

2022 Annual Report

Dear Fellow Shareholders:

2022 was a pivotal year for James River Group Holdings, Ltd. (the "Company" or "James River") as the Company returned to profitability after the significant efforts and strategic actions to address legacy issues while making improvements in how we manage and govern our business. Simultaneously, we have continued to capitalize on attractive underwriting conditions that have allowed us to gain additional scale in our insurance operations. The result has been a stronger and more profitable James River focused on providing earnings consistency and attractive returns on tangible capital to our shareholders.

Our flagship Excess & Surplus lines ("E&S") segment has continued to experience broad-based growth during the current market cycle highlighted by 24 consecutive quarters of positive renewal rate increases compounding to 64%, which we believe bodes well for future profitability. Our longstanding presence in the market and distinguished underwriting expertise in small and medium sized casualty risks has made us a trusted partner of both distribution and insured clients for over twenty years. In 2022, our E&S gross written premiums increased by more than 10% to \$921 million while producing an 85% combined ratio 1 and \$83 million of underwriting profit², the highest level in the segment's history.

The Company's Specialty Admitted segment also had another strong year, producing a 94% combined ratio while continuing to grow fee income. The unit generated gross written premiums of \$490 million while growing its fronted program business and maintaining underwriting and program management discipline.

As a bottom-line focused organization, we continue to deploy our capital where we believe it will generate consistent and attractive returns for shareholders. As a result, we made the decision to meaningfully reduce our Casualty Reinsurance writings in 2022. Earlier this year, we suspended writing business in that segment as we reposition the Company's focus on our core insurance businesses, where we have considerably more scale and sector leadership positions.

In summary, James River delivered very strong financial results in 2022 while continuing to execute on our corporate objectives. Achievements for the year included:

- Record underwriting profit² of \$50 million;
- A combined ratio of 94% which is the lowest for the Company since 2014;
- Net investment income of \$71 million, representing an increase of 25% from the prior year;
- Adjusted net operating return on tangible common equity² of 17%; and
- Further advances in corporate initiatives centered around employee engagement, enterprise risk management and technology.

Since joining the organization, I continue to be extremely proud of what our team has collectively accomplished and believe the Company is well positioned for continued success in 2023 and beyond as we build an even stronger organization while creating additional shareholder value.

¹ Excludes the impact of retroactive reinsurance accounting.

² Underwriting profit and adjusted net operating return on tangible common equity (which is calculated as annualized adjusted net operating income (loss) divided by the average quarterly tangible common equity balances in the respective period) are non-GAAP financial measures. See "Reconciliation of Non-GAAP Measures" beginning on page 118 of this 2022 Annual Report for a reconciliation of each of underwriting profit, adjusted net operating income (loss) and tangible equity to the most comparable GAAP measures.

We appreciate your continued interest in James River and thank you for your ongoing support.

Sincerely,

Frank N. D'Orazio Chief Executive Officer

June 6, 2023

Forward-Looking Statements

Frank w. D'Oragio

This letter contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. These forward-looking statements include statements regarding the intent, belief or current expectations of James River and its management team, and may be identified by terms such as believe, expect, seek, should, may, will, intend, project, anticipate, plan, estimate or similar words. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. Important information regarding such risks and uncertainties can be found in our filings with the U.S. Securities and Exchange Commission, including our most recently filed Annual Report on Form 10-K. These forward-looking statements speak only as of the date of this letter and the Company does not undertake any obligation to update or revise any forward-looking information to reflect changes in assumptions, the occurrence of unanticipated events, or otherwise.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-K

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to this Form 10-K.

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the Fiscal Year Ended December 31, 2022 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 Commission file number 001-36777 JAMES RIVER GROUP HOLDINGS, LTD. (Exact name of registrant as specified in its charter) 98-0585280 Bermuda (State or other jurisdiction of incorporation or organization) (IRS Employer Identification No.) Wellesley House, 2nd Floor, 90 Pitts Bay Road, Pembroke HM08, Bermuda (Address of principal executive offices) Registrant's telephone number, including area code: (441) 278-4580 Securities registered pursuant to Section 12(b) of the Act: Title of each class Trading Symbol(s) Names of each exchange on which registered **JRVR** Common Shares, par value \$0.0002 per share NASDAO Global Select Market 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 15(d) of the Securities 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. (Check one): Large accelerated filer |X|Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Indicate by check mark whether the registrant 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. If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes \square No \bowtie The aggregate market value of the registrant's common shares held by non-affiliates of the registrant as of June 30, 2022, computed by reference to the closing sales price on the NASDAQ Global Select Market on that date, was approximately \$906,356,080. The number of the registrant's common shares outstanding was 37,515,856 as of February 24, 2023. DOCUMENTS INCORPORATED BY REFERENCE: Portions of the James River Group Holdings, Ltd. Proxy Statement for the 2023 Annual General Meeting of Shareholders may be incorporated

by reference into Part III hereof. Alternatively, such Part III information may be filed by James River Group Holdings, Ltd. by an amendment



		Page
PART I .		4
Item 1.	BUSINESS	4
Item 1A.	RISK FACTORS	43
Item 1B.	UNRESOLVED STAFF COMMENTS	76
Item 2.	PROPERTIES	76
Item 3.	LEGAL PROCEEDINGS	77
Item 4.	MINE SAFETY DISCLOSURE	77
PART II .		78
Item 5.	MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES	78
Item 6.	[RESERVED]	80
Item 7.	MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL	
	CONDITION AND RESULTS OF OPERATIONS	81
Item 7A.	QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	121
Item 8.	FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA	123
Item 9.	CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE	123
Item 9A.	CONTROLS AND PROCEDURES	123
Item 9B.	OTHER INFORMATION	124
Item 9C.	DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS	124
PART III		125
Item 10.	DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE	125
Item 11.	EXECUTIVE COMPENSATION	125
Item 12.		123
item 12.	SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS	125
Item 13.	CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE	125
Item 14.	PRINCIPAL ACCOUNTANT FEES AND SERVICES	125
PART IV		125
Item 15.	EXHIBIT AND FINANCIAL STATEMENT SCHEDULES	125
Item 16.	FORM 10-K SUMMARY	131

Unless the context indicates or suggests otherwise, references in this Annual Report on Form 10-K to "the Company," "we," "us" and "our" refer to James River Group Holdings, Ltd. and its consolidated subsidiaries.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K ("Annual Report") contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements may be identified by the fact that they do not relate strictly to historical or current facts. You may identify forward-looking statements in this Annual Report by the use of words such as "anticipates," "estimates," "expects," "intends," "plans", "seeks" and "believes," and similar expressions or future or conditional verbs such as "will," "should," "would," "may" and "could." These forward-looking statements include, among others, all statements relating to our future financial performance, our business prospects and strategy, anticipated financial position and financial strength ratings, liquidity and capital needs and other similar matters. These forward-looking statements are based on management's current expectations and assumptions about future events, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict.

Our actual results may differ materially from those expressed in, or implied by, the forward-looking statements included in this Annual Report as a result of various factors, many of which are beyond our control, including, among others:

- the inherent uncertainty of estimating reserves and the possibility that incurred losses may be greater than our loss and loss adjustment expense reserves;
- inaccurate estimates and judgments in our risk management may expose us to greater risks than intended;
- downgrades in the financial strength rating of our regulated insurance subsidiaries impacting our ability to attract and retain insurance and reinsurance business that our subsidiaries write, our competitive position, and our financial condition;
- the potential loss of key members of our management team or key employees, and our ability to attract and retain personnel;
- adverse economic factors resulting in the sale of fewer policies than expected or an increase in the frequency or severity of claims, or both;
- the impact of a persistent high inflationary environment on our reserves, the values of our investments and investment returns, and our compensation expenses;
- exposure to credit risk, interest rate risk and other market risk in our investment portfolio;
- reliance on a select group of brokers and agents for a significant portion of our business and the impact of our potential failure to maintain such relationships;
- reliance on a select group of customers for a significant portion of our business and the impact of our potential failure to maintain, or decision to terminate, such relationships;
- our ability to obtain reinsurance coverage at prices and on terms that allow us to transfer risk, adequately protect our Company against financial loss and that supports our growth plans;
- losses resulting from reinsurance counterparties failing to pay us on reinsurance claims, insurance
 companies with whom we have a fronting arrangement failing to pay us for claims, or a former
 customer with whom we have an indemnification arrangement failing to perform its reimbursement
 obligations, and our potential inability to demand or maintain adequate collateral to mitigate such
 risks:
- inadequacy of premiums we charge to compensate us for our losses incurred;
- changes in laws or government regulation, including tax or insurance law and regulations;
- changes in U.S. tax laws and the interpretation of certain provisions of the 2017 Tax Act (including associated regulations), which may be retroactive and could have a significant effect on us including, among other things, by potentially increasing our tax rate, as well as on our shareholders;

- in the event we do not qualify for the insurance company exception to the passive foreign investment company ("PFIC") rules and are therefore considered a PFIC, there could be material adverse tax consequences to an investor that is subject to U.S. federal income taxation;
- the Company or any of its foreign subsidiaries becoming subject to U.S. federal income taxation;
- a failure of any of the loss limitations or exclusions we utilize to shield us from unanticipated financial losses or legal exposures, or other liabilities;
- losses from catastrophic events, such as natural disasters and terrorist acts, which substantially
 exceed our expectations and/or exceed the amount of reinsurance we have purchased to protect us
 from such events;
- the effects of the COVID-19 pandemic and associated government actions on our operations and financial performance;
- potential effects on our business of emerging claim and coverage issues;
- the potential impact of internal or external fraud, operational errors, systems malfunctions or cyber security incidents;
- our ability to manage our growth effectively;
- failure to maintain effective internal controls in accordance with the Sarbanes-Oxley Act of 2002, as amended ("Sarbanes-Oxley");
- changes in our financial condition, regulations or other factors that may restrict our subsidiaries' ability to pay us dividends;
- · an adverse result in any litigation or legal proceedings we are or may become subject to; and
- · other risks and uncertainties discussed under "Risk Factors" and elsewhere in this Annual Report.

Accordingly, you should read this Annual Report completely and with the understanding that our actual future results may be materially different from what we expect.

Forward-looking statements speak only as of the date of this Annual Report. Except as expressly required under federal securities laws and the rules and regulations of the SEC, we do not have any obligation, and do not undertake, to update any forward-looking statements to reflect events or circumstances arising after the date of this Annual Report, whether as a result of new information or future events or otherwise. You should not place undue reliance on the forward-looking statements included in this Annual Report or that may be made elsewhere from time to time by us, or on our behalf. All forward-looking statements attributable to us are expressly qualified by these cautionary statements.

PART I

Item 1. BUSINESS

General

James River Group Holdings, Ltd. is a Bermuda-based holding company. We own and operate a group of specialty insurance and reinsurance companies. For the year ended December 31, 2022, approximately 71.2% of our group-wide gross written premiums and 90.3% of our group-wide net written premiums originated from the U.S. excess and surplus ("E&S") lines market, which we believe puts us among the top three publicly traded insurers as ranked by highest concentrations of E&S risk. Substantially all of our business is casualty insurance, and for the year ended December 31, 2022, we derived 96.5% of our group-wide gross written premiums from casualty insurance. Our objective is to generate compelling returns on tangible equity, while limiting underwriting and investment volatility. We seek to accomplish this by earning profits from insurance and reinsurance underwriting and generating meaningful risk-adjusted investment returns, while managing our capital. Our group includes three operating segments: Excess and Surplus Lines, Specialty Admitted Insurance and Casualty Reinsurance.

We write very little property or catastrophe insurance and no property catastrophe reinsurance. For the year ended December 31, 2022, property insurance and reinsurance represented 3.5% of our gross written premiums. When we do write property insurance, we buy reinsurance to significantly mitigate our risk. We have structured our reinsurance arrangements so that our modeled net pre-tax loss from a 1/1000 year probable maximum loss ("PML") event would not exceed 2.5% of shareholders' equity on a group-wide basis, inclusive of reinstatement premiums payable and net retentions.

We report our business in four segments: Excess and Surplus Lines, Specialty Admitted Insurance, Casualty Reinsurance and Corporate and Other.

The Excess and Surplus Lines segment sells E&S commercial lines liability and property insurance in every U.S. state and the District of Columbia through James River Insurance Company ("James River Insurance") and its wholly-owned subsidiary, James River Casualty Company ("James River Casualty"). The Excess and Surplus Lines segment produced 61.5% of our gross written premiums and 78.7% of our net written premiums for the year ended December 31, 2022. James River Insurance and James River Casualty are both non-admitted carriers. Non-admitted carriers writing in the E&S market are not bound by most of the rate and form regulations imposed on standard market companies, allowing them flexibility to change the coverage terms offered and the rate charged without the time constraints and financial costs and delays associated with the filing of such changes with state regulators and seeking approval for the filings. In 2022, the average account in this segment (excluding commercial auto policies) generated annual gross written premiums of approximately \$24,000. The Excess and Surplus Lines segment distributes primarily through wholesale insurance brokers. Members of our management team have participated in this market for over three decades and have long-standing relationships with the wholesale brokers who place E&S lines accounts.

The Specialty Admitted Insurance segment has admitted licenses and the authority to write excess and surplus lines insurance in 50 states and the District of Columbia through Falls Lake National Insurance Company ("Falls Lake National") and its wholly-owned subsidiaries, Stonewood Insurance Company ("Stonewood Insurance") and Falls Lake Fire and Casualty Company ("Falls Lake Fire and Casualty"). The Specialty Admitted Insurance segment produced 32.8% of our gross written premiums and 10.2% of our net written premiums for the year ended December 31, 2022. The Specialty Admitted Insurance segment primarily writes fronting business where we retain a minority share of the risk, generally 10%-35%, and seek to earn fee income. When we front, we use our legal authority, financial strength rating, underwriting experience and claims infrastructure to write insurance to service clients (usually managing general agents and reinsurers) who assume the vast majority of the risk on each fronted policy. Because we retain little premium or risk in our fronted business, we can allocate less capital per dollar of revenue to fronted policies than to policies where we retain more risk, which we believe enhances our returns on equity. We also write a select book of workers' compensation coverage for building trades, healthcare employees and light manufacturing, among other light to medium hazard risks in select U.S. states. The Specialty Admitted

Insurance segment accepts applications for insurance from a variety of sources, including fronting and program administrators, managing general agents ("MGAs"), and independent retail agents.

The Casualty Reinsurance segment distributes through reinsurance brokers and produced 5.7% of our gross written premiums and 11.1% of our net written premiums for the year ended December 31, 2022. The Casualty Reinsurance segment provides proportional and working layer casualty reinsurance to third parties and, through December 31, 2021, to our U.S.-based insurance subsidiaries. Typically, we structure our reinsurance contracts (also known as treaties) as quota share arrangements, with loss mitigating features, such as commissions that adjust based on underwriting results. We frequently include risk mitigating features in our working layer excess of loss treaties, such as paid reinstatements. On a premium volume basis, treaties with loss mitigation features, including profit and sliding scale ceding commissions, represented 40.6% of the net premiums written by our Casualty Reinsurance segment during 2022. We typically do not assume large individual risks in our Casualty Reinsurance segment, nor do we write property catastrophe reinsurance. Most of the underlying policies assumed by our Casualty Reinsurance segment have a \$1.0 million per occurrence limit, and we typically assume only a portion of that exposure. We do not assume stand-alone third-party property business at our Casualty Reinsurance segment, but we do have a small amount of assumed business with ancillary property exposure. General liability accounts represented 64.8% of gross premiums written by our Casualty Reinsurance segment during 2022.

The Casualty Reinsurance segment writes third party business through one entity, JRG Reinsurance Company Ltd. ("JRG Re"). Through December 31, 2017, we had intercompany reinsurance agreements under which we ceded 70% of the net written premiums of our U.S. subsidiaries (after taking into account third-party reinsurance) to JRG Re. Effective January 1, 2018 through December 31, 2021, we generally discontinued ceding 70% of our U.S.-written premiums to JRG Re and instead ceded 70% of our U.S.-written premiums to Carolina Re Ltd ("Carolina Re"). This business was ceded under quota-share reinsurance treaties with ceding commissions that were negotiated at arm's length. We exclude the effects of intercompany reinsurance agreements from the presentation of our segment results, consistent with the way we manage the Company. At December 31, 2022, 33.2% of our invested assets were held at JRG Re.

The Corporate and Other segment consists of the management and treasury activities of our holding companies, equity compensation for the group, and interest expense associated with our debt.

In 2022, our operating subsidiaries wrote \$1,496.6 million of gross written premiums, allocated by segment and underlying market as follows:

Gross Written Premiums by Segment	Gross Written Premiums Year Ended December 31, 2022	% of Total
	(in thousands)	
Excess and Surplus Lines segment	\$ 921,164	61.5%
Specialty Admitted Insurance segment	490,208	32.8%
Casualty Reinsurance segment	85,208	5.7%
	\$1,496,580	100.0%
Gross Written Premiums by Market		
Non-admitted markets	\$1,065,405	71.2%
Admitted markets	431,175	28.8%
	\$1,496,580	100.0%

The A.M. Best Company ("A.M. Best") financial strength rating for our group's regulated insurance and reinsurance subsidiaries is "A-" (Excellent) with a stable outlook. This rating reflects A.M. Best's evaluation of our insurance and reinsurance subsidiaries' financial strength, operating performance and ability to meet obligations to policyholders and is not an evaluation directed towards the protection of investors. The rating for our operating insurance and reinsurance companies of "A-" (Excellent) is the fourth highest rating of the thirteen ratings issued by A.M. Best and is assigned to insurers that have, in A.M. Best's opinion, an excellent ability to meet their ongoing obligations to policyholders.

The financial strength ratings assigned by A.M. Best have an impact on the ability of our regulated subsidiaries to attract and retain agents and brokers and on the risk profiles of the submissions for insurance that our subsidiaries receive. We believe the "A-" (Excellent) ratings assigned to our insurance and reinsurance subsidiaries allow our subsidiaries to actively pursue relationships with the agents and brokers identified in their marketing plans.

Our History

In 2002, a group of experienced insurance executives created James River Group, Inc. ("James River Group"). James River Group was listed on the NASDAQ Stock Market (symbol: JRVR) in 2005. James River Group had two insurance company subsidiaries, James River Insurance and Stonewood Insurance. Both of these subsidiaries as well as James River Group remain subsidiaries of ours.

In 2007, a group of investors acquired James River Group, at which point it ceased trading as a public company. Simultaneously, the investors and management founded and capitalized JRG Re, and we began the process of building our present company.

In December 2014, we completed an initial public offering of our common shares (the "IPO"). Institutional investors sold all of the common shares in the IPO. Neither the Company nor any of its management or other shareholders sold shares in the IPO.

Our Competitive Strengths

We believe we have the following competitive strengths:

Broad Underwriting Expertise. We strive to be innovative in tailoring our products to provide solutions for our distribution partners and insureds, and we are willing to entertain insuring many types of risk classifications. As a result, we believe we are a "go to" market for a wide variety of risks. We are able to structure solutions for our insureds and the wholesale brokers with whom we work because of our deep technical expertise and experience in the niches and specialties we underwrite.

Focus on Small and Medium-Sized Casualty Niche and Specialty Business. We believe that small and medium-sized casualty accounts, in niche areas where we focus, are consistently among the most attractive subsets of the property-casualty insurance and reinsurance market. We think the unique characteristics of the risks within these markets require each account to be individually underwritten in an efficient manner.

Many carriers have chosen either to reject business that requires individual underwriting or have attempted to automate the underwriting of this highly variable business. Since our inception, we have embraced technology to greatly reduce the cost of individually underwriting these accounts in our Excess and Surplus Lines and Specialty Admitted Insurance segments. We are investing in technologies that may bring additional insights to our underwriters and allow them to refine and improve their risk selection and pricing. We continue to have our underwriters make individual judgments regarding the underwriting and pricing of accounts. Our experience leads us to believe this approach, combining expert judgment and technology designed to provide our underwriters with relevant information and quick processing, is still more likely to produce consistent results over time and across markets. We are successfully increasing rates in our Excess and Surplus Lines segment. Pricing on our E&S renewal book has increased for twenty-four consecutive quarters. The Excess and Surplus Lines and Specialty Admitted segments combined represented 94.3% of our gross written premiums and 88.9% of our net written premiums for the year ended December 31, 2022. We believe that there are compelling opportunities for measured but profitable growth in many sectors of the insurance markets we target.

Emphasis on Lowering Volatility. We earn our profits by taking underwriting and investment risk. We underwrite many classes of insurance and invest in many types of assets. We believe we have minimal exposure to material property risks and did not have meaningful losses from property risks during 2022.

We seek to limit our catastrophic underwriting exposure in all areas, but in particular to property risks and catastrophic events. Our U.S. primary companies purchase reinsurance from unaffiliated reinsurers to reduce our net exposure to any one risk or occurrence. In addition, our policy forms and pricing are subject to regular formal analysis in an effort to ensure we are insuring the types of risks we intend and that we

are being appropriately compensated for taking on those risks. We write a small amount of reinsurance. We seek to avoid catastrophic risks and contractually limit the amount of exposure we have on any one risk or occurrence in the reinsurance we write. We prefer to structure our assumed reinsurance treaties as proportional or quota share reinsurance, which is generally less volatile than excess of loss or catastrophe reinsurance. We believe this structure aligns our interests with those of the ceding company.

Talented Underwriters and Operating Leadership. The managers of our 15 underwriting divisions have an average of over 25 years of industry experience, substantial subject matter expertise and deep technical knowledge. They have been successful and profitable underwriters for us in the specialty casualty insurance sector. Our segment presidents all have extensive backgrounds and histories working in management capacities in specialty casualty insurance and reinsurance. Our recently joined Chief Actuary, Chief U.S. Claims Officer and Chief Underwriting Officer also bring extensive backgrounds in operational leadership within specialty casualty insurance and reinsurance, including a deep focus on risk management.

Efficient Operating Platform. We have what we believe to be an extremely attractive expense ratio, as we carefully manage personnel and all other costs throughout our group while growing our business. For the year ended December 31, 2022, our expense ratio was 25.0%.

Robust Technology and Data Capture. We seek to ground our underwriting decisions in reliable historical data and technical evaluation of risks. Our underwriters utilize intuitive systems and differentiated technologies. We have implemented processes to capture extensive data from our book of business, before, during and after the underwriting analysis and decision. We use the data we collect to inform and, we believe, improve our judgment about similar risks as we refine our underwriting criteria. We use the data we collect in regular formal review processes for each of our lines of business and significant reinsurance treaties.

Active Claims Management. Our U.S.-based primary insurance companies actively manage claims. We attempt to investigate thoroughly and settle promptly all covered claims, which we generally accomplish through direct contact with the insured and other affected parties. We have historically been able to close approximately 95% of claims from a particular policy year within the five subsequent years, and as of December 31, 2022, our reserves for claims incurred but not reported ("IBNR") were 66.6% of our total net loss reserves.

Meaningful Risk Adjusted Investment Returns. We seek to generate meaningful contributions to company profitability from our investment portfolio. We attempt to follow a strategy that emphasizes the preservation of our invested assets, provides adequate liquidity for the prompt payment of claims and produces attractive results for our shareholders. Within that context, we seek to improve risk-adjusted returns in our investment portfolio by allocating a portion of our portfolio to investments where we take measured risks based upon detailed knowledge of certain niche asset classes. Investment grade fixed maturity securities make up the majority of our investment portfolio, and we are comfortable allocating a portion of our assets to non-traditional investments. We consider non-traditional investments to include investments that are (1) unrated bond or fixed income securities, (2) non-listed equities or (3) investments that generally have less liquidity than rated bond or fixed income securities or listed equities. Non-traditional investments represented 7.8% of our total cash and invested assets (excluding restricted cash equivalents) at December 31, 2022, consisting of syndicated bank loans (6.6%) and other invested assets (1.2%) that include interests in limited liability companies that invest in renewable energy opportunities, limited partnerships that invest in debt or equity securities, notes receivable for renewable energy projects, and a private debt security. While we are willing to make investments in non-traditional types of investments, we seek to avoid asset classes and investments that we do not understand. The weighted average credit rating of our portfolio of fixed maturity securities, bank loans and preferred stocks as of December 31, 2022 was "A". At December 31, 2022, the average duration of our total invested assets and cash, excluding restricted cash, was 4.1 years.

Our Strategy

We believe our approach to our business will help us achieve our goal of generating compelling returns on tangible equity while limiting volatility in our financial results. This approach involves the following:

Generate Consistent Underwriting Profits. We seek to make underwriting profits each and every year. We attempt to find ways to grow in markets we believe to be profitable, but are less concerned about growth

than maintaining profitability in our underwriting activities (measured without regard to investment income). We are willing to reduce the premiums we write when we cannot achieve the pricing and contract terms we believe are necessary to meet our financial goals.

Maintain a Strong Balance Sheet. Balance sheet integrity is key to our long-term success. In order to maintain balance sheet integrity, we seek to estimate the amount of future obligations, especially reserves for losses and loss adjustment expenses, in a consistent and appropriate fashion.

Respond Rapidly to Market Opportunities and Challenges. For the year ended December 31, 2022, gross written premiums for the Excess and Surplus Lines segment increased by 10.5% over the same period in 2021. We seek to grow our business by taking advantage of opportunities in markets in which we believe we can use our expertise to generate consistent underwriting profits. We seek to measure rates and react quickly to changes in the rates or terms the market will accept. In this favorable pricing environment, we have taken steps to grow and are increasing gross written premiums across most underwriting divisions in this segment. In 2022, our growth was primarily focused in our Excess Casualty, General Casualty, Manufacturers & Contractors, Excess Property, Sports and Entertainment and Small Business divisions within our Excess and Surplus Lines segment. This very specific evaluation of each risk or class of risks is a hallmark of our underwriting.

When market conditions have been challenging, or when actual experience has not been as favorable as we anticipated, or when the size or risk profile of certain insureds or lines of business change, we have tried to act quickly to evaluate our situation and to make course corrections in order to protect our profits and preserve tangible equity. Our actions have included reducing our writings when margins tightened and exiting lines or classes of business when we believed the risk of continuing in a line outweighed the potential rewards from underwriting. We do not hesitate to increase loss estimates when we determine that it is appropriate.

Focus on Specialty Insurance Markets and Fee Income. We focus on specialty markets in which our underwriters have particular expertise and in which we have fewer competitors than in standard markets, and greater flexibility to price and structure our products in accordance with our underwriting strategy. We believe underwriting profitability can best be achieved through restricting our risk taking to niches where, because of our expertise, we can distinguish ourselves in the underwriting and pricing process. We also believe that we can achieve attractive returns on capital through the growth of our fronting business, as we carefully manage credit and collateral to generate attractive fee income, while generally utilizing less capital than in our highly underwritten businesses.

Use Timely and Accurate Data. We design our internal processing and data collection systems to provide our management team with accurate and relevant information in real-time. We collect premium, commission and claims data, including detailed information regarding policy price, terms, conditions and the nature of the insured's business. This data allows us to analyze trends in our business, including results by individual agent or broker, underwriter and class of business and expand or contract our operations quickly in response to market conditions. We rely on our information technology systems in this process. Additionally, the claims staff also contributes to our underwriting operations through its communication of claims information to our underwriters.

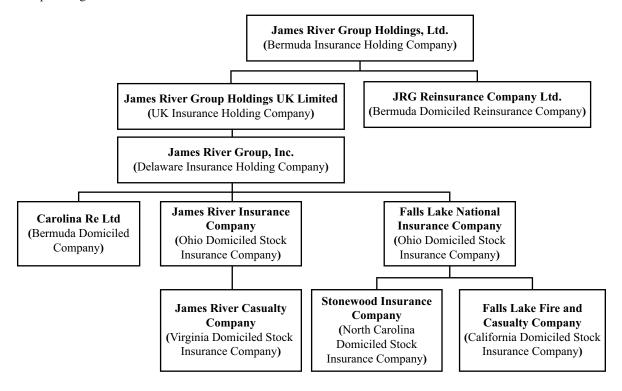
Earn a Meaningful Contribution from Investments. We seek to earn a meaningful contribution to our overall returns from our investment portfolio activities each year. We attempt to balance the preservation of assets, liquidity needs and mitigation of volatility with returns across our portfolio. We believe our diversified portfolio and ability to source investment opportunities positions us well to generate returns while balancing the importance of maintaining a strong balance sheet.

Manage Capital Actively. We invest and manage our capital with a goal of consistently increasing tangible equity for our shareholders and generating attractive returns on tangible equity. We intend to expand our premium volume and capital base to take advantage of opportunities to earn an underwriting profit or to reduce our premium volume and capital base if attractive underwriting opportunities are not available. We expect to finance our future operations with a combination of debt and equity and do not intend to raise or retain more capital than we believe we can profitably deploy in a reasonable time frame or that is reasonably necessary to bolster the capital positions of our regulated insurance entities. We may not,

however, always be able to raise capital when needed. Our ratings from A.M. Best are very important to us, as are our relationships with our regulators, and maintaining them in good order is a principal consideration in our decisions regarding capital management.

Our Structure

The chart below displays our corporate structure as of December 31, 2022 as it pertains to our holding and operating subsidiaries.



Business Segments

Excess and Surplus Lines Segment

We underwrite non-admitted E&S business through our subsidiaries, James River Insurance and James River Casualty (together, "James River," which comprises our Excess and Surplus Lines segment), from offices in Richmond, Virginia; Scottsdale, Arizona; and Atlanta, Georgia. The Excess and Surplus Lines segment is our largest segment, representing 61.5% of consolidated gross written premiums for the year ended December 31, 2022. James River has been engaged in the E&S insurance market for 20 years.

The E&S industry focuses on providing insurance coverage to policyholders that may be unable to purchase insurance from standard lines insurers typically due to perceived risk related to their operations or risk exposures. Our Excess and Surplus Lines segment underwrites property-casualty insurance in all states and the District of Columbia. We utilize a network of authorized wholesale brokers and general agents throughout the United States. Gross written premiums for our Excess and Surplus Lines segment grew by 10.5% and 19.2% in 2022 and 2021, respectively. Net written premiums grew by 17.5% and 11.3% in 2022 and 2021, respectively. In 2020, our Excess and Surplus Lines segment's gross written premiums shrank by 24.2% relative to 2019 due to the early cancellation in late 2019 of a large commercial auto account. The Excess and Surplus Lines segment produced a cumulative combined ratio of 94.1% from 2013 through 2022.

Companies that underwrite on an E&S lines basis operate under a different regulatory structure than standard market carriers. E&S lines carriers are generally permitted to craft the terms of the insurance contract to suit the particular risk they are assuming. E&S lines carriers are, for the most part, free of rate and form regulation. In contrast, standard market carriers are generally required to use approved insurance

forms and to charge rates that have been authorized by or filed with state insurance departments. However, as E&S carriers, our insurance subsidiaries in the Excess and Surplus Lines segment are not backed by any state's guarantee fund, and in most states these subsidiaries may only write coverage for an insured after they have been declined coverage by the standard market.

Our Excess and Surplus Lines segment underwrites coverage for a wide range of commercial businesses and does not write personal lines insurance. Applications for insurance are presented to us by authorized wholesale brokers who are engaged by retail agents to assist in coverage procurement.

Claims for business written and retained by the Excess and Surplus Lines segment are managed by our internal claims department although we use independent adjusters for inspection and payment of certain claims.

The chart below identifies the Excess and Surplus Lines segment's divisions and sets forth the amount of gross written premiums by each division.

	Gross Written Premiums Year Ended December 31,						
E&S Division	2022	Percentage of Total 2022	2021	2020	2019	2018	
			(in tho	usands)			
Excess Casualty	\$310,383	33.7%	\$285,082	\$213,037	\$118,954	\$ 66,452	
General Casualty	173,574	18.9%	140,608	125,433	115,832	54,127	
Manufacturers and Contractors	156,645	17.0%	139,720	122,880	105,096	79,160	
Excess Property	52,104	5.7%	47,241	37,332	31,606	16,963	
Energy	42,290	4.6%	46,216	51,109	45,442	33,942	
Commercial Auto	37,974	4.1%	34,630	30,029	405,565	322,126	
Small Business	36,930	4.0%	32,593	24,790	19,725	14,808	
Allied Health	34,156	3.7%	35,192	26,918	26,713	30,450	
Life Sciences	32,277	3.5%	35,935	35,163	24,462	16,636	
Environmental	20,676	2.2%	17,050	17,753	16,539	10,499	
Sports and Entertainment	13,934	1.5%	9,442	6,118	4,212	3,685	
Professional Liability	8,936	1.0%	8,104	6,881	6,441	5,916	
Medical Professionals	1,285	0.1%	1,844	1,700	1,733	1,774	
Total	\$921,164	100.0%	\$833,657	\$699,143	\$922,320	\$656,538	

Excess Casualty underwrites excess liability coverage for a variety of risk classes including manufacturers, contractors, distributors and transportation risks. Typically, we provide between \$1.0 million and \$10.0 million per occurrence limits above a \$1.0 million attachment point. Of this amount, we retain up to \$2.0 million of exposure per occurrence and cede the balance to our reinsurers. We write excess liability coverage above our own primary policies, as well as policies issued by third parties. When we write above others' policies, we are selective regarding underlying carriers, focusing on the nature of the business, the financial strength of the carrier, their pricing and their claims handling capabilities.

General Casualty writes primary liability coverage on businesses exposed to premises liability type claims including real estate, mercantile and retail operations, apartments and condominiums, hotels and motels, restaurants, bars, taverns and schools. Typically, we write \$1.0 million per occurrence in limits, and we retain the entire \$1.0 million limit.

Manufacturers and Contractors writes primary general liability coverage for a variety of classes, including manufacturers of consumer, commercial, and industrial products and general and trade contractors. Typically, we issue a \$1.0 million per occurrence limit in this division, and we retain the entire \$1.0 million limit.

Excess Property writes property risks providing limits in various layers above the primary coverage layer for a variety of classes, including apartments, condominiums, resorts, shopping centers, offices and general commercial properties. Typical per risk limits offered range from \$5.0 million to \$30.0 million on a gross basis, and a maximum of \$5.0 million on a net of reinsurance basis. The average net per risk limit is approximately \$860,000 as of December 31, 2022. We retain up to the first \$5.0 million in any one event or catastrophe.

Energy writes risks engaged in the business of energy production, distribution or mining, and the manufacture of equipment used in the energy business segment. Examples of classes underwritten by this division include oil and gas exploration companies, oil or gas well drillers, oilfield consultants, oil or gas lease operators, oil well servicing companies, oil or gas pipeline construction companies, fireworks manufacturing, mining-related risks, utilities, and utility contractors. We provide policy limits up to \$11.0 million, with typical limits between \$1.0 million and \$5.0 million per occurrence, retaining up to \$1.0 million in limit net on either a primary or excess basis.

Commercial Auto underwrites primarily the hired and non-owned auto liability exposures for a variety of industry segments including package and food delivery services. On December 31, 2019, we terminated coverage for our largest commercial auto insured (Rasier) which comprised \$374.2 million of gross written premiums in 2019, representing 40.6% of the Excess and Surplus Lines segment's gross written premiums and 25.4% of our consolidated gross written premiums for the year ended December 31, 2019. Limits assumed are retained by the Company, in some cases subject to self-insured retentions of the insureds.

Small Business includes both brokerage and delegated authority contract binding focusing on accounts with annual primary liability insurance premiums of less than \$10,000. For these smaller risks, we limit flexibility in coverage options and pricing to facilitate quick turnaround and efficient processing. We generally write \$1.0 million per occurrence limits and retain the entire amount.

Allied Health underwrites casualty insurance for allied health and social service types of risks, such as long-term care facilities, independent living apartments, group homes, half-way houses and shelters, drug rehabilitation, home health care and medical staffing enterprises. We provide policy limits up to \$11.0 million, with typical limits between \$1.0 million and \$5.0 million per occurrence, retaining up to \$1.0 million in limit net. Approximately 88% of the premiums written by our Allied Health division from inception through 2022 have been written on a claims-made and reported form. We believe this policy form significantly reduces our long-term exposure in this complicated class of business.

Life Sciences underwrites general liability, products liability and/or professional liability coverage for manufacturers, distributors and developers of biologics (antibodies & vaccines used for the prevention of disease), nutraceuticals (health, nutrition and herbal supplements), human clinical trials, pharmaceuticals (mainly generics and over-the-counters) and medical devices. This division also writes a book of various types of business engaged in the medical and adult-use cannabis industry. We provide policy limits up to \$11.0 million (up to \$10.0 million on cannabis), with typical limits between \$1.0 million and \$5.0 million per occurrence, retaining up to \$1.0 million in limit net.

Environmental underwrites contractors' pollution liability, products pollution liability, site specific pollution liability and consultant's professional liability coverage on a stand-alone basis and in conjunction with the general liability coverage. Typically, we write environmental coverage for contractors who are not engaged in environmental remediation work on an occurrence form. We provide policy limits up to \$11.0 million, with typical limits between \$1.0 million and \$5.0 million per occurrence, retaining up to \$1.0 million in limit net on a primary or excess basis.

Sports and Entertainment underwrites primary liability coverage for sports, recreation and entertainment related risks, including special events, family entertainment centers, tourist attractions, health clubs, sports complexes and other sport and event venues. Typical limits offered are up to \$1.0 million per occurrence, and we retain the entire \$1.0 million limit.

Professional Liability writes professional liability coverage for accountants, architects, engineers, lawyers and certain other professions. We provide policy limits up to \$11.0 million, with typical limits between \$1.0 million and \$5.0 million per occurrence, retaining up to \$1.0 million in limit net. All of our professional liability coverage is written on a claims-made and reported basis.

Medical Professionals underwrites non-standard physicians' professional liability for individuals or small groups. Our healthcare business is a mix of both surgical and non-surgical classes. We typically provide between \$1.0 million and \$3.0 million per occurrence limits and retain up to \$1.0 million of exposure per occurrence and cede the balance to our reinsurers. All of the policies written by this division have been issued on a claims-made and reported basis.

The following table identifies the top producing states by amount of gross written premium for our Excess and Surplus Lines segment for the year ended December 31, 2022 and the amount of gross written premium produced by such states for the years ended December 31, 2021, 2020, 2019 and 2018. The table also shows the percentage of each states' gross written premium to total gross written premium in the Excess and Surplus Lines segment for the years ended December 31, 2022, 2021 and 2020.

	2022		2021		2020		2019	2018
State	Gross Written Premiums	% of Total	Gross Written Premiums	% of Total	Gross Written Premiums	% of Total	Gross Written Premiums	Gross Written Premiums
Florida	\$161,679	17.5%	\$137,880	16.5%	\$104,120	14.9%	\$ 67,700	\$ 47,918
California	157,519	17.1%	147,677	17.7%	136,532	19.5%	368,488	213,729
Texas	146,737	15.9%	128,312	15.4%	79,338	11.4%	51,978	31,604
New York	112,189	12.2%	101,820	12.2%	108,778	15.6%	89,680	54,417
Pennsylvania	23,548	2.5%	22,055	2.6%	19,008	2.7%	16,206	8,562
New Jersey	23,383	2.5%	22,131	2.7%	17,621	2.5%	13,425	12,147
Washington	22,618	2.5%	22,778	2.7%	16,407	2.4%	16,573	17,329
Arizona	20,972	2.3%	16,544	2.0%	12,782	1.8%	9,023	5,160
Georgia	18,636	2.0%	15,522	1.9%	11,934	1.7%	10,936	9,120
Illinois	17,526	1.9%	19,010	2.3%	16,243	2.3%	14,491	20,893
Louisiana	17,161	1.9%	15,723	1.9%	13,968	2.0%	16,001	12,654
Massachusetts	13,458	1.5%	16,682	2.0%	13,762	2.0%	34,494	19,758
Missouri	12,446	1.4%	11,967	1.4%	10,080	1.4%	14,628	9,424
Virginia	11,125	1.2%	8,663	1.0%	8,932	1.3%	23,563	15,532
Ohio	11,091	1.2%	13,156	1.6%	9,210	1.3%	10,537	13,043
All other states	151,076	16.4%	133,737	16.1%	120,428	17.2%	164,597	165,248
Total	\$921,164	100.0%	\$833,657	100.0%	\$699,143	100.0%	\$922,320	\$656,538

Marketing and Distribution

The Excess and Surplus Lines segment distributes its products through a select group of authorized E&S lines brokers we believe can consistently produce reasonable volumes of quality business. These brokers procure policies for their clients from us as well as from other insurance companies. At December 31, 2022, the segment had authorized close to 100 broker groups to submit applications to us. The Excess and Surplus Lines segment generally makes broker authorizations by brokerage office and underwriting division. The segment does not grant its brokers underwriting or claims authority. The segment does delegate limited authority under several programs underwritten by exclusive General Agents as well as a growing but still limited number of General Agents underwriting small-account commercial risks through our online contract binding portal.

