned premium, which was amortized over a period in proportion to the earn-out of the associated premium as a reduction to current accident year net losses (see Note 2). As of June 30, 2022, the negative VOBA was fully amortized.

⁽²⁾ Net favorable prior year reserve development recognized for the years ended December 31, 2022 and 2021 included \$10.8 million and \$7.9 million, respectively, of amortization of the purchase accounting fair value adjustment on NORCAL's assumed net reserve and amortization of the negative VOBA associated with NORCAL's DDR reserve which is recorded as a reduction to prior accident year net losses and loss adjustment expenses (see Note 2). Net favorable prior accident year reserve development recognized in 2022 included favorable development related to NORCAL's 2021 accident year. ProAssurance has not recognized any development related to NORCAL's accident years 2020 or prior since the date of acquisition on May 5, 2021.

⁽³⁾ During 2020, a large national healthcare account did not renew on terms offered by the Company and exercised its contractual option to purchase extended reporting endorsement or "tail" coverage. As a result, ProAssurance recognized total current year losses of \$60.0 million (assumes a full limit loss) within the Specialty P&C segment for the year ended December 31, 2020.

⁽⁴⁾ Paid losses for the years ended December 31, 2022 and 2021 included prior year paid losses of \$262.5 million and \$136.0 million, respectively, and current year paid losses of \$16.6 million and \$22.3 million, respectively, related to reserves acquired from NORCAL since May 5, 2021.

As discussed in Note 1, estimating liability reserves is complex and requires the use of many assumptions. As time passes and ultimate losses for prior years are either known or become subject to a more precise estimation, ProAssurance increases or decreases the reserve estimates established in prior periods. The consolidated net favorable loss development recognized for the year ended December 31, 2022 primarily reflected lower than anticipated loss emergence in the Specialty P&C segment related to the 2017, 2020 and 2021 accident years, primarily attributable to NORCAL's 2021 accident year, and, to a lesser extent, the Medical Technology Liability line of business. The net favorable development recognized in the Specialty P&C segment also included a \$9.0 million reduction in the Company's prior accident year IBNR reserve for COVID-19 as early first notices of potential claims related to anticipated COVID losses have not turned into claims. Further, the net favorable development recognized in the Specialty P&C segment was partially offset by higher than anticipated loss severity trends in select jurisdictions in the HCPL line of business, which emerged primarily in the fourth quarter of 2022. The net favorable development also reflected overall favorable trends in claim closing patterns in the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance segments. The net favorable loss development recognized in the Workers' Compensation Insurance segment is primarily related to the 2017 through 2020 accident years. The net favorable loss development recognized in the Segregated Portfolio Cell Reinsurance segment is primarily related to the 2016 through 2021 accident years. Consolidated net favorable loss development recognized in 2022 was partially offset by unfavorable reserve development

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recognized in the Lloyd's Syndicates segment driven by higher than expected loss development on certain large claims, primarily catastrophe related losses.

The net favorable loss development recognized for the year ended December 31, 2021 primarily reflected a lower than anticipated loss emergence in the Specialty P&C segment, primarily related to the 2015 through 2020 accident years. Net favorable prior accident year reserve development recognized in the Specialty P&C segment also included a \$1.0 million reduction in the Company's IBNR reserve for COVID-19 during the third quarter of 2021. The net favorable development also reflected overall favorable trends in claim closing patterns in the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance segments. The net favorable loss development recognized in the Workers' Compensation Insurance segment is primarily related to the 2012 through 2017 accident years. The net favorable loss development recognized in the Segregated Portfolio Cell Reinsurance segment is primarily related to accident year 2015 and accident years 2018 through 2020. Consolidated net favorable loss development recognized in 2021 was partially offset by unfavorable reserve development recognized in the Lloyd's Syndicates segment driven by certain catastrophe related losses.

The net favorable loss development recognized for the year ended December 31, 2020 primarily reflected a lower than anticipated claims severity trend (i.e., the average size of a claim) in the Specialty P&C segment, primarily related to the 2014 through 2017 accident years. The net favorable development also reflected overall favorable trends in claim closing patterns in the Segregated Portfolio Cell Reinsurance and Workers' Compensation Insurance segments. The net favorable loss development recognized in the Segregated Portfolio Cell Reinsurance segment primarily related to the 2014 through 2019 accident years and the net favorable loss development recognized in the Workers' Compensation Insurance segment primarily related to the 2014 through 2017 accident years.

Claims Development

ProAssurance establishes its reserve and manages claims activity by coverage, product or line of business and various categories of reserves have similar characteristics. Therefore, ProAssurance has aggregated these reserve categories into several reserve groups in the following disclosures and tables that provide a more meaningful view of the amount, timing and uncertainty of cash flows arising from the liability. At the same time, these reserve groups present a disaggregated view of the major elements of the overall loss reserve liability. The reserve groups include HCPL claims-made reserve, HCPL occurrence reserve, Medical Technology Liability claims-made reserve, Workers' Compensation Insurance reserve and Segregated Portfolio Cell Reinsurance - workers' compensation reserve. All other loss reserve categories are deemed to be less homogeneous or relatively small on a standalone basis and are included in other short-duration lines in the claims development reconciliation.

The composition of the reserve groups is based on similar characteristics with respect to the risks being insured and the reporting and payout pattern of the underlying claims. In most instances the groups follow the coverage categorizations used in statutory financial reporting for U.S.-domiciled property-casualty insurance companies.

HCPL claims are disaggregated into those claims covered by claims-made policies and those claims covered by occurrence policies. For claims-made policies, 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, even if unknown at that time. Claims-made coverage has a short reporting pattern, with virtually all claims known shortly after the end of the policy period. Occurrence coverage claims can have an extended reporting pattern, with the time from the loss event until the filing of the claim often measured in years, at which point the claims resolution process begins. Although the resolution process and time frame is similar once a claim is reported, combining claims from claims-made and occurrence coverage types would result in distortion due to the difference in reporting lag. Medical Technology Liability reserves are grouped separately due to the nature of the risk, including the potential for mass torts and multiple claims arising out of the same product or service. The small amount of Medical Technology Liability occurrence reserves are included in other short-duration lines.

Workers' compensation reserves in the Workers' Compensation Insurance and the Segregated Portfolio Cell Reinsurance segments are each grouped separately due to the difference in the type of coverage provided and the differences in the claims resolution process as compared to other liability insurance. The small amount of HCPL reserves in the Segregated Portfolio Cell Reinsurance segment are included in other short-duration lines.

ProAssurance has elected to present reserve history for acquired entities in all periods shown in the tables below, including periods prior to acquisition. With the exception of the Workers' Compensation Insurance and Segregated Portfolio Cell Reinsurance - workers' compensation lines of business, virtually all other acquired entities are captured within the HCPL line of business.

All information prior to 2022 disclosed in the Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance, Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance and Average Annual

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Percentage Payout of Incurred Claims by Age, Net of Reinsurance tables that follow is presented as supplementary information. The “Cumulative Number of Reported Claims” in the tables that follow includes the combined number of claims for an accident year and excludes projected unreported IBNR claims. A claim is considered reported when ProAssurance becomes aware of and accepts it for coverage under the terms of the Company's insurance contracts.

Healthcare Professional Liability Reserve

HCPL loss costs 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 may occur, general economic and social conditions and, for claims involving bodily injury, the trend of healthcare costs. ProAssurance sets an initial reserve based upon the evaluation of the current loss environment including frequency, severity, the expected effect of inflation, general economic and social trends, and the legal and political environment. The initial loss ratio for HCPL business has ranged from 83% to 106% in the past five years.

ProAssurance has elected to present reserve history for NORCAL in all periods shown in the Healthcare Professional Liability tables below, including periods prior to acquisition.

Healthcare Professional Liability Claims-Made

(\$ in thousands)	Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance										December 31, 2022	
	Year Ended December 31, 2022										IBNR*	Cumulative Number of Reported Claims
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Accident Year	Unaudited											
2013	\$527,520	\$513,937	\$501,580	\$489,378	\$480,036	\$466,798	\$451,182	\$455,346	\$457,038	\$ 455,583	\$ (29)	7,699
2014	—	\$509,774	\$494,024	\$491,403	\$488,185	\$474,317	\$468,153	\$470,189	\$466,554	464,976	\$ 566	7,523
2015	—	—	\$503,412	\$486,760	\$492,824	\$491,180	\$500,336	\$500,550	\$503,600	503,628	\$ (4,337)	7,409
2016	—	—	—	\$484,153	\$488,349	\$507,586	\$555,416	\$554,395	\$560,840	557,097	\$ (542)	7,986
2017	—	—	—	—	\$508,072	\$506,207	\$577,401	\$569,737	\$573,570	557,620	\$ (14,294)	8,067
2018	—	—	—	—	—	\$544,617	\$643,864	\$630,169	\$636,023	642,948	\$ (62,313)	8,478
2019	—	—	—	—	—	—	\$670,958	\$664,934	\$642,370	646,676	\$ (22,209)	8,452
2020	—	—	—	—	—	—	—	\$593,994	\$574,274	557,651	\$ (21,795)	6,689
2021	—	—	—	—	—	—	—	—	\$527,718	524,468	\$ 78,103	5,289
2022	—	—	—	—	—	—	—	—	—	464,069	\$ 269,309	4,626
Total											\$ 5,374,716	

* Includes expected development on reported claims

(In thousands)	Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance										
	Year Ended December 31, 2022										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Accident Year	Unaudited										
2013	\$ 30,214	\$142,759	\$255,605	\$328,982	\$376,930	\$398,549	\$415,012	\$430,916	\$435,158	\$ 439,029	
2014	—	\$ 30,483	\$125,078	\$246,510	\$325,782	\$389,983	\$416,150	\$434,540	\$439,575	446,402	
2015	—	—	\$ 26,664	\$125,234	\$256,791	\$351,703	\$410,506	\$446,069	\$463,224	476,664	
2016	—	—	—	\$ 27,442	\$137,338	\$276,548	\$378,828	\$440,163	\$472,441	499,431	
2017	—	—	—	—	\$ 32,342	\$147,515	\$288,695	\$351,548	\$419,180	467,423	
2018	—	—	—	—	—	\$ 34,238	\$159,657	\$279,204	\$367,522	450,952	
2019	—	—	—	—	—	—	\$ 37,755	\$144,225	\$259,889	364,411	
2020	—	—	—	—	—	—	—	\$ 32,270	\$117,153	234,804	
2021	—	—	—	—	—	—	—	—	\$ 23,494	110,483	
2022	—	—	—	—	—	—	—	—	—	24,792	
Total											3,514,391
All outstanding liabilities before 2013, net of reinsurance											19,514
Liabilities for losses and loss adjustment expenses, net of reinsurance											\$ 1,879,839

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Healthcare Professional Liability Occurrence

Incurring Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance											December 31, 2022	
<i>(\$ in thousands)</i>												
Year Ended December 31, 2022												
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		Cumulative Number of Reported Claims
Accident Year	Unaudited										IBNR*	
2013	\$ 51,996	\$ 54,143	\$ 49,970	\$ 53,905	\$ 56,640	\$ 50,632	\$ 49,270	\$ 47,550	\$ 48,116	\$ 47,144	\$ 998	640
2014	—	\$ 45,975	\$ 43,606	\$ 44,075	\$ 40,699	\$ 37,653	\$ 34,428	\$ 33,353	\$ 35,139	35,839	\$ 1,179	543
2015	—	—	\$ 52,531	\$ 54,890	\$ 56,621	\$ 57,606	\$ 52,455	\$ 51,276	\$ 56,468	61,198	\$ 391	615
2016	—	—	—	\$ 56,089	\$ 49,795	\$ 53,358	\$ 56,345	\$ 66,886	\$ 64,122	68,674	\$ 2,300	710
2017	—	—	—	—	\$ 45,463	\$ 42,338	\$ 40,983	\$ 44,449	\$ 46,865	50,652	\$ 4,283	743
2018	—	—	—	—	—	\$ 59,351	\$ 61,880	\$ 63,576	\$ 73,599	74,419	\$ 1,388	709
2019	—	—	—	—	—	—	\$ 63,548	\$ 58,555	\$ 70,926	86,543	\$ 6,155	827
2020	—	—	—	—	—	—	—	\$ 165,955	\$ 178,804	181,643	\$ 79,785	1,641
2021	—	—	—	—	—	—	—	—	\$ 82,590	81,254	\$ 47,133	422
2022	—	—	—	—	—	—	—	—	—	82,436	\$ 78,046	135
Total	\$ 769,802											

* Includes expected development on reported claims

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance											
<i>(In thousands)</i>											
Year Ended December 31, 2022											
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Accident Year	Unaudited										
2013	\$ 539	\$ 4,620	\$ 12,130	\$ 25,131	\$ 30,474	\$ 37,778	\$ 40,775	\$ 42,455	\$ 43,254	\$ 44,419	
2014	—	\$ 512	\$ 4,674	\$ 11,192	\$ 17,349	\$ 22,649	\$ 25,671	\$ 27,753	\$ 30,407	31,285	
2015	—	—	\$ (180)	\$ 2,617	\$ 9,953	\$ 20,627	\$ 28,482	\$ 36,413	\$ 41,800	52,017	
2016	—	—	—	\$ 44	\$ 2,750	\$ 15,433	\$ 28,362	\$ 40,766	\$ 48,691	54,324	
2017	—	—	—	—	\$ (6,631)	\$ (3,385)	\$ 3,592	\$ 11,051	\$ 19,696	30,489	
2018	—	—	—	—	—	\$ 444	\$ 6,193	\$ 15,229	\$ 26,932	37,828	
2019	—	—	—	—	—	—	\$ 628	\$ 4,575	\$ 10,399	26,359	
2020	—	—	—	—	—	—	—	\$ 397	\$ 6,194	21,100	
2021	—	—	—	—	—	—	—	—	\$ 762	4,335	
2022	—	—	—	—	—	—	—	—	—	675	
Total	302,831										
All outstanding liabilities before 2013, net of reinsurance											5,095
Liabilities for losses and loss adjustment expenses, net of reinsurance											<u>\$ 472,066</u>

Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance

<i>Years</i>	1	2	3	4	5	6	7	8	9	10
	Unaudited									
Healthcare Professional Liability Claims-Made	5.6%	19.2%	23.1%	15.9%	12.0%	6.4%	4.0%	2.4%	1.2%	0.8%
Healthcare Professional Liability Occurrence	(0.7%)	6.1%	13.2%	18.6%	14.8%	13.9%	7.3%	9.2%	2.1%	2.5%

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Medical Technology Liability Reserve

The risks insured in the Medical Technology Liability line of business are more varied, and policies are individually priced based on the risk characteristics of the policy and the account. These policies often have substantial deductibles or self-insured retentions, and the insured risks range from startup operations to large multinational entities. Premiums are established using the 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 the HCPL line of business. For the Medical Technology Liability line of business, ProAssurance also establishes an initial reserve using a loss ratio approach, including a provision in consideration of historical loss volatility that this line of business has exhibited.