Our Excess and Surplus Lines segment selects its brokers based upon management's review of the experience, knowledge and business plan of each broker. While many of our Excess and Surplus Lines segment's brokers have more than one office, we evaluate each office as if it were a separate entity. Brokers must be able to demonstrate an ability to produce both the quality and quantity of business that we seek. Brokers unable to produce consistently profitable business, or who produce unacceptably low volumes of business, may be terminated. Our Excess and Surplus Lines segment's underwriters visit brokers regularly to discuss the products that we offer and the needs of the brokers. We believe the personal relationships we

foster with individual brokers and our ability to respond to a wide variety of risks placed by these brokers make us an important market for them.

Our Excess and Surplus Lines segment's three largest brokers produced \$643.3 million of gross written premiums for the year ended December 31, 2022, representing approximately 69.8% of the Excess and Surplus Lines segment's gross written premiums and 43.0% of consolidated gross written premiums for 2022. The three largest brokers produced \$289.7 million (Ryan Specialty Group), \$214.2 million (AmWins Group), and \$139.4 million (Truist Insurance Holdings) of gross written premiums for the year ended December 31, 2022, respectively, representing 19.4%, 14.3%, and 9.3% of consolidated gross written premiums and 31.4%, 23.3%, and 15.1% of the Excess and Surplus Lines segment's gross written premiums for 2022, respectively.

In 2022 and 2021, our Excess and Surplus Lines segment paid an average commission to producers of 16.8% and 16.6%, respectively, of gross written premiums.

Underwriting

Our Excess and Surplus Lines segment's staff includes over 200 individuals directly employed in underwriting policies as of December 31, 2022. We are very selective about the policies we bind. Our Excess and Surplus Lines segment binds approximately 4% of new submissions and one out of every five new quotes. If our underwriters cannot reasonably expect to bind coverage at the combination of premiums and coverage that meet our standards, they are encouraged to quickly move on to another prospective opportunity. For the year ended December 31, 2022, we received approximately 288,000 submissions (new and renewal, excluding commercial auto policies), quoted over 59,000 policies and bound over 25,000 policies.

When we accept risk in our Excess and Surplus Lines segment, we are careful to establish terms that are suited to the risk and the pricing. As an excess and surplus lines writer, we use our freedom of rate and form to make it possible to take on risks that have already been rejected by admitted carriers who have determined they cannot insure these risks on approved forms at filed rates. We attempt to craft policies that offer affordable protection to our insureds by tailoring coverage in ways that make potential losses more predictable and are intended to reduce claims costs.

We design our internal processing and data collection systems to provide our management team with accurate and relevant information in real-time. We collect premium, commission and claims data, including detailed information regarding policy price, terms, conditions and the nature of the insured's business. This data allows us to analyze trends in our business, including results by individual broker, underwriter and class of business and expand or contract our operations quickly in response to market conditions. We rely on our information technology systems in this process. Additionally, the claims staff also contributes to our underwriting operations through its communication of claims information to our underwriters.

Claims

We believe that effective management of claims settlement and any associated litigation avoids delays and associated additional costs.

Over 60 claims professionals with significant experience in the property-casualty industry support our Excess and Surplus Lines segment as of December 31, 2022.

Our excess and surplus lines business generally results in claims from premises/operations liability, professional liability, hired and non-owned auto liability, auto physical damage, first party property losses and products liability. We believe the key to effective claims management is timely and thorough claims investigation. We seek to complete all investigations and adjust reserves appropriately as soon as is practicable after the receipt of a claim. We seek to manage the number of claims per adjuster to allow adjusters sufficient time to investigate and resolve claims. Senior management reviews each case above a specified amount at least quarterly to evaluate whether the key issues in the case are being considered and to monitor case reserve levels. We keep the settlement authority of front-line adjusters low to ensure the practice of having two or more members of the department participate in the decision as to whether to settle or defend. In addition, cases with unusual damage, liability or policy interpretation issues are subjected to peer

reviews. Members of the underwriting staff participate in this process. Prior to any scheduled mediation or trial involving a claim, claims personnel conduct further peer review to make sure all issues and exposures have been adequately analyzed.

Our claims staff also contributes to our underwriting operations through communication of claims information to our underwriters. Members of our Claims team participate on our forms committee, which reviews and develops all policy forms and exclusions, and are also members of the underwriting review committee.

Approximately 93% of all claims received are closed within five years in the Excess and Surplus Lines segment.

The calendar year net loss ratios for the Excess and Surplus Lines segment for the last ten years were:

2013	40.4%
2014	55.2%
2015	54.5%
2016	62.6%
2017	80.2%
2018	78.8%
2019	84.4%
2020	76.7%
2021	106.2%
2022	65.9%

The calendar year loss ratios for 2017 through 2021 were impacted by adverse reserve development of \$38.7 million, \$20.7 million, \$57.4 million, \$91.4 million and \$200.1 million, respectively, in the commercial auto line of business that was primarily related to a former insured, Rasier LLC and its affiliates ("Rasier"). The loss ratios for 2022 and 2021 also include net catastrophe losses in the Excess Property line of business of \$5.0 million related to Hurricane Ian in 2022 and \$5.0 million related to Hurricane Ida in 2021.

On September 27, 2021, James River entered into a loss portfolio transfer transaction (the "Commercial Auto LPT") with Aleka Insurance, Inc. ("Aleka"), a captive insurance company affiliate of Rasier LLC, to reinsure substantially all of the Excess and Surplus Lines segment's legacy portfolio of commercial auto policies previously issued to Rasier for which James River is not otherwise indemnified by Rasier. Under the terms of the transaction, effective as of July 1, 2021, James River ceded to Aleka approximately \$345.1 million of commercial auto liabilities relating to Rasier policies written in the years 2013-2019, which amount constituted the reinsurance premium. The reinsurance coverage is structured to be fully collateralized, is not subject to an aggregate limit, and is subject to certain exclusions. A pre-tax loss of \$29.6 million was recognized as adverse loss and loss adjustment reserve development in the Excess and Surplus Lines segment for the third quarter of 2021 associated with the loss portfolio transfer.

For the year ended December 31, 2022, due to adverse paid loss trends on the legacy Rasier business, the Company recognized adverse prior year development of \$46.7 million on the net reserves subject to the Commercial Auto LPT, resulting in a corresponding additional amount ceded under the Commercial Auto LPT. As a result, the cumulative amounts ceded under the Commercial Auto LPT exceed the consideration paid, moving the Commercial Auto LPT into a gain position. The Company has applied retroactive reinsurance accounting to the Commercial Auto LPT. A retroactive reinsurance benefit of \$31.0 million was recorded in losses and loss adjustment expenses on the Consolidated Statements of Income (Loss) and Comprehensive (Loss) Income for the year ended December 31, 2022 using the recovery method. As of December 31, 2022 and December 31, 2021, the cumulative amounts ceded under the Commercial Auto LPT were \$391.8 million and \$345.1 million, respectively. The unrecognized deferred retroactive reinsurance gain of \$15.7 million at December 31, 2022 is separately presented on the Company's Consolidated Balance Sheets.

Specialty Admitted Insurance Segment

The Falls Lake Insurance Companies ("Falls Lake") comprise our other U.S. insurance segment, Specialty Admitted Insurance. Falls Lake consists of Falls Lake National (an Ohio domiciled company, licensed in 49 states and the District of Columbia and registered as a surplus lines company in California), and its subsidiaries Stonewood Insurance (a North Carolina domiciled company) and Falls Lake Fire and Casualty (a California domiciled company). The Specialty Admitted Insurance segment produced 32.8% of consolidated gross written premiums for the year ended December 31, 2022.

Our plan is to continue to use our broad licensure and significant management expertise to earn fee income as well as underwriting profits. The Specialty Admitted Insurance segment consists of:

- Fronting and program business written through selected MGAs, insurance carriers, and other producers, which represented 89.2% of 2022 gross written premiums in this segment, (88.3% in 2021, 84.4% in 2020, 83.6% in 2019, 85.2% in 2018, and 86.1% in 2017); and
- Individual risk workers' compensation business, underwritten by our staff and generated by appointed agents in 13 states, that produced 10.8% of 2022 gross written premiums in this segment, (11.7% in 2021, 15.6% in 2020, 16.4% in 2019, 14.8% in 2018, and 13.9% in 2017).

Fronting & Program Business

In our fronting business, we issue insurance policies for another insurance company which may not have the licensure, product suite or rating to serve its desired market, or for a program supported by reinsurance or alternative capital provider(s). In a fronting arrangement, we give selected MGAs authority to act on our behalf to produce, underwrite and administer policies that meet our underwriting and pricing guidelines. We generally retain 10%-35% of the underwriting risk in our fronting business. The issuance of our policy makes us contractually responsible to the insured in the event they experience a covered loss. We enter into these arrangements selectively with counterparties which have significant experience and market presence in specialty classes of property-casualty risk, workers' compensation or automobile business. We only work with MGAs who permit us to actively engage with them through a combination of onsite and offsite resources to facilitate our real-time supervision of their work. Underwriting, claims and financial performance is subject to regular review by our staff, and we hold appropriate collateral to manage counterparty credit risk. We grant limited authority for underwriting and claims administration and employ a rigorous review process to ensure the authority is appropriately used within the terms of our contract, and that collateral held by us is appropriate. We charge fees as a percentage of gross written premiums for issuing these policies. We establish fronting opportunities through a variety of sources, including direct carrier relationships, MGAs, reinsurers, and reinsurance brokers.

Due to our licensure and product filings, we are positioned to support this business throughout the United States. Because of the more limited capital allocation required to support it, we believe the fronting business represents an efficient use of capital, and we continued to expand this business in 2022. Our two largest fronting agencies produced \$120.9 million and \$110.9 million of gross written premiums in 2022, representing 8.1% and 7.4% of consolidated gross written premiums and 24.7% and 22.6% of the Specialty Admitted Insurance segment's gross written premiums, respectively.

Our objective is to utilize the combination of fee income and underwriting profits from our Specialty Admitted Insurance segment to leverage our capital and improve returns on tangible equity. Fee income was \$23.6 million in 2022, \$22.7 million in 2021, and \$19.3 million in 2020.

We focus our coverage on casualty risks in our fronting business, although some property insurance is written. We seek to limit our risk generally through reinsurance either on a proportional or excess of loss basis, or sometimes both. For initial claims oversight and administration, we generally outsource frequency layer claims management to third-party administrators for the first \$100,000 of a claim, and then provide supervisory control above this amount.

Under the terms of these program agreements, we pay fixed commissions, often with a profit contingency. Our fronting business is distributed primarily through MGAs and fronting and program managers.

Traditional Workers' Compensation Business

Our individual risk workers' compensation business, produced through a distribution channel comprised of appointed independent retail agents and a limited number of appointed wholesale brokers, remains a regionally focused effort mainly in select Southeastern U.S. states. We made the strategic decision in 2020 to focus our efforts towards the Southeast, and to substantially reduce our presence in other states. This decision was based upon a wide range of factors, including ability to exceed internal performance metrics, regulations regarding pricing and claim cost containment, and our agent relationships. For the year ended December 31, 2022, approximately 39% of our retail produced workers' compensation direct written premiums were in North Carolina, 18% were in Georgia, 17% were in Missouri, and 10% were in Virginia. Building trades represented approximately 31% of the direct premiums in force in our retail produced workers' compensation book in 2022. Other significant industry groups include specialty transportation (14%), healthcare employees (13%), goods and services (13%), manufacturing (13%), and agriculture (9%). We recognize the cyclical nature of this line and are prepared to contract the business rapidly when rates decline, or the regulatory or economic environment makes it difficult to adequately price this business or contain claim costs.

Casualty Reinsurance Segment

We report our business of writing reinsurance for third party insurance companies in our Casualty Reinsurance segment (representing 5.7% of consolidated gross written premiums for the year ended December 31, 2022). We participate in the reinsurance business through our Bermuda domiciled reinsurance subsidiary, JRG Re, which is licensed as a Class 3B reinsurer by the Bermuda Monetary Authority. JRG Re provides proportional and working layer excess of loss treaty reinsurance to third parties and, through December 31, 2017, also to our U.S.-based insurance subsidiaries. For purposes of management evaluation, this segment's underwriting results only include premiums ceded by, and losses incurred with respect to, business assumed from unaffiliated companies and does not include premiums and losses ceded under the internal reinsurance arrangements.

Our Casualty Reinsurance segment underwrote \$85.2 million in gross written premiums for the year ended December 31, 2022, 97.5% of which consisted of E&S risks. Of those third-party premiums written by JRG Re, 64.8% is classified by the company as general liability and 22.0% as non-medical professional liability, with the balance primarily related to excess casualty and commercial auto coverages. We typically structure our reinsurance treaties as quota share arrangements with loss and risk mitigating features that align our interest with that of the ceding companies. On a premium volume basis, treaties written as "proportional" arrangements represented 98.1% of the third-party net written premiums during 2022 and treaties with loss mitigation features including sliding scale ceding commissions represented 40.6%. We purchase very little retrocessional coverage in this segment. Almost all of the segment's premiums are for casualty lines of business. The Casualty Reinsurance segment writes virtually no reinsurance designed to respond specifically to natural catastrophes.

The Casualty Reinsurance segment's three largest brokers generated \$25.4 million, \$20.0 million, and \$17.2 million of gross written premiums, respectively, representing 73.4% of the segment's gross written premiums in the year ended December 31, 2022. The Casualty Reinsurance segment's three largest relationships with unaffiliated ceding companies generated \$67.9 million of gross written premiums (\$26.9 million, \$24.5 million, and \$16.5 million, respectively) representing 4.5% of consolidated gross written premiums and 79.7% of the Casualty Reinsurance segment's gross written premiums for the year ended December 31, 2022.

Underwriting profits and investment income earned by JRG Re are exempt from U.S. taxation. We do, however, pay a 1% U.S. Federal excise tax on premiums ceded to JRG Re. At December 31, 2022, JRG Re invested assets made up 33.2% of our total invested assets.

In keeping with our previously announced plans to significantly shrink top-line writings of the Casualty Reinsurance segment, we have decided to suspend writing business in the Casualty Reinsurance segment, as we continue our focus on growing our higher returning U.S. insurance and fronting businesses. We expect the Casualty Reinsurance segment to continue earning premium due to the nature of the earnings patterns in the reinsurance business, which can extend over multiple years. Aside from the suspension of

underwriting activities, we plan for the Casualty Reinsurance segment to maintain its normal day-to-day operations, with a staff to continue servicing the business on its books and to facilitate compliance with its regulatory requirements.

Corporate and Other Segment

Our Chief Executive Officer and Chief Financial Officer and other holding company employees are part of the Corporate and Other segment. This is where we set and direct strategy for the group as a whole as well as high level objectives for each of the three operating segments. We make all capital management, capital allocation, treasury functions, information technology and group wide risk management decisions in this segment. Our decisions at this level also include reinsurance purchasing.

Purchase of Reinsurance

We routinely purchase reinsurance for our Excess and Surplus Lines and Specialty Admitted Insurance segments and, less frequently purchase retrocessional coverage for our Casualty Reinsurance segment. The purchase of reinsurance reduces volatility by limiting our exposure to large losses and provides capacity for growth. In a reinsurance transaction, an insurance company transfers, or cedes, all or part of its exposure in return for a portion of the premium. In a retrocession transaction, a reinsurer transfers, or cedes, all or part of its exposure in return for a portion of the premium. Our companies remain legally responsible for the entire obligation to policyholders and ceding companies, irrespective of any reinsurance or retrocession coverage we may purchase. Typically, we pay claims from our own funds and then seek reimbursement from the reinsurer or retrocessionaire, as applicable. There is credit exposure with respect to losses ceded to the extent that any reinsurer or retrocessionaire is unable or unwilling to meet the obligations ceded by us under reinsurance or retrocessional treaties. The ability to collect on reinsurance or retrocessional reinsurance is subject to many factors, including the solvency of the counterparty and their interpretation of contract language and other factors. As of December 31, 2022, we have no material, ongoing disputes with any reinsurer or retrocessionaire, and we are not aware of any credit quality issues with any of our reinsurers or retrocessionaires.

Purchased Property Reinsurance

Our focus on return on tangible equity leads us to avoid lines of business that we know are exposed to high degrees of volatility. The Excess and Surplus Lines segment writes a limited book of excess property risks (approximately \$52.1 million direct written premiums in 2022). The risks assumed in this book are geographically dispersed and significantly reinsured to limit losses. The Excess and Surplus Lines segment may retain up to \$5.0 million per risk on our excess property book; however, the average retained amount per risk is approximately \$862,000. In our Specialty Admitted Insurance segment, we focus on casualty business, but we do write a limited amount of property insurance, principally through our fronting and programs business. The focus in our Casualty Reinsurance segment is also primarily casualty business, but we do have a relatively small amount of assumed business with property exposure.

In our Excess and Surplus Lines segment, we purchased a surplus share reinsurance treaty specifically designed to cover property risks. The surplus share treaty along with facultative reinsurance helps ensure that our net retained limit per risk will be \$5.0 million or less. Additionally, we purchased catastrophe reinsurance of \$60.0 million in excess of a \$5.0 million retention for the group that is intended to cover the 1 in 1,000 year modeled aggregate PML on the segment's excess property book. We buy such high limits because we believe the property catastrophe models are less accurate when applied to small books of business like ours than when applied to larger portfolios. Where the Specialty Admitted Insurance segment incurs incidental property risks in its fronting and program book of business, the segment has purchased coverage for \$4.0 million in excess of \$1.0 million per occurrence, in addition to the protection provided under the corporate \$60.0 million in excess of \$5.0 million catastrophe treaty. This is also intended to cover the 1 in 1,000 year modeled aggregate PML on any property exposures the Specialty Admitted Insurance segment assumes. In our Casualty Reinsurance segment, we believe that our maximum loss from a catastrophic event is approximately \$2.0 million and, as a result, we do not currently purchase retrocessional reinsurance coverage for property-catastrophe risks. We believe our pre-tax group-wide PML from a 1 in 1,000 year

catastrophic event would not exceed 2.5% of shareholders' equity, inclusive of reinstatement premiums payable and net retentions.

Purchased Casualty Reinsurance

In our Excess and Surplus Lines segment, there are five divisions where we only write \$1.0 million per occurrence limits (Commercial Auto, Manufacturers and Contractors, General Casualty, Small Business and Sports and Entertainment), and therefore, we do not purchase any specific reinsurance for these policies. In the other divisions, where we issue policies with larger limits, we purchase reinsurance in excess of \$1.0 million or \$2.0 million per occurrence.

In our Specialty Admitted Insurance segment, there are two distinct reinsurance strategies. For individual risk workers' compensation, we purchase \$29.0 million excess of \$1.0 million per occurrence, and we purchase 65.5% quota share coverage of the primary \$1.0 million. For our fronting and program business, we purchase proportional reinsurance and excess of loss reinsurance to limit our exposure to no more than \$750,000 per occurrence.

In prior years, for both our Excess and Surplus Lines segment and our Specialty Admitted Insurance segment, we purchased a contingency clash reinsurance treaty that covered all casualty business for \$10.0 million in excess of \$2.0 million per occurrence. This coverage, which was put into runoff effective July 1, 2022, was intended to respond in situations with multiple insured losses from the same event as well as extra contractual obligations or excess policy limits on an individual occurrence basis. As of December 31, 2022, our average net retained limit per risk is \$2.5 million.

Effective January 1, 2020, we purchased an additional \$10.0 million in claims made coverage for excess policy limits and extra contractual obligations exposures above the clash and contingency treaty for the period 2014 to present. This treaty has one reinstatement and expired on December 31, 2022.

In our Casualty Reinsurance segment, we currently purchase quota share retrocessional reinsurance in support of an individual assumed treaty where an expense override is achieved. In prior periods, we have purchased proportional and excess of loss retrocessional coverage for particular situations related to specific treaties, but have only done so on a limited basis.

For 2022, our top ten reinsurers represented 71.6% of our total ceded reinsurance recoverables, and all of these reinsurance recoverables were from reinsurers with an A.M. Best rating of "A+" (Superior) or better, or are collateralized with letters of credit or by a trust agreement. The following table sets forth our ten most significant reinsurers by amount of reinsurance recoverables on unpaid losses and the amount of reinsurance recoverables pertaining to each such reinsurer as well as its A.M. Best rating as of December 31, 2022:

Reinsurer	Reinsurance Recoverable as of December 31, 2022	A.M. Best Rating December 31, 2022
	(in thousands)	
Swiss Reinsurance America Corporation	\$ 340,393	A+
Fortitude Re (Casualty Re LPT)	244,657	A
Aleka Insurance Company (Commercial Auto LPT)	132,049	Unrated ⁽¹⁾
Berkley Insurance Company	130,860	A+
Hannover Ruck SE	50,764	A+
Safety National Casualty	46,769	A++
Endurance Assurance Corporation	45,300	A+
American European Insurance Company	38,891	$B^{(2)}$
Munich Reinsurance America	33,699	A+
Aioi Nissay Dowa Insurance Company	25,583	A+
Top 10 Total	1,088,965	
Other	431,148	
Total	\$1,520,113	

- (1) This reinsurer is unrated. All material reinsurance amounts from this reinsurer are collateralized.
- (2) This reinsurer is below A-. All material reinsurance recoverable amounts from this reinsurer are collateralized.

Amounts Recoverable from an Indemnifying Party and Reinsurer on Legacy Commercial Auto Book

James River previously issued a set of commercial auto insurance contracts to Rasier (the "Rasier Commercial Auto Policies") under which James River pays losses and loss adjustment expenses on the contracts. James River has indemnity agreements with Rasier (non-insurance entities) (collectively, the "Indemnity Agreements") and is contractually entitled to reimbursement for the portion of the losses and loss adjustment expenses paid on behalf of Rasier under the Rasier Commercial Auto Policies and other expenses incurred by James River. On September 27, 2021, James River entered into the Commercial Auto LPT with Aleka to reinsure substantially all of the Rasier Commercial Auto Policies for which James River is not otherwise indemnified by Rasier under the Indemnity Agreements. Under the terms of the Commercial Auto LPT, effective as of July 1, 2021, James River ceded to Aleka approximately \$345.1 million of commercial auto liabilities relating to Rasier Commercial Auto Policies written in the years 2013-2019, which amount constituted the reinsurance premium. For the year ended December 31, 2022, due to adverse paid loss trends on the legacy Rasier business, the Company recognized adverse prior year development of \$46.7 million on the reserves subject to the Commercial Auto LPT, bringing the cumulative amount ceded under the Commercial Auto LPT to \$391.8 million at December 31, 2022.

Each of Rasier and Aleka are required to post collateral under the Indemnity Agreements and the Commercial Auto LPT:

- Pursuant to the Indemnity Agreements, Rasier is required to post collateral equal to 102% of James River's estimate of the amounts that are recoverable or may be recoverable under the Indemnity Agreements, including, among other things, case loss and loss adjustment expense reserves, IBNR loss and loss adjustment expense reserves, extra contractual obligations and excess policy limits liabilities. The collateral is provided through a collateral trust arrangement (the "Indemnity Trust") in favor of James River by Aleka. In connection with the execution of the Commercial Auto LPT, James River returned \$691.3 million to the Indemnity Trust, representing the remaining balance of the amount withdrawn in October 2019, as was permitted under the indemnification agreements with Rasier and the associated trust agreement. At December 31, 2022, the balance in the Indemnity Trust was \$267.0 million, and, together with the balance of the Loss Fund Trust (as defined below) attributable to the Indemnity Agreements as described below, the total balance of collateral securing Rasier's obligations under the Indemnity Agreements was \$336.2 million.
- Pursuant to the Commercial Auto LPT, Aleka is required to post collateral equal to 102% of James River's estimate of Aleka's obligations under the Commercial Auto LPT, calculated in accordance with standard actuarial principles and based on reserves recorded in our statutory financial statements. The collateral is provided through a collateral trust arrangement (the "LPT Trust") established in favor of James River by Aleka. At December 31, 2022, the balance in the LPT Trust was \$121.9 million, and, together with the balance of the Loss Fund Trust (as defined below) attributable to the Commercial Auto LPT as described below, the total balance of collateral securing Aleka's obligations under the Commercial Auto LPT was \$150.0 million. At December 31, 2022, the total reinsurance recoverables under the Commercial Auto LPT was \$145.2 million (including \$132.0 million of unpaid recoverables and \$13.2 million of paid recoverables).

In connection with the execution of the Commercial Auto LPT, James River and Aleka entered into an administrative services agreement (the "Administrative Services Agreement") with a third party claims administrator (the "Administrator") pursuant to which the Administrator handles the claims on the Rasier Commercial Auto Policies for the remaining life of those claims. The claims paid by the Administrator are reimbursable by James River, and pursuant to the Administrative Services Agreement, James River established a loss fund trust account for the benefit of the Administrator (the "Loss Fund Trust") to collateralize its claims payment reimbursement obligations. James River funds the Loss Fund Trust using funds withdrawn from the Indemnity Trust, funds withdrawn from the LPT Trust, and its own funds, in each

case in an amount equal to the pro rata portion of the required Loss Fund Trust balance attributable to the Indemnity Agreements, the Commercial Auto LPT and James River's existing third party reinsurance agreements, respectively. At December 31, 2022, the balance in the Loss Fund Trust was \$103.2 million, including \$69.2 million representing collateral supporting Rasier's obligations under the Indemnity Agreements and \$28.2 million representing collateral supporting Aleka's obligations under the Commercial Auto LPT. Funds posted to the Loss Fund Trust are classified as restricted cash equivalents on the Company's balance sheet.

While the Commercial Auto LPT brings economic finality to substantially all of the Rasier Commercial Auto Policies, the Company has credit exposure to Rasier and Aleka under the Indemnity Agreements and the Commercial Auto LPT if the estimated losses and expenses of the Rasier Commercial Auto Policies grow at a faster pace than the growth in our collateral balances. In addition, we have credit exposure if our estimates of future losses and loss adjustment expenses and other amounts recoverable under the Indemnity Agreements and the Commercial Auto LPT, which are the basis for establishing the collateral balances, are lower than actual amounts paid or payable. The amount of our credit exposure in any of these instances could be material. To mitigate these risks, we closely and frequently monitor our exposure compared to our collateral held, and we request additional collateral in accordance with the terms of the Commercial Auto LPT and Indemnity Agreements when our analysis indicates that we have uncollateralized exposure.

Reserve Policy

We seek to establish reserves that will adequately meet our obligations. All of our reserving actuaries are credentialed and our Chief Actuary has 38 years of industry experience. We engage independent actuarial consultants to perform independent valuations to corroborate our decisions regarding reserves. Anticipated inflation is reflected implicitly in the reserving process through analysis of cost trends and the review of historical development. We do not discount our reserves for losses and loss adjustment expenses to reflect estimated present value. All of our methods to calculate net reserves include assumptions about estimated reinsurance recoveries and their collectability. Reinsurance collectability is evaluated independently of the reserving process and appropriate allowances for uncollectible reinsurance are established.

We maintain reserves for specific claims incurred and reported and reserves for claims incurred but not reported ("IBNR"). The process of establishing loss reserves is complex and inherently imprecise because it must take into consideration many variables that are subject to the outcome of future events. As a result, informed subjective estimates and judgments about our ultimate exposure to losses are an integral component of our loss reserving process. Given that loss reserve estimates depend on the outcome of future events, changes in prior year estimates are generally unavoidable in the insurance industry. These changes are sometimes referred to as "prior year loss development" or "reserve development" and are included in current operations.

We continually monitor reserves using the most recent information on reported claims and a variety of statistical techniques and we adjust our estimates as experience develops or new information becomes known.

In many cases, several years may elapse between the occurrence of an insured loss, the reporting of the loss and our eventual payment of the loss. We establish loss and loss adjustment expense reserves for the ultimate payment of all losses and loss adjustment expenses incurred. We estimate the reserve for losses and loss adjustment expenses using individual case-basis valuations of reported claims. We also use statistical analyses to estimate the cost of losses that have been incurred but not reported to us. These estimates are based on historical information and on estimates of future trends that may affect the frequency of claims and changes in the average cost of claims that may arise in the future. We also consider various factors such as:

- The product line and volume of business;
- Loss emergence and insured reporting patterns;
- Underlying policy terms and conditions;
- Business and exposure mix;
- Trends in claim frequency and severity;
- Changes in operations;

- Emerging economic and social trends;
- Inflation:
- · Changes in the regulatory and litigation environments; and
- Discussions with third-party actuarial consultants.

The procedures we use to estimate loss reserves assume that past experience, adjusted for the effects of current developments and anticipated trends, is an appropriate basis for predicting future events. It also assumes that adequate historical or other data exists upon which to make these judgments. These estimates are by their nature subjective and imprecise, and ultimate losses and loss adjustment expenses may vary from established reserves.

Our Reserve Committee consists of our Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer, and Chief Actuary. Additionally, the presidents, chief financial officers and segment actuaries of each of our three insurance segments participate in the Reserve Committee meetings for their respective segments. The Reserve Committee meets quarterly to review the actuarial recommendations made by each segment actuary and use their best judgment to determine the best estimate to be recorded for the reserve for losses and loss adjustment expenses on our balance sheet. The Company also engages an independent internationally recognized actuarial consulting firm to review the Company's reserve estimates in the third and fourth quarters of each year.

The following table reflects our favorable (adverse) reserve development by segment during the calendar years 2022 to 2013 individually and in aggregate.

Segment	Excess and Surplus Lines	Specialty Admitted Insurance	Casualty Reinsurance	Grand Total
Calendar Year				
2022	\$ 210	\$ 4,150	\$ (13,430)	\$ (9,070)
2021	$(190,710)^{(1)}$	2,500	$(137,568)^{(6)}$	(325,778)
2020	$(59,437)^{(2)}$	5,011	$(37,778)^{(7)}$	(92,204)
2019	$(51,173)^{(3)}$	5,252	$(23,087)^{(8)}$	(69,008)
2018	$(15,012)^{(4)}$	5,560	(8,220)	(17,672)
2017	$(20,023)^{(5)}$	2,721	(4,170)	(21,472)
2016	24,079	3,822	(4,185)	23,716
2015	25,424	3,531	(12,637)	16,318
2014	27,283	5,854	(5,719)	27,418
2013	40,734	1,410	(4,692)	37,452
Cumulative Development	\$(218,625)	\$39,811	\$(251,486)	\$(430,300)

⁽¹⁾ Includes \$200.1 million of adverse development in the commercial auto line of business that was primarily related to the 2019 and prior contract years with Rasier, partially offset by \$9.4 million of favorable development from other divisions.

⁽²⁾ Includes \$91.4 million of adverse development in the commercial auto line of business that was primarily related to the 2018 and prior contract years with Rasier, partially offset by \$32.0 million of favorable development from other divisions.

⁽³⁾ Includes \$57.4 million of adverse development in the commercial auto line of business that was primarily related to the 2016 and 2017 contract years with Rasier, partially offset by \$6.2 million of favorable development from other divisions.

⁽⁴⁾ Includes \$20.7 million of adverse development in the commercial auto line of business that was primarily related to the 2016 contract year with Rasier, partially offset by \$5.7 million of favorable development from other divisions.

- (5) Includes \$38.7 million of adverse development in the commercial auto line of business that was primarily related to the 2016 contract year with Rasier, partially offset by \$18.6 million of favorable development from other divisions primarily from the 2014 through 2016 accident years.
- (6) Includes adverse development primarily related to underwriting years 2014 through 2018. This adverse development was mainly in the general liability and professional liability lines of business.
- (7) Includes adverse development primarily related to accident years 2014 through 2018. This adverse development was mainly in the general liability and commercial auto lines of business.
- (8) Includes adverse development primarily related to accident years 2011 through 2016. This adverse development was mainly in the general liability and commercial auto lines of business.

Among the indicators of reserve strength that we monitor closely is the amount of IBNR reserves held on our balance sheet for claims that have been incurred but not yet reported. The table below sets forth our IBNR, total gross reserves and the percentage that IBNR represents of the total gross reserves, in each case by segment and in the aggregate, at December 31, 2022. The percentage that IBNR represents of total gross reserves at December 31, 2022 is 61.5%.

	Gross Reserves at December 31, 2022			
	IBNR Total		IBNR % of Total	
Excess and Surplus Lines	\$1,014,927	\$1,585,860	64.0%	
Specialty Admitted Insurance	406,094	755,102	53.8%	
Casualty Reinsurance	280,632	428,033	65.6%	
Total	\$1,701,653	\$2,768,995	<u>61.5</u> %	

The table below sets forth our IBNR, total net reserves (prior to the \$612,000 allowance for credit losses on reinsurance recoverables) and the percentage that IBNR represents of the total net reserves, in each case by segment and in the aggregate, at December 31, 2022. The percentage that IBNR represents of total net reserves at December 31, 2022 is 66.6%.

	Net Reserves at December 31, 2022			
	IBNR Total		IBNR % of Total	
		(in thousands)		
Excess and Surplus Lines	\$657,392	\$ 967,584	67.9%	
Specialty Admitted Insurance	66,329	113,181	58.6%	
Casualty Reinsurance	107,292	167,505	64.1%	
Total	\$831,013	\$1,248,270	<u>66.6</u> %	

A significant portion of reported claims from prior policy years were closed at December 31, 2022 as shown below:

Policy Year	Excess and Surplus Lines Segment Excluding Commercial Auto	Excess and Surplus Lines Segment Commercial Auto	Specialty Admitted Insurance Segment Individual Risk Workers' Comp	Specialty Admitted Insurance Segment Fronting and Programs
2017	93.2%	100.0%	99.9%	96.9%
2018	93.5%	100.0%	99.3%	95.5%
2019	88.5%	99.9%	97.5%	92.8%
2020	79.9%	93.6%	94.1%	88.7%
2021	70.9%	83.6%	75.0%	83.2%

Investment Strategy

Our investment strategy seeks to generate stable investment income and contributions to growth in tangible equity, while providing sufficient liquidity to meet our claims and other obligations. We attempt to generate better than market average risk-adjusted returns in our investment portfolio by taking measured risks based upon detailed knowledge of certain niche asset classes. While we are willing to make investments in non-traditional types of investments, we avoid risks that we do not understand well, as well as structures or situations we think could cause substantial loss of capital. The vast majority of our investment portfolio is managed by third party, independent investment managers.

The majority of our investment portfolio is invested in investment grade fixed income securities. This portfolio provides predictable income with low risk of principal loss and strong liquidity. We seek to augment our overall return and income by investing in bank loans and other higher yielding assets, including equity securities and private investments. We designed these strategies to improve our investment return, and we are focused on opportunistic investing in areas where we believe our management has expertise or an appropriate understanding of the risk and return of the investment.

Our strategy is designed to earn higher returns than an investment grade fixed income approach alone while maintaining a high average portfolio credit rating and investing in asset classes and allocations that are consistent with the insurance regulatory and rating agency framework within which we operate. We have generally managed our overall portfolio to a duration of 3 to 5 years. At December 31, 2022, the average duration of our total invested assets and cash, excluding restricted cash, was 4.1 years.

A summary of our cash and invested assets, excluding restricted cash equivalents, at December 31, 2022 is as follows:

	December 31, 2022						
Portfolio	Book Value Market Value		Carrying Value (\$\sin thousands)	Book Yield	% of Carrying Value		
		** • ** • * • • • •	,	2.20/	= 0.407		
Fixed maturity and preferred stock	\$2,038,521	\$1,854,248	\$1,854,248	3.2%	78.4%		
Bank loan participations	171,320	154,991	154,991	5.8%	6.6%		
Common stock	48,431	47,796	47,796	NA	2.0%		
Short-term investments	107,812	107,812	107,812	4.3%	4.5%		
Other invested assets	27,447	27,447	27,447	NA	1.2%		
Total invested assets			2,192,294		92.7%		
Cash and cash equivalents			173,164		7.3%		
Total invested assets and cash			\$2,365,458		100.0%		

Fixed maturity and preferred stock investments primarily consist of investment grade fixed income and preferred stock securities, which make up 78.4% of total invested assets and cash. Common stock investments primarily consist of dividend yield focused equity holdings and are 2.0% of total invested assets and cash. Our objective with fixed maturity, preferred stock and common stock investments is to earn attractive risk-adjusted returns with a low risk of loss of principal, while earning attractive income.

Bank Loans

The Bank Loan portfolio primarily consists of investments in participations in syndicated bank loans, but may also include a small allocation of bonds. Bank loans in our portfolio are generally senior secured loans with an average credit quality of "B" as of December 31, 2022 and floating interest rates based on spreads over LIBOR or SOFR. We believe bank loans are an attractive asset class because (1) floating-rate loans help to reduce our risk of loss in the event of rising interest rates, (2) the loans are generally senior secured, (3) the asset class has a history of relatively high recovery rates in the event of default, (4) the portfolio provides an attractive yield and (5) the maturities of the loans are relatively short (average of approximately 5 years). We invest in this asset class by owning individual loan participations that are carried at fair market value. As of December 31, 2022, bank loans totaled 6.6% of total invested assets and cash.

Other Invested Assets

We make selective investments in private debt or equity securities in areas where we see opportunity or attractive risk and return characteristics. We focus on investments where we believe we have an understanding of the risk and opportunity and have the ability to monitor them closely. At December 31, 2022, we held 10 private investments with a total carrying value of \$27.4 million. Our portfolio consists of investments in wind and solar energy, banking, small cap equities, loans of middle market private equity sponsored companies, asset management firms and other investments. We are opportunistic in our private investment strategy and our portfolio may grow or shrink based on the opportunities available to us. Our other invested asset strategy has significant risk and not all investments are successful. As a result, we intentionally keep this portfolio as a small portion of the overall investment portfolio. As of December 31, 2022, other invested assets totaled 1.2% of total invested assets and cash.

Our total invested assets and cash totaled \$2,365.5 million as of December 31, 2022. The weighted average credit rating of our portfolio of fixed maturity securities, bank loans and preferred stocks as of December 31, 2022 was "A". We have intentionally maintained a cautious interest rate risk position by having an average duration for our total invested assets and cash, excluding restricted cash, of 4.1 years at December 31, 2022. This compares to an average duration at December 31, 2021 of 4.0 years. Based on the current duration of 4.1 years, a 1.0% increase in interest rates would result in a pre-tax decline in the market value of our portfolio, excluding other invested assets and cash, of approximately \$88.8 million.

Insurance Cycle Management and Growth

The insurance and reinsurance business is cyclical in nature, with "hard" and "soft" cycles. Hard markets occur when insurance underwriters limit their exposure in a line of business or across their entire portfolio. When underwriters exercise restraint, insurance buyers are forced to pay more to induce underwriters to cover their risks. A hard market can also be created by economic expansions when capital committed to backing insurance policies does not grow as fast as the demand for insurance. There is generally a correlation between interest rates and the willingness of insurance companies to commit their capital to writing insurance. When fixed income yields are low, insurance companies may need to raise insurance prices to improve underwriting results in order to offset loss of investment income.

We are currently in a growth phase for our U.S. primary operations. In both our Excess and Surplus Lines and Specialty Admitted Insurance segments, we are experiencing growth in premiums driven by favorable rates as well as increases in policy count and exposures. In 2020, the growth in the Excess and Surplus Lines segment was impacted by the termination of our insurance contracts with Rasier effective December 31, 2019. The Rasier account generated \$374.2 million of gross written premium in 2019, but none in 2020 through 2022. Excluding Rasier, E&S gross written premium increased 27.5% in 2020, from \$548.2 million in 2019 to \$699.1 million in 2020. The table below shows the changes in gross written premiums we have experienced in our operating segments from 2020 through 2022.

	2022		2021		2020		
Gross Written Premiums	\$	% Change	\$	% Change	\$	% Change	
	(\$ in thousands)						
Excess and Surplus Lines	\$ 921,164	10.5%	\$ 833,657	19.2%	\$ 699,143	(24.2)%	
Specialty Admitted Insurance	490,208	(0.3)%	491,561	20.3%	408,691	5.4%	
Casualty Reinsurance	85,208	(53.2)%	182,081	22.1%	149,166	(7.2)%	
Total	\$1,496,580	(0.7)%	\$1,507,299	19.9%	\$1,257,000	(14.5)%	

In years prior to those presented, the business written at our U.S. primary operations has, at times, been subject to "soft" market conditions, reflected both in price decreases and reduced underlying exposures. Our Excess and Surplus Lines segment is the most sensitive to hard and soft markets. We have, therefore, sought to diversify this business by geography, line of business and revenue stream. While we have been growing this business and achieving increasing or stable rates for several periods through December 31, 2022, there will likely be periods in the future where our growth moderates, stagnates or turns negative. The market for most lines of commercial insurance, other than workers' compensation, are currently in a hardening phase.

The Excess and Surplus Lines segment has historically been able to make an underwriting profit regardless of the state of the underwriting cycle. This segment's cumulative combined ratio for 2013 through 2022 is 94.1%.

Traditionally, admitted insurance lines have been very susceptible to market cycles. We believe this trend is continuing. We seek to isolate ourselves from these trends in our Specialty Admitted Insurance segment by writing lines of business we believe are slightly less competitive, by prudently purchasing reinsurance and by being willing to dramatically reduce our writings when market conditions warrant.

A material portion of the profitability we seek to achieve from our fronting business will come from fee income that is generated via policies that are issued by our insurance companies and then mostly or wholly reinsured to third parties. Because we earn substantial fees from underwriting business on which we retain little or no insurance risk, this business can be profitable to us even in soft market conditions. We have \$437.2 million of gross written premiums for fronting and program business for 2022 (\$60.6 million on a net basis), and we expect our fee income will continue to grow in future periods and provide us with a steady revenue stream that will be relatively insulated from conditions in the admitted insurance market.

In the Casualty Reinsurance segment, we have the ability to manage the cycle by growing or shrinking our business according to market conditions and the corresponding prices and terms being offered for the assumption of specific risks. We have a small team of seven people in Bermuda who underwrite and administer the business written by JRG Re in Bermuda.

Competition

We compete in a variety of markets against a variety of competitors depending on the nature of the risk and coverage being underwritten. The competition for any one account may range from large international firms to smaller regional companies or group captives in the domiciles in which we operate. To remain competitive, our strategy includes, among other measures: (1) focusing on rate adequacy and underwriting discipline, (2) leveraging our distribution network, (3) controlling expenses, (4) maintaining financial strength and issuer credit ratings and (5) providing quality services to agents and policyholders.

Excess and Surplus Lines

Competition within the E&S lines marketplace comes from a wide range of carriers. In addition to mature E&S companies that operate nationwide, there is competition from carriers formed in recent years. The Excess and Surplus Lines segment may also compete with national and regional carriers from the standard market willing to underwrite selected accounts on an admitted basis. Competitors in this segment include ACE Westchester Specialty Group (Chubb), AmRisc Insurance Company (Truist), Apollo Syndicate, Alleghany Corporation (Berkshire Hathaway), Arrowhead General Insurance Agency, Inc., Ategrity Specialty Insurance Company, Axis Insurance Company (Axis Capital Holdings Limited), Beazley Group (Lloyd's), Brit Insurance (Lloyd's), Colony Specialty Insurance Company (Argo Group International Holdings, Ltd.), Fairfax Financial Holdings, Ltd., Hiscox Insurance Company (Lloyd's), Houston Casualty Company (a subsidiary of Tokio Marine HCC), Kinsale Capital Group, Inc., Lexington Insurance Company (American International Group, Inc.), Markel Corporation, Navigators Insurance Company (Hartford), OneBeacon (Intact Financial Corporation), QBE Insurance Group Ltd., RLI Corp., E&S/Specialty (Nationwide Mutual Group), Starr Insurance Company (C.V. Starr & Company), Swiss Re Ltd, United Specialty Insurance Company, W.R. Berkley, and other large national and multi-national insurance carriers.

Specialty Admitted Insurance

Due to the diverse nature of the products offered by the Specialty Admitted Insurance segment, competition comes from various sources. National carriers tend to compete for fronting and program accounts along all product lines. Competition for our fronting business includes but is not limited to State National (now part of Markel), Argo Group, Clear Blue, Spinnaker, Trisura, Red Point, Equity Insurance Company, Worth Insurance, and Amtrust. The majority of the competition for our workers' compensation business comes from regional companies or regional subsidiaries of national carriers in the domiciles in which they operate. Competitors in our workers' compensation business include Builders Mutual Insurance

Company, Accident Fund Insurance Company of America, W. R. Berkley Corporation, American Interstate Insurance Company (AMERISAFE, Inc.), and Amtrust Group.

Casualty Reinsurance

The reinsurance industry is highly competitive. We expect to compete with major reinsurers, most of which are well-established, have a significant operating history and strong financial strength ratings and have developed long-standing client relationships. Competitors in this segment include AXA XL, Axis Re, MS Amlin, QBE Re, Renaissance Re, Sompo International Re, Swiss Re, Transatlantic Re, various Lloyd's syndicates, and other carriers that underwrite U.S. casualty reinsurance.

Regulation

Bermuda Insurance Regulation

The Insurance Act 1978 and related rules and regulations (the "Insurance Act"), which regulates the insurance business of JRG Re, provides that no person shall carry on insurance business in or from within Bermuda unless registered as an insurer under the Insurance Act by the Bermuda Monetary Authority (the "BMA"). The BMA, in deciding whether to grant registration, has broad discretion to act as it thinks fit in the public interest. The BMA is required by the Insurance Act to determine whether the applicant is a fit and proper body to be engaged in the insurance business and, in particular, whether it has, or has available to it, adequate knowledge and expertise. The registration of an applicant as an insurer is subject to its complying with the terms of its registration and such other conditions as the BMA may impose at any time.

It is not necessary that the insurance company be incorporated in Bermuda. A foreign corporation may obtain a permit under the Companies Act 1981 of Bermuda (the "Companies Act") to carry on business in Bermuda and then be registered as an insurer in Bermuda under the Insurance Act.

The Insurance Act does not distinguish between insurers and reinsurers; companies are registered (licensed) under the Insurance Act as "insurers" (although in certain circumstances a condition to registration may be imposed to the effect that the company may carry on only reinsurance business). The Insurance Act uses the defined term "insurance business" to include reinsurance business.

The Insurance Act also grants to the BMA powers to supervise, investigate and intervene in the affairs of insurance companies.

An Insurance Advisory Committee appointed by the Bermuda Minister of Finance advises the BMA on matters connected with the discharge of the BMA's functions and subcommittees thereof supervise, investigate and review the law and practice of insurance in Bermuda, including reviews of accounting and administrative procedures.

The Insurance Act imposes solvency and liquidity standards on Bermuda insurance companies, as well as auditing and reporting requirements.

Certain significant aspects of the Bermuda insurance regulatory framework applicable to Class 3B insurers are set forth below.

Classification of Insurers

The Insurance Act distinguishes between insurers carrying on long-term business, insurers carrying on general business and insurers carrying on special purpose business. There are several classifications of insurers carrying on general business, ranging from Class 1 insurers (pure captives) to Class 4 insurers (large commercial underwriters). JRG Re is licensed as a Class 3B insurer and is regulated as such under the Insurance Act.

Minimum Paid-Up Share Capital

A Class 3B insurer is required to maintain fully paid up share capital of at least \$120,000.

Principal Representative and Principal Office

A Class 3B insurer is required to maintain a principal office and to appoint and maintain a principal representative in Bermuda. For the purposes of the Insurance Act, the principal office of JRG Re is located at Wellesley House, 2nd Floor, 90 Pitts Bay Road, Pembroke, HM 08, Bermuda.

Without a reason acceptable to the BMA, an insurer may not terminate the appointment of its principal representative, and the principal representative may not cease to act as such, unless 30 days' prior notice in writing to the BMA is given of the intention to do so.

It is the duty of the principal representative to forthwith notify the BMA where the principal representative reaches the view that there is a likelihood of the insurer (for which the principal representative acts) becoming insolvent, or on it coming to the knowledge of the principal representative, or the principal representative having reason to believe, that a reportable "event" has occurred. Examples of a reportable "event" include a failure by the insurer to comply substantially with a condition imposed upon it by the BMA relating to a solvency margin or a liquidity or other ratio, a significant loss reasonably likely to cause the insurer to fail to comply with its enhanced capital requirement (discussed below) and the occurrence of a material change (as such term is defined under the Insurance Act) in its business operations.

Within 14 days of such notification to the BMA, the principal representative must furnish the BMA with a written report setting out all the particulars of the case that are available to the principal representative.

Where there has been a significant loss which is reasonably likely to cause the insurer to fail to comply with its enhanced capital requirement, the principal representative must also furnish the BMA with a capital and solvency return reflecting an enhanced capital requirement prepared using post-loss data. The principal representative must provide this within 45 days of notifying the BMA regarding the loss.

Furthermore, where a notification has been made to the BMA regarding a material change, the principal representative has 30 days from the date of such notification to furnish the BMA with unaudited interim statutory financial statements in relation to such period as the BMA may require, together with a general business solvency certificate in respect of those statements.

Head Office

A Class 3B insurer shall maintain its head office in Bermuda. In determining whether the insurer satisfies this requirement, the BMA shall consider, *inter alia*, the following factors: (i) where the underwriting, risk management and operational decision making of the insurer occurs; (ii) whether the presence of senior executives who are responsible for, and involved in, the decision making related to the insurance business of the insurer are located in Bermuda; and (iii) where meetings of the board of directors of the insurer occur. In making its determination, the BMA may also have regard to (a) the location where management of the insurer meets to effect policy decisions of the insurer; (b) the residence of the officers, insurance managers or employees of the insurer; and (c) the residence of one or more directors of the insurer in Bermuda. This provision does not apply to an insurer that has a permit to conduct business in Bermuda under the Companies Act or the Non-Resident Insurance Undertakings Act 1967.

Loss Reserve Specialist

A Class 3B insurer is required to appoint an individual approved by the BMA to be its loss reserve specialist. In order to qualify as an approved loss reserve specialist, the applicant must be an individual qualified to provide an opinion in accordance with the requirements of the Insurance Act and the BMA must be satisfied that the individual is fit and proper to hold such an appointment.

A Class 3B insurer is required to submit annually an opinion of its approved loss reserve specialist with its capital and solvency return in respect of its total general business insurance technical provisions (i.e. the aggregate of its net premium provisions, net loss and loss expense provisions and risk margin, as each is reported in the insurer's statutory economic balance sheet). The loss reserve specialist's opinion must state, among other things, whether or not the aggregate amount of technical provisions shown in the statutory economic balance sheet as at the end of the relevant financial year (i) meets the requirements of the

Insurance Act and (ii) makes reasonable provision for the total technical provisions of the insurer under the terms of its insurance contracts and agreements.

Annual Financial Statements

A Class 3B insurer is required to prepare and submit to the BMA, on an annual basis, audited financial statements which have been prepared under generally accepted accounting principles or international financial reporting standards ("GAAP financial statements") and audited statutory financial statements.

The Insurance Act prescribes rules for the preparation and substance of statutory financial statements (which include, in statutory form, a balance sheet, an income statement, a statement of capital and surplus and notes thereto). The statutory financial statements include detailed information and analysis regarding premiums, claims, reinsurance and investments of the insurer.

The insurer's annual GAAP financial statements, and the auditor's report thereon, and the statutory financial statements are required to be filed with the BMA within four months from the end of the relevant financial year (unless specifically extended with the approval of the BMA). The statutory financial statements do not form a part of the public records maintained by the BMA but the GAAP financial statements are available for public inspection.

Declaration of Compliance

At the time of filing its statutory financial statements, a Class 3B insurer is also required to deliver to the BMA a declaration of compliance, in such form and with such content as may be prescribed by the BMA, declaring whether or not the insurer has, with respect to the preceding financial year (i) complied with all requirements of the minimum criteria applicable to it, (ii) complied with the minimum margin of solvency as at its financial year end, (iii) complied with the applicable enhanced capital requirements as at its financial year end, (iv) complied with applicable conditions, directions and restrictions imposed on, or approvals granted to, the insurer and (v) complied with the minimum liquidity ratio for general business as at its financial year end. The declaration of compliance is required to be signed by two directors of the insurer, and if the insurer has failed to comply with any of the requirements referenced in (i) through (v) above or observe any limitations, restrictions or conditions imposed upon the issuance of its license, if applicable, the insurer will be required to provide the BMA with particulars of such failure in writing. A Class 3B insurer shall be liable to a civil penalty by way of a fine for failure to comply with a duty imposed on it in connection with the delivery of the declaration of compliance.

Annual Statutory Financial Return and Annual Capital and Solvency Return

A Class 3B insurer is required to file with the BMA a statutory financial return no later than four months after its financial year end (unless specifically extended with the approval of the BMA).

The statutory financial return of an insurer shall consist of (i) an insurer information sheet, (ii) an auditor's report, (iii) the statutory financial statements, (iv) notes to the statutory financial statements and (v) declaration of compliance.

The insurer information sheet shall state, among other matters, (i) whether the general purpose financial statements of the insurer for the relevant year have been audited and an unqualified opinion issued, (ii) the minimum margin of solvency applying to the insurer and whether such margin was met, (iii) whether or not the minimum liquidity ratio applying to the insurer for the relevant year was met and (iv) whether or not the insurer has complied with every condition attached to its certificate of registration. The insurer information sheet shall state if any of the questions identified in items (ii), (iii) or (iv) above is answered in the negative, whether or not the insurer has taken corrective action in any case and, where the insurer has taken such action, describe the action in an attached statement.

The directors are required to certify whether the minimum solvency margin has been met, and the independent approved auditor is required to state whether in its opinion it was reasonable for the directors to make this certification.

Where an insurer's accounts have been audited for any purpose other than compliance with the Insurance Act, a statement to that effect must be filed with the statutory financial return.

In addition, each year the insurer is required to file with the BMA a capital and solvency return along with its annual statutory financial return. The prescribed form of capital and solvency return comprises the insurer's Bermuda Solvency Capital Requirement ("BSCR") model or an approved internal capital model in lieu thereof, together with such schedules as prescribed by the Insurance (Prudential Standards) (Class 4 and 3B Solvency Requirement) Rules 2008 for Class 3B insurers, as amended from time to time.

Neither the statutory financial return nor the capital and solvency return is available for public inspection.

Quarterly Financial Return

A Class 3B insurer, not otherwise subject to group supervision, is required to prepare and file quarterly financial returns with the BMA on or before the last day of the months of May, August and November of each year. The quarterly financial returns consist of (i) quarterly unaudited financial statements for each financial quarter (which must minimally include a balance sheet and income statement and must also be recent and not reflect a financial position that exceeds two months), (ii) a list and details of material intragroup transactions that the Class 3B insurer is a party to and the Class 3B insurer's risk concentrations that have materialized since the most recent quarterly or annual financial returns, details surrounding all intragroup reinsurance and retrocession arrangements and other intra-group risk transfer insurance business arrangements that have materialized since the most recent quarterly or annual financial returns, (iii) details of the ten largest exposures to unaffiliated counterparties and any other unaffiliated counterparty exposures exceeding 10% of the Class 3B insurer's statutory capital and surplus, (iv) enhanced capital requirement ratio, (v) commercial insurers solvency self-assessment, (vi) total quoted bonds and unquoted bonds by BSCR rating and (vii) details of the catastrophe event that occurred during the reporting period (if applicable).

Public Disclosures

All commercial insurers and insurance groups are required under the Insurance Act to prepare and file with the BMA, and also publish on their web site, a financial condition report. The BMA has discretion to approve modifications and exemptions to the public disclosure rules on application by the insurer if, among other things, the BMA is satisfied that the disclosure of certain information will result in a competitive disadvantage or compromise confidentiality obligations of the insurer.

Independent Approved Auditor

A Class 3B insurer must appoint an independent auditor who will audit and report on the insurer's GAAP financial statements and statutory financial statements, each of which are required to be filed annually with the BMA. The auditor must be approved by the BMA as the independent auditor of the insurer. If the insurer fails to appoint an approved auditor or at any time fails to fill a vacancy for such auditor, the BMA may appoint an approved auditor for the insurer and shall fix the remuneration to be paid to the approved auditor within 14 days, if not agreed sooner by the insurer and the auditor.

Non-insurance Business

No Class 3B insurer may engage in non-insurance business unless that non-insurance business is ancillary to its insurance business. Non-insurance business means any business other than insurance business and includes carrying on investment business, managing an investment fund as operator, carrying on business as a fund administrator, carrying on banking business, underwriting debt or securities or otherwise engaging in investment banking, engaging in commercial or industrial activities and carrying on the business of management, sales or leasing of real property.

Minimum Liquidity Ratio

The Insurance Act provides a minimum liquidity ratio for general business insurers. A Class 3B insurer engaged in general business is required to maintain the value of its relevant assets at not less than 75% of

the amount of its relevant liabilities. Relevant assets include cash and time deposits, quoted investments, unquoted bonds and debentures, first liens on real estate, investment income due and accrued, accounts and premiums receivable, reinsurance balances receivable, funds held by ceding reinsurers and any other assets which the BMA, on application in any particular case made to it with reasons, accepts in that case.

There are certain categories of assets which, unless specifically permitted by the BMA, do not automatically qualify as relevant assets, such as unquoted equity securities, investments in and advances to affiliates and real estate and collateral loans.

The relevant liabilities are total general business insurance reserves and total other liabilities less deferred income taxes and letters of credit, guarantees and other instruments.

Minimum Solvency Margin and Enhanced Capital Requirements

The Insurance Act provides that the value of the statutory assets of an insurer must exceed the value of its statutory liabilities by an amount greater than its prescribed minimum solvency margin ("MSM").

The MSM that must be maintained by a Class 3B insurer with respect to its general business is the greater of (i) \$1,000,000, (ii) 20% of the first \$6,000,000 of net premiums written (but if the net premiums written are in excess of \$6,000,000, the figure is \$1,200,000 plus 15% of net premiums written in excess of \$6,000,000) or (iii) 15% of the aggregate of net loss and loss expense provisions and other insurance general business reserves or (iv) 25% of the ECR (as defined below) as reported at the end of the relevant year.

Class 3B insurers are also required to maintain available statutory economic capital and surplus at a level equal to or in excess of its enhanced capital requirement ("ECR") which is established by reference to either the BSCR model or an approved internal capital model.

The BSCR model is a risk-based capital model which provides a method for determining an insurer's capital requirements (statutory economic capital and surplus) by taking into account the risk characteristics of different aspects of the insurer's business. The BSCR formula establishes capital requirements for ten categories of risk: fixed income investment risk, equity investment risk, interest rate/liquidity risk, currency risk, concentration risk, premium risk, reserve risk, credit risk, catastrophe risk and operational risk. For each category, the capital requirement is determined by applying factors to asset, premium, reserve, creditor, probable maximum loss and operation items, with higher factors applied to items with greater underlying risk and lower factors for less risky items.

While not specifically referred to in the Insurance Act (or required thereunder), the BMA has also established a target capital level ("TCL") for each Class 3B insurer equal to 120% of its ECR. The TCL serves as an early warning tool for the BMA, and failure to maintain statutory capital at least equal to the TCL will likely result in increased regulatory oversight.

Any insurer which at any time fails to meet its MSM requirements must, upon becoming aware of such failure, immediately notify the BMA and, within 14 days thereafter, file a written report with the BMA containing particulars of the circumstances that gave rise to the failure and setting out its plan detailing specific actions to be taken and the expected timeframe in which the insurer intends to rectify the failure.

Any insurer which at any time fails to meet its applicable ECR shall, upon becoming aware of that failure or of having reason to believe that such a failure has occurred, immediately notify the BMA in writing and within 14 days of such notification file with the BMA a written report containing particulars of the circumstances leading to the failure, and a plan detailing the manner, specific actions to be taken and time within which the insurer intends to rectify the failure, and within 45 days of becoming aware of that failure or of having reason to believe that such a failure has occurred, furnish the BMA with (i) unaudited statutory economic balance sheets and unaudited interim statutory financial statements prepared in accordance with GAAP covering such period as the BMA may require; (ii) the opinion of a loss reserve specialist in relation to the total general business insurance technical provisions as set out in the economic balance sheet, where applicable; (iii) a general business solvency certificate in respect of the financial statements; and (iv) a capital and solvency return reflecting an enhanced capital requirement prepared using post failure data where applicable.

Eligible Capital

To enable the BMA to better assess the quality of an insurer's capital resources, a Class 3B insurer is required to disclose the makeup of its capital in accordance with a "3-tiered eligible capital system". Under this system, all of the insurer's capital instruments will be classified as either basic or ancillary capital which in turn will be classified into one of three tiers based on their "loss absorbency" characteristics. Highest quality capital will be classified as Tier 1 Capital, and lesser quality capital will be classified as either Tier 2 Capital or Tier 3 Capital. Under this regime, up to certain specified percentages of Tier 1, Tier 2 and Tier 3 Capital may be used to support the insurer's MSM, ECR and TCL.

The characteristics of the capital instruments that must be satisfied to qualify as Tier 1, Tier 2 and Tier 3 Capital are set out in the Insurance (Eligible Capital) Rules 2012, and amendments thereto. Under these rules, Tier 1, Tier 2 and Tier 3 Capital may, until January 1, 2026, include capital instruments that do not satisfy the requirement that the instrument be non-redeemable or settled only with the issuance of an instrument of equal or higher quality upon a breach, or if it would cause a breach, of the ECR.

Where the BMA has previously approved the use of certain instruments for capital purposes, the BMA's consent will need to be obtained if such instruments are to remain eligible for use in satisfying the MSM and the ECR.

Code of Conduct

The Insurance Code of Conduct (the "Insurance Code") prescribes the duties, standards, procedures and sound business principles with which all insurers registered under the Insurance Act must comply. The BMA will assess an insurer's compliance with the Insurance Code in a proportional manner relative to the nature, scale and complexity of its business. Failure to comply with the requirements of the Insurance Code will be taken into account by the BMA in determining whether an insurer is conducting its business in a sound and prudent manner as prescribed by the Insurance Act, may result in the BMA exercising its powers of intervention and investigation (see below) and will be a factor in calculating the operational risk charge under the insurer's BSCR or approved internal model.

Cyber Risk Code of Conduct

The BMA has recognized that cyber incidents can cause significant financial losses and/or reputational impacts across the insurance industry and has implemented the Insurance Sector Operational Cyber Risk Management Code of Conduct (the "Cyber Risk Code") to ensure that those operating in the Bermuda insurance sector can mitigate such risks. The Cyber Risk Code prescribes the duties, requirements, standards, procedures and principles which all insurers, insurance managers and insurance intermediaries (agents, brokers and insurance market place providers) registered under the Insurance Act must comply. The Cyber Risk Code is designed to promote the stable and secure management of information technology systems of regulated entities and requires that all registrants implement their own technology risk programmes, determine what their top risks are and develop an appropriate risk response. This requires all registrants to develop a cyber risk policy which is to be delivered pursuant to an operational cyber risk management programme and appoint an appropriately qualified member of staff or outsourced resource to the role of Chief Information Security Officer. The role of the Chief Information Security Officer is to deliver the operational cyber risk management programme.

It is expected that the cyber risk policy will be approved by the registrant's board of directors at least annually. The BMA will assess a registrant's compliance with the Cyber Risk Code in a proportionate manner relative to the nature, scale and complexity of its business. While it is acknowledged that some registrants will use a third party to provide technology services and that they may outsource their IT resources (for example, to an insurance manager where applicable), when so outsourced, the overall responsibility for the outsourced functions will remain with the registrant's board of directors. Failure to comply with the requirements of the Cyber Risk Code will be taken into account by the BMA in determining whether a registrant is conducting its business in a sound and prudent manner as prescribed by the Insurance Act and may result in the BMA exercising its powers of intervention and investigation (see below).

Restrictions on Dividends and Distributions

A Class 3B insurer is prohibited from declaring or paying a dividend if it is in breach of its MSM, ECR or minimum liquidity ratio or if the declaration or payment of such dividend would cause such a breach. Where an insurer fails to meet its MSM or minimum liquidity ratio on the last day of any financial year, it will be prohibited from declaring or paying any dividends during the next financial year without the approval of the BMA.

In addition, a Class 3B insurer is prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet), unless it files (at least seven days before payment of such dividends) with the BMA an affidavit signed by at least two directors (one of whom must be a Bermuda resident director if any of the insurer's directors are resident in Bermuda) and the principal representative stating that it will continue to meet its solvency margin and minimum liquidity ratio. Where such an affidavit is filed, it shall be available for public inspection at the offices of the BMA.

Reduction of Capital

No Class 3B insurer may reduce its total statutory capital by 15% or more, as set out in its previous year's financial statements, unless it has received the prior approval of the BMA. Total statutory capital consists of the insurer's paid in share capital, its contributed surplus (sometimes called additional paid in capital) and any other fixed capital designated by the BMA as statutory capital (such as letters of credit).

A Class 3B insurer seeking to reduce its statutory capital by 15% or more, as set out in its previous year's financial statements, is also required to submit an affidavit signed by at least two directors (one of whom must be a Bermuda-resident director if any of the insurer's directors are resident in Bermuda) and the principal representative stating that the proposed reduction will not cause it to fail its relevant margins and such other information as the BMA may require. Where such an affidavit is filed, it shall be available for public inspection at the offices of the BMA.

Policyholder Priority

In the event of the liquidation or winding up of an insurer, policyholders' liabilities receive prior payment ahead of general unsecured creditors. Subject to the prior payment of preferential debts under the Employment Act 2000 and the Companies Act, the insurance debts of an insurer must be paid in priority to all other unsecured debts of the insurer. Insurance debt is defined as a debt to which an insurer is or may become liable pursuant to an insurance contract, excluding debts owed to an insurer under an insurance contract where the insurer is the person insured. Insurance contract is defined as any contract of insurance, capital redemption contract or a contract that has been recorded as insurance business in the financial statements of the insurer pursuant to the Insurance Accounts Regulations 1980 or the Insurance Account Rules 2016, as applicable.

Fit and Proper Controller

The BMA maintains supervision over the controllers of all registered insurers in Bermuda.

A controller includes (i) the managing director of the registered insurer or its parent company, (ii) the chief executive of the registered insurer or of its parent company, (iii) a shareholder controller, and (iv) any person in accordance with whose directions or instructions the directors of the registered insurer or of its parent company are accustomed to act.

The definition of shareholder controller is set out in the Insurance Act, but generally refers to (i) a person who holds 10% or more of the shares carrying rights to vote at a shareholders' meeting of the registered insurer or its parent company, (ii) a person who is entitled to exercise 10% or more of the voting power at any shareholders' meeting of such registered insurer or its parent company, or (iii) a person who is able to exercise significant influence over the management of the registered insurer or its parent company by virtue of its shareholding or its entitlement to exercise, or control the exercise of, the voting power at any shareholders' meeting.

A shareholder controller that owns 10% or more, but less than 20% of the shares as described above is defined as a 10% shareholder controller. A shareholder controller that owns 20% or more, but less than 33% of the shares as described above is defined as a 20% shareholder controller. A shareholder controller that owns 33% or more but less than 50% of the shares as described above is defined as a 33% shareholder controller. A shareholder controller that owns 50% or more of the shares as described above is defined as a 50% shareholder controller.

As the shares of JRG Re's parent company are traded on a recognized stock exchange, a person who becomes a 10%, 20%, 33% or 50% shareholder controller of the insurer, shall, within 45 days, notify the BMA in writing that he or she has become such a controller. In addition, a person who is a shareholder controller of JRG Re must serve on the BMA a notice in writing that he or she has reduced or disposed of his or her holding in the insurer where the proportion of voting rights in the insurer held by him or her will have reached or has fallen below 10%, 20%, 33% or 50% as the case may be, not later than 45 days after such disposal.

Any person who contravenes the Insurance Act by failing to give notice or knowingly becomes a controller of any description before the required 45 days has elapsed is guilty of an offence and liable to a fine of \$25,000 on summary conviction.

The BMA may file a notice of objection to any person who has become a controller of any description where it appears that such person is not or is no longer, a fit and proper person to be a controller of the registered insurer. Before issuing a notice of objection, the BMA is required to serve upon the person concerned a preliminary written notice stating the BMA's intention to issue a formal notice of objection. Upon receipt of the preliminary written notice, the person served may, within 28 days, file written representations with the BMA, which shall be taken into account by the BMA in making their final determination. Any person who continues to be a controller of any description after having received a notice of objection shall be guilty of an offense and shall be liable on summary conviction to a fine of \$25,000 (and a continuing fine of \$500 per day for each day that the offense is continuing) or, if convicted on indictment, to a fine of \$100,000 and/or two years in prison.

Notification by Registered Person of Change of Controllers and Officers

All registered insurers are required to give written notice to the BMA of the fact that a person has become, or ceased to be, a controller or officer of the insurer within 45 days of becoming aware of such fact. An officer in relation to a registered insurer means a director, chief executive or senior executive performing duties of underwriting, actuarial, risk management, compliance, internal audit, finance or investment matters.

Notification of Material Changes

All registered insurers are required to give notice to the BMA of their intention to effect a material change within the meaning of the Insurance Act. For the purposes of the Insurance Act, the following changes are material: (i) the transfer or acquisition of insurance business being part of a scheme falling under Section 25 of the Insurance Act or Section 99 of the Companies Act, (ii) the amalgamation with or acquisition of another firm, (iii) engaging in unrelated business that is retail business, (iv) the acquisition of a controlling interest in an undertaking that is engaged in non-insurance business which offers services and products to persons who are not affiliates of the insurer, (v) outsourcing all or substantially all of the company's actuarial, risk management compliance or internal audit functions, (vi) outsourcing all or a material part of an insurer's underwriting activity, (vii) the transfer other than by way of reinsurance of all or substantially all of a line of business, (viii) expansion into a material new line of business, (ix) the sale of an insurer, and (x) outsourcing of an officer role.

No registered insurer shall take any steps to give effect to a material change unless it has first served notice on the BMA that it intends to effect such material change, and before the end of 30 days, either the BMA has notified such company in writing that it has no objection to such change or that period has lapsed without the BMA having issued a notice of objection.

Before issuing a notice of objection, the BMA is required to serve upon the person concerned a preliminary written notice stating the BMA's intention to issue a formal notice of objection. Upon receipt

of the preliminary written notice, the person served may, within 28 days, file written representations with the BMA which shall be taken into account by the BMA in making their final determination.

Notification of Cyber Reporting Events

Every insurer is required to notify the BMA on it coming to the knowledge of the insurer, or where the insurer has reason to believe that a Cyber Reporting Event has occurred. Within fourteen days of such notification, the insurer must also furnish the BMA with a written report setting out all the particulars of the Cyber Reporting Event that are available to it. A Cyber Reporting Event includes any act that results in the unauthorized access to, disruption, or misuse of electronic systems or information stored on such systems of an insurer, including breach of security leading to the loss or unlawful destruction or unauthorized disclosure of or access to such systems or information where there is a likelihood of an adverse impact to policyholders, clients or the insurer's insurance business, or an event that has occurred for which notice is required to be provided to a regulatory body or government agency.

Notification of Other Events

Every insurer is required to forthwith notify the BMA on it coming to the knowledge of the insurer, or where insurer has reason to believe that the insurer has failed to comply with a condition imposed upon it by the BMA or that the insurer, or a shareholder controller or officer of the insurer is involved in any criminal proceedings whether in Bermuda or abroad.

Supervision, Investigation, Intervention and Disclosure

The BMA may, by notice in writing served on a registered person or a designated insurer, require the registered person or designated insurer to provide such information and/or documentation as the BMA may reasonably require with respect to matters that are likely to be material to the performance of its supervisory functions under the Insurance Act. In addition, it may require such person's auditor, underwriter, accountant or any other person with relevant professional skill of such registered person or designated insurer to prepare a report on any aspect pertaining thereto. In the case of a report, the person so appointed shall immediately give the BMA written notice of any fact or matter of which he becomes aware or which indicates to him that any condition attaching to his registration under the Insurance Act is not or has not, or may not be or may not have, been fulfilled and that such matters are likely to be material to the performance of its functions under the Insurance Act. If it appears to the BMA to be desirable in the interests of the clients of a registered person or relevant insurance group, the BMA may also exercise these powers in relation to subsidiaries, parent companies and other affiliates of the registered person or designated insurer.

If the BMA deems it necessary to protect the interests of the policyholders or potential policyholders of an insurer or insurance group, it may appoint one or more competent persons to investigate and report on the nature, conduct or state of the insurer's or the insurance group's business, or any aspect thereof, or the ownership or control of the insurer or insurance group. If the person so appointed thinks it necessary for the purposes of the investigation, such person may also investigate the business of any person who is or has been, at any relevant time, a member of the insurance group or of a partnership of which the person being investigated is a member. In this regard, it shall be the duty of every person who is or was a controller, officer, employee, agent, banker, auditor, accountant, barrister and attorney or insurance manager to produce to the person appointed such documentation as the appointed person may reasonably require for purposes of the investigation, and to attend and answer questions relevant to the investigation and to otherwise provide such assistance as may be necessary in connection therewith.

Where the BMA suspects that a person has failed to properly register under the Insurance Act or that a registered person or designated insurer has failed to comply with a requirement of the Insurance Act or that a person is not, or is no longer, a fit and proper person to perform functions in relation to a regulated activity, it may, by notice in writing, carry out an investigation into such person (or any other person connected thereto). In connection therewith, the BMA may require every person who is or was a controller, officer, employee, agent, banker, auditor, accountant, barrister and attorney or insurance manager to make a report and produce such documents in his care, custody and control and to attend before the BMA to answer questions relevant to the BMA's investigation and to take such actions as the BMA may direct. The BMA may also enter any premises for the purposes of carrying out its investigation and may petition the

court for a warrant if it believes a person has failed to comply with a notice served on him, there are reasonable grounds for suspecting the completeness of any information or documentation produced in response to such notice, or that its directions will not be complied with or that any relevant documents would be removed, tampered with or destroyed.

If it appears to the BMA that the business of the registered insurer is being conducted in a way that there is a significant risk of the insurer becoming insolvent or being unable to meet its obligations to policyholders, or that the insurer is in breach of the Insurance Act or any conditions imposed upon its registration, or the minimum criteria stipulated in the Insurance Act is not or has not been fulfilled in respect of a registered insurer, or that a person has become a controller without providing the BMA with the appropriate notice or in contravention of a notice of objection, or the registered insurer is in breach of its ECR, or that a designated insurer is in breach of any provision of the Insurance Act or the regulations or rules applicable to it, the BMA may issue such directions as it deems desirable for safeguarding the interests of policyholders or potential policyholders of the insurer or the insurance group. The BMA may, among other things, direct an insurer, for itself and in its capacity as designated insurer of the insurance group of which it is a member, (i) not to take on any new insurance business, (ii) not to vary any insurance contract if the effect would be to increase the insurer's liabilities, (iii) not to make certain investments, (iv) to realize certain investments, (v) to maintain in or transfer to the custody of a specified bank, certain assets, (vi) not to declare or pay any dividends or other distributions or to restrict the making of such payments, (vii) to limit its premium income, (viii) not to enter into specified transactions with any specified person or persons of a specified class, (ix) to provide such written particulars relating to the financial circumstances of the insurer as the BMA thinks fit, (x) as an individual insurer only, and not in its capacity as designated insurer, to obtain the opinion of a loss reserve specialist and submit it to the BMA, and/or (xi) to remove a controller or officer.

The BMA has the power to assist other regulatory authorities, including foreign insurance regulatory authorities, with their investigations involving insurance and reinsurance companies in Bermuda if it is satisfied that the assistance being requested is in connection with the discharge of regulatory responsibilities and that such cooperation is in the public interest. The grounds for disclosure by the BMA to a foreign regulatory authority without consent of the insurer are limited and the Insurance Act provides for sanctions for breach of the statutory duty of confidentiality.

Cancellation of Insurer's Registration

An insurer's registration may be cancelled by the BMA at the request of the insurer or on certain grounds specified in the Insurance Act. Failure by the insurer to comply with its obligations under the Insurance Act, or if the BMA believes that the insurer has not been carrying on business in accordance with sound insurance principles, would be examples of such grounds.

Certain Other Bermuda Law Considerations

Corporate Bermuda Law Considerations

Although James River Group Holdings, Ltd. is incorporated in Bermuda, it is designated as a non-resident for Bermuda exchange control purposes by the BMA. Pursuant to its non-resident status, James River Group Holdings, Ltd. may engage in transactions in currencies other than the Bermuda dollar, and there are no restrictions on its ability to transfer funds (other than funds denominated in Bermuda dollars) in and out of Bermuda or to pay dividends to non-residents who are holders of its common shares in currencies other than the Bermuda dollar.

In accordance with Bermuda law, share certificates are issued only in the names of companies, partnerships or individuals. In the case of an applicant acting in a special capacity (for example, as an executor or trustee), certificates may, at the request of the applicant, record the capacity in which the applicant is acting. Notwithstanding the recording of any such special capacity, we are not bound to investigate or see to the execution of any such trust. We will take no notice of any trust applicable to any of our common shares whether or not we have notice of such trust.

Each of James River Group Holdings, Ltd., Carolina Re and JRG Re is incorporated in Bermuda as an "exempted company." Under Bermuda law, exempted companies are companies formed for the purpose of conducting business outside Bermuda from a principal place of business in Bermuda. As a result, they are exempt from Bermuda laws restricting the percentage of share capital that may be held by non-Bermudians. However, exempted companies may not participate in certain business transactions, including: (i) the acquisition or holding of land in Bermuda except that required for their business and held by way of lease or tenancy for a term not exceeding 50 years or, with the consent of the Minister of Finance granted in his discretion by way of lease or tenancy for a term not exceeding 21 years in order to provide accommodation or recreational facilities for its officers and employees, (ii) the taking of mortgages on land in Bermuda to secure an amount in excess of B.D.\$50,000 without the consent of the Minister of Finance, (iii) the acquisition of any bonds or debentures secured by any land in Bermuda, other than certain types of Bermuda government securities or securities issued by Bermuda public authorities, or (iv) the carrying on of business of any kind in Bermuda, except in furtherance of business carried on outside Bermuda or under license granted by the Minister of Finance. Generally, it is not permitted without a special license granted by the Minister of Finance to insure Bermuda domestic risks or risks of persons of, in or based in Bermuda. JRG Re is a licensed insurer in Bermuda, and so it may carry on activities from Bermuda that are related to and in support of its insurance business.

Each of James River Group Holdings, Ltd., Carolina Re and JRG Re must comply with the provisions of the Companies Act regulating the payment of dividends and making distributions from contributed surplus. A company may not declare or pay a dividend, or make a distribution out of contributed surplus, if there are reasonable grounds for believing that (i) it is, or would after the payment be, unable to pay its liabilities as they become due, or (ii) the realizable value of the assets would thereby be less than its liabilities. In addition, certain provisions of the Insurance Act will limit our ability to pay dividends.

Under the Companies Act, where a Bermuda company issues shares at a premium (that is, for a price above the par value), whether for cash or otherwise, a sum equal to the aggregate amount or value of the premium on those shares must be transferred to an account called "the share premium account." The provisions of the Companies Act relating to the reduction of the share capital of a company apply as if the share premium account were paid up share capital of that company, except for certain matters such as:
(i) paying up unissued shares to be issued to members as fully paid bonus shares, (ii) writing off the preliminary expenses of the company or the expenses of, or the commission paid or discount allowed on any issue of shares or debentures of the company, or (iii) providing for the premiums payable on redemption of shares or of any debentures of the company. The paid up share capital may not be reduced if, on the date the reduction is to be effected, there are reasonable grounds for believing that the company is, or after the reduction would be, unable to pay its liabilities as they become due. See "Restrictions on Dividends and Distributions".