Medical Technology Liability Claims-Made

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance											December 31, 2022	
<i>(\$ in thousands)</i>												
Year Ended December 31, 2022												
Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	IBNR*	Cumulative Number of Reported Claims
	Unaudited											
2013	\$ 9,807	\$ 9,955	\$ 9,536	\$ 7,226	\$ 4,697	\$ 3,566	\$ 3,504	\$ 3,305	\$ 3,199	\$ 3,164	\$ 60	218
2014	—	\$ 9,989	\$ 10,306	\$ 9,012	\$ 8,984	\$ 7,679	\$ 6,194	\$ 5,888	\$ 5,636	\$ 5,472	\$ 242	272
2015	—	—	\$ 9,376	\$ 8,757	\$ 7,193	\$ 5,929	\$ 5,081	\$ 4,664	\$ 4,192	\$ 3,499	\$ 75	156
2016	—	—	—	\$ 9,200	\$ 8,467	\$ 7,413	\$ 6,422	\$ 6,241	\$ 4,491	\$ 5,145	\$ 689	182
2017	—	—	—	—	\$ 11,049	\$ 10,143	\$ 8,306	\$ 4,919	\$ 3,381	\$ 5,351	\$ 1,278	98
2018	—	—	—	—	—	\$ 10,141	\$ 8,108	\$ 7,506	\$ 4,961	\$ 4,646	\$ 794	218
2019	—	—	—	—	—	—	\$ 10,072	\$ 8,324	\$ 9,588	\$ 7,658	\$ 1,272	361
2020	—	—	—	—	—	—	—	\$ 11,082	\$ 10,671	\$ 9,150	\$ 6,637	178
2021	—	—	—	—	—	—	—	—	\$ 13,914	\$ 11,909	\$ 9,562	174
2022	—	—	—	—	—	—	—	—	—	\$ 15,014	\$ 14,733	159
Total										\$ 71,008		

* Includes expected development on reported claims

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance										
<i>(In thousands)</i>										
Year Ended December 31, 2022										
Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Unaudited									
2013	\$ 102	\$ 1,029	\$ 1,967	\$ 2,599	\$ 3,092	\$ 3,102	\$ 3,102	\$ 3,102	\$ 3,101	\$ 3,102
2014	—	\$ 388	\$ 1,527	\$ 2,564	\$ 3,046	\$ 3,724	\$ 3,776	\$ 4,074	\$ 4,076	\$ 4,076
2015	—	—	\$ 25	\$ 440	\$ 1,625	\$ 2,097	\$ 2,567	\$ 2,911	\$ 2,987	\$ 2,989
2016	—	—	—	\$ 53	\$ 1,690	\$ 2,365	\$ 2,959	\$ 4,295	\$ 4,342	\$ 4,383
2017	—	—	—	—	\$ 56	\$ 1,681	\$ 2,017	\$ 2,360	\$ 2,867	\$ 4,073
2018	—	—	—	—	—	\$ 6	\$ 191	\$ 1,850	\$ 2,651	\$ 3,065
2019	—	—	—	—	—	—	\$ 584	\$ 2,552	\$ 3,902	\$ 5,321
2020	—	—	—	—	—	—	—	\$ 40	\$ 526	\$ 1,034
2021	—	—	—	—	—	—	—	—	\$ 4	\$ 384
2022	—	—	—	—	—	—	—	—	—	\$ 24
Total										\$ 28,451

All outstanding liabilities before 2013, net of reinsurance

36

Liabilities for losses and loss adjustment expenses, net of reinsurance

\$ 42,593

Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance

Years	1	2	3	4	5	6	7	8	9	10
	Unaudited									
Medical Technology Liability	2.1%	18.0%	20.1%	13.7%	14.3%	6.9%	2.1%	—%	—%	—%

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Workers' Compensation Insurance Reserve

Many factors affect the ultimate losses incurred for the workers' compensation coverages in the Workers' Compensation Insurance segment 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. ProAssurance uses various actuarial methodologies in developing the 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 considerable 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.

Workers' Compensation Insurance

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance											December 31, 2022	
<i>(\$ in thousands)</i>												
Year Ended December 31, 2022												
Unaudited												
Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	IBNR*	Cumulative Number of Reported Claims
2013	\$ 86,973	\$ 85,935	\$ 86,928	\$ 88,010	\$ 87,260	\$ 87,260	\$ 89,760	\$ 89,560	\$ 88,930	\$ 88,557	\$ —	16,429
2014	—	\$ 93,019	\$ 93,529	\$ 93,029	\$ 93,029	\$ 93,029	\$ 93,029	\$ 91,329	\$ 90,532	\$ 89,639	\$ —	16,210
2015	—	—	\$ 100,101	\$ 100,454	\$ 98,454	\$ 97,654	\$ 96,354	\$ 93,054	\$ 91,840	\$ 90,547	\$ —	16,551
2016	—	—	—	\$ 101,348	\$ 97,348	\$ 92,148	\$ 84,799	\$ 82,799	\$ 80,751	\$ 78,808	\$ —	15,979
2017	—	—	—	—	\$ 99,874	\$ 99,874	\$ 99,874	\$ 97,874	\$ 95,674	\$ 92,715	\$ 311	16,085
2018	—	—	—	—	—	\$ 118,095	\$ 118,095	\$ 120,095	\$ 120,095	\$ 120,056	\$ 1,567	18,016
2019	—	—	—	—	—	—	\$ 115,852	\$ 115,852	\$ 115,352	\$ 112,534	\$ 1,481	17,527
2020	—	—	—	—	—	—	—	\$ 102,475	\$ 102,475	\$ 101,621	\$ 2,785	14,526
2021	—	—	—	—	—	—	—	—	\$ 105,722	\$ 108,722	\$ 4,913	15,479
2022	—	—	—	—	—	—	—	—	—	\$ 104,675	\$ 29,086	14,763
Total										\$ 987,874		

* Includes expected development on reported claims

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance										
<i>(In thousands)</i>										
Year Ended December 31, 2022										
Unaudited										
Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2013	\$ 30,554	\$ 63,825	\$ 76,813	\$ 82,369	\$ 85,689	\$ 86,783	\$ 87,466	\$ 87,772	\$ 88,033	\$ 88,074
2014	—	\$ 30,368	\$ 65,922	\$ 77,631	\$ 85,022	\$ 87,314	\$ 87,998	\$ 88,487	\$ 88,977	\$ 89,081
2015	—	—	\$ 32,078	\$ 65,070	\$ 78,947	\$ 83,483	\$ 86,528	\$ 87,884	\$ 88,476	\$ 89,089
2016	—	—	—	\$ 28,377	\$ 58,192	\$ 69,237	\$ 74,886	\$ 76,954	\$ 77,546	\$ 77,265
2017	—	—	—	—	\$ 31,586	\$ 70,333	\$ 82,289	\$ 87,129	\$ 88,504	\$ 88,953
2018	—	—	—	—	—	\$ 41,619	\$ 86,063	\$ 104,216	\$ 110,928	\$ 114,525
2019	—	—	—	—	—	—	\$ 40,994	\$ 84,108	\$ 100,373	\$ 105,724
2020	—	—	—	—	—	—	—	\$ 32,447	\$ 74,532	\$ 90,174
2021	—	—	—	—	—	—	—	—	\$ 39,634	\$ 81,499
2022	—	—	—	—	—	—	—	—	—	\$ 38,734
Total										863,118
All outstanding liabilities before 2013, net of reinsurance										12,558
Liabilities for losses and loss adjustment expenses, net of reinsurance										\$ 137,314

Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance										
Years	1	2	3	4	5	6	7	8	9	10
Unaudited										
Workers' Compensation Insurance	35.0 %	38.7 %	14.4 %	6.0 %	2.8 %	0.9 %	0.4 %	0.5 %	0.2 %	— %

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Segregated Portfolio Cell Reinsurance - Workers' Compensation Reserve

The Company estimates and reserves for the workers' compensation business assumed by the Segregated Portfolio Cell Reinsurance segment in the same manner as for its workers' compensation business in the Workers' Compensation Insurance segment, as previously discussed.

Segregated Portfolio Cell Reinsurance - Workers' Compensation

Incurring Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance											December 31, 2022	
<i>(\$ in thousands)</i>												
Year Ended December 31, 2022												
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		Cumulative Number of Reported Claims
Accident Year	Unaudited										IBNR*	
2013	\$ 23,809	\$ 25,310	\$ 26,758	\$ 26,619	\$ 26,260	\$ 26,033	\$ 25,938	\$ 25,546	\$ 25,450	\$ 25,445	\$ 3	3,723
2014	—	\$ 28,248	\$ 28,423	\$ 29,000	\$ 28,373	\$ 28,281	\$ 27,919	\$ 27,482	\$ 27,360	27,361	\$ 69	4,433
2015	—	—	\$ 36,423	\$ 32,519	\$ 28,746	\$ 27,548	\$ 26,720	\$ 26,121	\$ 25,566	25,575	\$ 130	4,949
2016	—	—	—	\$ 37,601	\$ 34,055	\$ 30,998	\$ 29,424	\$ 28,437	\$ 28,411	28,175	\$ 304	5,327
2017	—	—	—	—	\$ 42,725	\$ 38,594	\$ 34,246	\$ 32,879	\$ 32,763	32,514	\$ 290	5,707
2018	—	—	—	—	—	\$ 43,654	\$ 41,283	\$ 40,017	\$ 38,569	38,197	\$ 1,145	6,341
2019	—	—	—	—	—	—	\$ 48,505	\$ 42,345	\$ 38,815	37,490	\$ 1,271	6,155
2020	—	—	—	—	—	—	—	\$ 40,094	\$ 38,602	36,107	\$ 1,923	5,795
2021	—	—	—	—	—	—	—	—	\$ 39,510	37,185	\$ 4,937	5,181
2022	—	—	—	—	—	—	—	—	—	37,978	\$ 13,599	4,621
Total										\$ 326,027		

* Includes expected development on reported claims

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance										
<i>(In thousands)</i>										
Year Ended December 31, 2022										
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accident Year	Unaudited									
2013	\$ 8,131	\$ 19,054	\$ 24,268	\$ 25,209	\$ 25,366	\$ 25,489	\$ 25,440	\$ 25,442	\$ 25,442	\$ 25,442
2014	—	\$ 9,933	\$ 21,880	\$ 26,173	\$ 26,810	\$ 26,959	\$ 27,083	\$ 27,110	\$ 27,119	27,127
2015	—	—	\$ 11,257	\$ 21,706	\$ 23,977	\$ 24,781	\$ 25,033	\$ 25,125	\$ 25,144	25,266
2016	—	—	—	\$ 10,980	\$ 23,003	\$ 26,285	\$ 27,162	\$ 27,211	\$ 27,585	27,583
2017	—	—	—	—	\$ 12,404	\$ 24,791	\$ 28,853	\$ 31,140	\$ 31,631	31,875
2018	—	—	—	—	—	\$ 12,517	\$ 27,501	\$ 33,236	\$ 35,575	36,010
2019	—	—	—	—	—	—	\$ 15,100	\$ 29,604	\$ 33,314	34,829
2020	—	—	—	—	—	—	—	\$ 11,238	\$ 26,626	30,680
2021	—	—	—	—	—	—	—	—	\$ 12,465	26,495
2022	—	—	—	—	—	—	—	—	—	13,420
Total										278,727
All outstanding liabilities before 2013, net of reinsurance										480
Liabilities for losses and loss adjustment expenses, net of reinsurance										\$ 47,780

Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance										
Years	1	2	3	4	5	6	7	8	9	10
	Unaudited									
Segregated Portfolio Cell Reinsurance - workers' compensation	36.2%	40.7%	13.2%	4.3%	0.7%	0.7%	—%	0.2%	—%	—%

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Below is a reconciliation of the claims development information to the Consolidated Balance Sheet:

<i>(In thousands)</i>	December 31, 2022
Net outstanding liabilities	
Healthcare Professional Liability claims-made	\$ 1,879,839
Healthcare Professional Liability occurrence	472,066
Medical Technology Liability claims-made	42,593
Workers' Compensation Insurance	137,314
Segregated Portfolio Cell Reinsurance - workers' compensation	47,780
Other short-duration lines	177,382
Liabilities for losses and loss adjustment expenses, net of reinsurance	2,756,974
Reinsurance recoverable on unpaid losses	
Healthcare Professional Liability claims-made	251,223
Healthcare Professional Liability occurrence	38,299
Medical Technology Liability claims-made	33,625
Workers' Compensation Insurance	38,733
Segregated Portfolio Cell Reinsurance - Workers' Compensation	24,946
Other short-duration lines	45,063
Total reinsurance recoverable on unpaid losses and loss adjustment expenses	431,889
Reserve for the future utilization of the DDR benefit	110,496
Unallocated loss adjustment expenses	143,026
Loss portfolio transfer ⁽¹⁾	5,423
Purchase accounting adjustments ⁽²⁾	23,442
Other	(103)
	282,284
Gross liability for losses and loss adjustment expenses	<u>\$ 3,471,147</u>

⁽¹⁾ Represents the reserve for retroactive coverages, net of any applicable deferred gains, related to the loss portfolio transfer entered into during 2019.