Securities may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act 2003 and the Exchange Control Act 1972 and related regulations of Bermuda which regulate the sale of securities in Bermuda. In addition, the permission of the BMA is required under the provisions of the Exchange Control Act 1972 and related regulations for all issuances and transfers of shares of Bermuda companies to or from a non-resident of Bermuda for exchange control purposes, other than in cases where the BMA has granted a general permission. The BMA, in its notice to the public dated June 1, 2005, has granted a general permission for the issue and subsequent transfer of any securities of a Bermuda company from and/or to a non-resident of Bermuda for exchange control purposes for so long as any "equity securities" of the company (which would include our common shares) are listed on an "Appointed Stock Exchange" (which would include the NASDAQ Stock Market). In granting the general permission, the BMA accepts no responsibility for our financial soundness or the correctness of any of the statements made or opinions expressed herein.

We have received consent from the BMA to issue, grant, create, sell and transfer freely any of our shares, stock, bonds, notes (other than promissory notes), debentures, debenture stock, units under a unit trust scheme, shares in an oil royalty, options, warrants, coupons, rights and depository receipts to and among persons who are either resident or non-resident of Bermuda for exchange control purposes.

Economic Substance

Under the Economic Substance Act 2018 and related regulations (collectively, the "ESA"), each entity resident in Bermuda that carries on a "relevant activity" is required to comply with the economic substance requirements under the ESA, unless resident for tax purposes in a jurisdiction outside Bermuda that is not on the EU list of non-cooperative jurisdictions for tax purposes. Relevant activities include, *inter alia*, insurance and holding entity activities, as each is defined in the ESA.

Compliance requires that the entity is managed and directed in Bermuda, core income generating activities (which in relation to insurance includes predicting and calculating risk, insuring or re-insuring against risk, providing client services and preparing regulatory reports) are undertaken in Bermuda with respect to the relevant activity, the entity maintains adequate physical presence in Bermuda, there are adequate full time employees in Bermuda with suitable qualifications and there is adequate operating expenditure incurred in Bermuda in relation to the relevant activity. Entities in scope will also need to file an annual declaration form in respect of its relevant activity or activities.

In relation to carrying on the relevant activity of insurance, compliance with the ESA also requires compliance with requirements in the Companies Act relating to corporate governance and the requirements of the Insurance Act and other instruments (including the Insurance Code) made thereunder. The Bermuda Registrar of Companies (the "Registrar") will have regard to an insurer's compliance with the Insurance Act and the Companies Act in his assessment of compliance with economic substance requirements and on the basis that an insurer complies with such requirements, the insurer will generally be considered to operate in Bermuda with adequate substance. An insurer will be required to complete and file a declaration form, and the Registrar will also have regard to the information provided in the declaration form in making his assessment of compliance with economic substance requirements.

Holding entities are subject to minimum economic substance requirements comprising (in the case of an exempted company), compliance with the corporate governance requirements set forth in the Companies Act and the filing of a declaration form. The ESA also requires such a holding entity to have adequate people for holding and managing equity participations and have adequate premises in Bermuda.

Any entity that must satisfy economic substance requirements but fails to do so could face automatic disclosure to competent authorities in the EU of the information filed by the entity with the Registrar in connection with the economic substance requirements and may also face financial penalties, restriction or regulation of its business activities and/or may be struck off as a registered entity in Bermuda.

Bermuda Work Permit Considerations

Under Bermuda law, non-Bermudians (other than spouses of Bermudians and individuals holding permanent resident's certificates) may not engage in any gainful occupation in Bermuda without an appropriate government work permit.

Standard work permits can be obtained for a one-, two-, three-, four- or five-year period. Where a standard work permit is being applied for, it is a requirement that the job must be advertised for three days (within an eight-day period) in the local newspaper and advertised for eight consecutive days on the Bermuda Government Job Board. Should no Bermudian (or spouse of a Bermudian or holder of a permanent resident's certificate) meet the minimum standards as stipulated in the advertisements, the employer may then apply for a standard work permit for the non-Bermudian. Where such persons apply, employers must complete a Recruitment Disclosure Form, within the Standard Work Permit Application Form, and provide a summary of all applicants that are Bermudian, the spouse of the Bermudian or the holder of a permanent resident's certificate, including their qualifications. The Department of Immigration will compare the qualifications and experience of any Bermudian applicants (or spouse of a Bermudian or holder of a permanent resident's certificate) to that stipulated in the advertisements and to the non-Bermudian to be satisfied that the role could not have been filled by a Bermudian (or spouse of a Bermudian or holder of a permanent resident's certificate). In addition to the advertising, there are other documents that are required prior to the Department of Immigration making its decision.

If the position for which the standard work permit is being applied is that of a Chief Executive Officer or other chief officer post, the Minister of Economy and Labour allows an automatic waiver from the

requirement to advertise the position and on occasion may waive the requirement to advertise for other senior executive positions upon request.

If an employer wishes to change an employee's job title, provided that the job description, duties, remuneration and benefits remain unchanged, the employer does not need to advertise or obtain the permission of the Minister of Economy and Labour to do this, but it must inform the Department of Immigration and pay the necessary fee after the change has occurred.

If an employer wishes to promote an employee currently on a work permit from his current job to another within the same business, the permission of the Minister of Economy and Labour must first be obtained. The employer will need to advertise internally and provide evidence of the internal recruitment efforts and consideration of internal Bermudian/spouse of Bermudian candidates.

A temporary work permit can take up to 10 working days to process and a standard work permit takes four weeks to process.

Employers have the right to appeal to the Minister following any decision made by the Board or the Minister. Appeals should be submitted on letter form to the Department for the attention of the Chief Immigration Officer, made within seven (7) working days of the date of the refusal letter.

U.S. Insurance Regulation

State Regulation

Our U.S. insurance subsidiaries are subject to extensive regulation and supervision by their state of domicile, as well as those states in which they do business. The purpose of such regulation and supervision is primarily to provide safeguards for policyholders, rather than to protect the interests of shareholders. The insurance laws of the various states establish regulatory agencies with broad administrative powers, including the power to grant or revoke operating licenses and regulate trade practices, investments, premium rates, deposits of securities, the form and content of financial statements and insurance policies, dividend limitations, cancellation and non-renewal of policies, accounting practices and the maintenance of specified reserves and capital for the protection of policyholders.

The payment of dividends by our subsidiaries to us is limited by statute. In general, the laws and regulations applicable to our domestic insurance subsidiaries limit the aggregate amount of dividends or other distributions that they may declare or pay within any 12 month period without advance regulatory approval, In Ohio, the domiciliary state of James River Insurance and Falls Lake National Insurance Company ("Falls Lake National"), the limitation is the greater of statutory net income for the preceding calendar year or 10% of the statutory surplus at the end of the preceding calendar year, provided that such dividends may only be paid out of the earned surplus of each of the companies without obtaining regulatory approvals. In North Carolina, the domiciliary state of Stonewood Insurance, this limitation is the greater of statutory net income excluding realized capital gains for the preceding calendar year or 10% of the statutory surplus at the end of the preceding calendar year, provided that such dividends may only be paid out of unassigned surplus without obtaining regulatory approval. In Virginia, the domiciliary state of James River Casualty Company, this limitation is the greater of statutory net income excluding realized capital gains of the preceding calendar year or 10% of the statutory surplus at the end of the preceding calendar year, provided that such dividends may only be paid out of unassigned surplus without obtaining regulatory approval. In California, the domiciliary state of Falls Lake Fire and Casualty Company, this limitation is the greater of statutory net income for the preceding calendar year or 10% of the statutory surplus at the end of the preceding calendar year, provided that such dividends may only be paid out of unassigned surplus without obtaining regulatory approval. In addition, insurance regulators have broad powers to prevent reduction of statutory surplus to inadequate levels and could refuse to permit the payment of dividends calculated under any applicable formula.

Premium rate regulation varies greatly among jurisdictions and lines of insurance. In most states in which our subsidiaries write insurance, premium rates for the various lines of insurance are subject to either prior approval or limited review upon implementation. States require rates for property-casualty insurance that are adequate, not excessive, and not unfairly discriminatory.

Our insurance subsidiaries are required to file quarterly and annual reports with the appropriate regulatory agency in its state of domicile and with The National Association of Insurance Commissioners ("NAIC") based on applicable statutory regulations, which differ from U.S. generally accepted accounting principles. Their business and accounts are subject to examination by such agencies at any time.

Many jurisdictions have laws and regulations that limit an insurer's ability to withdraw from a particular market. For example, states may limit an insurer's ability to cancel or non-renew policies. Furthermore, certain states prohibit an insurer from withdrawing one or more lines of business from the states, except pursuant to a plan approved by the state insurance department. Laws and regulations that limit cancellation and non-renewal and that subject program withdrawals to prior approval requirements may restrict our ability to exit unprofitable marketplaces in a timely manner.

State laws governing insurance holding companies and insurance companies require an insurance holding company and their insurance subsidiaries to register with the insurance department authority, to file certain reports disclosing information, including but not limited to capital structure, ownership, management, and financial condition. Such holding company laws also impose standards and filing requirements on certain transactions between related companies, which include, among other requirements, that all transactions be fair and reasonable, that an insurer's surplus as regards policyholders be reasonable and adequate in relation to its liabilities and that expenses and payments be allocated to the appropriate party in accordance with customary accounting practices. These transactions between related companies include transfers of assets, loans, reinsurance agreements, service agreements, certain dividend payments by the insurance companies and certain other material transactions and modifications to such transactions. In 2012, the NAIC adopted significant changes to the insurance holding company act and regulations (the "NAIC Amendments"). The NAIC Amendments, when adopted by the various states, are designed to respond to perceived gaps in the regulation of insurance holding company systems in the United States. One of the major changes is a requirement that an insurance holding company system's ultimate controlling person submit annually to its lead state insurance regulator an "enterprise risk report" that identifies activities, circumstances or events involving one or more affiliates of an insurer that, if not remedied properly, are likely to have a material adverse effect upon the financial condition or liquidity of the insurer or its insurance holding company system as a whole. Other changes include (i) requiring a controlling person to submit prior notice to its domiciliary insurance regulator of its divestiture of control, (ii) having detailed minimum requirements for cost sharing and management agreements between an insurer and its affiliates and (iii) expanding the types of agreements between an insurer and its affiliates to be filed with its domiciliary insurance regulator. The NAIC Amendments must be adopted by a state legislature and such state's insurance regulator in order to be effective in that state. Each of California, North Carolina, Ohio, and Virginia, the states in which our U.S. insurance subsidiaries are domiciled, include this enterprise risk report. In addition, in 2012, the NAIC adopted the Risk Management and Own Risk and Solvency Assessment Model Act (the "ORSA Model Act"). The ORSA Model Act, when adopted by the various states, requires an insurance holding company system's Chief Risk Officer to submit at least annually to its lead state insurance regulator an Own Risk and Solvency Assessment Summary Report ("ORSA"). The ORSA is a confidential internal assessment, appropriate to the nature, scale and complexity of an insurer, of the material and relevant risks identified by the insurer associated with an insurer's current business plan and the sufficiency of capital resources to support those risks. The ORSA Model Act must be adopted by a state legislature in order to be effective in that state. Each of California, North Carolina, Ohio, and Virginia, the states in which our U.S. insurance subsidiaries are domiciled, adopted and require an ORSA filing.

The insurance holding company laws and regulations of the states in which our insurance companies are domiciled also generally require that before a person can acquire direct or indirect control of an insurer domiciled in the state, and in some cases prior to divesting its control, prior written approval must be obtained from the insurer's domiciliary state insurance regulator. These laws discourage potential acquisition proposals and may delay, deter or prevent an investment in or a change of control involving us, or one or more of our regulated subsidiaries, including transactions that our management and some or all of our shareholders might consider desirable. Pursuant to applicable laws and regulations, "control" over an insurer is generally presumed to exist if any person, directly or indirectly, owns, controls, holds the power to vote or holds proxies representing, 10 percent or more of the voting securities of that insurer. Indirect ownership includes ownership of the Company's common shares.

Under state insurance guaranty fund laws, insurance companies doing business in a state can be assessed for certain obligations of insolvent insurance companies to such insolvent companies' policyholders and claimants. Maximum assessments allowed in any one year generally vary between one percent and two percent of annual premiums written in that state, but it is possible that caps on such assessments could be raised if there are numerous or large insolvencies. In most states, guaranty fund assessments are recoverable either through future policy surcharges or offsets to state premium tax liabilities.

The admitted market is subject to more state regulation than the E&S market, particularly with regard to rate and form filing requirements, restrictions on the ability to exit lines of business, premium tax payments and membership in various state associations, such as guaranty funds. Some states have deregulated their commercial insurance markets. We cannot predict the effect that further deregulation would have on our business, financial condition or results of operations.

The state insurance regulators utilize a risk-based capital model to help assess the capital and surplus adequacy of insurance companies in relation to investment and insurance risks and identify insurers that are in, or are perceived as approaching, financial difficulty. This model establishes minimum capital needs based on the risks applicable to the operations of the individual insurer. The risk-based capital requirements for property-casualty insurance companies measure three major areas of risk: asset risk, credit risk and underwriting risk. Under risk-based capital requirements, regulatory compliance is determined by the ratio of a company's total adjusted capital, as defined by the NAIC, to its company action level risk-based capital. Companies having less statutory surplus than required by the risk-based capital requirements are subject to varying degrees of regulatory scrutiny and intervention, depending on the severity of the inadequacy. At December 31, 2022, the Company's U.S.-based insurance subsidiaries had total adjusted statutory capital of \$493.3 million, which is in excess of the minimum risk-based capital requirement.

In response to the growing threat of cyber-attacks in the insurance industry, certain jurisdictions have begun to consider new cybersecurity measures, including the adoption of cybersecurity laws and regulations which, among other things, would require insurance companies to establish and maintain a cybersecurity program and implement and maintain cybersecurity policies and procedures. On October 24, 2017, the NAIC adopted its Insurance Data Security Model Law, intended to serve as model legislation for states to enact in order to govern cybersecurity and data protection practices of insurers, insurance agents, and other licensed entities registered under state insurance laws. The following states have either adopted the NAIC Insurance Data Security Model Law or similar laws that govern the cybersecurity and data protection practices of insurers, insurance agents, and other licensed entities registered under state insurance laws: Alabama, Alaska, California, Connecticut, Delaware, Hawaii, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, New Hampshire, New York, North Dakota, Ohio, South Carolina, Tennessee, Vermont, Virginia and Wisconsin. We continue to monitor whether the other states in which we conduct business adopt the NAIC's Insurance Data Security Model Law.

From time to time, states consider and/or enact laws that may alter or increase state authority to regulate insurance companies and insurance holding companies. States also consider and/or enact laws that impact the competitive environment and marketplace for property-casualty insurance. Changes in legislation or regulations and actions by regulators, including changes in administrative and enforcement policies, could require operational modifications from time to time. We cannot predict the effect that such changes or actions would have on our business, financial condition or results of operations.

Federal Regulation

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 U.S. federal government has undertaken initiatives or considered legislation in several areas that may impact the insurance industry, including tort reform, corporate governance and the taxation of reinsurance companies. The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") established the Federal Insurance Office which is authorized to study, monitor and report to Congress on the insurance industry and to recommend that the Financial Stability Oversight Council ("FSOC") designate an insurer as an entity posing risks to the U.S. financial stability in the event of the insurer's material financial distress or failure. In December 2013, the Federal Insurance Office issued a report on alternatives to modernize and improve the system of insurance regulation in the United States, including by increasing national

uniformity through either a federal charter or effective action by the states. Additionally, the Dodd-Frank Act streamlined E&S placements, the payment of E&S taxes, the regulation of credit for reinsurance, and simplified the process for insurers to become an eligible E&S insurer in the United States. In addition, legislation has been introduced from time to time that, if enacted, could result in the U.S. federal government assuming a more direct role in the regulation of the insurance industry, including federal licensing in addition to or in lieu of state licensing and reinsurance for natural catastrophes. Changes to federal legislation and administrative policies in several areas, including changes in federal taxation, can also significantly impact the insurance industry and us.

On December 20, 2019, the Terrorism Risk Insurance Act of 2002 and its successors, the Terrorism Risk Insurance Extension Act of 2005, the Terrorism Risk Insurance Program Reauthorization Act of 2007, and the Terrorism Risk Insurance Program Reauthorization Act of 2015 (collectively, the "Terrorism Acts"), were extended through December 31, 2027. Under the Terrorism Acts, commercial property and casualty insurers, in exchange for making terrorism insurance available, may be entitled to be reimbursed by the federal government for a portion of their aggregate losses. As required by the Terrorism Acts, we offer policyholders in specific lines of commercial insurance the option to elect terrorism coverage.

In order for a loss to be covered under the Terrorism Acts, the loss must meet the aggregate industry loss minimum and must be the result of an act of terrorism as certified by the Secretary of the Treasury. Insurers participating in the Terrorism Acts are required to provide information regarding insurance coverage for terrorism losses, including: (i) lines of business with exposure to such losses, (ii) premiums earned on such coverage, (iii) geographical location of exposures, (iv) pricing of such coverage, (v) the take-up rate for such coverage, and (vi) the amount of private reinsurance for acts of terrorism purchased.

Geographic Information

For each of the years ended December 31, 2022, 2021 and 2020, 100% of our gross written premiums and net earned premiums were generated from policies issued to U.S.-based insureds.

Employees and Human Capital Resources

We believe that by understanding and leveraging the different dimensions of diversity in our workforce, we drive empowerment, collaboration and innovation needed to be a leader in our industry. As of December 31, 2022, we had 639 employees located in the United States and Bermuda, all classified as full-time. Of that population, 56% were female and 44% were male. Among the 98% of our employees who chose to disclose their race and ethnicity, approximately 12% identified as Black or African American, 4% as Hispanic or Latino, 6% as Asian, 2% as two or more races, less than 1% as Native Hawaiian or other Pacific Islander, and less than 1% as American Indian or Alaska Native.

Over the last year, our Diversity, Equity and Inclusion (DEI) committee has made significant progress in bringing additional awareness and focus to DEI topics throughout the company and in the locations where we operate. The committee is both diverse and made up of employees from all segments, levels and office locations. The primary objectives of the committee are to increase awareness of diversity and inclusion, provide education opportunities to all employees, improve understanding of how diversity and inclusion affect our corporate objectives, and identify and address potential roadblocks to diversity and equity in hiring, promotion, physical environment and professional development.

We recognize the mutual benefits for our company and our employees to further their formal education and professional development. Our Employee Development and Education Assistance program provides financial assistance for courses, development programs and professional affiliations. Additionally, employees have access to an online learning management system that hosts courses and modules across a wide range of topics.

We offer a competitive benefits package that is designed to support the well-being of our employees. Our benefits include medical, dental and vision insurance, a comprehensive employee assistance program to support the mental health of our employees and their families, employer-paid life and disability plans, contributions to employee retirement accounts through a company match with immediate vesting as well as paid parental leave and adoption assistance.

We continue to encourage a hybrid work model, one that offers our employees a flexible work environment that fosters in-person connection and collaboration and best supports our success as a company. The health and safety of our employees continues to be our highest priority, and therefore we monitor and adjust our in-office safety policies and procedures, as needed, to mitigate the risk of exposure to the COVID-19 virus.

We value the opinions and diverse perspectives of our employees and utilize the feedback that we receive throughout the year to help develop many of our company programs, policies, and benefits. We conduct an annual engagement survey followed by voluntary focus group sessions to better assess how motivated and engaged our employees are to perform their best each day. New hire feedback is collected following an employee's first 30 days of employment, which allows us to reflect upon and improve aspects of our recruitment and onboarding processes. In addition to the formal surveys and feedback meetings, we collect valuable input through our Employee Suggestion Program where employees may express their feedback regarding any aspect of their employment with our company.

Intellectual Property

We hold U.S. federal service mark registration of our corporate logo and several other company trademark registrations with the U.S. Patent and Trademark Office. Such registrations protect our intellectual property from confusingly similar use. We monitor our trademarks and service marks and protect them from unauthorized use.

We use licensed and proprietary systems and technologies in our underwriting. The licenses have terms that expire at various times. We believe that we can utilize other available systems and technologies in the event that the licenses are not renewed upon their expiration.

Available Information

We file annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and other information with the SEC. The SEC maintains an Internet web site that contains reports, proxy and information statements and other information regarding issuers, including us, that file electronically with the SEC. The address of that site is http://www.sec.gov. Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and other information filed by us with the SEC are available, without charge, on our Internet web site, https://jrvrgroup.com, as soon as reasonably practicable after they are filed electronically with the SEC. Copies are also available, without charge, by writing to us at James River Group Holdings, Ltd., Wellesley House, 2nd Floor, 90 Pitts Bay Road, Pembroke, HM 08, Bermuda. The information on our web site is not a part of this Annual Report.

Item 1A. RISK FACTORS

You should carefully consider the following risks, together with the cautionary statement under the caption "Special Note Regarding Forward-Looking Statements" above and the other information included in this Annual Report. The risks described below are not the only ones we face. Additional risks that are currently unknown to us or that we currently consider immaterial may also impair our business or materially adversely affect our financial condition or results of operations. If any of the following risks actually occurs, our business, financial condition or results of operation could be materially adversely affected.

Summary

Risks Related to Our Business and Industry

- Reserving for losses is an inherently uncertain process, and our actual incurred losses may be greater than our loss and loss adjustment expense reserves, which could have a material adverse effect on our financial condition and results of operations.
- Our risk management is based on estimates and judgments that are subject to significant uncertainties.
- · A decline in our financial strength rating may result in a reduction of new or renewal business.
- We may not be able to retain key management and employees or recruit other qualified personnel, and as a result we may not be able to grow our business and may also be materially adversely affected.
- Adverse economic factors could result in the sale of fewer policies than expected or an increase in frequency or severity of claims and premium defaults or both, which, in turn, could affect our growth and profitability.
- We distribute products through a select group of brokers and agents, several of which account for a significant portion of our business, and such relationships may not continue, or if they do continue, the relationship may not be on favorable terms to us.
- Brokers or agents that produce our business may not forward premiums to us that they collect from our policyholders, and as a result, we may not receive compensation for coverage set forth in the underlying policy.
- We rely on a select group of customers for a significant portion of our business, and the loss or termination of our relationship with any such customers, or a material reduction in their business, could materially adversely affect our rate of growth, results of operations and financial condition.
- We may be unable to obtain reinsurance coverage at reasonable prices or on terms that provide us adequate protection.
- We have primary liability on our insurance policies for losses, even if reinsurance counterparties or insurance companies with which we have a fronting arrangement fail to make any contractually obligated payments with respect to such loss, or if we do not receive indemnification payments pursuant to an arrangement we have with a former customer.
- If we are unable to underwrite risks accurately and charge and collect competitive yet profitable rates to our policyholders, our business, financial condition and results of operations will be materially adversely affected.
- The failure of any of the loss limitations or exclusions we employ, or changes in other claims or coverage issues, could result in higher than anticipated losses.
- We have exposure to losses arising from unpredictable natural disasters, terrorist acts, and other catastrophic events, the occurrence of which could result in an increase in the number or value of claims and could exceed the amount of reinsurance we purchased to protect us from such claims.
- The global coronavirus outbreak could harm business and results of operations of the Company.
- The effect of emerging claim and coverage issues on our business is uncertain and may result in coverage of risks that we did not factor in our policy prices.

- Our investment portfolio is subject to significant market and credit risks, which could result in a material adverse impact on our financial condition or results of operations.
- We are subject to extensive regulation, and the cost of compliance with such regulation or new regulation, or the results of non-compliance, may materially adversely affect our ability to achieve our business objectives and additionally may materially adversely affect our financial condition and results of operations.
- We, or agents we have appointed, may act based on inaccurate or incomplete information regarding the accounts we underwrite, the result of which may be to cause us to misprice our policies.
- Agents may exceed their authority or commit fraud when binding policies on our behalf, causing us to make underwriting decisions on inadequate or inaccurate information.
- Our reinsurance business is subject to loss settlements made by ceding companies and fronting carriers over which we have no control that are binding upon us, which could materially adversely affect our performance.
- We could be forced to sell investments to meet our liquidity requirements, causing us to incur losses on the investments.
- We may require additional capital in the future, which may not be available or available only on unfavorable terms.
- Our credit agreements contain a number of financial and other covenants, the breach of which could result in acceleration of payment of amounts due under our credit facilities.
- If we are unable to keep pace with the technological advancements in the insurance industry, our ability to compete effectively could be impaired.
- If actual renewals of our existing contracts do not meet expectations, our premiums written in future years and our future results of operations could be materially adversely affected.
- If California, North Carolina, Ohio or Virginia significantly increase the assessments our insurance companies are required to pay, our financial condition and results of operations will suffer.
- Our use of third-party claims administrators in certain lines of business may achieve less desirable results which could cause us to incur higher losses and loss adjustment expenses.

Risks Related to Taxation

- Changes in U.S. tax laws and the interpretation of certain provisions of the 2017 Tax Act (including associated regulations), which may be retroactive, could have a significant impact on the Company and persons who own our shares.
- The Company, JRG Re and James River Group Holdings UK Limited may be subject to U.S. federal income taxation and our non-U.K. companies may be subject to U.K. taxation, which may have a material adverse effect on our operating results.
- Persons who own our shares may be subject to U.S. federal income taxation on our undistributed earnings and may recognize ordinary income upon disposition of shares; non-corporate persons who own our shares may not qualify for the reduced tax rate for qualified dividend income on the dividends paid by us in the future, and tax-exempt organizations who own our shares may recognize unrelated business taxable income.

Risks Related to Ownership of Our Common Shares

- The amount of dividends that we may pay to our common shareholders is subject to restriction pursuant to the terms of the Series A Preferred Shares, and we cannot assure you that we will declare or pay dividends on our common shares in the future.
- The conversion of the Series A Preferred Shares into common shares would dilute the ownership of common shareholders and may adversely affect the market price of our common shares.

- Dividends paid by our U.S. subsidiaries to James River UK may not be eligible for benefits under the U.S.-U.K. income tax treaty, reducing the amount of funds that would be available for the payment of dividends.
- Our bye-laws and provisions of Bermuda law may impede or discourage a change of control transaction, which could deprive our investors of the opportunity to receive a premium for their shares.
- Bermuda law differs from the laws in effect in the United States and may afford less protection to holders of our shares.
- There are regulatory limitations on the ownership and transfer of our common shares.

General Risk Factors

- We rely on our systems and employees, and those of certain third-party vendors and service
 providers in conducting our operations, and certain failures, including internal or external fraud,
 operational errors, systems malfunctions, or cyber-security incidents, could materially adversely affect
 our operations.
- Our operating results have in the past varied from quarter to quarter and may not be indicative of our long-term prospects.
- Litigation and legal proceedings against us or our subsidiaries could have a material adverse effect on our business, financial condition and/or results of operations.

Risks Related to Our Business and Industry

Reserving for losses is an inherently uncertain process, and our actual incurred losses may be greater than our loss and loss adjustment expense reserves, which could have a material adverse effect on our financial condition and results of operations.

Our financial condition and results of operations depend upon our ability to assess accurately the potential losses and loss adjustment expenses under the terms of the insurance policies or reinsurance contracts we underwrite. Reserves do not represent an exact calculation of liability. Rather, reserves represent an estimate of what we expect the ultimate settlement and administration of claims will cost us, and our ultimate liability may be greater or less than current reserves. These estimates are based on our assessment of facts and circumstances then known, as well as estimates of future trends in claim severity, claim frequency, judicial theories of liability and other factors. These variables are affected by both internal and external events that could increase our exposure to losses, including changes in actuarial projections, claims handling procedures, inflation, climate change, economic and judicial trends, and legislative changes. We continually monitor reserves using new information on reported claims and a variety of statistical techniques.

In the insurance and reinsurance industry, there is always the risk that reserves may prove inadequate, and actual results always differ from our reserve estimates. It is possible for insurance and reinsurance companies to underestimate the cost of claims. Our estimates could prove to be low, and this underestimation could have a material adverse effect on our financial strength. For example, in our Casualty Reinsurance segment, we experienced adverse development on the reserves for losses and loss adjustment expenses of: \$13.4 million for the calendar year ended December 31, 2022; \$137.6 million for the calendar year ended December 31, 2021 primarily in underwriting years 2014 through 2018; and \$37.8 million in 2020 primarily in accident years 2014 through 2018. In addition, for the commercial auto business in our Excess and Surplus Lines segment, we experienced adverse development on the reserves for losses and loss adjustment expenses of: \$8.9 million for the calendar year ended December 31, 2022 principally relating to the 2020 and prior accident years; \$200.1 million for the calendar year ended December 31, 2021 principally relating to the 2019 and prior accident years for Rasier and its affiliates; and \$91.4 million in 2020 principally relating to the 2018 and prior accident years for Rasier and its affiliates. We cannot assure you that we will not have further adverse development in our business.

The uncertainties we encounter in establishing our reserves for losses and related expenses in connection with our insurance businesses include:

• When we write "occurrence" policies, we are obligated to pay covered claims, up to the contractually agreed amount, for any covered loss that occurs while the policy is in force. Losses can emerge

many years after a policy has lapsed. Accordingly, our first notice of a claim or group of claims may arise many years after a policy has lapsed. Approximately 94% of our Excess and Surplus Lines net casualty loss reserves are associated with "occurrence form" policies at December 31, 2022.

- Even when a claim is received (irrespective of whether the policy is a "claims made" or "occurrence" basis form), it may take considerable time to fully appreciate the extent of the covered loss suffered by the insured and, consequently, estimates of loss associated with specific claims can increase over time.
- New theories of liability are enforced retroactively from time to time by courts. See also "The effect of emerging claim and coverage issues on our business is uncertain" risk factor herein.
- Volatility in the financial markets, economic events and other external factors may result in an increase in the number of claims and the severity of the claims reported. In addition, elevated inflationary conditions could, among other things, cause loss costs to increase.
- If claims became more frequent, even if we had no liability for those claims, the cost of evaluating these potential claims could escalate beyond the amount of the reserves we have established. As we enter new lines of business, or as a result of new theories of claims, we may encounter an increase in claims frequency and greater claims handling costs than we had anticipated.
- We occasionally enter new lines of insurance, and as a consequence, we sometimes have to make estimates of future losses for risk classes with which we do not have a great deal of loss experience. This lack of loss experience may contribute to making errors of judgment when establishing reserves.

In addition, reinsurance reserve estimates are typically subject to greater uncertainty than insurance reserve estimates, primarily due to reliance on the original underwriting decisions made by the ceding company. As a result, we are subject to the risk that our ceding companies may not have adequately evaluated the risks reinsured by us and the premiums ceded may not adequately compensate us for the risks we assume. Other factors resulting in additional uncertainty in establishing reinsurance reserves include:

- The increased lapse of time from the occurrence of an event to the reporting of the claim and the ultimate resolution or settlement of the claim.
- The diversity of development patterns among different types of reinsurance treaties.
- The necessary reliance on the ceding company for information regarding claims.

If any of our insurance or reinsurance reserves should prove to be inadequate for the reasons discussed above, or for any other reason, we will be required to increase reserves, resulting in a reduction in our net income and shareholders' equity in the period in which the deficiency is identified. Future loss experience substantially in excess of established reserves could also have a material adverse effect on future earnings and liquidity and financial rating, which could affect our ability to attract business, our cost of capital and our ability to retain or hire qualified personnel.

Our risk management is based on estimates and judgments that are subject to significant uncertainties.

Our approach to risk management relies on subjective variables that entail significant uncertainties. For example, we rely heavily on estimates of probable maximum losses for certain events that are generated by computer-run models. In addition, we rely on historical data and scenarios in managing credit and interest rate risks in our investment portfolio. These estimates, models, data and scenarios may not produce accurate predictions and consequently, we could incur losses both in the risks we underwrite and to the value of our investment portfolio.

Small changes in assumptions, which depend heavily on our judgment and foresight, can have a significant impact on the modeled outputs. Although we believe that these probabilistic measures provide a meaningful indicator of the relative risk of certain events and changes to our business over time, these measures do not predict our actual exposure to, nor guarantee our successful management of, future losses that could have a material adverse effect on our financial condition and results of operations.

A decline in our financial strength rating may result in a reduction of new or renewal business.

Companies, insurers and reinsurance brokers use ratings from independent ratings agencies as an important means of assessing the financial strength and quality of reinsurers. A.M. Best has assigned a financial strength rating of "A-" (Excellent), which is the fourth highest of 13 ratings that A.M. Best issues, to each of James River Insurance, James River Casualty, Falls Lake Fire and Casualty, Falls Lake National, Stonewood Insurance, and JRG Re. A.M. Best assigns ratings that are intended to provide an independent opinion of an insurance or reinsurance company's ability to meet its obligations to policyholders and such ratings are not an evaluation directed to investors. A.M. Best periodically reviews our rating and may revise it downward or revoke it at its sole discretion based primarily on its analysis of our balance sheet strength (including capital adequacy and loss and loss adjustment expense reserve adequacy), operating performance and business profile. Factors that could affect such an analysis include but are not limited to:

- if we change our business practices from our organizational business plan in a manner that no longer supports our A.M. Best's rating;
- if unfavorable financial, regulatory or market trends affect us, including excess market capacity;
- if our losses exceed our loss reserves;
- if we have unresolved issues with government regulators;
- if we are unable to retain our senior management or other key personnel;
- if our investment portfolio incurs significant losses;
- if A.M. Best alters its capital adequacy assessment methodology in a manner that would adversely affect our rating; or
- if A.M. Best reduces its assessment of our enterprise risk management

These and other factors could result in a downgrade of our rating. A downgrade of our rating could cause our current and future brokers and agents, retail brokers and insureds to choose other, more highly-rated competitors. A downgrade of this rating could also increase the cost or reduce the availability of reinsurance to us, increase collateral required for our assumed reinsurance business, trigger termination of assumed and/or ceded reinsurance contracts, trigger termination rights in certain of our agreements with MGAs in our Specialty Admitted segment, or result in a default under our credit facilities. See the Risk Factor "Our credit agreements contain a number of financial and other covenants, the breach of any of which could result in acceleration of payment of amounts due under our credit facilities."

In addition, in view of the earnings and capital pressures experienced by many financial institutions, including insurance companies, it is possible that rating organizations will heighten the level of scrutiny that they apply to such institutions, will increase the frequency and scope of their credit reviews, will request additional information from the companies that they rate and may increase the capital and other requirements employed in the rating organizations' models for maintenance of certain ratings levels. It is possible that such reviews of us may result in adverse ratings consequences, which could have a material adverse effect on our financial condition and results of operations. A downgrade below "A-" or withdrawal of any rating could severely limit or prevent us from writing new and renewal insurance or reinsurance contracts. See also "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations — Ratings."

If we are unable to retain key management and employees or recruit other qualified personnel, we may be materially adversely affected.

We believe that our future success depends, in large part, on our ability to retain our experienced management team and key employees and on our ability to recruit additional qualified employees to support our growth. For instance, our specialty insurance operations require the services of a number of highly experienced employees, including underwriters, to source quality business and analyze and manage our risk exposure. There can be no assurance that we can attract and retain the necessary employees to conduct our business activities on a timely basis or at all. Our competitors may offer more favorable compensation and/or permanent remote work arrangements to our key management or employees to

incentivize them to leave our Company, or alternatively, to make it more difficult for us to recruit and hire new employees. Additionally, the transition to remote work by employees has allowed competitors that are located in different states or parts of the country to solicit our employees without requiring their relocation. Although we have employment agreements with the members of our senior management team, which include certain post-employment restrictions on engaging in businesses competitive with the Company, we do not have employment agreements with our senior underwriters or claims personnel. Our inability to attract and retain qualified personnel and the loss of services of key personnel could have a material adverse effect on our financial condition and results of operations.

Additionally, if members of management or a significant number of our employees should become unavailable due to an outbreak of COVID-19 or other illness among them, whether due to work in an office environment or otherwise, our operations could be disrupted, which may have a detrimental impact on our business.

Adverse economic factors, including recession, inflation, periods of high unemployment or lower economic activity could result in the sale of fewer policies than expected or an increase in frequency or severity of claims and premium defaults or both, which, in turn, could affect our growth and profitability.

Factors such as business revenue, economic conditions, the volatility and strength of the capital markets, inflation and pandemics can all affect the business and economic environment. These same factors affect our ability to generate revenue and profits. In an economic downturn that is characterized by higher unemployment, declining spending and reduced corporate revenues, the demand for insurance products is adversely affected, which directly affects our premium levels and profitability. Negative economic factors may also affect our ability to receive the appropriate rate for the risk we insure with our policyholders and may adversely affect the number of policies we can write, including with respect to our opportunities to underwrite profitable business. In an economic downturn, our customers may have less need for insurance coverage, cancel existing insurance policies, modify their coverage, self-insure their risks, or not renew with us. Existing policyholders may exaggerate or even falsify claims to obtain higher claims payments, or not pay premiums on our policies when due. These outcomes would reduce our underwriting profit to the extent these factors are not reflected in the rates we charge.

We underwrite a significant portion of our insurance in (i) the Excess and Surplus Lines segment in Florida, California, Texas and New York, (ii) the fronting and program business of the Specialty Admitted Insurance segment in California, Michigan, New York, Texas, and Georgia, and (iii) individual risk workers' compensation business of the Specialty Admitted Insurance segment in North Carolina, Georgia, Missouri, and Virginia. Any economic downturn or reduced business activities in any such state, or other states where we conduct business, could have a material adverse effect on our financial condition and results of operations.

If the current high inflationary environment persists over an extended period of time, it could adversely affect the adequacy of our reserves by increasing average loss costs over time, negatively impact the values of our investments and our investment returns, and may increase our compensation expenses.

We distribute products through a select group of brokers and agents, several of which account for a significant portion of our business, and such relationships may not continue, or if they do continue, the relationship may not be on favorable terms to us. In addition, reliance on brokers and agents subjects us to their credit risk.

We distribute our products through a select group of brokers and agents. In 2022:

- the Excess and Surplus Lines segment conducted business with three brokers that produced an aggregate of \$643.3 million in gross written premiums, or 69.8% of that segment's gross written premiums for the year;
- the Specialty Admitted Insurance segment conducted business with two agencies that produced \$231.8 million in gross written premiums, representing 47.3% of that segment's gross written premiums for the year; and
- the Casualty Reinsurance segment conducted business with three brokers that generated \$62.5 million of gross written premiums, or 73.4% of that segment's gross written premiums for the year.

The relationship with any of these brokers or agents may not continue. Even if the relationships do continue, they may not be on terms that are profitable for us. The termination of a relationship with one or more significant brokers or agents could result in lower direct written premiums and could have a material adverse effect on our results of operations or business prospects.

There is a continuing trend toward consolidation among retail and wholesale brokers and agents. As brokers and agents consolidate and competition among them declines, they may seek and receive higher commissions. Increases in commission expense could reduce our underwriting profit.

Certain premiums from policyholders, where the business is produced by brokers or agents, are collected directly by the brokers or agents and forwarded to our insurance subsidiaries. In certain jurisdictions, when the insured pays its policy premium to brokers or agents for payment on behalf of our insurance subsidiaries, the premiums might be considered to have been paid under applicable insurance laws and regulations. Accordingly, the insured would no longer be liable to us for those amounts, whether or not we have actually received the premiums from that broker or agent. Consequently, we assume a degree of credit risk associated with brokers and agents. Where necessary, we review the financial condition of potential new brokers and agents before we agree to transact business with them. Although failures by brokers and agents to remit premiums have not been material to date, there may be instances where brokers and agents collect premiums but do not remit them to us and we may be required under applicable law to provide the coverage set forth in the policy despite the absence of premiums.

Because the possibility of these events depends in large part upon the financial condition and internal operations of our brokers and agents (which in most cases is not public information), we are not able to quantify the exposure presented by this risk. If we are unable to collect premiums from brokers and agents in the future, underwriting profits may decline and our financial condition and results of operations could be materially adversely affected.

We rely on a select group of customers for a significant portion of our business, and the loss or termination of our relationship with any of these customers, or a material reduction in business with any of these customers, could materially adversely affect our rate of growth, results of operations and financial condition.

Our two largest customers accounted for approximately \$120.9 million (8.1%) and \$110.9 million (7.4%) of our consolidated gross written premium in 2022. No insured generated 10.0% or more of consolidated gross written premiums for 2022.

Our largest customer in 2021 accounted for approximately \$124.1 million of our gross written premium, representing 8.2% of our gross written premiums in 2021. No insured generated 10.0% or more of consolidated gross written premiums for 2021.

The loss or termination of our relationship with these customers, or another significant customer, or a material reduction in business with any such party, could materially adversely affect our rate of growth, results of operations and financial condition.

We may be unable to obtain reinsurance coverage at reasonable prices or on terms that provide us adequate protection.

We purchase reinsurance in many of our lines of business to help manage our exposure to insurance and reinsurance risks that we underwrite and to reduce volatility in our results. In addition, JRG Re has managed its risk through retrocession arrangements with third-party reinsurers. A retrocession is a practice whereby a reinsurer cedes risk to one or more other reinsurers.

The availability and cost of reinsurance are subject to prevailing market conditions, both in terms of price and available capacity, each of which can affect our business volume and profitability. The availability of reasonably affordable reinsurance is a critical element of our business plan. One important way we utilize reinsurance is to reduce volatility in claims payments by limiting our exposure to losses from large risks. Another way we use reinsurance is to purchase substantial protection against concentrated losses when we enter new markets. In addition, the ability to obtain reinsurance is critical to our objective to grow our feebased fronting business. As a result, our ability to manage volatility and avoid significant losses, expand into new markets, grow by offering insurance to new kinds of enterprises, or grow our fronting business may

be limited by the unavailability of reasonably priced reinsurance. We may not be able to obtain reinsurance on acceptable terms or from entities with satisfactory creditworthiness. In such event, if we are unwilling to accept the terms or credit risk of potential reinsurers, we would have to reduce the level of our underwriting commitments, which would reduce our revenues. Reinsurance capacity has become more restricted making reinsurance placements more challenging during 2021 and 2022 than in prior years.

Many reinsurance companies have begun to exclude certain coverages from, or alter terms in, the reinsurance contracts we enter into with them. Some exclusions relate to risks that we cannot in turn exclude from the policies we write due to business or regulatory constraints. In addition, reinsurers are imposing terms, such as lower per occurrence and aggregate limits, and more exclusions, limiting the protection provided under the reinsurance contract. As a result, we, like other direct insurance companies, write insurance policies which to some extent do not have the benefit of reinsurance protection. These gaps in reinsurance protection expose us to greater risk and greater potential losses. For example, certain reinsurers have excluded coverage for terrorist acts or priced such coverage at unreasonably high rates. Many direct insurers, including us, have written policies without terrorist act exclusions and in many cases we cannot exclude terrorist acts because of regulatory constraints. We may, therefore, be exposed to potential losses as a result of terrorist acts. See also "Item 1. Business — Business Segments — Purchase of Reinsurance."

We are subject to credit risk with regard to our reinsurance counterparties, insurance companies with which we have a fronting arrangement and an indemnification arrangement we have with a former customer.

Although reinsurance makes the assuming reinsurer liable to us to the extent of the risk ceded, we are not relieved of our primary liability to our insureds as the direct insurer. At December 31, 2022, reinsurance recoverables on unpaid losses from our three largest reinsurers was \$717.1 million in the aggregate and represented 47.2% of the total balance. Additionally, prepaid reinsurance premiums ceded to three reinsurers at December 31, 2022 was \$119.7 million in the aggregate, or 43.7% of the total balance of prepaid reinsurance premiums. In addition to reinsurance purchased to manage our ongoing business, we have entered into two retroactive reinsurance transactions on legacy books of business: the first, a loss portfolio transfer reinsurance transaction on our legacy commercial auto lines business in our Excess & Surplus Lines segment (the "Commercial Auto LPT"), and the second, the Casualty Re LPT. At December 31, 2022, reinsurance recoverables on the Commercial Auto LPT were \$145.2 million (including \$132.0 million of unpaid recoverables and \$13.2 million of paid recoverables), and reinsurance recoverables on the Casualty Re LPT were \$244.7 million.

At December 31, 2022, all of our material reinsurance recoverable amounts are from companies with A.M. Best ratings of "A-" (Excellent) or better, are collateralized by the reinsurer for our benefit through letters of credit or funds held in trust accounts, or represent recoverables from a state residual market for automobile insurance, but we cannot be sure that our reinsurers will pay all reinsurance claims on a timely basis or at all. Similarly, in our fronting business, which we conduct through our Specialty Admitted Insurance segment, we are primarily liable to the insureds because we have issued the policies. While we customarily require a collateral trust arrangement to secure the obligations of the insurance entity for which we are fronting, we do not obtain collateral in every instance. See also "Item 1. Business — Business Segments — Specialty Admitted Insurance Segment — Fronting & Program Business." Reinsurers or fronting partners may default in their financial obligations to us as the result of insolvency, lack of liquidity, operational failure, fraud, asserted defenses based on agreement wordings or the principle of utmost good faith, asserted deficiencies in the documentation of agreements or for other reasons. The failure of a reinsurer or fronting partner to pay us does not lessen our contractual obligations to insureds. If a reinsurer or fronting partner fails to pay the expected portion of a claim or claims, our net losses might increase substantially and materially adversely affect our financial condition. Any disputes regarding reinsurance contracts, indemnification arrangements and related agreements could be time-consuming, costly and uncertain of success.

Downgrades to the credit ratings of our reinsurance counterparties may result in the reduction of rating agency capital credit provided by those reinsurance contracts and could, therefore, result in a downgrade of our own credit ratings. In addition, under the reinsurance regulations, in many states where our U.S. insurance subsidiaries are domiciled, certain reinsurers are required to collateralize their obligations to us and to the extent they do not do so, our ability for regulators to recognize this reinsurance will be

impaired. We evaluate each reinsurance claim based on the facts of the case, historical experience with the reinsurer on similar claims and existing case law and include any amounts deemed uncollectible from the reinsurer in our allowance for credit losses on reinsurance balances. See also "Item 1. Business — Business Segments — Purchase of Reinsurance."

We are exposed to credit risk relating to a set of insurance contracts previously issued to Rasier, under which the Company pays losses and loss adjustment expenses on the contracts. Rasier is contractually obligated to reimburse us for the losses and loss adjustment expenses paid on their behalf pursuant to indemnification agreements with it. This reimbursement obligation is supported by collateral posted for our benefit in a trust account from time to time. If Rasier fails to reimburse us, and the collateral posted for our benefit to support their reimbursement obligations is insufficient, our financial condition and results of operations could be materially adversely affected. See also "Item 1. Business — Business Segments — Purchase of Reinsurance — Amounts Recoverable from an Indemnifying Party."

In situations where we manage our credit exposure to reinsurers or fronting partners with a collateral arrangement, which includes our Commercial Auto LPT and indemnification arrangements on the Rasier policies, it is possible that the collateral could be insufficient to cover all claims, either as a result of a decline in the value of the collateral, an increase in the obligations being collateralized, a failure of management to monitor the adequacy of the collateral held, or the refusal of the counterparty to post additional collateral. In that event, we would be contractually entitled to recovery from our reinsurer or the entity for which we are fronting, but, for a variety of reasons, the other party could default in its obligations.

If we are unable to underwrite risks accurately and charge and collect competitive yet profitable rates to our policyholders, our business, financial condition and results of operations will be materially adversely affected.

In general, the premiums for our insurance policies are established at the time a policy is issued and, therefore, before all of our underlying costs are known. Like other insurance companies, we rely on estimates and assumptions in setting our premium rates. Establishing adequate premium rates is necessary, together with investment income, to generate sufficient revenue to offset losses, loss adjustment expenses and other underwriting costs and to earn a profit. If we do not accurately assess the risks that we assume, we may not charge adequate premiums to cover our losses and expenses, which would materially adversely affect our results of operations and our profitability. Alternatively, we could set our premiums too high, which could reduce our competitiveness and lead to lower revenues.

Pricing involves the acquisition and analysis of historical loss data and the projection of future trends, loss costs and expenses, and inflation trends, among other factors, for each of our products in multiple risk tiers and many different markets. In order to accurately price our policies, we:

- collect and properly analyze a substantial volume of data from our insureds;
- develop, test and apply appropriate actuarial projections and rating formulas;
- · closely monitor and timely recognize changes in trends; and
- project both frequency and severity of our insureds' losses with reasonable accuracy.

We seek to implement our pricing accurately in accordance with our assumptions. Our ability to undertake these efforts successfully and, as a result, accurately price our policies, is subject to a number of risks and uncertainties, including:

- insufficient or unreliable data;
- incorrect or incomplete analysis of available data;
- uncertainties generally inherent in estimates and assumptions;
- our failure to implement appropriate actuarial projections and rating formulas or other pricing methodologies;
- regulatory constraints on rate increases;

- our failure to accurately estimate investment yields and the duration of our liability for loss and loss adjustment expenses; and
- unanticipated court decisions, legislation or regulatory action.

In addition to charging profitable rates on the insurance policies we issue, we also must be able to collect the premiums, deductibles, and self-insured retentions that our insureds agreed to pay at the inception of their policies. The inability or refusal of our insureds to pay the amounts owed by them pursuant to their policies undermines our goal of underwriting risk accurately and charging competitive yet profitable rates, and could adversely affect our results of operations and our profitability.

The failure of any of the loss limitations or exclusions we employ, or changes in other claims or coverage issues, could have a material adverse effect on our financial condition or results of operations.

Although we seek to mitigate our loss exposure through a variety of methods, the future is inherently unpredictable. It is difficult to predict the timing, frequency and severity of losses with statistical certainty. It is not possible to completely eliminate our exposure to unforecasted or unpredictable events and, to the extent that losses from such risks occur, our financial condition and results of operations could be materially adversely affected.

For instance, various provisions of our policies, such as limitations or exclusions from coverage or choice of forum, which have been negotiated to limit our risks, may not be enforceable in the manner we intend. At the present time, we employ a variety of endorsements to our policies that limit exposure to known risks.

In addition, we design our Excess and Surplus Lines segment's policy terms to manage our exposure to expanding theories of legal liability like those which have given rise to claims for lead paint, asbestos, mold, construction defects and environmental matters. Many of the policies we issue also include conditions requiring the prompt reporting of claims to us and entitle us to decline coverage in the event of a violation of that condition. Also, many of our policies limit the period during which a policyholder may bring a claim under the policy, which in many cases is shorter than the statutory period under which such claims can be brought against our policyholders. While these exclusions and limitations help us assess and reduce our loss exposure and help eliminate known exposures to certain risks, it is possible that a court or regulatory authority could nullify or void an exclusion or legislation could be enacted modifying or barring the use of such endorsements and limitations. For example, in response to the COVID-19 pandemic, there have been proposals by federal and state lawmakers to retroactively amend business interruption insurance policies to cover claims related to COVID-19 when such insurance policies otherwise would exclude such risks. Further, a number of states have instituted, and other states are considering instituting, changes designed to effectively expand workers' compensation coverage by creating presumptions of compensability of claims for certain types of workers. These types of governmental actions could result in higher than anticipated losses and loss adjustment expenses, which could have a material adverse effect on our financial condition or results of operations. In some instances, these changes may not become apparent until sometime after we have issued insurance policies that are affected by the changes. As a result, the full extent of liability under our insurance contracts may not be known for many years after a contract is issued.

We have exposure to losses arising from unpredictable natural disasters, terrorist acts, and other catastrophic events. Claims from these events could reduce our earnings and cause volatility in our results of operations.

We have exposure to losses arising from unpredictable natural disasters, terrorist acts, and other catastrophic events. These events can cause losses in a variety of our property-casualty lines and generally result in an increase in the number of claims filed as well as the amount of compensation sought by claimants.

The incidence and severity of natural disasters, terrorist acts, and other catastrophic events are inherently unpredictable. The extent of losses from catastrophes is a function of the frequency of loss events, the total amount of insured exposure in the area affected by each event and the severity of the events. Claims from catastrophic events could exceed our amount of reinsurance purchased to protect us from such events, cause us to pay reinstatement premiums, reduce our earnings and cash flows, cause volatility in our results of operations and cash flows for any fiscal period or materially impact our financial condition.

For example, for the third quarter ending September 30, 2022, we incurred \$5.0 million in net catastrophe losses related to Hurricane Ian.

A large-scale pandemic, the continued threat or occurrence of terrorism, within the United States and abroad, or military and other actions, and heightened security measures in response to these types of threats may cause significant volatility and losses in our investment portfolio from declines in the equity markets and from interest rate changes in the United States, Europe and elsewhere, and result in loss of life, property damage, disruptions to commerce and reduced economic activity. Some of our assets in our investment portfolio may be adversely affected by declines in the equity markets and reduced economic activity caused by a large-scale pandemic or the continued threat of terrorism. Additionally, a large-scale pandemic or terrorist act could have a material effect on sales, profitability, competitiveness, marketability of product offerings, liquidity and operating results. See "The global coronavirus outbreak could harm business and results of operations of the Company" risk factor herein.

The global coronavirus outbreak could harm business and results of operations of the Company.

In December 2019, a coronavirus (COVID-19) outbreak was reported in China, and, in March 2020, the World Health Organization declared it a pandemic. COVID-19 variants continue to spread throughout the United States and Bermuda, the countries in which the Company operates. In response, many governments, including Bermuda, the state and local governments of the States of Virginia and North Carolina, and governments in many other states in which our policyholders are located, instituted emergency restrictions that substantially limited the operation of non-essential businesses and the activities of individuals. Many jurisdictions imposed, eased, and reinstated emergency restrictions at various points during the pandemic in response to the spread of COVID-19 variants. These restrictions may have resulted in significant adverse effects on our policyholders and many different types of small and mid-sized businesses within the Company's client base, particularly those in the retail, hospitality and food and beverage industries, among many others. Our workers' compensation line of business includes claimants experiencing "long-COVID", the ultimate cost of which is difficult to predict. In addition, we have observed indirect impacts of COVID-19 in our workers' compensation line of business, such as greater frequency and severity of workplace injuries resulting from inexperienced workers or distracted driving. The ultimate effect and severity of COVID-19 on the economy, our policyholders and our claimants is not known.

The effect of COVID-19 and related events, including those described above and those not yet known, could have a negative effect on the stock price, business prospects, financial condition and results of operations of the Company, including as a result of quarantines, market volatility, market downturns, actions of lawmakers and regulators, changes in consumer behavior, business closures, deterioration in the credit quality of policyholders or the inability of policyholders to pay their premium and deductible obligations to the Company, and deterioration in the credit quality of reinsurers or insurance entities with which we have a fronting arrangement or the inability of reinsurers or the insurance entities for which we are fronting to pay their obligations to the Company. The impact of the pandemic may also exacerbate the other risks described in this "Risk Factors" section. The occurrence of any of the events described in these risk factors could have a material adverse effect on the Company's financial condition and results of operations.

The effect of emerging claim and coverage issues on our business is uncertain.

As industry practices and legal, judicial, social and other environmental conditions change, unexpected and unintended issues related to claims and coverage may emerge. These issues may materially adversely affect our business by either broadening coverage beyond our underwriting intent or by increasing the number or size of claims. In some instances, these changes may not become apparent until sometime after we have issued insurance or reinsurance contracts that are affected by the changes. As a result, the full extent of liability under our insurance or reinsurance contracts may not be known for many years after a contract is issued.

Four examples of unanticipated risks that affected the insurance industry are:

- Asbestos liability applied to manufacturers of products and contractors who installed those products;
- Apportionment of liability for settlement assigned to subcontractors who may have been involved in mundane tasks (such as installing sheetrock in a home);

- Court decisions, such as the 1995 <u>Montrose</u> decision in California, that read policy exclusions narrowly so as to expand coverage, thereby requiring insurers to create and write new exclusions; and
- Social inflation trends, including higher and more frequent claims, more favorable judgments and legislated increases.

Our investment portfolio is subject to significant market and credit risks, which could result in a material adverse impact on our financial condition or results of operations.

Our results of operations depend, in part, on the performance of our investment portfolio. We seek to hold a diversified portfolio of investments that is managed by professional investment advisory management firms in accordance with our investment policy and periodically reviewed by our Investment Committee. However, our investments are subject to general economic conditions and market risks as well as risks inherent to particular securities.

Our primary market risk exposures are to changes in interest rates and equity prices. See "Item 7A. Quantitative and Qualitative Disclosures About Market Risk." Prior to 2022, interest rates had been at or near historic lows, limiting yields on fixed income investments and negatively impacting investment income. Increases in interest rates during 2022, while generating higher investment yields, led to declines in the fair values of our fixed income securities, influenced by the duration of our fixed income investments and the extent of interest rate increases. For example, for the year ended December 31, 2022, we experienced unrealized losses on fixed maturity investments of \$193.0 million, which were recognized in other comprehensive loss. Some fixed income securities have call or prepayment options, which represent possible reinvestment risk in declining rate environments. Other fixed income securities such as mortgage-backed and asset-backed securities carry prepayment risk or, in a rising interest rate environment, may not pre-pay as quickly as expected. In addition, individual securities in our fixed income securities portfolio are subject to credit risk and default. Downgrades in the credit ratings of fixed maturities can have a significant negative effect on the market valuation of such securities.

In the event of a financial crisis or severe downturn in public debt and equity markets, we could incur substantial realized and unrealized investment losses in future periods, which could have a material adverse impact on our financial condition, results of operations, debt and financial strength ratings, insurance subsidiaries' capital liquidity and ability to access capital markets.

The value of our investment portfolio is subject to the risk that certain investments may default or become impaired due to deterioration in the financial condition of one or more issuers of the securities held, or due to deterioration in the financial condition of an insurer that guarantees an issuer's payments of such investments. Such defaults and impairments could reduce our net investment income and result in realized investment losses.

We hold investments in bank loans (6.6% of the carrying value of our cash and invested assets (excluding restricted cash equivalents) as of December 31, 2022. Most of these loans are issued to sub-investment grade borrowers. While this class of investment has been profitable for us, a severe downturn in the markets could materially adversely affect the value of these investments, including the possibility that we would suffer substantial losses on this portfolio. As of December 31, 2022, the fair value of our investments in bank loans was \$155.0 million.

As of December 31, 2022, we held equity investments of \$9.2 million in non-public limited liability companies that have invested in renewable energy investments. These investments were sponsored and are managed by an entity for which two former directors serve as officers. We invested in the equity of these projects because we anticipate earning attractive risk-adjusted returns from these investments. However, our investments in these projects are illiquid and the ultimate results from these investments may be unknown for some time.

We also invest in marketable equity securities. These securities are carried on the balance sheet at fair market value and are subject to potential losses and declines in market value. Our invested assets also include interests in limited partnerships and privately held debt investments totaling \$18.3 million at December 31, 2022. These investments were designed to provide diversification of risk and enhance the return on the overall

portfolio. However, these investments entail substantial risks and are generally illiquid. Our investment portfolio is subject to increased valuation uncertainties when investment markets are illiquid. The valuation of investments is more subjective when markets are illiquid, thereby increasing the risk that the estimated fair value (*i.e.*, the carrying amount) does not reflect prices at which actual transactions would occur.

Risks for all types of securities are managed through application of our investment policy, which establishes investment parameters that include (but are not limited to) maximum percentages of investment in certain types of securities and minimum levels of credit quality, which we believe are within guidelines established by the NAIC, BMA and various state insurance departments, as applicable.

Although we seek to preserve our capital, we cannot be certain that our investment objectives will be achieved, and results may vary substantially over time. In addition, although we seek to employ investment strategies that are not correlated with our insurance and reinsurance exposures, losses in our investment portfolio may occur at the same time as underwriting losses and, therefore, exacerbate the adverse effect of the losses on us.

We may become subject to additional government or market regulation which may have a material adverse impact on our business.

Market disruptions like those experienced during the credit-driven financial market collapse in 2008, as well as the dramatic increase in the capital allocated to alternative asset management during recent years, have led to increased governmental as well as self-regulatory scrutiny of the insurance industry in general. In addition, certain legislation proposing greater regulation of the industry is periodically considered by governing bodies of some jurisdictions as well as the U.S. federal government. The credit-driven equity market collapse in 2008 or other significant market disruptions may increase the likelihood that some increased regulation of the industry is mandated.

Because we are a Bermuda company, we are subject to changes in Bermuda law and regulation that may have a material adverse impact on our operations, including through the imposition of tax liability or increased regulatory supervision. In addition, we will be exposed to any changes in the political environment in Bermuda.

Our business could be materially adversely affected by changes in state laws, including those relating to asset and reserve valuation requirements, surplus requirements, limitations on investments and dividends, enterprise risk and risk-based capital requirements and, at the federal level, by laws and regulations that may affect certain aspects of the insurance industry, including proposals for preemptive federal regulation. 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 U.S. federal government has undertaken initiatives or considered legislation in several areas that may affect the insurance industry, including tort reform, corporate governance and the taxation of reinsurance companies. The Dodd-Frank Act also established the Federal Insurance Office, which is authorized to study, monitor and report to Congress on the insurance industry and to recommend that the FSOC designate an insurer as an entity posing risks to U.S. financial stability in the event of the insurer's material financial distress or failure. In December 2013, the Federal Insurance Office issued a report on alternatives to modernize and improve the system of insurance regulation in the United States, including increasing national uniformity through either a federal charter or effective action by the states. Any additional regulations established as a result of the Dodd-Frank Act or actions in response to the Federal Insurance Office Report could increase our costs of compliance or lead to disciplinary action. In addition, legislation has been introduced from time to time that, if enacted, could result in the U.S. federal government assuming a more direct role in the regulation of the insurance industry, including federal licensing in addition to or in lieu of state licensing and reinsurance for natural catastrophes. We are unable to predict whether any legislation will be enacted or any regulations will be adopted, or the effect that any such developments could have on our business, financial condition or results of operations.

The Bermuda insurance and reinsurance regulatory framework has become subject to increased scrutiny in many jurisdictions. The BMA sought "regulatory equivalency" which enables Bermuda's commercial insurers to transact business with the European Union on a "level playing field". In connection with its initial efforts to achieve equivalency under Solvency II, the BMA implemented and imposed

additional requirements on the companies it regulates, such as JRG Re. On November 26, 2015, via delegated act, the European Commission granted Bermuda's commercial insurers full equivalence in all areas of Solvency II for an indefinite period of time. The European Commission's act was reviewed and approved by the European Parliament and Council. On March 4, 2016, the delegated act was published in the official journal of the European Union. The grant of full equivalence came into force on March 24, 2016 and applies from January 1, 2016.

Additionally, the regulatory environment surrounding information security and privacy is increasingly demanding. We are subject to numerous U.S. federal and state laws governing the protection of personal and confidential information of our clients and employees, and new privacy laws have been adopted or are being considered at the state and federal level that may be applicable to us. The NAIC adopted an Insurance Data Security Model Law on October 24, 2017, which requires licensed insurance entities to comply with detailed information security requirements. To date, the following states have either adopted the NAIC Insurance Data Security Model Law or similar laws that govern the cybersecurity and data protection practices of insurers, insurance agents, and other licensed entities registered under state insurance laws: Alabama, California, Connecticut, Delaware, Indiana, Iowa, Louisiana, Maine, Michigan, Minnesota, Mississippi, New Hampshire, New York, North Dakota, Ohio, South Carolina, Tennessee, Virginia and Wisconsin. It is not yet known whether, and to what extent, other state legislatures or insurance regulators where we operate will enact the NAIC Insurance Data Security Model Law in whole or in part, or in a modified form. Such enactments, especially if inconsistent between states or with existing laws and regulations, could raise compliance costs or increase the risk of noncompliance, with the attendant risk of being subject to regulatory enforcement actions and penalties, as well as reputational harm. Further, several states have enacted privacy laws requiring specific disclosures regarding privacy practices and granting certain rights to consumers with respect to the use by companies of their personally identifiable information. There has also been proposed privacy legislation at the federal level. These new privacy laws may impose compliance costs, and ambiguities surrounding their applicability and interpretation may increase the risk of noncompliance, with the attendant risk of being subject to regulatory enforcement actions and penalties, as well as class action litigation. Any such events could potentially have an adverse impact on our business, financial condition or results of operations.

It is impossible to predict what, if any, changes in the regulations applicable to us, the markets in which we operate, trade and invest or the counterparties with which we do business may be instituted in the future. Any such regulation could have a material adverse impact on our business.

We are subject to extensive regulation, which may materially adversely affect our ability to achieve our business objectives. In addition, if we fail to comply with these regulations, we may be subject to penalties, including fines and suspensions, which may materially adversely affect our financial condition and results of operations.

Our admitted insurance and reinsurance subsidiaries are subject to extensive regulation, primarily by California (the domiciliary state for Falls Lake Fire and Casualty Company), Ohio (the domiciliary state for James River Insurance and Falls Lake National), North Carolina (the domiciliary state for Stonewood Insurance), Virginia (the domiciliary state for James River Casualty), Bermuda (the domicile of JRG Re), and to a lesser degree, the other jurisdictions in the United States in which we operate. Most insurance regulations are designed to protect the interests of insurance policyholders, as opposed to the interests of shareholders. These regulations generally are administered by a department of insurance in each state and, in the case of JRG Re, the BMA in Bermuda, and relate to, among other things, authorizations to write certain lines of business, capital and surplus requirements, reserve requirements, rate and form approvals, investment and underwriting limitations, affiliate transactions, dividend limitations, cancellation and nonrenewal of policies, changes in control, solvency, receipt of reinsurance credit, accounting principles and a variety of other financial and non-financial aspects of our business. These laws and regulations are regularly re-examined and any changes in these laws and regulations or new laws or interpretations thereof may be more restrictive, could make it more expensive to conduct business or otherwise materially adversely affect our financial condition or operations. State insurance departments and the BMA also conduct periodic examinations of the affairs of insurance companies and reinsurance companies and require the filing of annual and other reports relating to financial condition, holding company issues and other matters. These regulatory requirements may impose timing and expense or other constraints that could materially

adversely affect our ability to achieve some or all of our business objectives. Failure by any of our insurance subsidiaries to comply with applicable regulations could result in a requirement for that subsidiary to cease writing business.

In addition, regulatory authorities have broad discretion to deny or revoke licenses for various reasons, including the violation of regulations. For example, an insurer's registration may be cancelled by the BMA on certain grounds specified in the Insurance Act, including failure by the insurer to comply with its obligations under the Insurance Act, or if the BMA believes that the insurer has not been carrying on business in accordance with sound insurance principles. In some instances, where there is uncertainty as to applicability, we follow practices based on our interpretations of regulations or practices that we believe are generally followed by the industry. These practices may turn out to be different from the interpretations of regulatory authorities. If we do not have the requisite licenses and approvals or do not comply with applicable regulatory requirements, insurance regulatory authorities could preclude or temporarily suspend us from carrying on some or all of our activities or otherwise penalize us. This could materially adversely affect our ability to operate our business.

The admitted market is subject to more state regulation than the E&S market, particularly with regard to rate and form filing requirements, restrictions on the ability to exit lines of business, premium tax payments and membership in various state associations, such as guaranty funds. Some states have deregulated their commercial insurance markets. We cannot predict the effect that further deregulation would have on our business, financial condition or results of operations.

The NAIC has developed a system to test the adequacy of statutory capital of U.S.-based insurers, known as risk-based capital or "RBC," that many states have adopted. This system establishes the minimum amount of risk-based capital necessary for an insurer to support its overall business operations. It identifies property-casualty insurers that may be inadequately capitalized by looking at certain inherent risks of each insurer's assets and liabilities and its mix of net written premiums. Insurers falling below a calculated threshold may be subject to varying degrees of regulatory action, including supervision, rehabilitation or liquidation. Failure to maintain adequate risk-based capital at the required levels could materially adversely affect the ability of our insurance subsidiaries to maintain regulatory authority to conduct their business. For additional information, see "Item 1. Business — Regulation — U.S. Insurance Regulation — State Regulation."

In addition, the various state insurance regulators have increased their focus on risks within an insurer's holding company system that may pose enterprise risk to the insurer. In 2012, the NAIC adopted the NAIC Amendments. The NAIC Amendments, when adopted by the various states, are designed to respond to perceived gaps in the regulation of insurance holding company systems in the United States. One of the major changes is a requirement that an insurance holding company system's ultimate controlling person submit annually to its lead state insurance regulator an "enterprise risk report" that identifies activities, circumstances or events involving one or more affiliates of an insurer that, if not remedied properly, are likely to have a material adverse effect upon the financial condition or liquidity of the insurer or its insurance holding company system as a whole. Other changes include (i) requiring a controlling person to submit prior notice to its domiciliary insurance regulator of a divestiture of control, (ii) having detailed minimum requirements for cost sharing and management agreements between an insurer and its affiliates and (iii) expanding the types of agreements between an insurer and its affiliates to be filed with its domiciliary insurance regulator. The NAIC Amendments must be adopted by a state legislature and such state's insurance regulator in order to be effective in that state. Each of California, North Carolina, Ohio and Virginia, the states in which our U.S. insurance subsidiaries are domiciled, adopted the NAIC Amendments, including the enterprise risk report requirement.

In 2012, the NAIC also adopted the ORSA Model Act. The ORSA Model Act, when adopted by the various states, requires an insurance holding company system's Chief Risk Officer to submit annually to its lead state insurance regulator an ORSA. The ORSA is a confidential internal assessment appropriate to the nature, scale and complexity of an insurer of the material and relevant risks identified by the insurer associated with an insurer's current business plan and the sufficiency of capital resources to support those risks. The ORSA Model Act must be adopted by a state legislature in order to be effective in that state. Each of California, North Carolina, Ohio and Virginia, the states in which our U.S. insurance subsidiaries are domiciled, adopted the ORSA Model Act and require an ORSA filing.

We cannot predict with certainty the effect any enacted, proposed or future state or federal regulation or NAIC initiative may have on the conduct of our business. Furthermore, there can be no assurance that the regulatory requirements applicable to our business will not become more stringent in the future or result in materially higher cost than current requirements. Changes in regulation of our business may materially reduce our profitability, limit our growth or otherwise materially adversely affect our operations.

Changing climate conditions may increase the frequency and severity of catastrophic events and thereby adversely affect our financial condition and results of operations.

Over the past several years, changing weather patterns and climatic conditions, such as global warming, appear to have contributed to the unpredictability, frequency and severity of natural disasters and created additional uncertainty as to future trends and exposures. There is a growing scientific consensus that global warming and other climate changes are increasing the frequency and severity of catastrophic weather and other events, such as hurricanes, fires, tornadoes, windstorms, floods and other natural disasters. Such changes make it more difficult for us to predict and model catastrophic events, reducing our ability to accurately price our exposure to such events and mitigate our risks. Any increase in the frequency or severity of natural disasters may adversely affect our financial condition and results.

We may have exposure to losses from terrorism for which we are required by law to provide coverage.

U.S. insurers are required by state and federal law to offer coverage for terrorism in certain commercial lines, including workers' compensation. As discussed under "Item 1. Business — Regulation — U.S. Insurance Regulation — Federal Regulation," the Terrorism Acts require commercial property and casualty insurance companies to offer coverage for acts of terrorism, whether foreign or domestic, and established a federal assistance program through the end of 2027 to help cover claims related to future terrorism-related losses. The impact of any terrorist act is unpredictable, and the ultimate impact on us would depend upon the nature, extent, location and timing of such an act.

We, or agents we have appointed, may act based on inaccurate or incomplete information regarding the accounts we underwrite, or such agents may exceed their authority or commit fraud when binding policies on our behalf.

We, and our MGAs and other agents who have the ability to bind our policies, rely on information provided by insureds or their representatives when underwriting insurance policies. While we may make inquiries to validate or supplement the information provided, we may make underwriting decisions based on incorrect or incomplete information. It is possible that we will misunderstand the nature or extent of the activities or facilities and the corresponding extent of the risks that we insure because of our reliance on inadequate or inaccurate information.

In addition, in the Specialty Admitted Insurance segment, MGAs and other agents have the authority to bind policies on our behalf within prescribed underwriting guidelines, and third party administrators manage and pay claims on our behalf and advise us with respect to case reserves. If any such agents exceed their authority, breach their obligations to us, fail to maintain proper licenses, have weak internal controls, or engage in fraudulent activities, our reputation could suffer, we may experience regulatory intervention, or our financial condition and results of operations could be materially adversely affected. Although we are continually monitoring these agents and administrators, our monitoring efforts may not be adequate.

The insurance and reinsurance business is historically cyclical, and we may experience periods with excess underwriting capacity and unfavorable premium rates, which could materially adversely affect our business.

Historically, insurers and reinsurers have experienced significant fluctuations in operating results due to competition, frequency and severity of catastrophic events, levels of capacity, adverse trends in litigation, regulatory constraints, general economic conditions and other factors. We have experienced these types of fluctuations since the Company's inception. The supply of insurance and reinsurance is related to prevailing prices, the level of insured losses and the level of capital available to the industry that, in turn, may fluctuate in response to changes in rates of return on investments being earned in the insurance and reinsurance industry. As a result, the insurance and reinsurance business historically has been a cyclical industry characterized by periods of intense price competition due to excessive underwriting capacity as well as periods when

shortages of capacity increased premium levels. Demand for insurance and reinsurance depends on numerous factors, including the frequency and severity of catastrophic events, levels of capacity, the introduction of new capital providers, general economic conditions and underwriting results of primary insurers. All of these factors fluctuate and may contribute to price declines generally in the insurance and reinsurance industry.

We cannot predict with certainty whether market conditions will improve, remain constant or deteriorate. Negative market conditions may impair our ability to underwrite insurance and reinsurance at rates we consider appropriate and commensurate relative to the risk assumed. If we cannot underwrite insurance or reinsurance at appropriate rates, our ability to transact business will be materially adversely affected. Any of these factors could lead to a material adverse effect on our business, financial condition and results of operations.

Our reinsurance business is subject to loss settlements made by ceding companies and fronting carriers over which we have no control, which could materially adversely affect our performance.

Where JRG Re enters into assumed reinsurance contracts with third parties, all loss settlements made by the ceding company will be unconditionally binding upon us, provided they are within the terms of the underlying policies and within the terms of the relevant contract. While we believe the ceding companies will settle such claims in good faith, we are bound to accept the claims settlements agreed to by the ceding companies. Under the underlying policies, each ceding company typically bears the burden of proving that a contractual exclusion applies to a loss, and there may be circumstances where the facts of a loss are insufficient to support the application of an exclusion. In such circumstances, we assume such losses under the reinsured policies, which could materially adversely affect our performance.

We could be forced to sell investments to meet our liquidity requirements.

We invest the premiums we receive from our insureds and ceding companies until they are needed to pay policyholder claims or until they are recognized as profits. Consequently, we seek to manage the duration of our investment portfolio based on the duration of our loss and loss adjustment expense reserves to ensure sufficient liquidity and avoid having to liquidate securities to fund claims. Risks such as inadequate loss and loss adjustment expense reserves or unfavorable trends in litigation could potentially result in the need to sell investments to fund these liabilities. Such sales could result in significant realized losses depending on the conditions of the general market, interest rates and credit issues with individual securities.

Our employees could take excessive risks, which could negatively affect our financial condition and business.

As an insurance enterprise, we are in the business of binding certain risks. The employees who conduct our business, including executive officers and other members of management, underwriters, claims professionals, and other employees, do so in part by making decisions and choices that involve exposing us to risk. These include decisions such as setting underwriting guidelines and standards, product design and pricing, determining which business opportunities to pursue, claims management decisions, and other decisions. Although we employ controls and procedures designed to monitor employees' business decisions and prevent us from taking excessive risks, these controls and procedures may not be effective. If our employees take excessive risks, the impact of those risks could have a material adverse effect on our financial condition and business operations.

We may require additional capital in the future, which may not be available or available only on unfavorable terms.

Our future capital requirements depend on many factors, including our ability to write new and renewal business successfully and to establish premium rates and reserves at levels sufficient to cover losses. Our ability to underwrite depends largely upon the expected quality of our claims paying process and our perceived financial strength as estimated by potential insureds, brokers, other intermediaries, independent rating agencies, and our regulators. To the extent that our existing capital is insufficient to fund our future operating requirements, cover claim losses, satisfy ratings agencies in order to maintain a satisfactory rating, or meet the capital requirements of our regulators in order to maintain our insurance licenses, we may

need to raise additional capital in the future through offerings of debt, hybrid or equity securities or through suspension or reduction of dividends, or otherwise to:

- fund liquidity needs caused by underwriting or investment losses;
- replace capital lost in the event of significant reinsurance losses or adverse reserve developments;
- satisfy letters of credit or guarantee bond requirements that may be imposed by our clients or by regulators;
- · meet rating agency or regulatory capital requirements; or
- respond to competitive pressures.

Any equity or debt financing, if available at all, may be on terms that are unfavorable to us. Further, any additional capital raised through the sale of equity could dilute shareholders' ownership interest in the Company and would likely cause the value of our shares to decline. For example, in May 2021, we raised \$192.1 million in equity capital (the "May Equity Offering") to protect our balance sheet after experiencing \$170.0 million of adverse development on our commercial auto business in the first quarter of 2021 almost entirely related to a previously canceled account that has been in run-off since 2019. In the May Equity Offering, we announced the offering of 6,497,500 shares at \$31.00 per share the day after our shares had a closing market price equal to \$46.50. Additionally, on March 1, 2022 we issued 150,000 Series A Perpetual Cumulative Convertible Preferred Shares, par value \$0.00125 per share (the "Series A Preferred Shares"), for an aggregate purchase price of \$150 million, primarily to protect our balance sheet after experiencing \$115.0 million of adverse reserve development in the Casualty Reinsurance segment in the fourth quarter of 2021, primarily related to underwriting years 2014 through 2018. The Series A Preferred Shares, among other things, have the right to receive a payment on account of the distribution of assets on any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Company before any payment may be made to holders of any other class or series of capital shares, pay dividends to the security holders at the initial rate of 7% of their liquidation preference of \$1,000 per share per annum, include restrictions that may limit our ability to pay dividends to common shareholders and may not be redeemed at our election. See also "The Series A Preferred Shares have rights, preferences and privileges that are not held by, and are preferential to the rights of, our common shareholders, which could adversely affect our liquidity and financial condition" and "The amount of dividends that we may pay to our common shareholders is subject to restrictions pursuant to the terms of the Series A Preferred Shares, and we cannot assure you that we will declare or pay dividends on our common shares in the future."

Further, our ability to raise debt and certain types of equity capital may be constrained by covenants in our existing credit facilities. See the Risk Factor "Our credit agreements contain financial and other covenants, the breach of which could result in acceleration of payment of amounts due under our credit facilities" below. Additional capital raised through the issuance of debt would most likely result in creditors having rights, preferences and privileges senior or otherwise superior to those of the holders of our shares and may limit our flexibility in operating our business and make it more difficult to obtain capital in the future. Disruptions, uncertainty, or volatility in the capital and credit markets may also limit our access to capital required to operate our business. If we are not able to obtain adequate capital, or obtain it on favorable terms, our business, financial condition and results of operations could be materially adversely affected.

Our credit agreements contain financial and other covenants, the breach of any of which could result in acceleration of payment of amounts due under our credit facilities.

As of December 31, 2022, we had an outstanding unsecured balance of approximately \$207.3 million in the aggregate under our two bank credit agreements. The agreements contain certain financial covenants that require us to maintain consolidated net worth in excess of a specified minimum amount and a leverage ratio as of the end of any fiscal quarter not in excess of 0.35 to 1. The agreements contain other covenants which, among other things, require ongoing compliance with applicable insurance regulations and require each of our regulated insurance subsidiaries to maintain ratings from A.M. Best not lower than an A-. A breach of any of these covenants could result in acceleration of our obligations to repay our outstanding indebtedness under such agreement if we are unable to obtain a waiver or amendment from our lenders, and otherwise could impair our ability to borrow funds or result in higher borrowing costs.

We operate in a highly competitive environment and we may not continue to be able to compete effectively against larger or more well-established business rivals.

We face competition from other specialty insurance companies, standard insurance companies and underwriting agencies, as well as from diversified financial services companies that are larger than we are and that have greater financial, marketing and other resources than we do. Some of these competitors also have longer experience and more market recognition than we do in certain lines of business. In addition, it may be difficult or prohibitively expensive for us to implement technology systems and processes that are competitive with the systems and processes of these larger companies.