⁽²⁾ Represents the remaining unamortized fair value adjustment on the net reserve for losses and loss adjustment expenses, the negative net VOBA recorded on the assumed unearned premium and negative VOBA recorded on the DDR reserve associated with the Company's acquisition of NORCAL (see Note 2 for additional information).

9. Commitments and Contingencies

ProAssurance is involved in various legal actions related to insurance policies and claims handling including, but not limited to, claims asserted by policyholders. These types of legal actions arise in the Company's ordinary course of business and, in accordance with GAAP for insurance entities, are considered as a part of the Company's loss reserving process, which is described in detail under the heading "Losses and Loss Adjustment Expenses" in the Accounting Policies section in Note 1. ProAssurance also has other direct actions against the Company unrelated to its claims activity which are evaluated and accounted for as a part of other liabilities. For these corporate legal actions, the Company evaluates each case separately and establishes what it believes is an appropriate reserve based on GAAP guidance related to contingent liabilities. As of December 31, 2022, there were no material reserves established for corporate legal actions.

As a member of Lloyd's, ProAssurance has obligations to Syndicate 1729 including a Syndicate Credit Agreement and FAL requirements. The Syndicate Credit Agreement is an unconditional revolving credit agreement to the Premium Trust Fund of Syndicate 1729 for the purpose of providing working capital. At December 31, 2022, the maximum permitted borrowings under the Syndicate Credit Agreement were approximately £15.0 million (approximately \$18.1 million at December 31, 2022). Effective July 1, 2022, maximum permitted borrowings were reduced to £15.0 million from £30.0 million (approximately \$36.2 million at December 31, 2022) under an amended Syndicate Credit Agreement executed in January 2022. The amended Syndicate Credit Agreement has a maturity date of June 30, 2023 and contains an annual auto-renewal feature which allows for

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ProAssurance to elect to non-renew if notice is given at least 30 days prior to the next auto-renewal date, which is one year prior to the maturity date. On May 23, 2022, ProAssurance provided such notice of termination of the Syndicate Credit Agreements. As a result, the Syndicate Credit Agreements will expire on June 30, 2023. Under the Syndicate Credit Agreement, advances bear interest at 3.8% annually and may be repaid at any time. As of December 31, 2022, there were no outstanding borrowings under the Syndicate Credit Agreement. ProAssurance provides FAL to support underwriting by Syndicate 1729 which is comprised of investment securities and cash and cash equivalents deposited with Lloyd's with a total fair value of approximately \$24.8 million at December 31, 2022 (see Note 4). During the second quarter of 2022, ProAssurance received a return of approximately \$5.5 million of cash from its FAL balances given Syndicate 6131 ceased underwriting on a quota share basis with Syndicate 1729 (see Note 16 for additional information). In addition, the return of FAL during the second quarter of 2022 related to the settlement of the Company's participation in the results of Syndicate 1729 and Syndicate 6131 for the 2019 underwriting year. Further, during the fourth quarter of 2022, ProAssurance received a return of approximately \$5.6 million of cash from its FAL balances due to lower capital requirements for the 2023 underwriting year following Lloyd's of London's review of Syndicate 1729's 2023 business plan.

ProAssurance has entered into financial instrument transactions that may present off-balance sheet credit risk or market risk. These transactions include a short-term loan commitment and commitments to provide funding to non-public investment entities. Of these total funding commitments, a nominal amount is related to qualified affordable housing project tax credit investments. Under the short-term loan commitment, ProAssurance has agreed to advance funds on a 30 day basis to a counterparty provided there is no violation of any condition established in the contract. As of December 31, 2022, ProAssurance had total funding commitments related to non-public investment entities as well as the short-term loan commitment of approximately \$189.5 million which included the amount at risk if the full short-term loan is extended and the counterparties default. However, the credit risk associated with the short-term loan commitment is minimal as the counterparties to the contract are highly rated commercial institutions and to-date have been performing in accordance with their contractual obligations. As such, ProAssurance's expected credit losses associated with this short-term loan commitment were nominal in amount as of December 31, 2022.

ProAssurance has previously entered into a services agreement with a company to provide data analytics services for certain product lines within the Company's HCPL book of business. In November 2021, ProAssurance executed an amendment to this services agreement which extended the Company's commitment an additional three years for an annual fee of approximately \$3.5 million. In addition, the amended services agreement contains an annual one-year auto-extension feature unless either party elects to non-renew the services agreement by providing notice at least six-months prior to the end of the contract. ProAssurance incurred operating expenses associated with this services agreement of \$3.6 million, \$2.6 million and \$4.3 million for the years ended December 31, 2022, 2021 and 2020, respectively. As of December 31, 2022, the remaining commitment under this agreement was estimated to be approximately \$6.3 million.

The purchase consideration in the NORCAL acquisition included contingent consideration. NORCAL policyholders who elected to receive NORCAL stock and tender it to ProAssurance are eligible for a share of contingent consideration in an amount of up to approximately \$84 million depending upon the after-tax development of NORCAL's ultimate net losses between December 31, 2020 and December 31, 2023. As of December 31, 2022 and December 31, 2021, the contingent consideration liability was \$15.0 million and \$24.0 million, respectively, carried at fair value utilizing a stochastic model. This estimate does not guarantee that contingent consideration will ultimately be paid. Depending on NORCAL's actual ultimate net loss development between December 31, 2020 and December 31, 2023, the actual amount due to eligible policyholders may be greater than or less than the \$15.0 million current fair value estimate. See further discussion around the contingent consideration in Note 2 and Note 3.

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10. Leases

ProAssurance is involved in a number of operating leases that are primarily for office facilities. Office facility leases have remaining lease terms ranging from one year to nine years; some of which include options to extend the leases for up to ten years, and some of which include an option to terminate the lease within one year. ProAssurance subleases certain office facilities to third parties and classifies these leases as operating leases.

The following table provides a summary of the components of net lease expense as well as the reporting location in the Consolidated Statements of Income and Comprehensive Income for the years ended December 31, 2022, 2021 and 2020.

<i>(In thousands)</i>	Location in the Consolidated Statements of Income and Comprehensive Income	Year Ended December 31		
		2022	2021	2020
Operating lease expense ⁽¹⁾	Operating expense	\$ 5,395	\$ 5,047	\$ 4,355
Sublease income ⁽²⁾	Other income	(469)	(263)	(143)
Net lease expense		<u>\$ 4,926</u>	<u>\$ 4,784</u>	<u>\$ 4,212</u>

⁽¹⁾ Includes short-term lease costs and variable lease costs, if applicable. For the years ended December 31, 2022, 2021 and 2020, no short-term lease costs were recognized and variable lease costs were nominal in amount.

⁽²⁾ Sublease income excludes rental income from owned properties of \$2.6 million during the year ended December 31, 2022 and \$2.5 million during each of the years ended December 31, 2021 and 2020 which is included in other income. See “Item 2. Properties” for a listing of currently owned properties.

The following table provides supplemental lease information for operating leases on the Consolidated Balance Sheet as of December 31, 2022 and December 31, 2021.

<i>(\$ in thousands)</i>	Year Ended December 31	
	2022	2021
Operating lease ROU assets	\$ 18,987	\$ 19,595
Operating lease liabilities	\$ 20,008	\$ 20,844
Weighted-average remaining lease term	7.37 years	7.05 years
Weighted-average discount rate	3.22 %	2.84 %

The following table provides supplemental lease information for the Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020.

<i>(In thousands)</i>	Year Ended December 31		
	2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$ 5,574	\$ 5,775	\$ 4,221

The following table is a schedule of remaining future minimum lease payments for operating leases that had an initial or remaining non-cancellable lease term in excess of one year as of December 31, 2022.

<i>(In thousands)</i>	
2023	\$ 4,573
2024	3,127
2025	2,577
2026	2,310
2027	2,314
Thereafter	7,613
Total future minimum lease payments	<u>22,514</u>
Less: Imputed interest	2,506
Total operating lease liabilities	<u>\$ 20,008</u>

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11. Debt

ProAssurance's outstanding debt consisted of the following:

(\$ in thousands)	December 31, 2022	December 31, 2021
Senior Notes due 2023, unsecured, interest at 5.3% annually	\$ 250,000	\$ 250,000
Contribution Certificates due 2031, interest at 3.0% (effective interest rate at 4.35%) paid annually beginning April 2022	177,525	175,900
Total principal	427,525	425,900
Less unamortized debt issuance costs	542	914
Debt less unamortized debt issuance costs	<u>\$ 426,983</u>	<u>\$ 424,986</u>

Senior Notes due 2023 (the Senior Notes)

The Senior Notes are the unsecured obligations of ProAssurance Corporation, due in full in November 2023, unless redeemed sooner, with interest payable semiannually. Redemptions may be made prior to maturity, in whole or part, at the greater of par or the sum of the present values of the outstanding principal and remaining interest payments calculated at 0.4% above the then current rate for U.S. Treasury Notes with a term comparable to the remaining term of the Senior Notes. There are no financial covenants associated with the Senior Notes.

Contribution Certificates

On May 5, 2021, NORCAL Insurance Company, successor to NORCAL Mutual Insurance Company, issued Contribution Certificates, which are due in 2031, to certain NORCAL policyholders in the conversion. The Contribution Certificates have a principal amount of \$191 million and were recorded at their fair value of \$175 million at the date of the NORCAL acquisition. The difference of \$16 million between the recorded acquisition date fair value and the principal balance of the Contribution Certificates will be accreted utilizing the effective interest method over the term of the certificates of ten years as an increase to interest expense. In addition, interest payments are subject to deferral if ProAssurance does not receive permission from the California Department of Insurance prior to payment. ProAssurance received permission from the California Department of Insurance to pay the first annual interest payment which was paid in April 2022. There are no financial covenants associated with the Contribution Certificates. See Note 2 for additional information on the Contribution Certificates assumed in the NORCAL acquisition.

Revolving Credit Agreement

ProAssurance has a Revolving Credit Agreement with seven participating lenders. The Revolving Credit Agreement, which expires November 2024, 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. ProAssurance's Revolving Credit Agreement permits borrowings up to \$250 million, and has available a \$50 million accordion feature which, if successfully subscribed, would expand the permitted borrowings to a maximum of \$300 million. As of December 31, 2022 and 2021, there were no outstanding borrowings on the Revolving Credit Agreement. The Revolving Credit Agreement permits ProAssurance to borrow, repay and reborrow from the lenders during the term of the Revolving Credit Agreement. All borrowings are required to be repaid prior to the expiration date of the Revolving Credit Agreement. ProAssurance is required to pay a commitment fee, ranging from 0.15% to 0.30% based on ProAssurance's credit ratings, on the average unused portion of the credit line during the term of the Revolving Credit Agreement. Borrowings under the Revolving Credit Agreement may be secured or unsecured and accrue interest at a selected base rate, adjusted by a margin, which can vary from 0% to 1.88%, based on ProAssurance's credit ratings and whether the borrowing is secured or unsecured. The base rate selected may either be the current one-, three- or six-month LIBOR, with the LIBOR term selected fixing the interest period for which the rate is effective. If no selection is made, the base rate defaults to the highest of (1) the Prime rate, (2) the Federal Funds rate plus 0.5% or (3) the one-month LIBOR plus 1.0%, determined daily. Rates are reset each successive interest period until the borrowing is repaid.

The Revolving Credit Agreement contains customary representations, covenants and events constituting default, and remedies for default. Additionally, the Revolving Credit Agreement carries the following financial covenants:

- (1) In April 2021, ProAssurance amended and restated its Revolving Credit Agreement to allow for additional indebtedness of a subsidiary in preparation of the close of the NORCAL acquisition. ProAssurance is not permitted to have a leverage ratio of consolidated funded indebtedness (principally, obligations for borrowed money, obligations evidenced by instruments such as notes or acceptances, standby and commercial letters of credit, and contingent obligations) to

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consolidated total capitalization (principally, total non-trade liabilities on a consolidated basis plus consolidated shareholders' equity, exclusive of AOCI) greater than 0.35 to 1.0, determined at the end of each fiscal quarter.

(2) ProAssurance is required to maintain a minimum net worth, excluding AOCI, of at least \$1.0 billion.

ProAssurance is currently in compliance with all covenants of the Revolving Credit Agreement.

12. Shareholders' Equity

At December 31, 2022 and 2021, ProAssurance had 100 million shares of authorized common stock and 50 million shares of authorized preferred stock. The Board has the authority to determine provisions for the issuance of preferred shares, including the number of shares to be issued, the designations, powers, preferences and rights, and the qualifications, limitations or restrictions of such shares.

The following is a summary of changes in common shares issued and outstanding during the years ended December 31, 2022, 2021 and 2020:

<i>(In thousands)</i>	2022	2021	2020
Issued and outstanding shares - January 1	53,984	53,893	53,792
Repurchase of shares, at cost of \$3.3 million for 2022	(139)	—	—
Shares issued due to vesting of share-based compensation awards	66	46	54
Other shares issued for compensation*	53	45	47
Issued and outstanding shares - December 31	<u>53,964</u>	<u>53,984</u>	<u>53,893</u>

* Shares issued were valued at fair value (the market price of a ProAssurance common share on the date of issue).

As of December 31, 2022, approximately 1.0 million of ProAssurance's authorized common shares were reserved by the Board for award or issuance under the incentive compensation plans described in Note 13 and an additional 0.9 million of authorized common shares were reserved for the issuance of currently outstanding restricted share and performance share unit awards.

ProAssurance declared cash dividends during 2022, 2021 and 2020 as follows:

	Cash Dividends Declared, per Share		
	2022	2021	2020
First Quarter	\$ 0.05	\$ 0.05	\$ 0.31
Second Quarter	\$ 0.05	\$ 0.05	\$ 0.05
Third Quarter	\$ 0.05	\$ 0.05	\$ 0.05
Fourth Quarter	\$ 0.05	\$ 0.05	\$ 0.05

Quarterly dividends were paid in the month following the quarter in which they were declared. Dividends declared during 2022 and 2021 each totaled \$10.8 million and 2020 totaled \$24.8 million.