In particular, competition in the insurance and reinsurance industry is based on many factors, including price of coverage, the general reputation and perceived financial strength of the company, relationships with brokers, terms and conditions of products offered, ratings assigned by independent rating agencies, speed of claims payment and reputation, and the experience and reputation of the members of our underwriting team in the particular lines of insurance and reinsurance we seek to underwrite. See also "Item 1. Business — Competition."

A number of new, proposed or potential legislative or industry developments could further increase competition in our industry. These developments include:

- An increase in capital-raising by companies in our lines of business, which has resulted in new entrants to our markets and an excess of capital in the industry;
- The deregulation of commercial insurance lines in certain states and the possibility of federal regulatory reform of the insurance industry, which could increase competition from standard carriers for our E&S lines of insurance business; and
- Changing practices facilitated by the Internet may lead to greater competition in the insurance business. Among the possible changes are shifts in the way in which commercial insurance is purchased, which could affect both admitted and E&S lines.

We currently depend largely on the wholesale distribution model for our Excess and Surplus Lines segment's premiums. If the wholesale distribution model were to be significantly altered by changes in the way E&S lines risks are marketed, including, without limitation, through use of the Internet, it could have a material adverse effect on our premiums, underwriting results and profits.

There is no assurance that we will be able to continue to compete successfully in the insurance or reinsurance markets. Increased competition in these markets could result in a change in the supply and/or demand for insurance or reinsurance, affect our ability to price our products at risk-adequate rates, affect our ability to retain business with existing customers, or underwrite new business on favorable terms. If this increased competition so limits our ability to transact business, our operating results could be materially adversely affected.

If we are unable to keep pace with the technological advancements in the insurance industry, our ability to compete effectively could be impaired.

We are committed to developing and maintaining information technology systems that will allow our insurance subsidiaries to compete effectively. There can be no assurance that the development of current technology for future use will not result in our being competitively disadvantaged, especially with those carriers that have greater resources. If we are unable to keep pace with the advancements being made in technology, our ability to compete with other insurance companies who have advanced technological capabilities will be negatively affected. Further, if we are unable to effectively execute and update or replace our key legacy technology systems as they become obsolete or as emerging technology renders them competitively inefficient, our competitive position and our cost structure could be adversely affected.

If actual renewals of our existing contracts do not meet expectations, our premiums written in future years and our future results of operations could be materially adversely affected.

Most of our contracts are written for a one-year term. In our financial forecasting process, we make assumptions about the renewal of our prior year's contracts. The insurance and reinsurance industries have

historically been cyclical businesses with intense competition, often based on price. If actual renewals do not meet expectations or if we choose not to write a renewal (including in connection with the early termination of insurance policies), our premiums written in future years and our future operations could be materially adversely affected.

We may change our underwriting guidelines or our strategy without shareholder approval.

Our management has the authority to change our underwriting guidelines or our strategy without notice to our shareholders and without shareholder approval. As a result, we may make fundamental changes to our operations without shareholder approval, which could result in our pursuing a strategy or implementing underwriting guidelines that may be materially different from the strategy or underwriting guidelines described in the section titled "Business" or elsewhere in this Annual Report.

Our ability to implement our business strategy could be delayed or adversely affected by Bermuda employment restrictions relating to the ability to obtain and retain work permits for key employees in Bermuda.

Under Bermuda law, non-Bermudians (other than spouses of Bermudians and holders of permanent residents' certificates) may not engage in any gainful occupation in Bermuda without a valid government work permit. A work permit may be granted or renewed upon showing that, after proper public advertisement, no Bermudian, spouse of a Bermudian or a holder of a permanent resident's certificate who meets the minimum standards reasonably required by the employer has applied for the job. A work permit is issued with an expiry date (up to five years) and no assurances can be given that any work permit will be issued or, if issued, renewed upon the expiration of the relevant term. If work permits are not obtained or are not renewed for our key employees, we would lose their services, which could materially affect our business.

If California, North Carolina, Ohio or Virginia significantly increases the assessments our insurance companies are required to pay, our financial condition and results of operations will suffer.

Our insurance companies are subject to assessments in California (the domiciliary state for Falls Lake Fire and Casualty Company), North Carolina (the domiciliary state for Stonewood Insurance), Ohio (the domiciliary state for James River Insurance and Falls Lake National) and Virginia (the domiciliary state for James River Casualty), for various purposes, including the provision of funds necessary to fund the operations of the various insurance departments and the state funds that pay covered claims under certain policies written by impaired, insolvent or failed insurance companies. These assessments are generally set based on an insurer's percentage of the total premiums written in the insurer's state within a particular line of business. As our U.S.-based insurance subsidiaries grow, our share of any assessments may increase. We cannot predict with certainty the amount of future assessments because they depend on factors outside our control, such as insolvencies of other insurance companies. Significant assessments could result in higher than expected operating expenses and have a material adverse effect on our financial condition or results of operations.

Our use of third-party claims administrators in certain lines of business may result in higher losses and loss adjustment expenses.

Historically, our Excess and Surplus Lines and Specialty Admitted Insurance segments handled all claims using employed staff. As we have entered new lines of business, we now use third-party claims administrators and contract employees to administer claims subject to the supervision of our employed staff. It is possible that these contract employees and third-party claims administrators may achieve less desirable results on claims than has historically been the case for our internal staff, which could result in significantly higher losses and loss adjustment expenses in those lines of business.

Risks Related to Taxation

The ongoing effect of the 2017 Tax Act may have a significant impact on the Company.

The Tax Act, enacted on December 22, 2017, introduced significant changes to the Internal Revenue Code of 1986, as amended (the "Code"). The Tax Act contained many provisions that impact us and our shareholders, including provisions that impose a base erosion and anti-abuse tax ("BEAT") on income of a

U.S. corporation determined without regard to certain otherwise deductible payments made to certain foreign affiliates (including premium or other consideration paid or accrued to a related foreign reinsurance company for reinsurance), broaden the definition of United States shareholder for purposes of the controlled foreign corporation ("CFC") rules, and make it more difficult for a foreign insurance company to avoid being treated as a passive foreign investment company ("PFIC").

There is continued uncertainty regarding how these and other provisions of the Tax Act will be interpreted, although guidance in proposed and final forms has been released with respect to certain provisions of the Tax Act, including certain BEAT and PFIC provisions, that may impact the Company. The ultimate impact of the Tax Act may differ from the Company's description below due to changes in interpretations, as well as additional regulatory guidance that may be issued. Given the complexity of the Tax Act, you are strongly encouraged to consult your own tax advisor regarding its potential impact on the U.S. federal income tax consequences to you considering your particular circumstances.

Base Erosion and Anti-Abuse Tax. The Tax Act's BEAT provision imposes a minimum tax on "applicable taxpayers," which are generally corporations that are part of a group with at least \$500 million of applicable annual gross receipts and that make certain payments to related foreign persons, including payments that are deductible for U.S. tax purposes, payments to purchase depreciable or amortizable property, and reinsurance payments. BEAT subjects the "modified taxable income" of an applicable taxpayer to tax at a rate of 10% in 2020-2025, and 12.5% in 2026 and thereafter. In general, modified taxable income is calculated by adding back to a taxpayer's regular taxable income the amount of certain "base erosion tax benefits" with respect to certain "base erosion payments" to foreign affiliates, as well as the "base erosion percentage" of any net operating loss deductions. BEAT applies to the extent it exceeds a taxpayer's regular corporate income tax liability (determined without regard to certain tax credits).

We have analyzed the regulations released by the U.S. Internal Revenue Service (the "IRS") and U.S. Department of the Treasury regarding BEAT and have concluded that we will be subject to additional tax if regular U.S. income tax does not exceed a minimum amount. The applicability of BEAT depends on a number of factors and the extent to which we may be subject to BEAT in future periods as a result of changes in interpretations, as well as additional regulatory guidance that may be issued, is currently unknown.

U.S. persons who own our shares may be subject to U.S. federal income taxation on our undistributed earnings and may recognize ordinary income upon disposition of shares.

If we are considered a PFIC (as defined in Section 1297(a) of the Code) for U.S. federal income tax purposes, a U.S. person who owns any of our shares could be subject to adverse tax consequences, including becoming subject to a greater tax liability than might otherwise apply and to tax on amounts in advance of when tax would otherwise be imposed, in which case your investment could be materially adversely affected.

The PFIC rules include provisions intended to provide an exception for qualifying insurance corporations ("QIC") engaged in the active conduct of an insurance business. Generally, a QIC is a company (i) that would be subject to tax under special provisions related to insurance companies if the company was a U.S. entity, and (ii) the applicable insurance liabilities of which constitute more than 25% of its total assets as reported on the company's applicable financial statement. On January 15, 2021, the IRS and U.S. Department of the Treasury issued final regulations and proposed regulations that provide guidance regarding the PFIC rules and the QIC exception. More specifically, the complex regulations provide, among other things, clarity on the application of "applicable insurance liabilities" and the "applicable financial statement," as well as the requirements to be engaged in the "active conduct" of an insurance business. The IRS has requested comments on several aspects of the proposed regulations, which are not effective until adopted in final form. It is uncertain when the proposed regulations will be finalized, and whether the provisions of any final or temporary regulations will vary from the proposed regulations.

We believe that we are not and have not been, and currently do not expect to become, a PFIC for U.S. federal income tax purposes. Our belief that we are not and have not been a PFIC is based, in part, on the fact that we believe that we are a QIC engaged in the active conduct of an insurance business. New regulations or pronouncements interpreting or clarifying these rules may be forthcoming. We cannot predict what impact, if any, such guidance would have on an investor that is subject to U.S. federal income taxation. As a result, we cannot assure you that we, or one of our subsidiaries, will not be deemed a PFIC by the IRS. If

we, or one of our subsidiaries, were considered a PFIC, it could have material adverse tax consequences for an investor that is subject to U.S. federal income taxation.

A non-U.S. corporation generally will be classified as a CFC if U.S. persons, each of whom owns, directly, indirectly, or constructively, at least 10% of the voting power or value of such corporation's stock ("U.S. 10% Shareholders"), own in the aggregate more than 50% of the voting power or value of the stock of such corporation. The Tax Act eliminated the prohibition on "downward attribution" from non-U.S. persons to U.S. persons under the CFC constructive ownership rules. As a result, our U.S. subsidiaries are deemed to own all of the stock of our non-U.S. subsidiaries (other than James River Group Holdings UK Limited ("James River UK")) for purposes of classifying those non-U.S. subsidiaries as CFCs. The legislative history under the Tax Act indicates that this change to the CFC constructive ownership rules was not intended to cause our non-U.S. subsidiaries to be treated as CFCs with respect to a 10% U.S. Shareholder that is not related (within the meaning of Section 954(d)(3) of the Code) to our U.S. subsidiary. However, it is not clear whether the IRS or a court would interpret the change made by the Tax Act in a manner consistent with such indicated intent.

Under these rules, if a foreign corporation is a CFC, each U.S. 10% Shareholder who owns directly or indirectly shares of the CFC on the last day of the CFC's taxable year must annually include in its taxable income its pro rata share of the CFC's "subpart F income," even if no distributions are made. Subpart F income typically includes "foreign personal holding company income" (such as interest, dividends and other types of passive income), as well as insurance and reinsurance income (including underwriting and investment income). In general (subject to the special rules applicable to "related person insurance income" described below), for purposes of taking into account insurance income, a foreign insurance company will be treated as a CFC if U.S. 10% Shareholders collectively own more than 25% of the voting power or value of the company's shares at any point during any year. As discussed above, we cannot assure you that we are not and will not become a CFC. If you are a U.S. person, we strongly urge you to consult your own tax advisor concerning the CFC rules.

Related Person Insurance Income. Under proposed regulations, if (i) our gross income attributable to insurance or reinsurance policies pursuant to which the direct or indirect insureds are our direct or indirect U.S. shareholders or persons related to such U.S. shareholders equals or exceeds 20% of our gross insurance income in any taxable year; and (ii) direct or indirect insureds and persons related to such insureds own directly or indirectly 20% or more of the voting power or value of our shares (together, the "RPII Test"), a U.S. person who owns any of our shares directly or indirectly on the last day of such taxable year would most likely be required to include its allocable share of our related person insurance income for such taxable year in its income, even if no distributions are made. We do not believe that the 20% gross insurance income threshold has been, or will be, met. However, we cannot assure you that this will continue to be the case. Additionally, certain recently released proposed regulations would expand the scope of related person insurance income to potentially include all of the insurance income any of our non-U.S. operating companies earn from reinsuring affiliates if such companies are majority owned (directly, indirectly or by application of certain constructive ownership rules) by U.S. persons. It is not certain whether any of these proposed regulations will be adopted in their proposed form or what changes or clarifications might ultimately be made thereto or whether any such changes, as well as any interpretation or application of the related person insurance income rules by the IRS, the courts, or otherwise, might have retroactive effect. Consequently, we cannot assure you that a person who is a direct or indirect U.S. shareholder will not be required to include amounts in its income in respect of related person insurance income in any taxable year.

Dispositions of Our Shares. If a U.S. shareholder is treated as disposing of shares in a CFC of which it is a U.S. 10% Shareholder, or of shares in a foreign insurance corporation that has related person insurance income and in which U.S. persons collectively own 25% or more of the voting power or value of the company's shares, any gain from the disposition will generally be treated as a dividend to the extent of the U.S. shareholder's portion of the corporation's undistributed earnings and profits, as the case may be, that were accumulated during the period that the U.S. shareholder owned the shares. In addition, the shareholder will be required to comply with certain reporting requirements.

The Company, JRG Re and James River Group Holdings UK Limited may be subject to U.S. federal income taxation.

The Company and JRG Re are each incorporated under the laws of Bermuda and James River UK is incorporated under the laws of England and Wales. Carolina Re is incorporated under the laws of Bermuda,

but is taxed as a U.S. domestic corporation as a result of an election under Section 953(d) of the Code. In general, a corporation organized under the laws of a foreign country or U.S. possession is subject to U.S. federal income tax on its net income only if it is considered as engaged in a U.S. trade or business. We believe that the activities of each of the Company's non-U.S. holding companies and JRG Re, as contemplated, will not cause them to be treated as engaging in a U.S. trade or business and as such, will not be subject to current U.S. federal income taxation on their net income. However, there are no definitive standards provided by the Code, regulations or court decisions as to the specific activities that constitute being engaged in the conduct of a trade or business within the United States, and any such determination is essentially factual in nature and must be made annually. The IRS could assert that our non-U.S. holding companies or JRG Re (or both) are engaged in a trade or business in the United States or, under the applicable income tax treaty, are engaged in a trade or business in the United States through a permanent establishment, and thus are subject to current U.S. federal income taxation. If our non-U.S. holding companies or JRG Re were deemed to be engaged in a trade or business in the United States (or, under the applicable income tax treaty, were deemed to be so engaged through a permanent establishment), our non-U.S. holding companies or JRG Re, as applicable, would become subject to U.S. federal income tax on income "effectively connected" (or treated as effectively connected) with the U.S. trade or business and would become subject to the "branch profits" tax on earnings and profits that are both effectively connected with the U.S. trade or business and deemed repatriated out of the United States. Any such federal tax liability could materially adversely affect our results of operations.

U.S. tax-exempt organizations who own our shares may recognize unrelated business taxable income.

A U.S. tax-exempt organization may recognize unrelated business taxable income if a portion of our subpart F insurance income is allocated to it. In general, subpart F insurance income will be allocated to a tax-exempt organization owning (or treated as owning) our shares if we are a CFC as discussed above and it is a U.S. 10% Shareholder or we earn related person insurance income and we satisfy the RPII Test. We cannot assure you that U.S. persons holding our shares (directly or indirectly) will not be allocated subpart F insurance income. U.S. tax-exempt organizations should consult their own tax advisors regarding the risk of recognizing unrelated business taxable income due to their ownership of our shares.

We may become subject to U.S. withholding and information reporting requirements under the Foreign Account Tax Compliance Act ("FATCA") provisions.

The FATCA provisions of the Code generally impose a 30% withholding tax regime with respect to (i) certain U.S. source income (including interest and dividends) ("withholdable payments") and (ii) "passthru payments" (generally, withholdable payments and payments that are attributable to withholdable payments) made by foreign financial institutions ("FFIs"). Under proposed regulations promulgated by the U.S. Department of the Treasury, on which taxpayers may rely until final regulations are issued, withholdable payments do not include gross proceeds from the sale or other disposition of property that can produce U.S. source interest or dividends. As a general matter, FATCA was designed to require U.S. persons' direct and indirect ownership of certain non-U.S. accounts and non-U.S. entities to be reported to the IRS. The application of the FATCA withholding rules were phased in beginning July 1, 2014, with withholding on foreign passthru payments made by FFIs taking effect after the date of publication of final regulations defining the term foreign passthru payment.

The United States has entered into intergovernmental agreements between the United States and Bermuda and between the United States and the United Kingdom (the "IGAs"), which potentially modify the FATCA withholding regime described above with respect to us and our common shares. There can be no certainty as to whether the Company, Carolina Re or JRG Re will be treated as a FFI under FATCA. We strongly urge you to consult your own tax advisor regarding the potential impact of FATCA, the IGAs and any non-U.S. legislation implementing FATCA.

Changes in U.S. tax laws may be retroactive and could subject us and/or U.S. persons who own our shares to U.S. income taxation.

Apart from enactment of the Tax Act, other legislative proposals or administrative or judicial developments could also result in an increase in the amount of U.S. tax payable by us or by an owner of our

shares or reduce the attractiveness of our products. Any such developments could materially adversely affect our results of operations.

The Tax Act, other tax laws and interpretations thereof, including with respect to whether a company is engaged in a U.S. trade or business, is a CFC, has related party insurance income, is a PFIC, or is subject to BEAT, are subject to change, possibly on a retroactive basis. There are currently only proposed regulations regarding the RPII Test. New regulations or pronouncements interpreting or clarifying such rules may be forthcoming from the IRS or the U.S. Department of the Treasury. We are not able to predict if, when or in what form such guidance will be provided and whether such guidance will have a retroactive effect.

If reinsurance premiums paid by our U.S. subsidiaries to our non-U.S. subsidiaries do not reflect arm's-length terms, the IRS could seek to recharacterize the payments in a way that is unfavorable to us.

The IRS is permitted to reallocate or recharacterize income, deductions or certain other items, and to make any other adjustment, to reflect the proper amount, source or character of the taxable income in respect of payments among related parties to reflect an arm's-length transaction. In the recent past, we have had in place intercompany loans from our U.S. subsidiaries to our parent company and intercompany reinsurance agreements among consolidated entities. We believe the terms of these transactions were appropriate and reflected arm's-length arrangements and are consistent with all applicable rules and regulations. However, if the U.S. Department of the Treasury or the IRS reviews our intercompany agreements and successfully asserts, under Section 482 or 845 of the Code, that the terms do not reflect arm's-length transactions, we may owe additional tax.

Reduced tax rates for qualified dividend income may not be available in the future.

We believe that the dividends paid on our common shares should qualify as "qualified dividend income" as long as the common shares are listed on a national securities exchange and we are not a PFIC. Qualified dividend income received by non-corporate U.S. persons is generally eligible for long-term capital gain rates. While the Tax Act did not modify these rules, there has been proposed legislation before the U.S. Senate and House of Representatives that would exclude shareholders of certain foreign corporations from this advantageous tax treatment. If such legislation were to become law, non-corporate U.S. persons would no longer qualify for the reduced tax rate on the dividends paid by us.

Our non-U.K. companies may be subject to U.K. tax that may have a material adverse effect on our operating results.

We intend to operate in such a manner so that none of our companies other than our intermediate holding company incorporated in the United Kingdom, James River UK, should be resident in the U.K. for tax purposes or have a permanent establishment in the U.K. Accordingly, we expect that none of our companies other than James River UK should be subject to U.K. taxation. However, since applicable law and regulations do not conclusively define the activities that constitute conducting business in the U.K. through a permanent establishment, the U.K. HM Revenue & Customs might contend successfully that one or more of our other companies is conducting business in the U.K. through a permanent establishment in the U.K., and therefore such entities could become subject to U.K. taxation.

We may become subject to additional global taxes, including taxes in Bermuda after March 31, 2035, which may have a material adverse effect on our results of operations and your investment.

The Bermuda Minister of Finance, under the Exempted Undertakings Tax Protection Act 1966 of Bermuda, as amended, has given us an assurance that if any legislation is enacted in Bermuda that would impose tax computed on profits or income, or computed on any capital asset, gain or appreciation, or any tax in the nature of estate duty or inheritance tax, then the imposition of any such tax will not be applicable to us or any of our operations, shares, debentures or other obligations until March 31, 2035, except insofar as such tax applies to persons ordinarily resident in Bermuda or to any taxes payable by us in respect of real property owned or leased by us in Bermuda. We cannot assure you that we will not be subject to any Bermuda tax after March 31, 2035.

Further, the Organization for Economic Co-operation and Development is coordinating a global effort to reform certain aspects of the international tax system. This effort included the December 2021 release of model rules for a 15% global minimum tax regime. If these model rules are partially or fully implemented globally, we could be subject to additional taxes and costs for tax compliance.

Risks Related to Ownership of Our Common Shares

The price of our common shares may fluctuate significantly and you could lose all or part of your investment.

Volatility in the market price of our common shares may prevent you from being able to sell your common shares at or above the price you paid for your common shares. The market price for our common shares could fluctuate significantly for various reasons, including, without limitation:

- our operating and financial performance and prospects;
- our quarterly or annual earnings or earnings estimates, or those of other companies in our industry;
- failure to meet external expectations or management guidance;
- market reaction to adverse loss reserve development;
- the loss of one or more individually large clients, and its impact on our growth rate, profitability and financial condition;
- adverse regulatory or rating agency action;
- exposure to capital market risks related to changes in interest rates, realized investment losses, credit spreads, equity prices, foreign exchange rates and performance of insurance-linked investments;
- our creditworthiness, financial condition, performance and prospects;
- termination of payment of dividends on our common shares, or payment of a reduced amount of dividends;
- actual or anticipated growth rates relative to our competitors;
- perceptions of the investment opportunity associated with our common shares relative to other investment alternatives;
- speculation by the investment community regarding our business;
- future announcements concerning our business or our competitors' businesses;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- changes in accounting standards, policies, guidance, interpretations or principles;
- market and industry perception of our success, or lack thereof, in pursuing our strategy;
- strategic actions by us or our competitors, such as acquisitions, dispositions, restructurings, significant contracts or joint ventures;
- catastrophes that are perceived by investors as impacting the insurance and reinsurance market in general;
- changes in laws or government regulation, including tax or insurance laws and regulations;
- potential characterization of us as a PFIC;
- general market, economic and political conditions;
- changes in conditions or trends in our industry, geographies or customers;
- arrival and departure of key personnel;
- the number of common shares that are publicly traded;

- the offering and issuance of common shares or other securities by us, sales of common shares by our directors or executive officers, or sales of a significant number of common shares issued upon conversion of the Series A Preferred Shares; and
- · adverse resolution of litigation against us.

In addition, stock markets, including the NASDAQ Stock Market (the market on which our common shares are traded), have experienced price and volume fluctuations that have affected and continue to affect the market prices of equity securities issued by many companies, including companies in our industry. In the past, some companies that have had volatile market prices for their securities have been subject to class action or derivative lawsuits. The filing of a lawsuit against us, regardless of the outcome, could have a negative effect on our business, as it could result in substantial legal costs and a diversion of management's attention and resources. The Company had such a lawsuit filed against it following our May 2021 equity offering. The filing of this lawsuit against us, or any future filings of a lawsuit against us, regardless of the outcome, could have a negative effect on our business, as it could result in substantial legal costs and a diversion of management's attention and resources. See "Item 3. Legal Proceedings" for more information.

As a result of the factors described above, shareholders may not be able to resell their common shares at or above their purchase price or may not be able to resell them at all. These market and industry factors may materially reduce the market price of our common shares, regardless of our operating performance.

The holders of the Series A Convertible Preferred Shares are entitled to vote up to 9.9% of the aggregate voting power of our then-outstanding common shares on an as converted basis or of the outstanding voting securities of the Company, and have rights to approve certain actions. Additionally, GPC Partners may exercise influence over us through their ability to designate a nominee for election to our board of directors.

The holders of the Series A Preferred Shares are entitled to vote up to 9.9% of the aggregate voting power of the then-outstanding common shares on an as converted basis or of the outstanding voting securities of the Company with the holders of our common shares on all matters submitted for a vote of holders of common shares (voting together as one class).

Pursuant to the Investment Agreement dated February 24, 2022 (the "Investment Agreement") by and between the Company and GPC Partners Investments (Thames) LP ("GPC Partners"), an affiliate of Gallatin Point Capital LLC, GPC Partners has the right to designate one candidate for nomination for election to our board of directors for so long as GPC Partners and its Permitted Transferees (as defined in the Investment Agreement) continue to beneficially own Series A Preferred Shares and/or common shares issued or issuable upon conversion of such Series A Preferred Shares that represent in the aggregate at least 50% of the number of common shares beneficially owned by the Investors, on an as-converted basis, as of the issuance date of the Series A Preferred Shares. Notwithstanding the fact that all directors will be subject to fiduciary duties to us and to applicable law, the interests of the director designated by GPC Partners may differ from the interests of our security holders as a whole or of our other directors.

Additionally, holders of the Series A Preferred Shares are entitled to a separate class vote with respect to amendments to the Company's organizational documents that have an adverse effect on the Series A Preferred Shares, including authorizations or issuances by the Company of securities that are senior to or pari passu with the Series A Preferred Shares, increases or decreases in the number of authorized Series A Preferred Shares, or the issuance of any additional Series A Preferred Shares other than in payment of dividends on the outstanding Series A Preferred Shares.

As a result, the holders of the Series A Preferred Shares may have the ability to influence the outcome of certain matters affecting our governance and capitalization.

The conversion of the Series A Preferred Shares into common shares would dilute the ownership of common shareholders and may adversely affect the market price of our common shares.

The conversion of our Series A Preferred Shares into common shares or payment of dividends on the Series A Preferred Shares in common shares would dilute the ownership interest of existing holders of our common shares. Further, common shares issuable upon conversion of the Series A Preferred Shares, or as

payment of dividends on the Series A Preferred Shares, may be sold by GPC Partners or its Permitted Transferees after the second anniversary of the Series A Preferred Shares issuance date. Any sale of common shares following conversion of the Series A Preferred Shares or payment of dividends on the Series A Preferred Shares in common shares, would increase the number of common shares available for public trading, and may adversely affect prevailing market prices of our common shares.

The Series A Preferred Shares have rights, preferences and privileges that are not held by, and are preferential to the rights of, our common shareholders, which could adversely affect our liquidity and financial condition.

The holders of our Series A Preferred Shares have the right to receive a payment on account of the distribution of assets on any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Company before any payment may be made to holders of any other class or series of capital shares. In addition, dividends on the Series A Preferred Shares accrue and are cumulative at the rate of 7.0% of the \$1,000 per share liquidation preference per annum, paid in cash, in-kind in common shares or in Series A Preferred Shares, at our election. On the five-year anniversary of the issuance date, and each five-year anniversary thereafter, the dividend rate on the liquidation preference will reset to a rate equal to the five-year U.S. treasury rate (calculated as set forth in the Certificate of Designations designating the Series A Preferred Shares (the "Certificate of Designations")) plus 5.2%.

The holders of the Series A Preferred Shares also have certain repurchase rights. Upon prior written notice of certain change of control events (a "Fundamental Change"), each holder of outstanding Series A Preferred Shares may, at its election, (i) effective as of immediately prior to the Fundamental Change, convert all or a portion of its Series A Preferred Shares into common shares, or (ii) require the Company to repurchase any or all of such holder's Series A Preferred Shares in cash at a purchase price per Series A Preferred Share equal to the liquidation preference of such Series A Preferred Share plus accrued and unpaid dividends.

These dividend and share repurchase obligations could impact our liquidity and reduce the amount of cash flows available for working capital, capital expenditures, growth opportunities, acquisitions and other general corporate purposes, as well as for the payment of dividends to our common shareholders. Our obligations to the holders of the Series A Preferred Shares could also limit our ability to obtain additional financing, which could have an adverse effect on our financial condition. The preferential rights could also result in divergent interests between the holders of the Series A Preferred Shares and common shareholders.

Our bye-laws permit non-employee members of our board of directors and their affiliates to compete with us, which may result in conflicts of interest.

Our bye-laws provide that members of our board of directors (other than those who are our officers, managers or employees) and their affiliates do not have any duty to (i) communicate or present to the Company any investment or business opportunity or prospective transaction or arrangement in which the Company may have any interest or expectancy or (ii) refrain from engaging, directly or indirectly, in the same business activities or similar business activities or lines of business in which we operate. Our bye-laws will not restrict our non-employee directors, or their affiliates from acquiring and holding interests in businesses that compete directly or indirectly with us. Our non-employee directors and their affiliates may also pursue acquisition opportunities that may be complementary to our business and, as a result, those acquisition opportunities may not be available to us. These potential conflicts of interest could have a material adverse effect on our business, financial condition, results of operations or prospects if we are unable to pursue attractive corporate opportunities because they are allocated by our non-employee directors to themselves or their affiliates instead of being presented to us.

The amount of dividends that we may pay to our common shareholders is subject to restrictions pursuant to the terms of the Series A Preferred Shares, and we cannot assure you that we will declare or pay dividends on our common shares in the future.

The Certificate of Designations limits our ability to pay dividends to our shareholders. If we pay cash dividends of more than \$0.05 per common share per quarter, without the consent of at least the majority of the Series A Preferred Shares then outstanding, we will be required to reduce the conversion price of the Series A Preferred Shares. Additionally, the payment of cash dividends in excess of \$0.10 per common share

per quarter is not permitted if the dividends on the Series A Preferred Shares for that quarter are not paid in cash, unless the Company's U.S.-based insurance subsidiaries and direct Bermuda-based insurance subsidiary satisfy certain capital requirements. Share dividends payable on the common shares also trigger a reduction of the conversion price applicable to the Series A Preferred Shares.

Additionally, the declaration, payment and amount of dividends is further subject to the discretion of our board of directors. Our board of directors may take into account a variety of factors when determining whether to declare any dividends, including (1) our financial condition, liquidity, results of operations (including our ability to generate cash flow in excess of expenses and our expected or actual net income), retained earnings and collateral and capital requirements, (2) general business conditions, (3) legal, tax and regulatory limitations, (4) contractual prohibitions and other restrictions, in addition to those related to our Series A Preferred Shares (5) the effect of a dividend or dividends upon our financial strength ratings and (6) any other factors that our board of directors deems relevant. See also "Item 5. Market For Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases Of Equity Securities — Dividends." We cannot assure you that we will continue to pay dividends in the future, or that the amount of any such dividend will not decline from prior dividends we have paid.

We depend upon dividends and distributions from our subsidiaries, and we may be unable to distribute dividends to our shareholders to the extent we do not receive dividends from our subsidiaries.

We are a holding company that has no substantial operations of our own. Accordingly, we rely primarily on cash dividends or distributions from our operating subsidiaries to pay our operating expenses and any dividends that we may pay to shareholders. The payment of dividends by our insurance and reinsurance subsidiaries is limited under the laws and regulations of the applicable domicile. These regulations stipulate the maximum amount of annual dividends or other distributions available to shareholders without prior approval of the relevant regulatory authorities. As a result of such regulations, we may not be able to pay our operating expenses as they become due and our payment of future dividends to shareholders may be limited.

The payment of dividends by our subsidiaries to us is limited by statute. In general, the laws and regulations applicable to our U.S. insurance subsidiaries limit the aggregate amount of dividends or other distributions that they may declare or pay within any 12 month period without advance regulatory approval. In Ohio, the domiciliary state of Falls Lake National and James River Insurance, this limitation is the greater of statutory net income for the preceding calendar year or 10% of the statutory surplus at the end of the preceding calendar year, provided that such dividends may only be paid out of earned surplus of each of the companies, without obtaining regulatory approval. In each of North Carolina and Virginia, the domiciliary states of Stonewood Insurance and James River Casualty, respectively, this limitation is the greater of statutory net income excluding realized capital gains for the preceding calendar year or 10% of the statutory surplus at the end of the preceding calendar year, provided that such dividends may only be paid out of unassigned surplus without obtaining regulatory approval. In California, the domiciliary state of Falls Lake Fire and Casualty Company, this limitation is the greater of statutory net income for the preceding calendar year or 10% of the statutory surplus at the end of the preceding calendar year, provided that such dividends may only be paid out of unassigned surplus without obtaining regulatory approval. In addition, insurance regulators have broad powers to prevent reduction of statutory surplus to inadequate levels and could refuse to permit the payment of dividends calculated under any applicable formula. See "Item 1. Business — Regulation — U.S. Insurance Regulation — State Regulation" for more information. In addition, dividends paid by our U.S. subsidiaries to our U.K. holding company are subject to a 5% withholding tax by the IRS. Under U.K. domestic law, no withholding tax is applied to dividends paid by U.K. tax resident companies.

JRG Re, which is domiciled in Bermuda, is registered as a Class 3B insurer under the Insurance Act. The Insurance Act, the conditions listed in the insurance license and the applicable approvals issued by the BMA provide that JRG Re is required to maintain a minimum statutory solvency margin of approximately \$38.6 million as of December 31, 2022. See "Item 1. Business — Regulation — Bermuda Insurance Regulation — Minimum Solvency Margin and Enhanced Capital Requirements" for more information. A Class 3B insurer is prohibited from declaring or paying a dividend if it fails to meet, before or after declaration or payment of such dividend, its: (i) requirements under the Companies Act, (ii) minimum solvency

margin, (iii) enhanced capital requirement or (iv) minimum liquidity ratio. If a Class 3B insurer fails to meet its minimum solvency margin or minimum liquidity ratio on the last day of any financial year, it is prohibited from declaring or paying any dividends during the next financial year without the approval of the BMA. In addition, JRG Re, as a Class 3B insurer, is prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet) unless it files (at least seven days before payment of such dividends) with the BMA an affidavit signed by at least two directors (one of whom must be a Bermuda resident director if any of the insurer's directors are resident in Bermuda) and the principal representative stating that it will continue to meet its solvency margin and minimum liquidity ratio. Where such an affidavit is filed, it shall be available for public inspection at the offices of the BMA. See "Item 1. Business — Regulation — Bermuda Insurance Regulation — Restrictions on Dividends and Distributions" for more information.

The inability of our subsidiaries to pay dividends or make distributions to us, including as a result of regulatory or other restrictions or capital needs, may prevent us from paying our expenses or paying dividends to our shareholders.

Dividends paid by our U.S. subsidiaries to James River UK may not be eligible for benefits under the U.S.-U.K. income tax treaty.

Under U.S. federal income tax law, dividends paid by a U.S. corporation to a non-U.S. shareholder are generally subject to a 30% withholding tax, unless reduced by treaty. The income tax treaty between the United Kingdom and the United States (the "U.K. Treaty") reduces the rate of withholding tax on certain dividends to 5%. Were the IRS to contend successfully that James River UK is not eligible for benefits under the U.K. Treaty, any dividends paid by James River Group, Inc., our U.S. holding company, to James River UK would be subject to the 30% withholding tax. Such a result would substantially reduce the amount of dividends that our shareholder may receive.

If securities or industry analysts do not continue to publish research or publish misleading or unfavorable research about our business, our common share price and trading volume could decline.

The trading market for our common shares depends in part on the research and reports that securities or industry analysts publish about our business. If one or more of these analysts downgrades our shares or publishes misleading or unfavorable research about our business, our share price would likely decline. If one or more of these analysts ceases coverage of our Company or fails to publish reports on us regularly, demand for our shares could decrease, which could cause our share price or trading volume to decline.

Future sales of our common shares, or the possibility of such sales, may cause the trading price of our common shares to decline and could impair our ability to raise capital through subsequent equity offerings.

Future sales of substantial amounts of our common shares in the public market, or the perception that these sales could occur, could cause the market price of our common shares to decline and impair our ability to raise capital through the sale of additional shares.

In the future, we may issue additional common shares or other equity or debt securities convertible into common shares in connection with a financing, acquisition or employee arrangement or otherwise. Any of these issuances could result in substantial dilution to our existing shareholders and could cause the trading price of our common shares to decline.

Our bye-laws and provisions of Bermuda law may impede or discourage a change of control transaction, which could deprive our investors of the opportunity to receive a premium for their shares.

Our bye-laws and provisions of Bermuda law to which we are subject contain provisions that could discourage, delay or prevent "change of control" transactions or changes in our board of directors and management that certain shareholders may view as beneficial or advantageous. These provisions include, among others:

• our board of directors has the authority to issue preferred shares without shareholder approval, which could be used to dilute the ownership of a potential hostile acquirer;

- our shareholders may only remove directors for cause;
- there are advance notice requirements for shareholders with respect to director nominations and actions to be taken at annual meetings; and
- under Bermuda law, for so long as JRG Re is registered under the Insurance Act, the BMA may object to a person holding more than 10%, 20%, 33% or 50% of our common shares if it appears to the BMA that the person is not or is no longer fit and proper to be such a holder (See "There are regulatory limitations on the ownership and transfer of our common shares." risk factor herein).

The foregoing factors could impede a merger, takeover or other business combination, which could reduce the market value of our shares.

We may repurchase your common shares without your consent.

Under our bye-laws and subject to Bermuda law, we have the option, but not the obligation, to require a shareholder to sell to us at fair market value the minimum number of common shares which is necessary to avoid or cure any adverse tax consequences or materially adverse legal or regulatory treatment to us, our subsidiaries or our shareholders, if our board of directors reasonably determines, in good faith, that failure to exercise this option would result in such adverse consequences or treatment.

Bermuda law differs from the laws in effect in the United States and may afford less protection to holders of our shares.

We are organized under the laws of Bermuda. As a result, our corporate affairs are governed by the Companies Act, which differs in some material respects from laws typically applicable to U.S. corporations and shareholders, including the provisions relating to interested directors, amalgamations, mergers and acquisitions, takeovers, shareholder lawsuits and indemnification of directors. Generally, the duties of directors and officers of a Bermuda company are owed to the company only. Shareholders of Bermuda companies typically do not have rights to take action against directors or officers of the company and may only do so in limited circumstances. Class actions are not available under Bermuda law. The circumstances in which derivative actions may be available under Bermuda law are substantially more proscribed and less clear than they would be to shareholders of U.S. corporations. The Bermuda courts, however, would ordinarily be expected to permit a shareholder to commence an action in the name of a company to remedy a wrong to the company where the act complained of is alleged to be beyond the corporate power of the company or illegal, or would result in the violation of the company's memorandum of association or bye-laws. Furthermore, consideration would be given by a Bermuda court to acts that are alleged to constitute a fraud against minority shareholders or, for instance, where an act requires the approval of a greater percentage of the company's shareholders than that which actually approved it.

When the affairs of a company are being conducted in a manner that is oppressive or prejudicial to the interests of some shareholders, one or more shareholders may apply to the Supreme Court of Bermuda, which may make such order as it sees fit, including an order regulating the conduct of the company's affairs in the future or ordering the purchase of the shares of any shareholders by other shareholders or by the company. Additionally, under our bye-laws and as permitted by Bermuda law, each shareholder has waived any claim or right of action against our directors or officers for any action taken by directors or officers in the performance of their duties, except for actions involving fraud or willful misconduct. In addition, the rights of holders of our common shares and the fiduciary responsibilities of our directors under Bermuda law are not as clearly established as under statutes or judicial precedent in existence in jurisdictions in the United States, particularly the State of Delaware. Therefore, holders of our common shares may have more difficulty protecting their interests than would shareholders of a corporation incorporated in a jurisdiction within the United States.

There are regulatory limitations on the ownership and transfer of our common shares.

Common shares may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act 2003 and the Exchange Control Act 1972 and related regulations of Bermuda, which regulate the sale of securities in Bermuda. In addition, the permission of the BMA is required under

the provisions of the Exchange Control Act 1972 and related regulations for all issuances and transfers of shares of Bermuda companies to or from a non-resident of Bermuda for exchange control purposes, other than where the BMA has granted a general permission. The BMA, in its notice to the public dated June 1, 2005 has granted a general permission for the issue and subsequent transfer of any securities of a Bermuda company from and/or to a non-resident of Bermuda for exchange control purposes for so long as any "equity securities" of such company are listed on an appointed stock exchange, which includes the NASDAQ Stock Market. This general permission will apply to our common shares, but would cease to apply if we were to cease to be listed on the NASDAQ Stock Market.