ProAssurance's ability to pay dividends to its shareholders is limited by its holding company structure, to the extent of the net assets held by its insurance subsidiaries, as discussed in Note 18. Otherwise, there are no other regulatory restrictions on ProAssurance's retained earnings or net income that materially impact its ability to pay dividends. Based on shareholders' equity at December 31, 2022, total equity of \$395.2 million was free of debt covenant restrictions regarding the payment of dividends. However, 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.

As of December 31, 2022, Board authorizations for the repurchase of common shares or the retirement of outstanding debt of \$106.4 million remained available for use. The timing and quantity of purchases depends upon market conditions and changes in ProAssurance's capital requirements and is subject to limitations that may be imposed on such purchases by applicable securities laws and regulations as well as the rules of the NYSE.

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Other Comprehensive Income (Loss) and Accumulated Other Comprehensive Income (Loss)

The following tables provide a detailed breakout of the components of AOCI and the amounts reclassified from AOCI to net income (loss). The tax effects of all amounts in the tables below, except for an immaterial amount of unrealized gains and losses on available-for-sale securities held at the Company's U.K. subsidiary, were computed using the enacted U.S. federal corporate tax rate of 21%. OCI included a deferred tax benefit of \$85.2 million and \$15.0 million for the years ended December 31, 2022 and 2021, respectively, and deferred tax expense of \$9.6 million for the year ended December 31, 2020.

The changes in the balance of each component of AOCI for the years ended December 31, 2022, 2021 and 2020 were as follows:

<i>(In thousands)</i>	Unrealized Investment Gains (Losses)	Non-credit Impairments	Unrecognized Change in Defined Benefit Plan Liabilities ⁽¹⁾	Accumulated Other Comprehensive Income (Loss)
Balance, December 31, 2021	\$ 14,929	\$ —	\$ 1,355	\$ 16,284
OCI, before reclassifications, net of tax	(314,822)	(342)	(2,746)	(317,910)
Amounts reclassified from AOCI, net of tax	2,751	331	(63)	3,019
Net OCI, current period	(312,071)	(11)	(2,809)	(314,891)
Balance, December 31, 2022	\$ (297,142)	\$ (11)	\$ (1,454)	\$ (298,607)

<i>(In thousands)</i>	Unrealized Investment Gains (Losses)	Non-credit Impairments	Unrecognized Change in Defined Benefit Plan Liabilities ⁽¹⁾⁽²⁾	Accumulated Other Comprehensive Income (Loss)
Balance, December 31, 2020	\$ 75,388	\$ (57)	\$ (104)	\$ 75,227
OCI, before reclassifications, net of tax	(50,242)	—	1,406	(48,836)
Amounts reclassified from AOCI, net of tax	(10,217)	57	53	(10,107)
Net OCI, current period	(60,459)	57	1,459	(58,943)
Balance, December 31, 2021	\$ 14,929	\$ —	\$ 1,355	\$ 16,284

<i>(In thousands)</i>	Unrealized Investment Gains (Losses)	Non-credit Impairments	Unrecognized Change in Defined Benefit Plan Liabilities ⁽²⁾	Accumulated Other Comprehensive Income (Loss)
Balance, December 31, 2019	\$ 37,333	\$ (300)	\$ (78)	\$ 36,955
OCI, before reclassifications, net of tax	46,383	(187)	(26)	46,170
Amounts reclassified from AOCI, net of tax	(8,328)	430	—	(7,898)
Net OCI, current period	38,055	243	(26)	38,272
Balance, December 31, 2020	\$ 75,388	\$ (57)	\$ (104)	\$ 75,227

⁽¹⁾ As a result of the NORCAL acquisition, the Company sponsors another frozen defined benefit plan and recorded a nominal net actuarial gain, net of tax, included in AOCI as of December 31, 2022 as compared to a net actuarial gain of \$0.2 million, net of tax, included in AOCI as of December 31, 2021.

⁽²⁾ The Company terminated Eastern's defined benefit plan, effective September 30, 2021, resulting in a settlement of the liabilities under the plan and the net loss previously reflected in AOCI being recognized in earnings for the year ended December 31, 2021. For the year ended December 31, 2020, the unrecognized change in defined benefit plan liabilities represents the reestimation of the defined benefit plan liability assumed in the Eastern acquisition. The defined benefit plan was frozen as to the earnings of additional benefits and the benefit plan liability was reestimated annually.

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13. Share-Based Payments

Share-based compensation costs are primarily classified as a component of operating expense.

During 2022, 2021 and 2020, ProAssurance provided share-based compensation to employees utilizing two types of awards: restricted share units and performance share units. The restricted share and performance share awards were made under either the ProAssurance Corporation Amended and Restated 2014 Equity Incentive Plan or the ProAssurance Corporation 2008 Equity Incentive Plan. The Compensation Committee of the Board is responsible for the administration of both plans.

The following table provides a summary of compensation expense and the total related tax benefit recognized during each period as well as estimated compensation cost that will be charged to expense in future periods.

<i>(\$ in millions, except remaining recognition period)</i>	Share-Based Compensation Expense			Unrecognized Compensation Cost	
	Year Ended December 31			December 31, 2022	
	2022	2021	2020	Amount	Weighted Average Remaining Recognition Period
Total share-based compensation expense	\$ 4.8	\$ 4.4	\$ 3.8	\$ 6.5	1.7
Tax benefit recognized	\$ 1.0	\$ 0.9	\$ 0.8		

The majority of awards are equity classified awards and are charged to expense as an increase to additional paid-in capital over the service period (generally the vesting period) associated with the award. However, a nominal amount of awards are liability classified awards and are recorded as a liability as they are structured to be settled in cash. As of December 31, 2022, the majority of share-based compensation expense related to restricted share units. Restricted share and performance share units vest in their entirety generally at the end of a three-year period, except for certain restricted share units granted in 2019 which will vest at the end of a five-year period, following the grant date based on a continuous service requirement and, for performance share units, achievement of a performance objective. Partial vesting is permitted for retirees. For the restricted share and purchase match units, a single share of ProAssurance common stock is issued per vested unit. For performance share units, the number of shares of ProAssurance common stock issued per vested unit varies based on performance goals achieved. For equity classified awards, units sufficient to satisfy required tax withholdings are paid in cash rather than in shares of ProAssurance common stock. Liability classified awards, which are nominal in amount, are settled in cash at the end of the vesting period.

Restricted Share Units

Activity for restricted share units during 2022, 2021 and 2020 is summarized below. Grant date fair values are based on the market value of a share of ProAssurance common stock on the date of grant less the estimated net present value of expected dividends during the vesting period.

	2022		2021		2020	
	Units	Weighted Average Grant Date Fair Value	Units	Weighted Average Grant Date Fair Value	Units	Weighted Average Grant Date Fair Value
Beginning non-vested balance	387,182	\$ 30.78	339,804	\$ 36.09	320,625	\$ 43.99
Granted	195,941	\$ 24.19	131,521	\$ 24.16	111,758	\$ 29.18
Forfeited	(12,238)	\$ 25.13	(11,131)	\$ 35.49	(9,054)	\$ 40.13
Vested and released	(105,682)	\$ 39.36	(73,012)	\$ 44.45	(83,525)	\$ 56.74
Ending non-vested balance	<u>465,203</u>	<u>\$ 26.21</u>	<u>387,182</u>	<u>\$ 30.78</u>	<u>339,804</u>	<u>\$ 36.09</u>

The aggregate grant date fair value of restricted share units vested and released in 2022, 2021 and 2020 totaled \$4.2 million, \$3.2 million and \$4.7 million, respectively. The aggregate intrinsic value of restricted share units vested and released in 2022, 2021 and 2020 (including units paid in cash to cover tax withholdings) totaled \$2.6 million, \$1.8 million and \$2.6 million, respectively.

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Performance Share Units

Performance share units vest only if minimum performance objectives are met, and the number of units earned varies from 50% to 200% of a base award depending upon the degree to which stated performance objectives are achieved. Performance share unit activity for 2022, 2021 and 2020 is summarized below. The table reflects the base number of units; actual awards that vest depend upon the extent to which performance objectives are achieved. Grant date fair values are based on the market value of a share of ProAssurance common stock on the date of grant less the estimated net present value of expected dividends during the vesting period.

	2022		2021		2020	
	Base Units	Weighted Average Grant Date Fair Value	Base Units	Weighted Average Grant Date Fair Value	Base Units	Weighted Average Grant Date Fair Value
Beginning non-vested balance	137,781	\$ 28.43	90,979	\$ 36.87	100,370	\$ 50.10
Granted	109,542	\$ 24.19	74,004	\$ 24.04	38,609	\$ 29.18
Forfeited	—	\$ —	—	\$ —	—	\$ —
Expired*	(25,168)	\$ 40.18	(27,202)	\$ 44.73	(48,000)	\$ 58.35
Ending non-vested balance	<u>222,155</u>	\$ 25.01	<u>137,781</u>	\$ 28.43	<u>90,979</u>	\$ 36.87

*Represents performance share units that did not vest as minimum performance objectives were not achieved.

There were no performance share units vested and released in 2022, 2021 and 2020 as minimum performance objectives were not achieved.

14. Variable Interest Entities

ProAssurance holds passive interests in a number of entities that are considered to be VIEs under GAAP guidance. ProAssurance's VIE interests principally consist of interests in LPs/LLCs formed for the purpose of achieving diversified equity and debt returns. ProAssurance's VIE interests, carried as a part of investment in unconsolidated subsidiaries, totaled \$277.5 million at December 31, 2022 and \$303.7 million at December 31, 2021. ProAssurance does not have power over the activities that most significantly impact the economic performance of these VIEs and thus is not the primary beneficiary. Investments in entities where ProAssurance holds a greater than minor interest but does not hold a controlling interest are accounted for using the equity method. Therefore, ProAssurance has not consolidated these VIEs. ProAssurance's involvement with each of these VIEs is limited to its direct ownership interest in the VIE. Except for the funding commitments disclosed in Note 9, ProAssurance has no arrangements with any of these VIEs to provide other financial support to or on behalf of the VIE. At December 31, 2022, ProAssurance's maximum loss exposure relative to these investments was limited to the carrying value of ProAssurance's investment in the VIE.

As a result of the Company's acquisition of NORCAL (see Note 2), ProAssurance is the primary beneficiary of PPM RRG. While there is no direct ownership of PPM RRG by ProAssurance, it manages the business operations of PPM RRG through its management services agreement and has effective control of the PPM RRG's Board of Directors through an irrevocable voting proxy. The management services agreement allows ProAssurance to provide management and oversight services to the RRG, which includes the ability to make business decisions impacting the operations of PPM RRG. PPM RRG has a \$5 million surplus note to NORCAL which is its only source of capital. ProAssurance has consolidated the account balances and transactions of PPM RRG beginning on the NORCAL acquisition date of May 5, 2021. At December 31, 2022 and December 31, 2021, approximately \$154 million and \$140 million of ProAssurance's assets, respectively, and approximately \$154 million and \$140 million of its liabilities, respectively, included on the Consolidated Balance Sheet were related to PPM RRG.

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15. Earnings (Loss) Per Share

Diluted weighted average shares is calculated as basic weighted average shares plus the effect, calculated using the treasury stock method, of assuming that restricted share units and performance share units have vested. The following table provides a reconciliation between the Company's basic weighted average number of common shares outstanding to its diluted weighted average number of common shares outstanding:

<i>(In thousands, except per share data)</i>	Year Ended December 31		
	2022	2021	2020
Weighted average number of common shares outstanding, basic	54,008	53,962	53,863
Dilutive effect of securities:			
Restricted Share Units	115	92	42
Performance Share Units	17	4	1
Weighted average number of common shares outstanding, diluted	54,140	54,058	53,906
Effect of dilutive shares on earnings (loss) per share	\$ —	\$ —	\$ —

The diluted weighted average number of common shares outstanding for the years ended December 31, 2022, 2021 and 2020 excludes approximately 2,000, 28,000 and 114,000, respectively, of common share equivalents issuable under the Company's stock compensation plans, as their effect would have been antidilutive.

Dilutive common share equivalents are reflected in the earnings (loss) per share calculation while antidilutive common share equivalents are not reflected in the earnings (loss) per share calculation. For the years ended December 31, 2022 and 2020, all incremental common share equivalents were not included in the computation of diluted earnings (loss) per share because to do so would have been antidilutive for each period.

16. Segment Information

ProAssurance's segments are based on the Company's internal management reporting structure for which financial results are regularly evaluated by the Company's CODM to determine resource allocation and assess operating performance. The Company continually assesses its internal management reporting structure and information evaluated by its CODM to determine whether any changes have occurred that would impact its segment reporting structure. The Company operates in five segments that are organized around the nature of the products and services provided: Specialty P&C, Workers' Compensation Insurance, Segregated Portfolio Cell Reinsurance, Lloyd's Syndicates and Corporate. A description of each of ProAssurance's five operating and reportable segments follows.

Specialty P&C includes professional liability insurance and medical technology liability insurance. Professional liability insurance is primarily comprised of medical professional liability products offered to healthcare providers and institutions. The Specialty P&C segment's professional liability insurance also includes the business acquired through the NORCAL transaction that closed on May 5, 2021. The Company also offers, to a lesser extent, professional liability insurance to attorneys and their firms. Medical technology liability insurance is offered to medical technology and life sciences companies that manufacture or distribute products including entities conducting human clinical trials. In addition, the Company also offers custom alternative risk solutions including assumed reinsurance, loss portfolio transfers and captive cell programs for healthcare professional liability insureds. For the alternative market captive cell programs, the Specialty P&C segment cedes either all or a portion of the premium to certain SPCs in the Company's Segregated Portfolio Cell Reinsurance segment.

Workers' Compensation Insurance includes workers' compensation insurance products which are provided primarily to employers with 1,000 or fewer employees. The segment's products include guaranteed cost policies, policyholder dividend policies, retrospectively-rated policies, deductible policies and alternative market solutions. Alternative market program premiums include program design, fronting, claims administration, risk management, SPC rental, asset management and SPC management services. Alternative market program premiums are 100% ceded to either SPCs in the Company's Segregated Portfolio Cell Reinsurance segment or captive insurers unaffiliated with ProAssurance for two programs.