In connection with the IPO, we received consent from the BMA to issue and transfer freely any of our shares, options, warrants, depository receipts, rights loan notes, debt instruments or other securities to and among persons who are either residents or non-residents of Bermuda for exchange control purposes.

The Insurance Act requires that where the shares of the registered insurer, or the shares of its parent company, are traded on a recognized stock exchange, and a person becomes a 10%, 20%, 33% or 50% shareholder controller of the insurer, that person shall, within 45 days, notify the BMA in writing that he has become such a controller. In addition, a person who is a shareholder controller of a Class 3B insurer whose shares or the shares of its parent company (if any) are traded on a recognized stock exchange must serve on the BMA a notice in writing that he has reduced or disposed of his holding in the insurer where the proportion of voting rights in the insurer held by him will have reached or has fallen below 10%, 20%, 33% or 50% as the case may be, not later than 45 days after such disposal. This requirement will apply to us as long as our shares are listed on the NASDAQ Stock Market or another stock exchange recognized by the BMA. The BMA may, by written notice, object to a person holding 10%, 20%, 33% or 50% of our common shares if it appears to the BMA that the person is not fit and proper to be such a holder. The BMA may require the holder to reduce its shareholding in us and may direct, among other things, that the voting rights attaching to its shares shall not be exercisable. A person that does not comply with such a notice or direction from the BMA will be guilty of an offense.

JRG Re is also required to notify the BMA in writing in the event any person has become or has ceased to be a controller or an officer of it (an officer includes a director, chief executive or senior executive performing duties of underwriting, actuarial, risk management, compliance, internal audit, finance or investment matters).

Except in connection with the settlement of trades or transactions entered into through the facilities of the NASDAQ Stock Market, our board of directors may generally require any shareholder or any person proposing to acquire our common shares to provide the information required under our bye-laws. If any such shareholder or proposed acquiror does not provide such information, or if our board of directors has reason to believe that any certification or other information provided pursuant to any such request is inaccurate or incomplete, our board of directors may decline to register any transfer or to effect any issuance or purchase of our common shares to which such request is related.

In addition, the insurance holding company laws and regulations of the states in which our insurance companies are domiciled generally require that, before a person can acquire direct or indirect control of an insurer domiciled in the state, and in some cases prior to divesting its control, prior written approval must be obtained from the insurer's domiciliary state insurance regulator. These laws may discourage potential acquisition proposals and may delay, deter or prevent an investment in or a change of control involving us, or one or more of our regulated subsidiaries, including transactions that our management and some or all of shareholders might consider desirable. Pursuant to applicable laws and regulations, "control" over an insurer is generally presumed to exist if any person, directly or indirectly, owns, controls, holds the power to vote or holds proxies representing, 10% or more of the voting securities of that reinsurer or insurer. Indirect ownership includes ownership of the Company's common shares.

General Risk Factors

We rely on our systems and employees, and those of certain third-party vendors and service providers in conducting our operations, and certain failures, including internal or external fraud, operational errors, systems malfunctions, or cyber-security incidents, could materially adversely affect our operations.

We are exposed to many types of operational risk, including the risk of fraud by employees and outsiders, clerical and recordkeeping errors and computer or telecommunications systems malfunctions.

Our business depends on our ability to process a large number of increasingly complex transactions. If any of our operational, accounting, or other data processing systems fail or have other significant shortcomings, we could be materially adversely affected. Similarly, we depend on our employees and could be materially adversely affected if one or more of our employees causes a significant operational breakdown or failure, either as a result of human error, intentional sabotage or fraudulent manipulation of our operations or systems.

Third parties with whom we do business, including vendors that provide services or security solutions for our operations, could also be sources of operational and information security risk to us, including from breakdowns, failures, or capacity constraints of their own systems or employees. Any of these occurrences could diminish our ability to operate our business, or cause financial loss, potential liability to insureds, inability to secure insurance, reputational damage or regulatory intervention, which could materially adversely affect us.

We rely on a combination of contractual rights and copyright, trademark, patent and trade secret laws to establish and protect our intellectual property. Although we seek to protect our intellectual property rights, third parties may infringe or misappropriate intellectual property. We may have to litigate to enforce and protect intellectual property and to determine its scope, validity or enforceability, which could divert significant resources and prove unsuccessful.

We may be subject to claims by third parties for patent, trademark or copyright infringement or breach of usage rights. Any such claims and any resulting litigation could result in significant expense and liability. If third party providers or we are found to have infringed a third party intellectual property rights, either of us could be enjoined from providing certain products or services or from utilizing and benefiting from certain methods, processes, copyrights, trademarks, trade secrets or licenses. Alternatively, we could be required to enter into costly licensing arrangements with third parties or implement a costly work-around. Any of these scenarios could have a material effect on our business or results of operations.

We rely on multiple proprietary operating systems as well as operating systems of third-party providers to issue policies, pay claims, run modeling functions and complete various internal processes. We may be subject to disruptions of such operating systems arising from events that are wholly or partially beyond our control, which may include, for example, electrical or telecommunications outages, natural or man-made disasters, such as earthquakes, hurricanes, floods or tornados, or events arising from criminal or terrorist acts. Such disruptions may give rise to losses in service to insureds and loss or liability to us. In addition, there is the risk that our controls and procedures as well as our business continuity, disaster recovery and data security systems prove to be inadequate. The computer systems and network systems we and others use could be vulnerable to unforeseen problems. These problems may arise in both our internally developed systems and the systems of third-party service providers. In addition, our computer systems and network infrastructure present security risks and could be susceptible to hacking, computer viruses, data breaches, or ransomware attacks. Any such failure or security incident could affect our operations and could materially adversely affect our results of operations by requiring us to expend significant resources to correct the defect or incident, as well as by exposing us to litigation or losses not covered by insurance. Although we have disaster recovery plans and other safeguards in place, our business operations may be materially adversely affected by significant and widespread disruption to our physical infrastructure or operating systems and those of third-party service providers that support our business.

Our operations rely on the secure processing, transmission and storage of confidential information in our computer systems and networks. Our technologies, systems and networks may become the target of cyber-attacks or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of our or our insureds', reinsureds' or claimants' confidential, proprietary and other information, or otherwise disrupt our or our insureds', reinsureds', claimants' or other third parties' business operations, which in turn may result in legal claims, regulatory scrutiny and liability, reputational damage, the incurrence of costs to eliminate or mitigate further exposure and the loss of customers. This risk may be heightened as a result of continued remote work in response to the ongoing COVID-19 pandemic. Although to date we have not experienced any material losses relating to cyber-attacks or other information security breaches, there can be no assurance that we will not suffer such losses in the future. While we make efforts to maintain the security and integrity of our information technology networks and related systems, and we have implemented various measures and an incident response protocol to

manage the risk of, or respond to, a security breach or disruption, there can be no assurance that our security efforts and measures will be effective or that attempted security breaches or disruptions would not be successful or damaging. In addition, our results of operations could be materially adversely affected if one of our business partners, such as brokers, general agents, third party claims administrators or vendors, experiences disruptions to their operating systems and/or a cybersecurity breach, as such disruption or breach could reduce submission flow, policy issuance, claims settlement, and/or make us more vulnerable to a cybersecurity breach ourselves. Our risk and exposure to these matters remains heightened because of, among other things, the evolving nature of these threats and the outsourcing of some of our business operations. As a result, cyber-security and the continued development and enhancement of our controls, processes and practices designed to protect our systems, computers, software, data and networks from attack, damage or unauthorized access remain a priority. As cyber-threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities.

Disruptions or failures in the physical infrastructure or operating systems that support our business and customers, or cyber-attacks or security breaches of the networks, systems or devices that our customers use to access our products and services could result in customer attrition, regulatory fines, penalties or intervention, reputational damage, reimbursement or other compensation costs, and/or additional compliance costs, any of which could materially adversely affect our financial condition or results of operations.

Our operating results have in the past varied from quarter to quarter and may not be indicative of our long-term prospects.

Our operating results are subject to fluctuation and have historically varied from quarter to quarter. We expect our quarterly results to continue to fluctuate in the future due to a number of factors, including the general economic conditions in the markets where we operate, the frequency of occurrence or severity of catastrophic or other insured events, fluctuating interest rates, claims exceeding our loss reserves, competition in our industry, deviations from expected renewal rates of our existing policies and contracts, adverse investment performance and the cost of reinsurance and retrocessional coverage.

In particular, we seek to underwrite products and make investments to achieve favorable returns on tangible equity over the long term. In addition, our opportunistic nature and focus on long-term growth in tangible equity may result in fluctuations in total premiums written from period to period as we concentrate on underwriting contracts that we believe will generate better long-term, rather than short-term, results. Accordingly, our short-term results of operations may not be indicative of our long-term prospects.

We may not be able to manage our growth or other changes effectively.

We intend to continue to grow our business, may attempt to enter new business lines, and may also face changes from market, legal or regulatory developments. Such growth, new business lines, and changes could require additional capital, systems development and skilled personnel. We cannot assure you that we will be able to meet our capital needs, expand and maintain our systems and our internal controls effectively, allocate our human resources optimally, identify and hire qualified employees or incorporate effectively the components of any businesses we may acquire in our effort to achieve growth. The failure to manage our growth and other changes effectively could have a material adverse effect on our business, financial condition and results of operations.

Litigation and legal proceedings against us or our subsidiaries could have a material adverse effect on our business, financial condition and/or results of operations.

We or our subsidiaries are or may be named as defendants in various legal actions, including commercial matters and litigation regarding insurance claims which arise in the ordinary course of business. In addition, the Company is involved from time to time in legal actions which seek extra-contractual damages, punitive damages or penalties, including claims alleging bad faith in handling of insurance claims. On July 9, 2021, a purported class action lawsuit was filed in the US District Court, Eastern District of Virginia on behalf of Employees' Retirement Fund of the City of Fort Worth ("Plaintiff") against the Company and certain of its present and former officers (together, "Defendants"), alleging claims under Section 10(b) of the Securities Exchange Act of 1934. See "Item 3. Legal Proceedings" for more information. We believe that the outcome of

this matter and other presently pending matters, individually and in the aggregate, will not have a material adverse effect on our consolidated financial position. However, the outcomes of lawsuits cannot be predicted and, if determined adversely, could require us to pay significant damage amounts or to change aspects of our operations, which could have a material adverse effect on our financial results.

Changes in accounting practices and future pronouncements may materially affect our reported financial results.

Developments in accounting practices may require us to incur considerable additional expenses to comply, particularly if we are required to prepare information relating to prior periods for comparative purposes or to apply the new requirements retroactively. The impact of changes in current accounting practices and future pronouncements cannot be predicted but may affect the calculation of net income, shareholders' equity and other relevant financial statement line items.

Further, our U.S. insurance subsidiaries are required to comply with statutory accounting principles ("SAP"). SAP and various components of SAP (such as actuarial reserving methodology) are subject to constant review by the NAIC and its task forces and committees, as well as state insurance departments, in an effort to address emerging issues and otherwise improve financial reporting. At any given point in time, various proposals are pending before committees and task forces of the NAIC, some of which, if enacted, could have negative effects on insurance industry participants. The NAIC continuously examines existing laws and regulations in the United States. We cannot predict whether or in what form such reforms will be enacted and, if so, whether the enacted reforms will positively or negatively affect us.

In addition, the NAIC Accounting Practices and Procedures manual provides that state insurance departments may permit insurance companies domiciled in their jurisdiction to depart from SAP by granting them permitted accounting practices. We cannot predict whether or when the insurance departments of the states of domicile of our competitors may permit them to utilize advantageous accounting practices that depart from SAP, the use of which may not be permitted by the insurance departments of the states of domicile of our U.S. insurance subsidiaries. Further, we cannot assure that future changes to SAP or components of SAP or the grant of permitted accounting practices to our competitors will not have a negative impact on us.

Failure to maintain effective internal controls in accordance with Sarbanes-Oxley could have a material adverse effect on our business and common share price.

As a public company with SEC reporting obligations, we are required to document and test our internal control procedures to satisfy the requirements of Section 404(b) of Sarbanes-Oxley Act of 2002, as amended ("Sarbanes-Oxley"), which require annual assessments by management of the effectiveness of our internal control over financial reporting.

During the course of our assessment, we may identify deficiencies that we are unable to remediate in a timely manner. Testing and maintaining our internal control over financial reporting may also divert management's attention from other matters that are important to the operation of our business. We may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404(b) of Sarbanes-Oxley. If we conclude that our internal control over financial reporting is not effective, we cannot be certain as to the timing of completion of our evaluation, testing and remediation actions or its effect on our operations. Moreover, any material weaknesses or other deficiencies in our internal control over financial reporting may impede our ability to file timely and accurate reports with the SEC. Any of the above could cause investors to lose confidence in our reported financial information or our common share listing on the NASDAQ Stock Market to be suspended or terminated, which could have a negative effect on the trading price of our common shares.

Item 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

Item 2. PROPERTIES

We lease office space in Bermuda, where our principal executive office is located and our Casualty Reinsurance segment is based. We also lease offices in (1) Chapel Hill, North Carolina, where our U.S.

holding company, James River Group is based, (2) Raleigh, North Carolina, where we conduct business in our Specialty Admitted Insurance segment and (3) Richmond, Virginia; Scottsdale, Arizona; and Atlanta, Georgia for the conduct of business in our Excess and Surplus Lines segment. We believe that our facilities are adequate for our current needs and that suitable additional or substitute space will be available as needed.

Item 3. LEGAL PROCEEDINGS

We are involved in various legal proceedings, including commercial matters and litigation regarding insurance claims which arise in the ordinary course of business, as well as an alleged class action lawsuit. In addition, the Company is involved from time to time in legal actions which seek extra-contractual damages, punitive damages or penalties, including claims alleging bad faith in handling of insurance claims. We believe that the outcome of such matters, individually and in the aggregate, is not reasonably likely to have a material adverse effect on our consolidated financial position, results of operations or cash flows.

On July 9, 2021 a purported class action lawsuit was filed in the U.S. District Court, Eastern District of Virginia (the "Court") by Employees' Retirement Fund of the City of Fort Worth against James River Group Holdings, Ltd. and certain of its present and former officers (together, "Defendants"). On September 22, 2021, the Court entered an order appointing Employees' Retirement Fund of the City of Fort Worth and the City of Miami General Employees' and Sanitation Employees' Retirement Trust as co-lead plaintiffs (together, "Plaintiffs"), Plaintiffs' consolidated amended complaint was filed on November 19, 2021 (the "First Amended Complaint"). The Defendants filed a motion to dismiss the First Amended Complaint on January 18, 2022, Plaintiffs' opposition thereto was filed on March 4, 2022, and the Defendants' reply to the Plaintiffs' opposition was filed on April 4, 2022. On August 25, 2022, Plaintiffs filed a motion for leave to file a second amended class action complaint (the "Second Amended Complaint"). On September 8, 2022, the Defendants consented to the Plaintiffs' motion to file the Second Amended Complaint, and filed a motion to dismiss the Second Amended Complaint on October 24, 2022 (the "Second MTD"). The Plaintiffs' opposition to the Second MTD was filed on November 7, 2022, and the Defendant's reply to the Plaintiffs' opposition was filed on November 14, 2022. The First Amended Complaint and Second Amended Complaint assert claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 on behalf of a putative class of persons and entities that purchased the Company's stock between February 22, 2019 and October 25, 2021, allege that Defendants failed to make appropriate disclosures concerning the adequacy of reserves for policies that covered Rasier LLC, a subsidiary of Uber Technologies, Inc., and seek unspecified damages, costs, attorneys' fees and such other relief as the court may deem proper. We believe that the Plaintiffs' claims are without merit, and we intend to vigorously defend this lawsuit.

Item 4. MINE SAFETY DISCLOSURE

Not applicable.

PART II

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

Market Information

Our common shares began trading on the NASDAQ Global Select Market under the symbol "JRVR" on December 12, 2014. Prior to that time, there was no public market for our common shares. As of February 24, 2023, there were 7 holders of record of our common shares.

Dividends

We paid quarterly dividends of \$0.05 per common share in 2022, and \$0.30 per common share from 2017 to the fourth quarter of 2021. On February 16, 2023, the Board of Directors declared a cash dividend of \$0.05 per common share. The dividend is payable on March 31, 2023 to shareholders of record on March 13, 2023. As described below, the amount of dividends that we may pay on our common shares is restricted by the terms of our Series A Preferred Shares.

We closed on the issuance and sale of 150,000 Series A Preferred Shares on March 1, 2022. Holders of the Series A Preferred Shares are entitled to a dividend at the initial rate of 7% of the \$1,000 per share liquidation preference per annum, paid in cash, in-kind in common shares or in Series A Preferred Shares, at our election. On the five-year anniversary of the Closing Date, and each five-year anniversary thereafter, the dividend rate will reset to a rate equal to the five-year U.S. treasury rate plus 5.2%. Dividends accrue and are payable quarterly. During 2022, cash dividends of \$8.8 million were declared, of which \$2.6 million was payable at December 31, 2022. On February 16, 2023, the Board of Directors declared a quarterly dividend on the Series A Preferred Shares. The dividend of \$2.6 million will be payable in cash on March 31, 2023 to shareholders of record on March 15, 2023. The Certificate of Designations setting forth the terms of the Series A Preferred Shares limits our ability to pay dividends to our common shareholders. If we pay cash dividends of more than \$0.05 per common share per quarter, without the consent of at least the majority of the Series A Preferred Shares then outstanding, we will be required to reduce the conversion price of the Series A Preferred Shares. Additionally, the payment of cash dividends in excess of \$0.10 per common share per quarter is not permitted if the dividends on the Series A Preferred Shares for that quarter are not paid in cash, unless the Company's U.S.-based insurance subsidiaries and direct Bermuda-based insurance subsidiary satisfy certain capital requirements. Share dividends payable on the common shares to our shareholders also trigger a reduction of the conversion price applicable to the Series A Preferred Shares.

We are a holding company that has no substantial operations of our own, and we rely primarily on cash dividends or distributions from our subsidiaries to pay our operating expenses and dividends to shareholders. The payment of dividends by our insurance and reinsurance subsidiaries is limited under the laws and regulations of their respective domicile. These regulations stipulate the maximum amount of annual dividends or other distributions available to shareholders without prior approval of the relevant regulatory authorities. Additionally, dividends from our U.S. subsidiaries to our U.K. intermediate holding company are generally subject to a 5% withholding tax by the IRS. Under U.K. domestic law, no withholding tax is applied to dividends paid by U.K. tax resident companies. As a result of such regulations, or a change in applicable tax law, we may not be able to pay our operating expenses as they become due and our payment of future dividends to shareholders may be limited. See "Risk Factors — Risks Related to Ownership of Our Common Shares — We depend upon dividends and distributions from our subsidiaries, and we may be unable to distribute dividends to our shareholders to the extent we do not receive dividends from our subsidiaries," and "— Dividends paid by our U.S. subsidiaries to James River UK may not be eligible for benefits under the U.S.-U.K. income tax treaty."

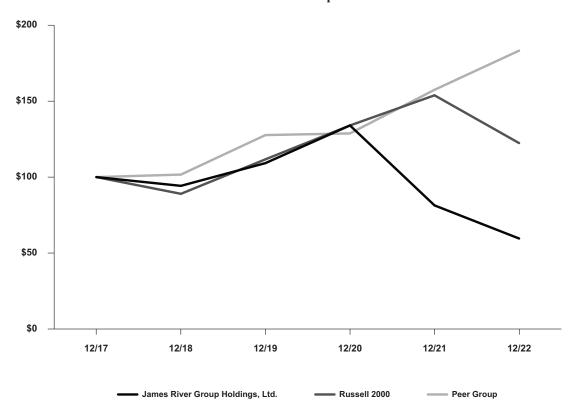
Additionally, the declaration, payment and amount of future dividends is further subject to the discretion of our board of directors. Our board of directors will give consideration to various risks and uncertainties, including those discussed under the headings "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this Annual Report when determining whether to declare and pay dividends, as well as the amount thereof. Our board of directors

may take into account a variety of factors when determining whether to declare any future dividends, including (1) our financial condition, liquidity, results of operations (including our ability to generate cash flow in excess of expenses and our expected or actual net income), retained earnings and collateral and capital requirements, (2) general business conditions, (3) legal, tax and regulatory limitations, (4) contractual prohibitions and other restrictions, in addition to those relating to our Series A Preferred Shares (5) the effect of a dividend or dividends upon our financial strength ratings and (6) any other factors that our board of directors deems relevant.

Performance Graph

The graph below compares the cumulative 5-Year total shareholder return of our common shares relative to the cumulative total returns of the Russell 2000 index and a selected peer group of six companies that includes Amerisafe, Inc., Argo Group International Holdings, Ltd, Kinsale Capital Group, Inc., Markel Corporation, RLI Corp. and W. R. Berkley Corporation. The companies in the peer group are weighted by market capitalization. The calculation of cumulative total shareholder return assumes an initial investment of \$100 and the reinvestment of all dividends, if any, for the period from December 31, 2017 through December 31, 2022. Such returns are based on historical results and are not intended to suggest future performance.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN* Among James River Group Holdings, Ltd., the Russell 2000 Index, and a Peer Group



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	12/17	12/18	12/19	12/20	12/21	12/22
James River Group Holdings, Ltd	100.00	94.24	109.21	134.01	81.37	59.57
Russell 2000	100.00	88.99	111.70	134.00	153.85	122.41
Peer Group	100.00	101.66	127.68	128.75	157.48	183.25

The performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or the

Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that we specifically incorporate it by reference into such filing.

Item 6. [RESERVED]

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

The following discussion and analysis contains forward-looking statements and involves numerous risks and uncertainties, including those described under the heading "Risk Factors." Actual results may differ materially from those contained in any forward-looking statements. You should read this discussion and analysis together with our audited consolidated financial statements and related notes included elsewhere in this Form 10-K.

Overview

James River Group Holdings, Ltd. is a Bermuda-based holding company. We own and operate a group of specialty insurance and reinsurance companies with the objective of generating compelling returns on tangible equity while limiting underwriting and investment volatility. We seek to accomplish this by earning profits from insurance and reinsurance underwriting and generating meaningful risk-adjusted investment returns, while managing our capital.

For the year ended December 31, 2022, approximately 71.2% of our group-wide gross written premiums and 90.3% of our group-wide net written premiums originated from the U.S. E&S lines market, which we believe puts us among the top three publicly traded insurers as ranked by highest concentrations of E&S risk. We also have a specialty admitted insurance business in the United States. We intend to concentrate substantially all of our underwriting in casualty insurance, and for the year ended December 31, 2022, we derived 96.5% of our group-wide gross written premiums from casualty insurance. We focus on writing business in specialty markets where our underwriters have particular expertise and where we have long-standing distribution relationships; maintaining a strong balance sheet with appropriate reserves; monitoring reinsurance recoverables carefully; managing our investment portfolio actively without taking undue risk; using technology to monitor trends in our business; responding rapidly to market opportunities and challenges; and actively managing our capital.

We report our business in four segments: Excess and Surplus Lines, Specialty Admitted Insurance, Casualty Reinsurance and Corporate and Other.

The Excess and Surplus Lines segment offers E&S commercial lines liability and property insurance in every U.S. state, the District of Columbia, Puerto Rico and the U.S. Virgin Islands through James River Insurance and its wholly-owned subsidiary, James River Casualty. James River Insurance and James River Casualty are both non-admitted carriers. Non-admitted carriers writing in the E&S market are not bound by most of the rate and form regulations imposed on standard market companies, allowing them flexibility to change the coverage terms offered and the rate charged without the time constraints and financial costs associated with the rate and form filing process. In 2022, the average account in this segment (excluding commercial auto policies) generated annual gross written premiums of approximately \$24,000. The Excess and Surplus Lines segment distributes its products primarily through wholesale insurance brokers. Members of our management team have participated in this market for over three decades and have long-standing relationships with the wholesale agents who place E&S lines accounts. The Excess and Surplus Lines segment produced 61.5% of our gross written premiums and 78.7% of our net written premiums for the year ended December 31, 2022.

The Specialty Admitted Insurance segment focuses on niche classes within the standard insurance markets with a primary focus on fronting business, where we retain a minority share of the risk and seek to earn fee income by allowing other carriers and producers to use our licensure, ratings, expertise and infrastructure. We also write workers' compensation coverage for building trades, healthcare employees, light manufacturing and other light-to-medium hazard risks in select U.S. states. Through Falls Lake National and its subsidiaries, this segment has admitted licenses and the authority to write excess and surplus lines insurance in 50 states and the District of Columbia and distributes through a variety of sources, including program administrators, MGAs, and independent retail agents. The Specialty Admitted Insurance segment produced 32.8% of our gross written premiums and 10.2% of our net written premiums for the year ended December 31, 2022.

The Casualty Reinsurance segment provides proportional and working layer casualty reinsurance to third parties and, through December 31, 2021, to our U.S.-based insurance subsidiaries. Typically, we

structure our reinsurance contracts (also known as treaties) as quota share arrangements, with loss mitigating features, such as commissions that adjust based on underwriting results. On a net premium volume basis, treaties with loss mitigation features including sliding scale ceding commissions represented 40.6% of the net premiums written by our Casualty Reinsurance segment during 2022. We typically do not assume large individual risks in our Casualty Reinsurance segment, nor do we write property catastrophe reinsurance. Most of the underlying policies assumed by our Casualty Reinsurance segment have a \$1.0 million per occurrence limit, and we typically assume only a portion of that exposure. We do not assume stand-alone third-party property business at our Casualty Reinsurance segment, but we do have a small amount of assumed business with ancillary property exposure. Of the total gross premiums written by our Casualty Reinsurance segment during 2022, 64.8% were general liability accounts. The Casualty Reinsurance segment distributes through reinsurance brokers. The Casualty Reinsurance segment produced 5.7% of our gross written premiums and 11.1% of our net written premiums for the year ended December 31, 2022.

The Casualty Reinsurance segment writes third party business through one entity, JRG Re. Through December 31, 2017, we had intercompany reinsurance agreements under which we ceded 70% of the net written premiums of our U.S. subsidiaries (after taking into account third-party reinsurance) to JRG Re. Effective January 1, 2018 through December 31, 2021, we generally discontinued ceding 70% of our U.S.-written premiums to JRG Re and instead ceded 70% of our U.S.-written premiums to Carolina Re, a Bermudadomiciled, wholly-owned subsidiary of James River Group, Inc. Carolina Re made an irrevocable election to be taxed as a U.S. domestic corporation under Section 953(d) of the Code effective January 1, 2018. Carolina Re was also the cedent on a stop loss reinsurance treaty with JRG Re through December 31, 2021. Business in the Casualty Reinsurance segment is ceded under proportional, or quota-share, reinsurance treaties that provide for an arm's length ceding commission. We exclude the effects of intercompany reinsurance agreements from the presentation of our segment results, consistent with the way we manage the Company. At December 31, 2022, 33.2% of our invested assets were held at JRG Re.

The Corporate and Other segment consists of the management and treasury activities of our holding companies, equity compensation for the group, and interest expense associated with our debt.

All of the Company's U.S.-domiciled insurance subsidiaries are party to an intercompany pooling agreement that distributes the net underwriting results among the group companies based on their approximate pro-rata level of statutory capital and surplus to the total Company statutory capital and surplus. Additionally, each of the Company's U.S.-domiciled insurance subsidiaries is a party to a quota share reinsurance agreement that in periods prior to January 1, 2018 ceded 70% of their premiums and losses to JRG Re, and from January 1, 2018 through December 31, 2021, ceded 70% of their premiums and losses to Carolina Re. During 2022, Carolina Re commuted the outstanding obligations ceded under the intercompany quota-share reinsurance agreements back to the Company's U.S.-based insurance subsidiaries with effect from January 1, 2022. We report all segment information in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" prior to the effects of intercompany reinsurance, consistent with the manner in which we evaluate the operating performance of our reportable segments.

The A.M. Best Company ("A.M. Best") financial strength rating for our group's regulated insurance and reinsurance subsidiaries is "A-" (Excellent) with a stable outlook. This rating reflects A.M. Best's evaluation of our insurance and reinsurance subsidiaries' financial strength, operating performance and ability to meet obligations to policyholders and is not an evaluation directed towards the protection of investors. The rating for our operating insurance and reinsurance companies of "A-" (Excellent) is the fourth highest rating of the thirteen ratings issued by A.M. Best and is assigned to insurers that have, in A.M. Best's opinion, an excellent ability to meet their ongoing obligations to policyholders.

The financial strength ratings assigned by A.M. Best have an impact on the ability of our regulated subsidiaries to attract and retain agents and brokers and on the risk profiles of the submissions for insurance that our subsidiaries receive. We believe the "A-" (Excellent) ratings assigned to our insurance and reinsurance subsidiaries allow our subsidiaries to actively pursue relationships with the agents and brokers identified in their marketing plans.

Key Metrics

We discuss certain key metrics, described below, which we believe provide useful information about our business and the operational factors underlying our financial performance.

Underwriting profit is a non-GAAP measure commonly used in the property and casualty insurance industry to evaluate underwriting performance. We believe that the disclosure of underwriting profit by individual segment and of the Company as a whole is useful to investors, analysts, rating agencies and other users of our financial information in evaluating our performance because our objective is to consistently earn underwriting profits. We evaluate the performance of our segments and allocate resources based primarily on underwriting profit. We define underwriting profit as net earned premiums and gross fee income (in specific instances when the Company is not retaining insurance risk) less losses and loss adjustment expenses on business not subject to retroactive reinsurance accounting for loss portfolio transfers (see Loss Portfolio Transfers in Strategic Actions below) and other operating expenses. Other operating expenses include the underwriting, acquisition, and insurance expenses of the operating segments and, for consolidated underwriting profit, the expenses of the Corporate and Other segment. Our definition of underwriting profit may not be comparable to that of other companies. See "Reconciliation of Non-GAAP Measures" for a reconciliation of underwriting profit to income before taxes and for additional information.

Loss ratio, expressed as a percentage, is the ratio of losses and loss adjustment expenses on business not subject to retroactive reinsurance accounting for loss portfolio transfers to net earned premiums. Our definition of loss ratio may not be comparable to that of other companies. See "Underwriting Performance Ratios" for a reconciliation of underwriting ratios.

Accident year loss ratio, expressed as a percentage, is the ratio of losses and loss adjustment expenses for the current accident year (excluding development on prior accident year reserves) to net earned premiums.

Expense ratio, expressed as a percentage, is the ratio of other operating expenses net of gross fee income included in other income to net earned premiums.

Combined ratio is a measure of underwriting performance calculated as the sum of the loss ratio and the expense ratio. A combined ratio of less than 100% indicates an underwriting profit, while a combined ratio greater than 100% reflects an underwriting loss. Our definition of combined ratio may not be comparable to that of other companies. See "Underwriting Performance Ratios" for a reconciliation of underwriting ratios.

Adjusted net operating income is an internal performance measure used in the management of our operations. We believe it gives our management and other users of our financial information useful insight into our results of operations and our underlying business performance. Adjusted net operating income is defined as income available to common shareholders excluding a) the impact of retroactive reinsurance accounting for loss portfolio transfers, b) net realized and unrealized gains (losses) on investments, c) certain non-operating expenses such as professional service fees related to a purported class action lawsuit, various strategic initiatives, and the filing of registration statements for the offering of securities, and d) severance costs associated with terminated employees. Adjusted net operating income is a non-GAAP measure and should not be viewed as a substitute for net income calculated in accordance with GAAP. Our definition of adjusted net operating income may not be comparable to that of other companies. See "Reconciliation of Non-GAAP Measures" for a reconciliation of income available to common shareholders to adjusted net operating income.

Tangible equity is defined as shareholders' equity plus mezzanine Series A Preferred Shares (as defined below) and the unrecognized deferred retroactive reinsurance gain on loss portfolio transfers less goodwill and intangible assets, net of amortization. We believe tangible equity is a good measure to evaluate the strength of our balance sheet and to compare returns relative to this measure. Key financial measures that we use to assess our longer term financial performance include the percentage growth in our tangible equity per share and our return on tangible equity. Tangible equity is a non-GAAP measure and should not be viewed as a substitute for shareholders' equity calculated in accordance with GAAP. Our definition of tangible equity may not be comparable to that of other companies. See "Reconciliation of Non-GAAP Measures" for a reconciliation of shareholders' equity to tangible equity.

Adjusted net operating return on tangible equity is defined as annualized adjusted net operating income expressed as a percentage of the average quarterly tangible equity balances in the respective period.

Tangible equity per share represents tangible equity divided by the sum of total common shares outstanding plus the common shares resulting from an assumed conversion of the outstanding Series A Preferred Shares into common shares (at the current conversion price).

Net retention is defined as the ratio of net written premiums to gross written premiums.

Gross investment yield is annualized investment income before any deductions for fees and expenses, expressed as a percentage of the average beginning and ending carrying values of those investments during the period.

Unless specified otherwise, all references to our defined metrics above in this *Management's Discussion* and Analysis of Financial Condition and Results of Operations are for our business that is not subject to retroactive reinsurance accounting for loss portfolio transfers. Management believes that the lack of economic impact of retroactive reinsurance accounting makes the presentation of our key metrics on business not subject to retroactive reinsurance accounting helpful to the users of our financial information. See "Underwriting Performance Ratios" and "Reconciliation of Non-GAAP Measures."

Critical Accounting Policies and Estimates

We identified the accounting estimates below as critical to the understanding of our financial position and results of operations. Critical accounting estimates are defined as those estimates that are both important to the portrayal of our financial condition and results of operations and which require us to exercise significant judgment. We use significant judgment concerning future results and developments in applying these critical accounting estimates and in preparing our consolidated financial statements. These judgments and estimates affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of material contingent assets and liabilities. Actual results may differ materially from the estimates and assumptions used in preparing the consolidated financial statements. We evaluate our estimates regularly using information that we believe to be relevant. For a detailed discussion of our accounting policies, see the Notes to Consolidated Financial Statements included in this Form 10-K.

Reserve for Losses and Loss Adjustment Expenses

The reserve for losses and loss adjustment expenses represents our estimated ultimate cost of all reported and unreported losses and loss adjustment expenses incurred and unpaid at the balance sheet date. We do not discount this reserve. We estimate the reserve using individual case-basis valuations of reported claims and statistical analysis. We believe that the use of judgment is necessary to arrive at a best estimate for the reserve for losses and loss adjustment expenses given the long-tailed nature of the business generally written by the Company and the limited operating experience of the Casualty Reinsurance segment, the fronting and program business in the Specialty Admitted Insurance segment and the commercial auto business in the Excess and Surplus Lines segment. In applying this judgment, we may establish reserves that differ from our internal actuaries' estimate. We seek to establish reserves that will ultimately prove to be adequate. If we have indications that claims frequency or severity exceeds our initial expectations, we generally increase our reserves for losses and loss adjustment expenses. Conversely, when claims frequency and severity trends are more favorable than initially anticipated, we generally reduce our reserves for losses and loss adjustment expenses once we have sufficient data to confirm the validity of the favorable trends.

Our Excess and Surplus Lines and Specialty Admitted Insurance segments generally are notified of losses by our insureds or their brokers. Based on the information provided, we establish case reserves by estimating the ultimate losses from the claim, including administrative costs associated with the ultimate settlement of the claim. Our claims department personnel use their knowledge of the specific claim along with internal and external experts, including underwriters and legal counsel, to estimate the expected ultimate losses.

Our Casualty Reinsurance segment generally establishes case reserves based on reports received from ceding companies or their brokers. For excess of loss contracts, we are typically notified of insurance losses on specific contracts, and we record case reserves based on the estimated ultimate losses on each claim. For proportional contracts, we typically receive aggregated claims information and record case reserves based on that information.

We also use statistical analysis to estimate the cost of losses and loss adjustment expenses that have been incurred but not reported to us. Those estimates are based on our historical information, industry information and estimates of future trends that may affect the frequency of claims and changes in the average cost of claims (severity) that may arise in the future.

The Company's gross reserve for losses and loss adjustment expenses at December 31, 2022 was \$2,769.0 million. Of this amount, 61.5% relates to IBNR. The Company's gross reserve for losses and loss adjustment expenses by segment are summarized as follows:

	Gross Reserves at December 31, 2022						
		Case	IB	NR	To	otal	IBNR % of Total
	(\$ in thousands)						
Excess and Surplus Lines	\$	570,933	\$1,01	4,927	\$1,58	35,860	64.0%
Specialty Admitted Insurance		349,008	40	06,094	75	55,102	53.8%
Casualty Reinsurance		147,401	28	30,632	42	28,033	65.6%
Total	\$1	,067,342	\$1,70)1,653	\$2,76	8,995	61.5%

The Company's net reserve for losses and loss adjustment expenses prior to the \$612,000 allowance for credit losses on reinsurance recoverables at December 31, 2022 was \$1,248.3 million. Of this amount, 66.6% relates to IBNR. The Company's net reserve for losses and loss adjustment expenses by segment are summarized as follows:

Net Reserves at December 31, 2022					
se IBNR	Total	IBNR % of Total			
(\$ in thousands)					
192 \$657,392	\$ 967,584	67.9%			
852 66,329	113,181	58.6%			
213 107,292	167,505	64.1%			
257 \$831,013	\$1,248,270	66.6%			
,	se IBNR (\$ in th ,192 \$657,392 ,852 66,329 ,213 107,292	se IBNR (\$ in thousands) ,192 \$657,392 \$ 967,584 ,852 66,329 113,181 ,213 107,292 167,505			

Our Reserve Committee consists of our Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer, and Chief Actuary. Additionally, the presidents, chief financial officers and segment actuaries of each of our three insurance segments participate in the Reserve Committee meetings for their respective segments. The Reserve Committee meets quarterly to review the actuarial recommendations made by each segment actuary and use their best judgment to determine the best estimate to be recorded for the reserve for losses and loss adjustment expenses on our balance sheet.

We engage an independent internationally recognized actuarial consulting firm to review our reserves for losses and loss adjustment expenses in the third and fourth quarters of each year. This independent actuarial consulting firm prepares its own estimate of our reserve for loss and loss adjustment expenses, and we compare their estimate to the reserve for losses and loss adjustment expenses reviewed and approved by the Reserve Committee in order to corroborate the adequacy of our reserves.

The Reserve Committee believes that using judgment to supplement the actuarial recommendations is necessary to arrive at a best estimate given the nature of the business generally written by the Company and the limited operating experience of the Casualty Reinsurance segment, the fronting and program business in the Specialty Admitted Insurance segment and the commercial auto business in the Excess and Surplus Lines segment.

The process of estimating the reserve for losses and loss adjustment expenses requires a high degree of judgment and is subject to a number of variables. In establishing the quarterly actuarial recommendation for the reserve for losses and loss adjustment expenses, our actuaries estimate an initial expected ultimate loss ratio for each of our product lines by accident year (or for our Casualty Reinsurance segment, on a contract by contract basis). Input from our underwriting and claims departments, including premium pricing assumptions and historical experience, are considered by our internal actuaries in estimating the initial expected loss ratios. Our actuaries generally utilize five actuarial methods in their estimation process for the reserve for losses and loss adjustment expenses. These five methods utilize, to varying degrees, the

initial expected loss ratio, detailed statistical analysis of past claims reporting and payment patterns, claims frequency and severity, paid loss experience, industry loss experience, and changes in market conditions, policy forms, exclusions, and exposures. The five actuarial methods that we use in our reserve estimation process are:

Expected Loss Method

The Expected Loss method multiplies earned premiums by an initial expected loss ratio. In our Excess and Surplus Lines segment and for our Workers' Compensation book in the Specialty Admitted Insurance segment, the initial expected loss ratio is estimated based on adjusting book of business prior year experience to current cost and rate level. In our Programs business within the Specialty Admitted Insurance segment and in our Casualty Reinsurance segment, the expected loss ratio is based on the actuarial pricing of the individual account. Alternatively, when company experience lacks historical depth, initial expected loss ratios can be determined using loss ratios implied by industry loss costs for the class or reported industry loss ratios.

Incurred Loss Development Method

The Incurred Loss Development method uses historical loss reporting patterns by accident year or treaty year to estimate future loss reporting patterns. In this method, our actuaries review historical loss reporting patterns to develop incurred loss development factors that are applied to current reported losses to calculate ultimate losses.