Segregated Portfolio Cell Reinsurance includes the results (underwriting profit or loss, plus investment results, net of U.S. federal income taxes) of SPCs at Inova Re and Eastern Re, the Company's Cayman Islands SPC operations. Each SPC is owned, fully or in part, by an individual company, agency, group or association, and the results of the SPCs are attributable to the participants of that cell. ProAssurance participates to a varying degree in the results of selected SPCs. SPC results

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attributable to external cell participants are reported as an SPC dividend expense (income) in the Segregated Portfolio Cell Reinsurance segment and in ProAssurance's Consolidated Statements of Income and Comprehensive Income. In addition, the Segregated Portfolio Cell Reinsurance segment includes the investment results of the SPCs as the investments are solely for the benefit of the cell participants, and investment results attributable to external cell participants are reflected in SPC dividend expense (income). The SPCs assume workers' compensation insurance, healthcare professional liability insurance or a combination of the two from the Company's Workers' Compensation Insurance and Specialty P&C segments.

Lloyd's Syndicates includes the results from ProAssurance's participation in Lloyd's of London Syndicate 1729 and Syndicate 6131. The results of this segment are normally reported on a quarter lag, except when information is available that is material to the current period. Furthermore, investment results associated with the majority of 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. Syndicate 1729 underwrites risks over a wide range of property and casualty insurance and reinsurance lines in both the U.S. and international markets. ProAssurance's participation in the results of Syndicate 1729 for the 2022 underwriting year was unchanged from the 2021 underwriting year at 5%. Effective January 1, 2022, Syndicate 6131 ceased underwriting on a quota share basis with Syndicate 1729 as Syndicate 6131's business is retained within Syndicate 1729 beginning with the 2022 year of account. Due to the quarter lag, the Company's ceased participation in Syndicates 6131 was not reflected in the Company's results until the second quarter of 2022.

Corporate includes ProAssurance's investment operations excluding those reported in the Company's Segregated Portfolio Cell Reinsurance and Lloyd's Syndicates segments. In addition, this segment includes corporate expenses, interest expense, U.S. income taxes and non-premium revenues generated outside of the Company's insurance entities.

The accounting policies of the segments are described in Note 1. ProAssurance evaluates the performance of its Specialty P&C and Workers' Compensation Insurance segments based on before tax underwriting profit or loss. ProAssurance evaluates the performance of its Segregated Portfolio Cell Reinsurance segment based on operating profit or loss, which includes investment results of investment assets solely allocated to SPC operations, net of U.S. federal income taxes. Performance of the Lloyd's Syndicates segment is evaluated based on operating profit or loss, which includes investment results of investment assets solely allocated to Lloyd's Syndicate operations, net of U.K. income tax expense. Performance of the Corporate segment is evaluated based on the contribution made to consolidated after-tax results. ProAssurance accounts for inter-segment transactions as if the transactions were to third parties at current market prices. Assets are not allocated to segments because investments, other than the investments discussed above that are solely allocated to the Segregated Portfolio Cell Reinsurance and Lloyd's Syndicates segments, and other assets are not managed at the segment level. The tabular information that follows shows the financial results of the Company's reportable segments reconciled to results reflected in the Consolidated Statements of Income and Comprehensive Income. ProAssurance does not consider goodwill or intangible asset impairments, a gain on bargain purchase, changes in the fair value of contingent consideration or transaction-related costs for completed business combinations, including any related tax impacts, in assessing the financial performance of its operating and reportable segments, and thus are included in the reconciliation of segment results to consolidated results.

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Financial results by segment were as follows:

<i>(In thousands)</i>	Year Ended December 31, 2022						
	Specialty P&C	Workers' Compensation Insurance	Segregated Portfolio Cell Reinsurance	Lloyd's Syndicates	Corporate	Inter- segment Eliminations	Consolidated
Net premiums earned	\$ 769,773	\$ 166,371	\$ 69,810	\$ 23,627	\$ —	\$ —	\$ 1,029,581
Net investment income	—	—	1,029	568	94,375	—	95,972
Equity in earnings (loss) of unconsolidated subsidiaries	—	—	—	—	4,888	—	4,888
Net investment gains (losses)	—	—	(3,067)	(964)	(38,126)	—	(42,157)
Other income (expense) ⁽¹⁾	5,003	2,201	2	119	6,198	(4,119)	9,404
Net losses and loss adjustment expenses ⁽²⁾	(609,915)	(111,407)	(39,310)	(16,130)	—	—	(776,762)
Underwriting, policy acquisition and operating expenses ⁽¹⁾⁽²⁾	(192,397)	(54,737)	(20,316)	(7,412)	(34,733)	4,119	(305,476)
SPC U.S. federal income tax expense ⁽³⁾	—	—	(1,759)	—	—	—	(1,759)
SPC dividend (expense) income	—	—	(6,673)	—	—	—	(6,673)
Interest expense	—	—	—	—	(20,372)	—	(20,372)
Income tax benefit (expense)	—	—	—	—	5,423	—	5,423
Segment results	<u>\$ (27,536)</u>	<u>\$ 2,428</u>	<u>\$ (284)</u>	<u>\$ (192)</u>	<u>\$ 17,653</u>	<u>\$ —</u>	<u>\$ (7,931)</u>
Reconciliation of segments to consolidated results:							
Contingent consideration ⁽⁴⁾							9,000
Transaction-related costs, net ⁽⁵⁾							(1,471)
Net income (loss)							<u>\$ (402)</u>
Significant non-cash items:							
Contingent consideration							\$ 9,000
Depreciation and amortization, net of accretion	\$ 10,473	\$ 3,491	\$ 1,186	\$ 41	\$ 22,872	\$ —	\$ 38,063

<i>(In thousands)</i>	Year Ended December 31, 2021						
	Specialty P&C	Workers' Compensation Insurance	Segregated Portfolio Cell Reinsurance	Lloyd's Syndicates	Corporate	Inter- segment Eliminations	Consolidated
Net premiums earned	\$ 695,008	\$ 164,600	\$ 63,688	\$ 48,372	\$ —	\$ —	\$ 971,668
Net investment income	—	—	814	1,961	67,747	—	70,522
Equity in earnings (loss) of unconsolidated subsidiaries	—	—	—	—	48,974	—	48,974
Net investment gains (losses)	—	—	4,080	249	19,981	—	24,310
Other income (expense) ⁽¹⁾	3,370	2,211	3	912	5,531	(3,091)	8,936
Net losses and loss adjustment expenses	(575,164)	(114,704)	(32,569)	(29,812)	—	—	(752,249)
Underwriting, policy acquisition and operating expenses ⁽¹⁾	(127,709)	(52,418)	(21,635)	(17,957)	(26,641)	3,091	(243,269)
SPC U.S. federal income tax expense ⁽³⁾	—	—	(1,947)	—	—	—	(1,947)
SPC dividend (expense) income	—	—	(10,050)	—	—	—	(10,050)
Interest expense	—	—	—	—	(19,719)	—	(19,719)
Income tax benefit (expense)	—	—	—	—	(4,651)	—	(4,651)
Segment results	<u>\$ (4,495)</u>	<u>\$ (311)</u>	<u>\$ 2,384</u>	<u>\$ 3,725</u>	<u>\$ 91,222</u>	<u>\$ —</u>	<u>\$ 92,525</u>
Reconciliation of segments to consolidated results:							
Gain on bargain purchase							74,408
Transaction-related costs ⁽⁵⁾							(22,809)
Net income (loss)							<u>\$ 144,124</u>
Significant non-cash items:							
Gain on bargain purchase							\$ 74,408
Depreciation and amortization, net of accretion	\$ 9,915	\$ 3,583	\$ 1,475	\$ 66	\$ 22,208	\$ —	\$ 37,247

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<i>(In thousands)</i>	Specialty P&C	Workers' Compensation Insurance	Segregated Portfolio Cell Reinsurance	Lloyd's Syndicates	Corporate	Inter- segment Eliminations	Consolidated
Net premiums earned	\$ 477,365	\$ 171,772	\$ 66,352	\$ 77,226	\$ —	\$ —	\$ 792,715
Net investment income	—	—	1,084	4,128	66,786	—	71,998
Equity in earnings (loss) of unconsolidated subsidiaries	—	—	—	—	(11,921)	—	(11,921)
Net investment gains (losses)	—	—	3,085	988	11,605	—	15,678
Other income (expense) ⁽¹⁾	3,908	2,216	205	51	2,531	(2,441)	6,470
Net losses and loss adjustment expenses	(470,074)	(111,552)	(29,605)	(50,216)	—	—	(661,447)
Underwriting, policy acquisition and operating expenses ⁽¹⁾	(109,599)	(56,449)	(20,709)	(30,136)	(23,429)	2,441	(237,881)
SPC U.S. federal income tax expense ⁽³⁾	—	—	(1,746)	—	—	—	(1,746)
SPC dividend (expense) income	—	—	(14,304)	—	—	—	(14,304)
Interest expense	—	—	—	—	(15,503)	—	(15,503)
Income tax benefit (expense)	—	—	—	29	41,300	—	41,329
Segment results	<u>\$ (98,400)</u>	<u>\$ 5,987</u>	<u>\$ 4,362</u>	<u>\$ 2,070</u>	<u>\$ 71,369</u>	<u>\$ —</u>	<u>(14,612)</u>
Reconciliation of segments to consolidated results:							
Goodwill impairment							(161,115)
Net income (loss)							<u>\$ (175,727)</u>
Significant non-cash items:							
Goodwill impairment							\$ 161,115
Depreciation and amortization, net of accretion	\$ 7,747	\$ 3,690	\$ 676	\$ (4)	\$ 9,266	\$ —	\$ 21,375

⁽¹⁾ Includes certain fees for services provided by the Workers' Compensation Insurance segment to the SPCs at Inova Re and Eastern Re which are recorded as expenses within the Segregated Portfolio Cell Reinsurance segment and as other income within the Workers' Compensation Insurance segment. These fees are primarily SPC rental fees and are eliminated between segments in consolidation.

⁽²⁾ Beginning in 2022, ProAssurance revised its process for estimating ULAE as a result of substantially integrating NORCAL into the Specialty P&C segment operations. The change in the Company's estimate of ULAE increased underwriting, policy acquisition and operating expenses with an offsetting decrease to net losses and loss adjustment expenses in the Specialty P&C segment; there was no impact on segment results for the year ended December 31, 2022. See further discussion on this change in estimate in Note 1.

⁽³⁾ Represents the provision for U.S. federal income taxes for SPCs at Inova Re, which have elected to be taxed as a U.S. corporation under Section 953(d) of the Internal Revenue Code. U.S. federal income taxes are included in the total SPC net results and are paid by the individual SPCs.

⁽⁴⁾ Represents the change in the fair value of contingent consideration issued in connection with the NORCAL acquisition included as a component of consolidated net investment gains (losses) on the Consolidated Statements of Income and Comprehensive Income.

⁽⁵⁾ Represents the transaction-related costs, after-tax, associated with the acquisition of NORCAL. For the years ended December 31, 2022 and 2021, pre-tax transaction-related costs of \$1.9 million and \$25.0 million, respectively, were included as a component of consolidated operating expense and the associated income tax benefit of \$0.4 million and \$2.2 million for the years ended December 31, 2022 and 2021, respectively, was included as a component of consolidated income tax benefit (expense) on the Consolidated Statements of Income and Comprehensive Income.

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The following table provides detailed information regarding ProAssurance's gross premiums earned by product as well as a reconciliation to net premiums earned. All gross premiums earned are from external customers except as noted. ProAssurance's insured risks are primarily within the U.S.

<i>(In thousands)</i>	Year Ended December 31		
	2022	2021	2020
Specialty P&C Segment			
Gross premiums earned:			
HCPL	\$ 684,514	\$ 616,614	\$ 411,716
Small Business Unit	107,382	105,605	104,376
Medical Technology Liability	41,323	38,508	34,909
Other	1,281	684	821
Ceded premiums earned	(64,727)	(66,403)	(74,457)
Segment net premiums earned	769,773	695,008	477,365
Workers' Compensation Insurance Segment			
Gross premiums earned:			
Traditional business	179,558	175,459	184,204
Alternative market business	72,894	68,206	71,280
Ceded premiums earned	(86,081)	(79,065)	(83,712)
Segment net premiums earned	166,371	164,600	171,772
Segregated Portfolio Cell Reinsurance Segment			
Gross premiums earned:			
Workers' compensation ⁽¹⁾	68,548	65,023	68,518
HCPL ⁽²⁾	10,799	7,336	6,594
Ceded premiums earned	(9,537)	(8,671)	(8,760)
Segment net premiums earned	69,810	63,688	66,352
Lloyd's Syndicates Segment			
Gross premiums earned:			
Property and casualty	27,486	60,590	98,990
Ceded premiums earned	(3,859)	(12,218)	(21,764)
Segment net premiums earned	23,627	48,372	77,226
Consolidated net premiums earned	\$ 1,029,581	\$ 971,668	\$ 792,715

⁽¹⁾ Premium for all periods is assumed from the Workers' Compensation Insurance segment.

⁽²⁾ Premium for all periods is assumed from the Specialty P&C segment.

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17. Benefit Plans

ProAssurance maintains the ProAssurance Savings Plan that provides a vehicle for eligible employees to build retirement income. For the years ended December 31, 2022 and 2021 as well as for the second half of 2020, ProAssurance provided employer contributions to the plan of up to 5% of eligible contributions for qualified employees. For the first half of 2020, ProAssurance provided employer contributions to the plan of up to 10% of eligible contributions for qualified employees. ProAssurance also maintained a similar plan as a result of its acquisition of NORCAL on May 5, 2021 (see Note 2 for additional information), which was merged into the ProAssurance Savings Plan effective January 1, 2022. ProAssurance incurred expenses related to these savings plans of \$4.3 million, \$4.1 million and \$5.5 million during the years ended December 31, 2022, 2021 and 2020, respectively.

ProAssurance also maintains the ProAssurance Plan that allows eligible management employees to defer a portion of their current salary. ProAssurance incurred nominal expense related to the ProAssurance Plan in each of the years ended December 31, 2022, 2021 and 2020. ProAssurance's deferred compensation liabilities totaled \$27.9 million and \$52.3 million at December 31, 2022 and 2021, respectively. The Company's deferred compensation liabilities at December 31, 2021 included the NORCAL Non-Qualified Deferred Compensation Plan, which was terminated during the first quarter of 2022 (see Note 3 for additional information); the Company incurred nominal expense related to this plan for the year ended December 31, 2021. The liabilities included amounts due under the ProAssurance Plan and amounts due under individual agreements with current or former employees.

Pension

ProAssurance assumed a frozen defined benefit pension plan on May 5, 2021 as a result of its acquisition of NORCAL, which covers substantially all NORCAL employees (except those that were previous employees of Medicus Insurance Company and FD Insurance Company, employees of PPM RRG as well as new hires after December 31, 2013). Benefits are based on years of service and the employee's average of the highest five years of annual compensation. Annual contributions to the defined benefit pension plan are above the minimum funding standards outlined in the Employee Retirement Income Security Act of 1974, as amended. ProAssurance makes contributions to the defined benefit pension plan with the goal of ensuring that it is adequately funded to meet its future obligations. ProAssurance did not make any contributions to NORCAL's defined benefit pension plan during the year ended December 31, 2022 and does not anticipate making any contributions in 2023. The defined benefit pension plan no longer has future service accruals or compensation increases because this plan was frozen effective December 31, 2015.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

The PBO for pension benefits represents the present value of benefits earned as of December 31 for vested and non-vested employees. The following table provides a reconciliation of the changes in the PBO and fair value of plan assets for the years ended December 31, 2022 and 2021:

<i>(In thousands)</i>	Year Ended December 31	
	2022	2021
Change in benefit obligation:		
PBO at beginning of period	\$ 106,899	\$ —
Acquired PBO from NORCAL acquisition	—	107,895
Interest cost	2,885	2,030
Actuarial (gain) loss ⁽¹⁾	(25,735)	2,872
Benefits paid	(3,251)	(1,149)
Settlement payments	(6,568)	(4,749)
PBO at December 31	\$ 74,230	\$ 106,899
Change in fair value of plan assets:		
Fair value of plan assets beginning of period	\$ 110,444	\$ —
Fair value of plan assets acquired from NORCAL	—	109,443
Actual return on plan assets	(25,198)	6,899
Benefits paid	(3,251)	(1,149)
Settlement payments	(6,568)	(4,749)
Fair value of plan assets at December 31	\$ 75,427	\$ 110,444
Funded (underfunded) status of the plan	\$ 1,197	\$ 3,545
Amount recognized in Consolidated Balance Sheets at December 31 ⁽²⁾	\$ 1,197	\$ 3,545
Net actuarial (gain) loss recognized in AOCI and not yet reflected in net periodic benefit cost (income)	\$ 1,845	\$ (1,468)

⁽¹⁾ The actuarial gain experienced in 2022 was largely driven by the increase in the discount rate from the prior year that was used to determine the projected benefit obligation at December 31, 2022.

⁽²⁾ The funded balance is included as a component of other assets on the Consolidated Balance Sheets for the years ended December 31, 2022 and 2021.

As of December 31, 2022 and 2021, the pension plan was remeasured to reflect settlement accounting primarily due to lump sum payments elected by covered employees that were terminated.

The components of the net periodic benefit cost (income) for the years ended December 31, 2022 and 2021 were as follows:

<i>(In thousands)</i>	Year Ended December 31	
	2022	2021
Components of net periodic benefit cost (income):		
Interest cost	\$ 2,885	\$ 2,030
Expected return on plan assets	(4,013)	(2,494)
Gain on settlement	163	(65)
Total net periodic benefit cost (income)*	(965)	(529)
Other changes recognized in OCI:		
Net actuarial (gain) loss	3,476	(1,533)
Reclassification of gain on settlement	(163)	65
(Gain) loss recognized in OCI	3,313	(1,468)
Total recognized in net periodic benefit cost (income) and OCI	\$ 2,348	\$ (1,997)

*Net periodic benefit cost (income) is included as a component of operating expense on the Consolidated Statements of Income and Comprehensive Income for the years ended December 31, 2022 and 2021.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

The components of the change in amounts not yet recognized as components of the net periodic benefit cost (income) were as follows:

<i>(In thousands)</i>	Year Ended December 31	
	2022	2021
Items not yet recognized as a component of net periodic benefit cost (income) at beginning of period	\$ (1,468)	\$ —
Net actuarial (gain) loss	3,476	(1,533)
Reclassification of gain (loss) on settlement	(163)	65
Items not yet recognized as a component of net periodic benefit cost (income) at December 31	\$ 1,845	\$ (1,468)
Amounts recognized in AOCI	\$ 1,845	\$ (1,468)

The weighted average discount rate used to determine the projected benefit obligation of the defined benefit pension plan for the years ended December 31, 2022 and 2021 were as follows:

	December 31, 2022	December 31, 2021
Weighted average discount rate	5.13 %	2.78 %

The weighted average discount rate and the weighted average expected return on plan assets used to determine net periodic benefit cost (income) for the years ended December 31, 2022 and 2021 were as follows:

	December 31, 2022	December 31, 2021
Weighted average discount rate	2.78 %	2.95 %
Weighted average expected return on plan assets	4.00 %	3.75 %

The long-term rate of return is based on the anticipated returns that will be earned by the portfolio over the long term. The weighted average expected return on plan assets is influenced, but not determined, by historical portfolio performance.

ProAssurance has engaged a certified investment adviser to manage the defined benefit pension plan's assets. The investment strategy is to build an efficient, well diversified portfolio based on a long-term strategic outlook of the investment markets. The investment markets outlook utilizes both historically based and forward-looking return forecasts to establish future return expectations for various asset classes. These return expectations are used to develop a core asset allocation based on the specific needs of the pension plan. The core asset allocation utilizes investment portfolios of various asset classes and multiple investment managers to help maximize the defined benefit pension plan's return, while providing multiple layers of diversification to help minimize risk. The defined benefit pension plan's target allocations, by asset category as of December 31, 2022 and 2021, were as follows:

	December 31, 2022	December 31, 2021
Fixed maturities	90 %	79 %
Equity investments	10 %	18 %
Real estate	— %	3 %
	100 %	100 %

The pension plan's assets consist of investments in pooled separate accounts that invest in mutual funds, equity investments, debt securities or real estate investments. The fair values of the assets in the defined benefit pension plan, by asset category as of December 31, 2022 and 2021, were as follows:

<i>(In thousands)</i>	December 31, 2022			
	Level 1	Level 2	Level 3	Total*
Pooled separate account investments:				
Large cap equity investments ⁽¹⁾	\$ 5,341	\$ —	\$ —	\$ 5,341
International equity investments ⁽²⁾	—	2,410	—	2,410
Corporate and government debt ⁽³⁾	67,676	—	—	67,676
Total	\$ 73,017	\$ 2,410	\$ —	\$ 75,427

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

<i>(In thousands)</i>	December 31, 2021			
	Level 1	Level 2	Level 3	Total*
Pooled separate account investments:				
Large cap equity investments ⁽¹⁾	\$ 13,703	\$ —	\$ —	\$ 13,703
Mid cap equity investments ⁽¹⁾	586	—	—	586
Small cap equity investments ⁽¹⁾	229	—	—	229
International equity investments ⁽²⁾	—	5,581	—	5,581
Corporate and government debt ⁽³⁾	—	86,728	—	86,728
Real estate ⁽⁴⁾	—	—	3,617	3,617
Total	<u>\$ 14,518</u>	<u>\$ 92,309</u>	<u>\$ 3,617</u>	<u>\$ 110,444</u>

*For some assets, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. When this is the case, the asset is categorized based on the level of the most significant input to the fair value measurement. Assessments of the significance of a particular input to the fair value measurement require judgement and consideration of factors specific to the assets being valued.

Management has determined that the NAV of the pooled separate accounts represents fair value because the NAV is published and available to current investors and is the basis for current transactions. Consequently, the pooled separate accounts are classified in the fair value hierarchy discussed in Note 3 based upon the ending NAV. The fair values of the underlying investments used to determine the NAV of the pooled separate accounts are primarily publicly quoted prices or quoted prices for similar assets in active or non-active markets, however other inputs may also be used as described below. Below is a description of the inputs and valuation methodologies used to determine the fair value of the Company's defined benefit pension plan assets:

- ⁽¹⁾ The portfolios invest primarily in publicly traded equity securities of large, mid-sized and small U.S. companies that are priced using the closing price of the applicable U.S. nationally recognized stock exchange.
- ⁽²⁾ The portfolios invest primarily in publicly traded equity securities of non-U.S. companies that are priced using the closing price of the applicable foreign stock exchange, which may require certain liquidity adjustments for non-active markets.
- ⁽³⁾ The portfolios invest in various fixed income securities, primarily of U.S. origin. These include, but are not limited to corporate bonds and U.S. Treasury obligations. In 2021, the majority of underlying securities were priced by industry standards vendors, using inputs such as benchmark yields, reported trades, broker/dealer quotes or issuer spreads. In 2022, the majority of underlying securities were priced using the closing price of the applicable U.S. nationally recognized exchanges.
- ⁽⁴⁾ The portfolios invest primarily in commercial real estate and includes mortgage loans which are collateralized by the associated properties. Real estate values are determined based upon annual appraisals with daily updates that are based on changes in factors such as occupancy levels, lease rates, overall market conditions and capital changes, among others.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

The following tables present summary information regarding changes in the fair value of the defined benefit pension plan assets measured using Level 3 inputs:

<i>(In thousands)</i>	Level 3 Fair Value Measurements	
	Real Estate	Total
Balance, January 1, 2022	\$ 3,617	\$ 3,617
Actual return on plan assets:		
Relating to assets still held at the reporting date:		
Investment return	6	6
Transfers out	(3,623)	(3,623)
Balance, December 31, 2022	<u>\$ —</u>	<u>\$ —</u>
<i>(In thousands)</i>	Level 3 Fair Value Measurements	
	Real Estate	Total
Balance, January 1, 2021	\$ —	\$ —
Acquired balance, May 5, 2021	3,383	3,383
Actual return on plan assets:		
Relating to assets still held at the reporting date:		
Investment return	613	613
Transfers out	(379)	(379)
Balance, December 31, 2021	<u>\$ 3,617</u>	<u>\$ 3,617</u>

Based on current data and assumptions as of December 31, 2022, the following benefit payments are expected to be paid in future periods:

2023	\$ 5,540
2024	4,420
2025	4,580
2026	5,040
2027	4,910
Thereafter	28,870
Total	<u>\$ 53,360</u>

18. Statutory Accounting and Dividend Restrictions

ProAssurance's domestic U.S. insurance subsidiaries are required to file statutory financial statements with state insurance regulatory authorities, prepared based upon SAP prescribed or permitted by regulatory authorities. ProAssurance did not use any prescribed or permitted SAP that differed from the NAIC's SAP at December 31, 2022, 2021 or 2020. The most significant differences between net income (loss) prepared in accordance with GAAP and statutory net income (loss) are generally due to: (a) policy acquisition and certain software and equipment costs which are deferred under GAAP but expensed for statutory purposes, (b) certain deferred income taxes which are recognized under GAAP but are not recognized for statutory purposes, (c) net unrealized gains or losses which are included in shareholders' equity related to available-for-sale fixed maturity securities carried at fair value under GAAP but are principally carried at amortized cost for statutory purposes and (d) accounting for goodwill and intangible assets.

The NAIC specifies risk-based capital requirements for property and casualty insurance providers. At December 31, 2022, the Company estimates that actual statutory capital and surplus for each of ProAssurance's insurance subsidiaries will exceed the minimum regulatory requirements. Statutory net income (loss) and capital and surplus of ProAssurance's insurance subsidiaries are estimates and could differ from actual results upon completion and filing of statutory financial statements with state insurance regulatory authorities subsequent to filing this report on Form 10-K. Net income (loss) and capital and surplus of ProAssurance's insurance subsidiaries on a statutory basis are shown in the following table.

ProAssurance Corporation and Subsidiaries
Notes to Consolidated Financial Statements
December 31, 2022

(In millions)

Statutory Net Income (Loss)			Statutory Capital and Surplus	
2022	2021	2020	2022	2021
\$69	\$83	\$81	\$1,392	\$1,463

At December 31, 2022, \$1.2 billion of ProAssurance's consolidated net assets were held at its domestic insurance subsidiaries, of which approximately \$133 million are permitted to be paid as dividends over the course of 2023 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 prevent the dividend if, in its judgment, payment of the dividend would have an adverse effect on the capital and surplus of the insurance subsidiary. In addition, ProAssurance makes 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).

ProAssurance Corporation and Subsidiaries
Schedule I -- Summary of Investments -- Other than Investments in Related Parties
(In thousands)

Type of Investment	December 31, 2022		
	Recorded Cost Basis	Fair Value	Amount Which is Presented in the Balance Sheet
Fixed maturities			
Bonds:			
U.S. Government or government agencies and authorities	\$ 284,759	\$ 260,113	\$ 260,113
States, municipalities and political subdivisions	483,584	439,450	439,450
Foreign governments	31,259	29,597	29,597
Public utilities	98,891	90,106	90,106
All other corporate bonds	1,876,190	1,686,524	1,686,524
Asset-backed securities	1,122,777	1,010,116	1,010,116
Total Fixed Maturities	3,897,460	3,515,906	3,515,906
Equity Securities			
Common Stocks:			
Public utilities	604	527	527
Banks, trusts and insurance companies	15,813	12,372	12,372
Industrial, miscellaneous and all other	146,012	130,839	130,839
Total Equity Securities, trading	162,429	143,738	143,738
Other long-term investments	451,269	482,726	482,726
Short-term investments	245,515	245,313	245,313
Total Investments	\$ 4,756,673	\$ 4,387,683	\$ 4,387,683

ProAssurance Corporation and Subsidiaries
Schedule II – Condensed Financial Information of Registrant
Condensed Balance Sheet
(In thousands)

	December 31, 2022	December 31, 2021
Assets		
Investment in subsidiaries, at equity	\$ 1,265,389	\$ 1,605,892
Fixed maturities available for sale, at fair value	25,681	—
Short-term investments	39,119	43,270
Investment in unconsolidated subsidiaries	915	915
Cash and cash equivalents	6,122	18,115
Due from subsidiaries	3,267	2,166
Other assets	17,161	14,584
Total Assets	<u>\$ 1,357,654</u>	<u>\$ 1,684,942</u>
Liabilities and Shareholders' Equity		
Liabilities:		
Dividends payable	\$ 2,698	\$ 2,698
Other liabilities	1,480	4,771
Debt less debt issuance costs	249,458	249,086
Total Liabilities	<u>253,636</u>	<u>256,555</u>
Shareholders' Equity:		
Common stock	634	633
Other shareholders' equity, including unrealized gains (losses) on securities of subsidiaries	1,103,384	1,427,754
Total Shareholders' Equity	<u>1,104,018</u>	<u>1,428,387</u>
Total Liabilities and Shareholders' Equity	<u>\$ 1,357,654</u>	<u>\$ 1,684,942</u>

ProAssurance Corporation and Subsidiaries
Schedule II – Condensed Financial Information of Registrant
Condensed Statements of Income
(In thousands)

	Year Ended December 31		
	2022	2021	2020
Revenues			
Net investment income (loss)	\$ (663)	\$ (1,470)	\$ 331
Net investment gains (losses)	—	1,159	2,194
Other income (loss)	1,970	2,359	12
Total revenues	1,307	2,048	2,537
Expenses			
Interest expense	14,445	14,549	14,260
Other expenses	32,513	29,094	21,458
Total expenses	46,958	43,643	35,718
Income (loss) before income tax expense (benefit) and equity in net income (loss) of consolidated subsidiaries	(45,651)	(41,595)	(33,181)
Income tax expense (benefit)	(7,994)	(9,833)	11,404
Income (loss) before equity in net income (loss) of consolidated subsidiaries	(37,657)	(31,762)	(44,585)
Equity in net income (loss) of consolidated subsidiaries	37,255	175,886	(131,142)
Net income (loss)	(402)	144,124	(175,727)
Other comprehensive income (loss)	(314,891)	(58,943)	38,272
Comprehensive income (loss)	\$ (315,293)	\$ 85,181	\$ (137,455)

ProAssurance Corporation and Subsidiaries
Schedule II – Condensed Financial Information of Registrant
Condensed Statements of Cash Flow
(In thousands)

	Year Ended December 31		
	2022	2021	2020
Net cash provided (used) by operating activities	\$ (25,862)	\$ 2,589	\$ (21,450)
Investing activities			
Proceeds from sales or maturities of:			
Fixed maturities, available for sale	5,800	33,443	87,101
Net decrease (increase) in short-term investments	4,151	71,928	(51,206)
Return of invested capital from subsidiaries	8,756	21,464	79,486
Contribution of capital to subsidiaries	(58)	(214,237)	(97,541)
Funds (advanced) repaid for Lloyd's FAL deposit	11,131	59,012	32,256
Other	14	(151)	(2,206)
Net cash provided (used) by investing activities	29,794	(28,541)	47,890
Financing activities			
Repurchase of common stock	(3,252)	—	—
Subsidiary payments for common shares and share-based compensation awarded to subsidiary employees	(928)	(307)	2,846
Dividends to shareholders	(10,768)	(10,758)	(38,664)
Other	(977)	(337)	(1,109)
Net cash provided (used) by financing activities	(15,925)	(11,402)	(36,927)
Increase (decrease) in cash and cash equivalents	(11,993)	(37,354)	(10,487)
Cash and cash equivalents at beginning of period	18,115	55,469	65,956
Cash and cash equivalents at end of period	\$ 6,122	\$ 18,115	\$ 55,469

Supplemental disclosure of cash flow information:

Cash paid (refunded) during the year for income taxes, net	\$ (6,081)	\$ (7,943)	\$ (9,117)
Cash paid during the year for interest	\$ 14,071	\$ 14,176	\$ 13,888

Significant non-cash transactions:

Dividends declared and not yet paid	\$ 2,698	\$ 2,698	\$ 2,694
Securities transferred at fair value as dividends from subsidiaries	\$ 32,512	\$ —	\$ 34,915
Operating ROU assets obtained in exchange for operating lease liabilities	\$ 3,133	\$ 412	\$ —

Basis of Presentation

The registrant-only financial statements should be read in conjunction with ProAssurance Corporation's Consolidated Financial Statements and Notes thereto.

At December 31, 2022 and 2021, PRA investment in subsidiaries is stated at the initial consolidation value plus equity in the undistributed earnings of subsidiaries since the date of acquisition.

ProAssurance Corporation has a management agreement with several of its insurance subsidiaries whereby ProAssurance Corporation charges the subsidiaries a management fee for various management services provided to the subsidiary. Under the arrangement, the expenses associated with such services remain as expenses of ProAssurance Corporation and the management fee charged is reported as an offset to ProAssurance Corporation expenses.

ProAssurance Corporation and Subsidiaries
Schedule III – Supplementary Insurance Information
(In thousands)

	2022	2021	2020
Net premiums earned			
Specialty P&C	\$ 769,773	\$ 695,008	\$ 477,365
Workers' Compensation Insurance	166,371	164,600	171,772
Segregated Portfolio Cell Reinsurance	69,810	63,688	66,352
Lloyd's Syndicates	23,627	48,372	77,226
Consolidated	<u>\$ 1,029,581</u>	<u>\$ 971,668</u>	<u>\$ 792,715</u>
Net investment income ⁽¹⁾			
Segregated Portfolio Cell Reinsurance	\$ 1,029	\$ 814	\$ 1,084
Lloyd's Syndicates	568	1,961	4,128
Corporate	94,375	67,747	66,786
Consolidated	<u>\$ 95,972</u>	<u>\$ 70,522</u>	<u>\$ 71,998</u>
Losses and loss adjustment expenses incurred related to current year, net of reinsurance			
Specialty P&C	\$ 639,734	\$ 608,106	\$ 497,554
Workers' Compensation Insurance	119,407	121,804	118,523
Segregated Portfolio Cell Reinsurance	45,577	42,721	46,200
Lloyd's Syndicates	8,797	25,101	49,569
Consolidated	<u>\$ 813,515</u>	<u>\$ 797,732</u>	<u>\$ 711,846</u>
Losses and loss adjustment expenses incurred related to prior year, net of reinsurance			
Specialty P&C	\$ (29,819)	\$ (32,942)	\$ (27,480)
Workers' Compensation Insurance	(8,000)	(7,100)	(6,971)
Segregated Portfolio Cell Reinsurance	(6,267)	(10,152)	(16,595)
Lloyd's Syndicates	7,333	4,711	647
Consolidated	<u>\$ (36,753)</u>	<u>\$ (45,483)</u>	<u>\$ (50,399)</u>
Paid losses and loss adjustment expenses, net of reinsurance			
Specialty P&C ⁽²⁾	\$ 685,696	\$ 538,885	\$ 379,656
Workers' Compensation Insurance	123,098	121,302	118,496
Segregated Portfolio Cell Reinsurance	38,007	37,127	46,267
Lloyd's Syndicates	18,939	47,931	40,897
Inter-segment eliminations	(37)	—	(143)
Consolidated	<u>\$ 865,703</u>	<u>\$ 745,245</u>	<u>\$ 585,173</u>
Amortization of DPAC			
Specialty P&C	\$ 91,660	\$ 61,662	\$ 53,562
Workers' Compensation Insurance	14,836	15,100	15,895
Segregated Portfolio Cell Reinsurance	20,068	18,730	19,636
Lloyd's Syndicate	6,097	14,973	21,597
Inter-segment eliminations	514	140	(125)
Consolidated	<u>\$ 133,175</u>	<u>\$ 110,605</u>	<u>\$ 110,565</u>

Continued on the following page.

ProAssurance Corporation and Subsidiaries
Schedule III – Supplementary Insurance Information
(In thousands)

	2022	2021	2020
<i>Continued from previous page</i>			
Other underwriting, policy acquisition and operating expenses			
Specialty P&C	\$ 100,737	\$ 66,047	\$ 56,037
Workers' Compensation Insurance	39,901	37,318	40,554
Segregated Portfolio Cell Reinsurance	248	2,905	1,073
Lloyd's Syndicates	1,315	2,984	8,539
Corporate	34,733	26,641	23,429
Non-segmented items ⁽³⁾	1,862	24,977	—
Inter-segment eliminations	(4,633)	(3,231)	(2,316)
Consolidated	<u>\$ 174,163</u>	<u>\$ 157,641</u>	<u>\$ 127,316</u>
Net premiums written			
Specialty P&C	\$ 765,444	\$ 626,147	\$ 451,019
Workers' Compensation Insurance	160,760	161,865	164,871
Segregated Portfolio Cell Reinsurance	69,357	63,042	64,159
Lloyd's Syndicates	18,576	31,667	67,652
Consolidated	<u>\$ 1,014,137</u>	<u>\$ 882,721</u>	<u>\$ 747,701</u>
Deferred policy acquisition costs ⁽¹⁾	\$ 58,148	\$ 58,940	\$ 47,196
Reserve for losses and loss adjustment expenses ⁽¹⁾	\$ 3,471,147	\$ 3,579,940	\$ 2,417,179
Unearned premiums ⁽¹⁾	\$ 422,950	\$ 433,961	\$ 361,547

⁽¹⁾ Assets are not allocated to segments because investments, other than the investments that are solely allocated to the Segregated Portfolio Cell Reinsurance and Lloyd's Syndicates segments, and other assets are not managed at the segment level. See Note 16 of the Notes to Consolidated Financial Statements for additional information.

⁽²⁾ See Note 8 of the Notes to Consolidated Financial Statements for additional information on paid losses related to reserves acquired from NORCAL.

⁽³⁾ Represents pre-tax transaction-related costs associated with the acquisition of NORCAL that are not included in a segment as ProAssurance does not consider these costs in assessing the financial performance of any of its operating or reportable segments. See Note 16 of the Notes to Consolidated Financial Statements for a reconciliation of the Company's segment results to its consolidated results.

ProAssurance Corporation and Subsidiaries
Schedule IV - Reinsurance
(\$ in thousands)

	2022	2021	2020
Property and Liability *			
Premiums earned	\$ 1,058,263	\$ 1,020,107	\$ 862,742
Premiums ceded	(84,857)	(93,998)	(113,582)
Premiums assumed	56,175	45,559	43,555
Net premiums earned	<u>\$ 1,029,581</u>	<u>\$ 971,668</u>	<u>\$ 792,715</u>
Percentage of amount assumed to net	<u>5.46%</u>	<u>4.69%</u>	<u>5.49%</u>

* All of ProAssurance's premiums are related to property and liability coverages.

EXHIBIT INDEX

Exhibit Number	Description
<u>2.1</u>	Agreement and Plan of Acquisition by and among ProAssurance Corporation, PRA Professional Liability Group, Inc. and NORCAL Mutual Insurance Company dated as of February 20, 2020 filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>3.1(a)</u>	Certificate of Incorporation of ProAssurance, filed as an Exhibit to ProAssurance's Registration Statement on Form S-4 (File No. 333-49378) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>3.1(b)</u>	Certificate of Amendment to Certificate of Incorporation of ProAssurance, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2001 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>3.2</u>	Fourth Restatement of the Bylaws of ProAssurance, effective December 2, 2015, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2015 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>4.1</u>	Indenture, dated November 21, 2013, between ProAssurance and Wilmington Trust Company, filed as an Exhibit to ProAssurance's Current Report on Form 8-K for the event occurring November 21, 2013 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>4.2</u>	First Supplemental Indenture, dated November 21, 2013, between ProAssurance and Wilmington Trust Company relating to the \$250,000 5.30% Senior Notes due 2023, filed as an Exhibit to ProAssurance's Current Report on Form 8-K for the event occurring November 21, 2013 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
	ProAssurance will file with the Commission upon request pursuant to the requirements of Item 601 (b)(4) of Regulation S-K documents defining rights of holders of ProAssurance's long-term indebtedness that has not been registered. See also the documents related to long-term indebtedness filed as material contracts under Exhibits 10.10(a), (b), (c), (d), (e), (f) and (g) to this Form 10-K.
<u>10.1</u>	Form of Release and Severance Compensation Agreement dated as of January 1, 2008 between ProAssurance and each of the following named executive officers*: Jeffrey P. Lisenby Edward L. Rand Jr. Filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2007 (File No. 001-16533) and incorporated herein by this reference pursuant to SEC Rule 12b-32.
<u>10.1(a)</u>	Employment Agreement between ProAssurance and Edward L. Rand, Jr. dated as of July 1, 2019, filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32, which supersedes the Release and Severance Compensation Agreement referenced in Exhibit 10.1.*
<u>10.2</u>	Retention and Severance Compensation Agreement effective January 1, 2014, between ProAssurance and Michael L. Boguski, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2013 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*
<u>10.2(a)</u>	Employment Agreement between ProAssurance and Michael Boguski dated as of May 1, 2019, filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32, which supersedes the Retention and Severance Compensation Agreement referenced in Exhibit 10.14.*
<u>10.3</u>	Form of Release and Severance Compensation Agreement dated as of May 13, 2019 between ProAssurance and Dana S. Hendricks, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*
<u>10.4</u>	Form of Release and Severance Compensation Agreement dated as of May 13, 2019 between ProAssurance and Kevin M. Shook, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*

- 10.5 Form of Release and Severance Compensation Agreement dated as of December 7, 2022 between ProAssurance and each of the following named executive officers*:
Ross E. Taubman
Darryl K. Thomas
Filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-16533) and incorporated herein by this reference pursuant to SEC Rule 12b-32.
- 10.6 Form of Indemnification Agreement between ProAssurance and each of the following named executive officers and directors of ProAssurance*:
M. James Gorrie
Ziad R. Haydar
Jeffrey P. Lisenby
Edward L. Rand, Jr.
Frank A. Spinosa
Ross E. Taubman
Thomas A. S. Wilson, Jr.
Filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2010 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
- 10.7 ProAssurance Group Employee Benefit Plan which includes the Executive Supplemental Life Insurance Program (Article VIII), filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2004 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*
- 10.8 Amendment and Restatement of the Executive Non-Qualified Excess Plan and Trust effective January 1, 2008, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2007 (File No. 001-16533) and incorporated herein by this reference pursuant to SEC Rule 12b-32.*
- 10.9 Director Deferred Compensation Plan as amended and restated December 7, 2011, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2011 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*
- 10.9(a) Amendment No. 1 to the Amended and Restated Director Deferred Compensation Plan dated May 22, 2013, filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*
- 10.9(b) Amendment No. 2 to the Amended and Restated Director Deferred Compensation Plan effective June 22, 2017, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*
- 10.9(c) Amendment No. 3 to the Amended and Restated Director Deferred Compensation Plan effective March 6, 2019, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*
- 10.10 Revolving Credit Agreement, dated April 15, 2011, between ProAssurance and U.S. Bank National Association, Wells Fargo Bank, National Association, Branch Banking and Trust Company, First Tennessee Bank, N.A., and JP Morgan Chase Bank N.A., filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
- 10.10(a) Amendment No. 1 to Revolving Credit Agreement between ProAssurance and U.S. Bank National Association, Wells Fargo Bank, National Association, Branch Banking and Trust Company, First Tennessee Bank, N.A., and JP Morgan Chase Bank N.A., filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
- 10.10(b) Amendment No. 2 to Revolving Credit Agreement between ProAssurance and U.S. Bank National Association, Wells Fargo Bank, National Association, Branch Banking and Trust Company, First Tennessee Bank, N.A., and JP Morgan Chase Bank N.A., filed as an Exhibit to ProAssurance's Current Report on Form 8-K for the event occurring November 8, 2013 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
- 10.10(c) Form of the Augmenting Lender Supplement to Revolving Credit Agreement between ProAssurance and U.S. Bank National Association, Wells Fargo Bank, National Association, Branch Banking and Trust Company, First Tennessee Bank, N.A., and JP Morgan Chase Bank N.A., filed as an Exhibit to ProAssurance's Current Report on Form 8-K for the event occurring April 1, 2014 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.

<u>10.10(d)</u>	Amendment No. 4 to Revolving Credit Agreement between ProAssurance and U.S. Bank National Association., Wells Fargo Bank, National Association, Branch Banking and Trust Company, First Tennessee Bank, N.A., KeyBank N.A., Cadence Bank, N.A., and Regions Bank, N.A., dated June 19, 2015, filed as an Exhibit to ProAssurance’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2015 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>10.10(e)</u>	Amendment No. 5 to Revolving Credit Agreement between ProAssurance and U.S. Bank National Association, Wells Fargo Bank, National Association, Branch Banking and Trust Company, First Tennessee Bank, N.A., KeyBank N.A., Cadence Bank N.A. and Regions Bank, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2017 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>10.10(f)</u>	Amended and restated Revolving Credit Agreement between ProAssurance and U.S. Bank N.A., Wells Fargo Bank, National Association, Branch Banking and Trust Company, First Tennessee Bank, N.A., KeyBank N.A., Cadence Bank, N.A. and Regions Bank, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>10.10(g)</u>	Amendment No. 1 to amended and restated Revolving Credit Agreement, dated as of April 19, 2021, between ProAssurance and U.S. Bank N.A., Wells Fargo Bank N.A., KeyBank N.A., Regions Bank, Trust Bank, Cadence Bank N.A., and First Horizon Bank, filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>10.11</u>	Pledge and Security Agreement between ProAssurance and U.S. Bank National Association, filed as an Exhibit to ProAssurance’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2011 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>10.12</u>	ProAssurance Corporation Amended and Restated 2014 Equity Incentive Plan, filed as an Exhibit to ProAssurance’s Current Report on Form 8-K for event occurring May 14, 2013 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.*
<u>10.13</u>	ProAssurance Corporation 2014 Annual Incentive Plan, filed as an Exhibit to ProAssurance’s Definitive Proxy Statement (File No. 001-16533) filed on May 22, 2013 and incorporated herein by reference pursuant to SEC Rule 12b-32.*
<u>10.14</u>	Facility Agreement between ProAssurance and the Premiums Trust Fund of Syndicate 1729, filed as an Exhibit to ProAssurance's Annual Report on Form 10-K for the year ended December 31, 2013 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>10.14(a)</u>	Amendment No. 1 to Facility Agreement effective April 6, 2016, between ProAssurance and the Premiums Trust Fund of Syndicate 1729 filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>10.14(b)</u>	Amendment No. 2 to Facility Agreement effective July 1, 2022, between ProAssurance and the Premiums Trust Fund of Syndicate 1729 filed as an Exhibit to ProAssurance's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 (File No. 001-16533) and incorporated herein by reference pursuant to SEC Rule 12b-32.
<u>21.1</u>	Subsidiaries of ProAssurance Corporation
<u>23.1</u>	Consent of Ernst & Young LLP
<u>31.1</u>	Certification of Principal Executive Officer of ProAssurance as required under SEC Rule 13a-14(a)
<u>31.2</u>	Certification of Principal Financial Officer of ProAssurance as required under SEC Rule 13a-14(a)
<u>32.1</u>	Certification of Principal Executive Officer of ProAssurance as required under SEC Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code, as amended (18 U.S.C. 1350)
<u>32.2</u>	Certification of Principal Financial Officer of ProAssurance as required under SEC Rule 13a-14(b) and 18 U.S.C. 1350
<u>101.INS</u>	XBRL Instance Document
<u>101.SCH</u>	XBRL Taxonomy Extension Schema Document
<u>101.CAL</u>	XBRL Taxonomy Extension Calculation Linkbase Document
<u>101.DEF</u>	XBRL Taxonomy Extension Definition Linkbase Document

101.LAB XBRL Taxonomy Extension Labels Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

* Denotes a management contract or compensatory plan, contract or arrangement required to be filed as an Exhibit to this report.

Appendix A

Non-GAAP Financial Measures

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

Reconciliation of net income (loss) to Non-GAAP operating income (loss):

<i>(In thousands, except per share data)</i>	Year Ended December 31,				
	2022	2021	2020	2019	2018
Net income (loss)	\$ (402)	\$ 144,124	\$ (175,727)	\$ 1,004	\$ 47,057
Items excluded in the calculation of Non-GAAP operating income (loss):					
Net investment (gains) losses ⁽¹⁾	33,157	(24,310)	(15,678)	(59,874)	43,488
Net investment gains (losses) attributable to SPCs which no profit/loss is retained ⁽²⁾	(2,138)	3,253	2,436	3,144	(2,535)
Transaction-related costs ⁽³⁾	1,862	24,977	—	—	—
Goodwill impairment	—	—	161,115	—	—
Guaranty fund assessments (recoupments)	541	228	97	43	148
Gain on acquisition ⁽⁴⁾	—	(74,408)	—	—	—
Pre-tax effect of exclusions	33,422	(70,260)	147,970	(56,687)	41,101
Tax effect, at 21% ⁽⁵⁾	(8,511)	2,028	16	11,904	(8,631)
After-tax effect of exclusions	24,911	(68,232)	147,986	(44,783)	32,470
Non-GAAP operating income (loss)	\$ 24,509	\$ 75,892	\$ (27,741)	\$ (43,779)	\$ 79,527
Per diluted common share:					
Net income (loss)	\$ (0.01)	\$ 2.67	\$ (3.26)	\$ 0.02	\$ 0.88
Effect of exclusions	0.46	(1.27)	2.74	(0.83)	0.60
Non-GAAP operating income (loss) per diluted common share	\$ 0.45	\$ 1.40	\$ (0.52)	\$ (0.81)	\$ 1.48

⁽¹⁾ Net investment gains (losses) 2022 include a gain of \$9.0 million related to the change in the fair value of contingent consideration issued in connection with the NORCAL acquisition. We have excluded this adjustment as it does not reflect normal operating results.

⁽²⁾ Net investment gains (losses) on investments related to SPCs are recognized in our Segregated Portfolio Cell Reinsurance segment. SPC results, including any net investment gain or loss, that are attributable to external cell participants are reflected in the SPC dividend expense (income). To be consistent with our exclusion of net investment gains (losses) recognized in earnings, we are excluding the portion of net investment gains (losses) that is included in the SPC dividend expense (income) which is attributable to the external cell participants.

⁽³⁾ Transaction-related costs associated with our acquisition of NORCAL. We are excluding these costs as they do not reflect normal operating results and are unique and non-recurring in nature.

⁽⁴⁾ Gain on bargain purchase associated with our acquisition of NORCAL which is considered unusual, infrequent and non-recurring in nature. As such, we have excluded the gain on bargain purchase from Non-GAAP operating income (loss) as it does not reflect normal operating results.

⁽⁵⁾ The 21% rate is the statutory tax rate associated with the taxable or tax deductible items listed above. The taxes associated with the net investment gains (losses) related to SPCs in our Segregated Portfolio Cell Reinsurance segment are paid by the individual SPCs and are not included in our consolidated tax provision or net income (loss); therefore, both the net investment gains (losses) from our Segregated Portfolio Cell Reinsurance segment and the adjustment to exclude the portion of net investment gains (losses) included in the SPC dividend expense (income) in the table above are not tax effected. The 2021 gain on bargain purchase and the 2022 gain related to the change in the fair value of contingent consideration are non-taxable and therefore had no associated income tax impact.

This page is not a part of ProAssurance's Annual Report on Form 10-K, and was not filed with the Securities & Exchange Commission.

INVESTOR INFORMATION

There were approximately 53,964,169 shares of ProAssurance Corporation common stock outstanding at February 22, 2023. On that date, we had 2,364 shareholders of record. Our common stock trades on The New York Stock Exchange under the symbol PRA. The price of our stock is available from any website that provides stock quotes. We also post the price of our stock on our website, proassurance.com.

YOUR SHARES

If you hold your shares through a brokerage account, your broker or a customer service representative at that firm should be able to answer questions about your holdings. If you hold your shares in certificate form, or have shares held in direct registration (DRS), you are a "registered holder." Registered holders may contact our transfer agent, Computershare, for address changes, transfer of certificates, and replacement of share certificates that have been lost or stolen. You may reach Computershare in a variety of ways:

By Phone

(800) 851-4218 or (201) 680-6578

By Internet

Information about your account including share transfer, direct deposit of dividends and your dividend payment history: www-us.computershare.com/Investor/.

For immediate access to tax forms:

www-us.computershare.com/Investor/#QuickTax.

For technical assistance with the Computershare website, please phone (800) 942-5909.

By Mail

Computershare P. O. Box 30170 College Station, TX 77842	Computershare 211 Quality Circle, Suite 210 College Station, TX 77845
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DIRECT DEPOSIT OF DIVIDENDS FOR REGISTERED HOLDERS

We encourage registered holders to have dividends deposited directly into a designated account to ensure prompt, secure delivery of your funds. You may arrange for Direct Deposit by updating your banking details with Computershare (www-us.computershare.com/Investor/myProfile) once you have established online access to your account with Computershare.

CORPORATE GOVERNANCE AND COMPLIANCE WITH REGULATORY AND NEW YORK STOCK EXCHANGE REQUIREMENTS

We invite you to visit the Investor Relations and Corporate Governance sections of our website, <http://investor.proassurance.com>. There you will find important information about our Company, including our Corporate Governance Principles and Code of Ethics and Conduct, which were developed and adopted by our Board of Directors. The Governance section of our website (<http://investor.proassurance.com/govdocs>) also provides copies

of the Board-adopted charters for our Audit, Compensation, and Nominating/Corporate Governance Committees and our Internal Audit Charter. Our Corporate Governance section also provides information such as stock ownership guidelines, committee composition and leadership, and director independence, including categorical standards to assist in determining independence. Our Corporate Responsibility section provides information such as our Human Rights policy, our Environmental Commitment, and diversity within ProAssurance.

Our filings with the Securities and Exchange Commission (SEC) are available in the Investor Relations section of our website (<http://investor.proassurance.com/Docs>). Our SEC filings are also available in the EDGAR section of the SEC's website (www.sec.gov/edgar.shtml).

Edward L. Rand, Jr., our President and Chief Executive Officer, submitted the required Section 12(a) CEO Certification to the New York Stock Exchange on June 9, 2022. Additionally, we have been timely in the filing of CEO/CFO certifications as required in Section 302 of the Sarbanes-Oxley Act. These certifications are published as exhibits in our Form 10-K filed with the SEC on February 27, 2023.

INVESTOR RELATIONS

The Investor Relations section of our website (<http://investor.proassurance.com>) also contains detailed financial information, a dividend payment history, SEC filings, the latest news releases about the Company and our latest presentation materials. We also maintain an archive of presentation materials, although you should realize that archived information, by its very nature, may no longer be accurate.

OBTAINING INFORMATION DIRECTLY FROM PROASSURANCE

Any of the documents mentioned above may be obtained from our Communications and Investor Relations Department using one of the contact methods below:

By Email

Investor@ProAssurance.com

By U. S. Postal Service

ProAssurance Corporation
Investor Relations
P. O. Box 590009
Birmingham, AL 35259-0009

By Phone or Fax

Phone: (205) 877-4400 / (800) 282-6242
Fax: (205) 802-4799

ANNUAL MEETING

The 2023 Annual Meeting is scheduled for 9:00 AM CDT on Wednesday, May 24, 2023 at the headquarters of ProAssurance Corporation, 100 Brookwood Place, Birmingham, Alabama 35209.



100 Brookwood Place
Birmingham, Alabama 35209
205-877-4400 • 800-282-6242

www.proassurance.com