Paid Loss Development Method

The Paid Loss Development method is similar to the Incurred Loss Development method, but it uses historical loss payment patterns to estimate future loss payment patterns. In this method, our actuaries apply historical loss payment patterns to develop paid loss development factors that are applied to current paid losses to calculate expected ultimate losses.

Bornhuetter-Ferguson Incurred Loss Development Method

The Bornhuetter-Ferguson Incurred Loss Development method divides the projection of ultimate losses into the portion that has already been reported and the portion that has yet to be reported. The portion that has yet to be reported is estimated as the product of premiums earned for the accident year, the initial expected ultimate loss ratio and an estimate of the percentage of ultimate losses that are unreported at the valuation date. This technique is particularly valuable when there is a low volume of business being reviewed and reported losses lack historical depth.

Bornhuetter-Ferguson Paid Loss Development Method

The Bornhuetter-Ferguson Paid Loss Development method is similar to the Bornhuetter-Ferguson Incurred Loss Development method, except this method divides the projection of ultimate losses into the portion that has already been paid and the portion that has yet to be paid. The portion that has yet to be paid is estimated as the product of premiums earned for the accident year, the initial expected ultimate loss ratio and an estimate of the percentage of ultimate losses that are unpaid at the valuation date. This approach assumes that the paid experience has no effect on the subsequent paid loss emergence of the business. Again, this technique is particularly valuable when there is a low volume of business being reviewed and paid losses lack historical depth.

Different reserving methods are appropriate in different situations, and our actuaries use their judgment and experience to determine the weighting of the methods detailed above to use for each accident year and each line of business and, for our Casualty Reinsurance segment, on a contract by contract basis. For example, the current accident year has very little incurred and paid loss development data on which to base reserve projections. As a result, we rely heavily on the Expected Loss Method in estimating reserves for the current accident year. We generally set our initial expected loss ratio for the current accident year consistent with our pricing assumptions. We believe that this is a reasonable and appropriate reserving assumption for the current accident year since our pricing assumptions are actuarially driven and since we expect to make an

acceptable return on the new business that we write. If actual loss emergence is better than our initial expected loss ratio assumptions, we will experience favorable development, and if it is worse than our initial expected loss ratio assumptions, we will experience adverse development. Conversely, sufficient incurred and paid loss development is available for our oldest accident years, so more weight is given to the Incurred Loss Development method and the Paid Loss Development method than the Expected Loss method. The Bornhuetter-Ferguson Incurred Loss Development and Paid Loss Development methods blend features of the Expected Loss method and the Incurred and Paid Loss Development methods. The Bornhuetter-Ferguson methods are typically used for the more recent prior accident years.

In applying these methods to develop an estimate of the reserve for losses and loss adjustment expenses, our actuaries use judgment to determine three key parameters for each accident year and line of business: the initial expected loss ratios, the incurred and paid loss development factors and the weighting of the five actuarial methods to be used for each accident year and line of business. Judgment is also required to make actuarial adjustments, if needed, for changes in claims processing and case reserving that could cause current reported loss and paid loss development patterns to deviate from historical patterns. For the Excess and Surplus Lines segment, the segment actuary performs a study on each of these parameters at least annually and makes recommendations for the initial expected loss ratios, the incurred and paid loss development factors and the weighting of the five actuarial methods by accident year and line of business. Members of the Reserve Committee review and approve the parameter review actuarial recommendations, and absent any developments requiring an earlier review, these approved parameters are used in the reserve estimation process for the next four quarters at which time a new parameter study is performed. For the Specialty Admitted Insurance segment, expected loss ratios, loss development factors, and loss cost trends are reviewed and updated at least annually. For the Casualty Reinsurance segment, periodic assessments are made on a contract by contract basis. Method weights are generally less rigid for the Casualty Reinsurance segment given the heterogeneous nature of the various contracts, and the potential for significant changes in mix of business within individual treaties.

The table below quantifies the impact of extreme reserve deviations from our expected value at December 31, 2022. The total carried net reserve for losses and loss adjustment expenses is displayed alongside 5th, 50th and 95th percentiles of likely ultimate net reserve outcomes. The estimates of these percentiles are a result of a reserve variability analysis using a simulation approach.

Sensitivity	5th Pct.	Carried	50th Pct.	95th Pct.
		(in tho	usands)	
Reserve for losses and loss adjustment expenses	\$1,156,992	\$1,248,270	\$1,253,315	\$1,378,327
Changes in reserves	(91.278)		5.045	130,057

The impact of recording the net reserve for losses and loss adjustment expenses at the highest value from the sensitivity analysis above would be to increase losses and loss adjustment expenses incurred by \$130.1 million, reduce after-tax net income by \$113.7 million, reduce shareholders' equity by \$113.7 million and reduce shareholders' tangible equity by \$113.7 million, in each case at or for the year ended December 31, 2022.

The impact of recording the net reserve for losses and loss adjustment expenses at the lowest value from the sensitivity analysis above would be to reduce losses and loss adjustment expenses incurred by \$91.3 million, increase after-tax net income by \$81.2 million, increase shareholders' equity by \$81.2 million, and increase tangible equity by \$81.2 million, in each case at or for the year ended December 31, 2022. Such changes in the net reserve for losses and loss adjustment expenses would not have an immediate impact on our liquidity, but would affect cash flow and investment income in future periods as the incremental or reduced amount of losses are paid and investment assets adjusted to reflect the level of paid claims.

Loss reserve estimates are subject to a high degree of variability due to the inherent uncertainty of ultimate claims settlement values. In recording our best estimate of our reserve for losses and loss adjustment expenses, our Reserve Committee may select an amount that is different from the actuarial recommendation submitted after considering other qualitative factors and our knowledge and expectations of trends and other business developments that impact our best estimate. There is inherent variation associated with our reserve estimates and the possibility that there are unforeseen or incorrectly valued liabilities in the actuarial

recommendations exists. We believe that the insurance that we write is subject to above-average variation in reserve estimates. The Excess and Surplus Lines market is subject to high policyholder turnover and changes in underlying mix of exposures. This turnover and change in underlying mix of exposures can cause actuarial estimates based on prior experience to be less reliable than estimates for more stable, admitted books of business. As a casualty insurer, losses on our policies often take a number of years to develop, making it difficult to estimate the ultimate losses associated with this business. Judicial and regulatory bodies have frequently interpreted insurance contracts in a manner that expands coverage beyond that which was contemplated at the time that the policy was issued. In addition, many of our policies are issued on an occurrence basis, and insureds suffering a loss frequently seek coverage beyond the policies' original intent.

Our reserves are driven by a number of important assumptions, including litigation and regulatory trends, legislative activity, climate change, social and economic patterns and claims inflation assumptions. Our reserve estimates reflect current inflation in legal claims' settlements and assume we will not be subject to losses from significant new legal liability theories. Our reserve estimates also assume that we will not experience significant losses from mass torts and that we will not incur losses from future mass torts not known to us today. While it is not possible to predict the impact of changes in the litigation environment, if new mass torts or expanded legal theories of liability emerge, our cost of claims may differ substantially from our reserves. Our reserve estimates assume that there will not be significant changes in the regulatory and legislative environment. The impact of potential changes in the regulatory or legislative environment is difficult to quantify in the absence of specific, significant new regulation or legislation. In the event of significant new regulation or legislation, we will attempt to quantify its impact on our business but no assurance can be given that our attempt to quantify such inputs will be accurate or successful.

IBNR reserve estimates are inherently less precise than case reserve estimates. A 5% change in net IBNR reserves at December 31, 2022 would equate to a \$41.6 million change in the reserve for losses and loss adjustment expenses at such date, a \$34.0 million change in after-tax net income, a 6.1% change in shareholders' equity and a 6.8% change in tangible equity, in each case at or for the year ended December 31, 2022.

Although we believe that our reserve estimates are reasonable, it is possible that our actual loss experience may not conform to our assumptions. Specifically, our actual ultimate loss ratio could differ from our initial expected loss ratio or our actual reporting and payment patterns could differ from our expected reporting and payment patterns, which are based on our own data and industry data. Accordingly, the ultimate settlement of losses and the related loss adjustment expenses may vary significantly from the estimates included in our financial statements. We regularly review our estimates and adjust them as necessary as experience develops or as new information becomes known to us. Such adjustments are included in current operations.

We experienced \$9.1 million of adverse development in 2022 on the reserve for losses and loss adjustment expenses held at December 31, 2021 (excluding adverse prior year development subject to retroactive reinsurance accounting — see *Loss Portfolio Transfers in Strategic Actions* below). This adverse reserve development included \$210,000 of favorable development in the Excess and Surplus Lines segment, \$4.2 million of favorable development in the Specialty Admitted Insurance segment, and \$13.4 million of adverse development in the Casualty Reinsurance segment.

We experienced \$325.8 million of adverse development in 2021 on the reserve for losses and loss adjustment expenses held at December 31, 2020. This adverse reserve development included \$190.7 million of adverse development in the Excess and Surplus Lines segment including \$200.1 million of adverse development in the commercial auto line of business that was primarily related to the 2019 and prior accident years with Rasier LLC and its affiliates (collectively, "Rasier"). The adverse development for commercial auto was partially offset by \$9.4 million of favorable development in other Excess and Surplus Lines underwriting divisions. Favorable reserve development in the Specialty Admitted Insurance segment was \$2.5 million as losses on our workers' compensation business written prior to 2020 continued to develop more favorably than we had anticipated. The Casualty Reinsurance segment experienced \$137.6 million of adverse development on prior accident years. Actual reported and paid losses in the Casualty Reinsurance segment significantly exceeded expectations in 2021, particularly in the fourth quarter of 2021, causing us to refine some of the assumptions used to determine our best estimate of ultimate

losses for this segment. Specifically, we responded to this highly elevated loss emergence by making significant adjustments to our assumed tail factors, other development factors, initial expected loss ratios, and weights given to various actuarial methods. In particular, we gave significantly more weight to incurred loss development methods and Bornhuetter — Ferguson incurred loss development methods than had been done previously. These actuarial refinements resulted in material deterioration in ultimate loss selections for underwriting years 2014 through 2018.

Investment Valuation and Impairment

We carry fixed maturity securities classified as "available-for-sale" at fair value, and unrealized gains and losses on such securities, net of any deferred taxes, are reported as a separate component of accumulated other comprehensive income (loss). Equity securities (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) are measured at fair value with changes in fair value recognized in net income. Certain restricted cash equivalents invested in funds with floating net asset values are measured at fair value with changes in fair value recognized in net income. At December 31, 2022, we do not have any securities classified as "held-to-maturity" or "trading."

The Company adopted ASU 2016-13, Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments on January 1, 2020. This update changed the impairment model for available-for-sale fixed maturities and requires the Company to determine whether unrealized losses on available-for-sale fixed maturities are due to credit-related factors. An allowance for credit losses is established for any credit-related impairments, limited to the amount by which fair value is below amortized cost. Changes in the allowance for credit losses are recognized in earnings and included in net realized and unrealized gains (losses) on investments. Unrealized losses that are not credit-related continue to be recognized in other comprehensive income (loss).

The Company considers the extent to which fair value is below amortized cost in determining whether a credit-related loss exists. The Company also considers the credit quality rating of the security, with a special emphasis on securities downgraded below investment grade. A comparison is made between the present value of expected future cash flows for a security and its amortized cost. If the present value of future expected cash flows is less than amortized cost, a credit loss is presumed to exist and an allowance for credit losses is established. Management may conclude that a qualitative analysis is sufficient to support its conclusion that the present value of the expected cash flows equals or exceeds a security's amortized cost. As a result of this review, management concluded that there were no credit-related impairments of fixed maturity securities at December 31, 2022, 2021, or 2020. Management does not intend to sell the securities in an unrealized loss position, and it is not "more likely than not" that the Company will be required to sell these securities before a recovery in their value to their amortized cost basis occurs.

In connection with the adoption of ASU 2016-13, the Company elected the fair value option in accounting for bank loan participations effective January 1, 2020. The targeted transition relief offered by ASU 2019-05, *Financial Instruments* — *Credit Losses (Topic 326): Targeted Transition Relief* was applied to elect the fair value option to account for bank loan participations already held at the January 1, 2020 date of adoption. Under the fair value option, bank loan participations are measured at fair value, and changes in unrealized gains and losses in bank loan participations are reported in our income statement as net realized and unrealized gains (losses) on investments. At adoption on January 1, 2020, the Company applied the amendments on a modified retrospective basis, reducing the carrying value of its bank loan portfolio to fair value through an \$8.4 million adjustment with a \$7.8 million (net of tax) cumulative effect adjustment to reduce retained earnings.

Losses due to credit-related impairments on bank loan participations are determined based upon consultations and advice from the Company's specialized investment manager and consideration of any adverse situations that could affect the borrower's ability to repay, the estimated value of underlying collateral, and other relevant factors. For the year ended December 31, 2022, management concluded that \$1.5 million of the unrealized losses were due to credit-related impairments. Management concluded that none of the unrealized losses were due to credit-related impairments for the year ended December 31, 2021. For the year ended December 31, 2020, management concluded that \$8.3 million of the unrealized losses were due to credit-related impairments.

Fair values are measured in accordance with ASC 820, Fair Value Measurements. The guidance establishes a framework for measuring fair value and a three-level hierarchy based upon the quality of inputs used to measure fair value. The three levels of the fair value hierarchy are: (1) Level 1: quoted price (unadjusted) in active markets for identical assets, (2) Level 2: inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the instrument and (3) Level 3: inputs to the valuation methodology are unobservable for the asset or liability.

The fair values of fixed maturity securities and equity securities have been determined using fair value prices provided by our investment accounting services provider or investment managers, who utilize internationally recognized independent pricing services. The prices provided by the independent pricing services are generally based on observable market data in active markets (*e.g.* broker quotes and prices observed for comparable securities). Values for U.S. Treasury and publicly-traded equity securities are generally based on Level 1 inputs which use the market approach valuation technique. The values for all other fixed maturity securities (including state and municipal securities and obligations of U.S. government corporations and agencies) generally incorporate significant Level 2 inputs, and in some cases, Level 3 inputs, using the market approach and income approach valuation techniques.

The fair values of cash and cash equivalents, restricted cash equivalents (excluding those invested in funds with floating net asset values), and short-term investments approximate their carrying values due to their short-term maturity.

In the determination of the fair value for bank loan participations and certain high yield bonds, the Company endeavors to obtain data from multiple external pricing sources. External pricing sources may include brokers, dealers, and price data vendors that provide a composite price based on prices from multiple dealers. Such external pricing sources typically provide valuations for normal institutional size trading units of such securities using methods based on market transactions for comparable securities, and various relationships between securities, as generally recognized by institutional dealers. For investments in which the Company determines that only one external pricing source is appropriate or if only one external price is available, the investment is generally recorded based on such price.

Investments for which external sources are not available or are determined by an investment manager not to be representative of fair value are recorded at fair value as determined by the investment manager. In determining the fair value of such investments, the investment manager considers one or more of the following factors: type of security held, convertibility or exchangeability of the security, redeemability of the security (including the timing of redemptions), application of industry accepted valuation models, recent trading activity, liquidity, estimates of liquidation value, purchase cost and prices received for securities with similar terms of the same issuer or similar issuers. There were no bank loan participations for which external sources were unavailable to determine fair value at December 31, 2022 or 2021.

We review fair value prices provided by our outside investment accounting service provider or our investment managers for reasonableness by comparing the fair values provided to those provided by our investment custodian. We conduct corroborative price testing comparing prices utilized for each security to those from an alternate reputable pricing service. We also review and monitor changes in fair values and unrealized gains and losses. We obtain an understanding of the methods, models, and inputs used by our investment managers and independent pricing services, and controls are in place to validate that prices provided represent fair values. Our control process includes, but is not limited to, initial and ongoing evaluation of the methodologies used, a review of specific securities and an assessment for proper classification within the fair value hierarchy, and obtaining and reviewing internal control reports for our investment accounting services provider and investment managers that obtain fair values from independent pricing services.

Recent Accounting Pronouncements

In August 2020, the FASB issued ASU 2020-06, Debt — Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40), Accounting for Convertible Instruments and Contracts in an Entity's Own Equity. ASU 2020-06 simplifies the accounting for convertible debt instruments and convertible preferred stock and became effective for

interim and annual periods beginning after December 15, 2021. The Company adopted the new standard concurrent with the issuance of our 7% Series A Perpetual Cumulative Convertible Preferred Shares on March 1, 2022. Under ASU 2020-06, embedded conversion features are no longer separated from the host contract for convertible instruments with conversion features that are not required to be accounted for as derivatives under Topic 815, or that do not result in substantial premiums accounted for as paid-in capital. The new guidance also requires entities to use the if-converted method for all convertible instruments in the diluted earnings per share calculation and generally requires them to include the effect of potential share settlement for instruments that may be settled in cash or shares. Adoption of the new standard did not materially impact our financial position, results of operations, or earnings per share for the year ended December 31, 2022.

Impact of the COVID-19 Pandemic

The Company's financial condition and results of operations were not materially impacted by the coronavirus (COVID-19) pandemic during 2022. However, we are continuing to monitor a number of risks that COVID-19 poses to the Company. For a description of these risks, see "Part I-Item 1A. Risk Factors" in this Annual Report on Form 10-K.

Impact of Macroeconomic Events Including Higher Levels of Inflation and Rising Interest Rates

Current macroeconomic events including the war in Ukraine and sustained supply chain constraints stemming from the COVID-19 pandemic led to higher levels of inflation in 2022. The Federal Reserve, attempting to gain control of inflation, implemented a series of federal funds rate increases in 2022 and early 2023. Interest rates, in response, rose significantly in 2022 and fears of an impending economic slowdown have increased the likelihood of an economic recession, all of which negatively impacted financial markets. The immediate impacts to the Company were on our investment portfolio and investing results. Our investment portfolio is primarily comprised of fixed maturity investments (81.3% of total invested assets at December 31, 2022). The fair values of fixed maturities generally move inversely with interest rates, and unrealized losses associated with the declines in fair values are recognized as a component of other comprehensive income (loss), contributing to declines in shareholders' equity and tangible equity. For the year ended December 31, 2022, other comprehensive loss, representing the after-tax impact of the unrealized losses on fixed maturity investments, was \$193.0 million. We are monitoring our portfolio for signs of creditrelated impairments, and to date, we have concluded that the declines are primarily interest rate and market-driven with no allowance for credit losses considered necessary. As turnover has occurred in our portfolio and we invest cash generated from operations, we are benefiting from the higher yields now available on fixed maturities which is reflected in our investment income. Our investment portfolio also contains investments in equity securities and bank loan participations (comprising 5.4% and 7.1% of total invested assets at December 31, 2022, respectively) that are carried on our Balance Sheets at fair value. The fair values of these investments, the changes in which are recognized as unrealized gains and losses in our Statements of Income (Loss) and Comprehensive (Loss) Income, have been negatively impacted by the ongoing macroeconomic events and associated declines in financial markets. Net realized and unrealized (losses) gains on investments for the year ended December 31, 2022 include unrealized losses of \$11.2 million and \$15.9 million, respectively, for the changes in fair values of equity securities and bank loan participations. The rising interest rates have also increased interest expense on our outstanding variable rate senior and trust preferred debt. The applicable rates on our debt reset quarterly or semi-annually and are structured as LIBOR plus a margin or spread.

Strategic Actions

Issuance of Series A Preferred Shares

The Company closed on the issuance and sale of 150,000 7% Series A Perpetual Cumulative Convertible Preferred Shares, par value \$0.00125 per share (the "Series A Preferred Shares") on March 1, 2022 for an aggregate purchase price of \$150.0 million, or \$1,000 per share, in a private placement. The Series A Preferred Shares are convertible into the Company's common shares at the option of the holder at any time, or at the Company's option under certain circumstances. Dividends on the Series A Preferred Shares accrue quarterly at the initial rate of 7% of the \$1,000 liquidation preference per share (the "Liquidation Preference")

per annum, which may be paid in cash, in-kind in common shares or in Series A Preferred Shares, at the Company's election. During 2022, cash dividends of \$8.8 million were declared, of which \$2.6 million was payable at December 31, 2022. Please see "Note 11. Series A Preferred Shares" in the Notes to our Consolidated Financial Statements in this Form 10-K.

Loss Portfolio Transfers

Loss portfolio transfers are a form of reinsurance utilized by the Company to transfer losses and loss adjustment expenses and associated risk of adverse development on covered subject business, as defined in the respective agreements, to an assuming reinsurer in exchange for a reinsurance premium. Loss portfolio transfers can bring economic finality on the subject risks when they no longer meet the Company's appetite or are no longer aligned with our risk management guidelines.

Commercial Auto Loss Portfolio Transfer

On September 27, 2021, James River Insurance Company and James River Casualty Company (together, "James River") entered into a loss portfolio transfer transaction (the "Commercial Auto LPT") with Aleka Insurance, Inc. ("Aleka"), a captive insurance company affiliate of Rasier LLC, to reinsure substantially all of the Excess and Surplus Lines segment's legacy portfolio of commercial auto policies previously issued to Rasier LLC and its affiliates (collectively, "Rasier") for which James River is not otherwise indemnified by Rasier. Under the terms of the transaction, effective as of July 1, 2021, James River ceded to Aleka approximately \$345.1 million of commercial auto liabilities relating to Rasier policies written in the years 2013-2019, which amount constituted the reinsurance premium. The reinsurance coverage is structured to be fully collateralized, is not subject to an aggregate limit, and is subject to certain exclusions. A pre-tax loss of \$29.6 million was recognized as adverse loss and loss adjustment reserve development in the Excess and Surplus Lines segment for the third quarter of 2021 associated with the loss portfolio transfer.

Casualty Re Loss Portfolio Transfer

On February 23, 2022, JRG Re entered into a loss portfolio transfer retrocession agreement (the "Casualty Re LPT") with Fortitude Reinsurance Company Ltd. ("FRL") under which FRL reinsures the majority of the reserves in the Company's Casualty Reinsurance segment. Under the terms of the transaction, which closed on March 31, 2022 (the "Retrocession Closing Date"), JRG Re (a) ceded to FRL all existing and future claims for losses arising under certain casualty reinsurance agreements with underlying insurance companies with treaty inception dates ranging from 2011 to 2020 (the "Subject Business"), in each case net of third-party reinsurance and other recoveries, up to an aggregate limit of \$400.0 million; (b) continues to manage and retain the benefit of other third-party reinsurance on the Subject Business; (c) paid FRL a reinsurance premium of \$335.0 million, \$310.0 million of which JRG Re credited to a notional funds withheld account (the "Funds Withheld Account") and \$25.0 million of which was paid in cash to FRL; and (d) pays FRL a 2% per annum crediting rate on the Funds Withheld Account balance on a quarterly basis. The total premium, initial Funds Withheld Account credit, and aggregate limit was adjusted for claims paid from October 1, 2021 to the Retrocession Closing Date. The Casualty Reinsurance segment incurred \$6.8 million of net adverse reserve development in the three months ended March 31, 2022 associated with the Casualty Re LPT. The Funds Withheld Account balance was \$213.6 million at December 31, 2022 and Funds Withheld Account crediting fees of \$3.7 million are included in interest expense in our Statements of Income (Loss) and Comprehensive (Loss) Income for the year ended December 31, 2022.

Retroactive Reinsurance Accounting

The Company periodically reevaluates the remaining reserves subject to the Commercial Auto LPT and the Casualty Re LPT (together, the "Loss Portfolio Transfers"). For the year ended December 31, 2022, due to adverse paid loss trends on the legacy Rasier business, the Company recognized adverse prior year development of \$46.7 million on the reserves subject to the Commercial Auto LPT, resulting in a corresponding additional amount ceded under the Commercial Auto LPT. As a result, the cumulative amounts ceded under the Commercial Auto LPT exceed the consideration paid, moving the Commercial Auto LPT into a gain position and requiring retroactive reinsurance accounting. Similarly, due to adverse paid and reported loss trends on the business subject to the Casualty Re LPT, the Company ceded an additional

\$6.1 million of losses recoverable under the Casualty Re LPT for the year ended December 31, 2022, moving the Casualty Re LPT into a deferred gain position requiring retroactive reinsurance accounting. At December 31, 2022, the Company has \$58.9 million of aggregate limit remaining under the Casualty Re LPT.

Under retroactive reinsurance accounting, gains are deferred and recognized in earnings in proportion to actual paid recoveries under the Loss Portfolio Transfers using the recovery method. Over the life of the contracts, we would expect no economic impact to the Company as long as any additional losses are within the limit of the loss portfolio transfer and the counterparty performs under the contract. In periods where the Company recognizes a change in the estimate of the reserves subject to the Loss Portfolio Transfers that increases or decreases the amounts ceded under the Loss Portfolio Transfers, the proportion of actual paid recoveries to total ceded losses is affected and the change in deferred gain is recognized in earnings as if the revised estimate of ceded losses was available at the effective date of the loss portfolio transfer. The effect of the deferred retroactive reinsurance benefit is recorded in losses and loss adjustment expenses on the Consolidated Statements of Income (Loss) and Comprehensive (Loss) Income.

Retroactive reinsurance benefits totaling \$32.7 million (\$31.0 million for the Commercial Auto LPT and \$1.7 million for the Casualty Re LPT) were recorded in losses and loss adjustment expenses for the year ended December 31, 2022 using the recovery method. As of December 31, 2022, the cumulative amounts ceded under the Loss Portfolio Transfers was \$732.9 million (\$391.8 million under the Commercial Auto LPT and \$341.1 million under the Casualty Re LPT). At December 31, 2021, \$345.1 million was ceded under the Commercial Auto LPT. The total unrecognized deferred retroactive reinsurance gain of \$20.1 million at December 31, 2022 under the Loss Portfolio Transfers (\$15.7 million related to the Commercial Auto LPT and \$4.4 million related to the Casualty Re LPT) is separately presented on the Company's Consolidated Balance Sheets.

Suspension of Underwriting Activities in Casualty Reinsurance Segment

In keeping with our previously announced plans to significantly shrink top-line writings of the Casualty Reinsurance segment, we have decided to suspend writing business in the Casualty Reinsurance segment, as we continue our focus on growing our higher returning U.S. insurance and fronting businesses. We expect the Casualty Reinsurance segment to continue earning premium due to the nature of the earnings patterns in the reinsurance business, which can extend over multiple years. Aside from the suspension of underwriting activities, we plan for the Casualty Reinsurance segment to maintain its normal day-to-day operations, with a staff to continue servicing the business on its books and to facilitate compliance with its regulatory requirements.

Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

The following table summarizes our results for the years ended December 31, 2022 and 2021:

	Year Ended D		
	2022	2021	% Change
	(\$ in tho	usands)	
Gross written premiums	\$1,496,580	\$1,507,299	(0.7)%
Net retention	50.0%	49.4%	
Net written premiums	\$ 748,479	\$ 744,380	0.6%
Net earned premiums	\$ 766,161	\$ 695,594	10.1%
Losses and loss adjustment expenses excluding retroactive			
reinsurance	(524,723)	(792,352)	(33.8)%
Other operating expenses	(191,796)	(160,188)	19.7%
Underwriting profit (loss) ^{(1),(2)}	49,642	(256,946)	_
Losses and loss adjustment expenses — retroactive			
reinsurance	(20,091)	_	_
Net investment income	71,111	56,865	25.1%
Net realized and unrealized investment (losses) gains	(28,318)	15,564	_
Other income and expense	(5,016)	(2,232)	124.7%
Interest expense	(17,578)	(8,922)	97.0%
Amortization of intangible assets	(363)	(363)	_
Income (loss) before taxes	49,387	(196,034)	_
Income tax expense (benefit)	18,414	(23,235)	_
Net income (loss)	\$ 30,973	\$ (172,799)	_
Dividends on Series A Preferred Shares	(8,750)	_	_
Net income (loss) available to common shareholders	\$ 22,223	\$ (172,799)	_
Adjusted net operating income (loss) ⁽¹⁾	\$ 69,542	\$ (184,245)	_
Ratios:			
Loss ratio	68.5%	113.9%	
Expense ratio	25.0%	23.0%	
Combined ratio	93.5%	136.9%	
Accident year loss ratio	67.3%	67.1%	
Accident year loss ratio ex-cat ⁽³⁾	66.7%	66.4%	

⁽¹⁾ Underwriting profit (loss) and adjusted net operating income (loss) are non-GAAP measures. See "Reconciliation of Non-GAAP Measures."

The Company produced an underwriting profit of \$49.6 million and a combined ratio of 93.5% for the year ended December 31, 2022 compared to an underwriting loss of \$256.9 million and a combined ratio of 136.9% for the year ended December 31, 2021.

⁽²⁾ Underwriting results include gross fee income of \$23.6 million and \$22.7 million for the years ended December 31, 2022 and 2021, respectively.

⁽³⁾ Accident year loss ratio excluding \$5.0 million of net catastrophe losses related to Hurricane Ian in the year ended December 31, 2022 and \$5.0 million of net catastrophe losses related to Hurricane Ida in the year ended December 31, 2021.

The 10.1% growth in consolidated net earned premiums was driven by attractive market conditions, particularly for our Excess and Surplus Lines segment, which reported net earned premium growth of \$69.6 million or 14.3% compared to the prior year. The Excess and Surplus Lines segment is our largest segment, comprising 61.5% of consolidated gross written premiums and 72.5% of consolidated net earned premiums in 2022.

Our loss ratio improved from 113.9% in the prior year to 68.5% in the current year. The improvement was primarily driven by net reserve development on prior accident years which was \$9.1 million or 1.2 percentage points adverse for the year ended December 31, 2022 compared to \$325.8 million or 46.8 percentage points adverse for the year ended December 31, 2021. The \$9.1 million of net adverse reserve development for the year ended December 31, 2022 includes \$210,000 of net favorable development from the Excess and Surplus Lines segment, \$4.2 million of net favorable development from the Specialty Admitted Insurance segment, and \$13.4 million of net adverse development from the Casualty Reinsurance segment, of which \$6.8 million related to the Company's entrance into the Casualty Re LPT in March of 2022. The \$325.8 million of net adverse reserve development for the year ended December 31, 2021 included \$190.7 million of net adverse reserve development from the Excess and Surplus Lines segment almost entirely related to a previous commercial auto account, \$2.5 million of net favorable development from the Specialty Admitted Insurance segment, and \$137.6 million of net adverse reserve development from the Casualty Reinsurance segment. Refer to the discussion of segment underwriting results below for additional details on this adverse reserve development.

Current accident year losses in both years include \$5.0 million of net catastrophe losses (Hurricane Ian in 2022 and Hurricane Ida in 2021) in our small Excess Property book within the Excess and Surplus Lines segment. The Excess and Surplus Lines segment has a surplus share reinsurance treaty in effect that was specifically designed to cover property risks. The surplus share treaty along with facultative reinsurance helps ensure that our net retained limit per risk will be \$5.0 million or less.

Our expense ratio increased relative to the prior year driven by higher expense ratios for our Specialty Admitted Insurance and Casualty Reinsurance segments and higher operating expenses for our Corporate and Other segment. The Specialty Admitted Insurance segment benefited from 4.3% growth in fee income, but the segment expense ratio was higher due to slightly lower net earned premiums and the net impact of commission, tax and assessment accrual adjustments in both years. The Casualty Reinsurance segment typically structures its reinsurance treaties with loss mitigation features including profit and sliding scale ceding commissions. Net adverse reserve development on treaties with such features reduced our commissions in 2021 by \$11.8 million compared to \$249,000 in 2022. Operating expenses for our Corporate and Other segment increased driven by higher compensation expenses due to the hiring of additional employees.

Underwriting results in the prior year were also negatively impacted by \$8.1 million of reinstatement premium, including \$6.4 million triggered by one claim on a 2019 excess of loss treaty in the Excess and Surplus Lines segment. The reinstatement premium reduced net written and net earned premium and increased the underwriting loss.

Our net income increased over the prior year due to the improved underwriting results and higher net investment income, with partially offsetting items including the \$20.1 million of retroactive reinsurance losses and loss adjustment expenses under the loss portfolio transfers, the unfavorable swing in net realized and unrealized gains and losses on investments, and higher interest expense. As discussed above, the Company recognized adverse prior year development of \$52.8 million on the reserves subject to the LPT Agreements in the year ended December 31, 2022, resulting in corresponding additional amounts ceded under the LPT Agreements, and requiring retroactive reinsurance accounting. Retroactive reinsurance benefits of \$32.7 million were recorded in losses and loss adjustment expenses for the year ended December 31, 2022, resulting in a net impact of \$20.1 million within our net losses and loss adjustment expenses. Higher interest rates in the current year boosted yields on fixed income investments and increased investment income, but also resulted in higher interest expense on our variable rate senior and trust preferred debt. Interest expense for the year ended December 31, 2022 also includes \$3.7 million of crediting fees on the Funds Withheld Account balance under the Casualty Re LPT. The unfavorable swing in net realized and unrealized gains and losses on investments (see Investing Results below) also had a negative impact on the comparative net results for the two years as market values of equity securities and bank loan participations have declined in the current year due to the effect of macroeconomic events on financial markets. Net income available to

common shareholders for the year ended December 31, 2022 reflects the \$8.8 million of current year dividends on the Series A Preferred Shares.

Adjusted net operating income (loss) improved from a \$184.2 million loss in the year ended December 31, 2021 to income of \$69.5 million in the year ended December 31, 2022. Tangible equity decreased by 1.2% in 2022 as net income of \$31.0 million and proceeds from the Series A Preferred Share issuance of \$144.9 million were offset by \$193.0 million of unrealized losses on our fixed maturity investments in other comprehensive loss (see *Investing Results* below). Tangible equity per share decreased by 14.4% for the year reflecting the small decrease in tangible equity over a larger share count including an assumed conversion of the Series A Preferred Shares. Our adjusted net operating return on tangible equity of 13.5% for the year ended December 31, 2022 compares favorably to the prior year loss and reflects the turnaround in underwriting results and higher investment income.

Premiums

Insurance premiums are earned ratably over the terms of our insurance policies, generally twelve months. Reinsurance premiums assumed are earned over the terms of the underlying policies or reinsurance contracts. Contracts and policies written on a "losses occurring" basis cover claims that may occur during the term of the contract or insurance policy, which is typically twelve months. Reinsurance contracts which are written on a "risks attaching" basis cover claims which attach to the underlying insurance policies written during the terms of such contracts. Premiums earned on such contracts usually extend beyond the original term of the reinsurance contract, typically resulting in recognition of premiums earned over a 24-month period in proportion to the level of underlying exposure.

The following table summarizes the change in premium volume by component and business segment:

	Year Ended		
	2022	2021	% Change
	(\$ in th	ousands)	
Gross written premiums:			
Excess and Surplus Lines	\$ 921,164	\$ 833,657	10.5%
Specialty Admitted Insurance	490,208	491,561	(0.3)%
Casualty Reinsurance	85,208	182,081	(53.2)%
	\$1,496,580	\$1,507,299	(0.7)%
Net written premiums:			
Excess and Surplus Lines	\$ 589,056	\$ 501,250	17.5%
Specialty Admitted Insurance	76,390	83,935	(9.0)%
Casualty Reinsurance	83,033	159,195	(47.8)%
	\$ 748,479	\$ 744,380	0.6%
Net earned premiums:			
Excess and Surplus Lines	\$ 555,597	\$ 486,000	14.3%
Specialty Admitted Insurance	74,137	75,371	(1.6)%
Casualty Reinsurance	136,427	134,223	1.6%
	\$ 766,161	\$ 695,594	10.1%

Gross written premiums for the Excess and Surplus Lines segment (which represents 61.5% of our consolidated gross written premiums in 2022) increased 10.5% from the prior year. Total policy submissions for Core E&S lines (excluding commercial auto) declined 4.9% in 2022, but renewal submissions increased 12.2% and our ratio of bound policies to quoted policies improved generating 1.5% more bound policies in the year ended December 31, 2022. Renewal rates for the Excess and Surplus Lines segment were up 9.9%

compared to 2021 and the total number of policies in force grew by 4.2% in 2022. The change in gross written premiums was notable in several divisions as shown below:

	Year Ended December 31,		
	2022	2021	% Change
Excess Casualty	\$310,383	\$285,082	8.9%
General Casualty	173,574	140,608	23.4%
Manufacturers & Contractors	156,645	139,720	12.1%
Excess Property	52,104	47,241	10.3%
Small Business	36,930	32,593	13.3%
Sports & Entertainment	13,934	9,442	47.6%
All other Core E&S divisions	139,620	144,341	(3.3)%
Total Core E&S divisions	883,190	799,027	10.5%
Commercial Auto	\$ 37,974	\$ 34,630	9.7%
Excess and Surplus Lines gross written premium	\$921,164	\$833,657	10.5%

The components of gross written premiums for the Specialty Admitted Insurance segment (which represents 32.8% of our 2022 consolidated gross written premiums) are as follows:

	Year Ended		
	2022	2021	% Change
	(\$ in the		
Fronting and program premium	\$437,221	\$434,165	0.7%
Individual risk workers' compensation premium	52,987	57,396	(7.7)%
Specialty Admitted gross written premium	\$490,208	\$491,561	(0.3)%

Our fronting written premium increased slightly from the prior year driven by new fronting relationships in the current year and the continued expansion of existing fronting relationships (together representing an increase of \$50.8 million for the year ended December 31, 2022), and partially offset by the loss of one relationship from merger and acquisition activity at a general agent and a decline of \$13.2 million or 10.6% in written premium for our largest workers' compensation program due to a very competitive workers' compensation market in California. Our two largest fronting relationships represented \$231.8 million or 47.3% of segment gross written premium in 2022 compared to \$213.6 million or 43.5% in 2021. Individual risk workers' compensation premium declined in 2022 due to the soft market conditions currently present for workers' compensation.

Gross written premiums for the Casualty Reinsurance segment (which represents 5.7% of our consolidated gross written premiums in 2022) decreased 53.2% in 2022 reflecting our current strategic focus on downsizing the Casualty Reinsurance third party book, which resulted in the nonrenewal of several treaties in the current year and lower participations on certain renewing treaties. The Casualty Reinsurance segment generally writes large casualty-focused treaties that are expected to have lower volatility relative to property and catastrophe treaties. We rarely write stand-alone property reinsurance. When treaties that include property exposure are written, we utilize property occurrence caps, inuring reinsurance protection and low individual risk limits to minimize exposure.

Net Retention

The ratio of net written premiums to gross written premiums is referred to as our net premium retention. Our net premium retention by segment is as follows:

	Year Ended December 3	
	2022	2021
Excess and Surplus Lines	63.9%	60.1%
Specialty Admitted Insurance	15.6%	17.1%
Casualty Reinsurance	97.4%	87.4%
Total	50.0%	49.4%

The net premium retention for the Excess and Surplus Lines segment increased in 2022 largely driven by the segment's Excess Casualty division, which comprises approximately one-third of the segment's gross written premiums in the years ended December 31, 2022 and 2021. The Excess Casualty division cedes a high percentage of written premiums under a reinsurance treaty and changes in growth rates for this division can impact comparable premium retention ratios for the segment. In the third quarter of 2022, we increased our retention on the reinsurance treaty applicable to the Excess Casualty division. Net retention for the Excess Casualty division was 20.3% in 2022 compared to 14.1% in 2021. In addition, net retention for the segment in 2021 was impacted by \$8.1 million of reinstatement premium in the prior year third quarter which reduced net written premium and the net retention for that year.

The net premium retention for the Specialty Admitted Insurance segment decreased in 2022 primarily due to a lower retention in the fronting business reflecting the mix of business and changes in reinsurance coverage as treaties renew. The net retention on the segment's fronting business was 13.9% and 15.7% in the years ended December 31, 2022 and 2021, respectively. The net retention on the workers' compensation business was 29.8% and 27.3% for the years ended December 31, 2022 and 2021, respectively. The renewal of the workers' compensation quota share treaty on January 1, 2022 resulted in a higher retention for this business.

The Casualty Reinsurance segment previously wrote a retrocessional treaty/fronting arrangement under which 100% of the premiums were ceded. The treaty was nonrenewed for 2022 and higher net retention in the current year reflects adjustments to prior year assumed and ceded written premiums on the treaty.

Segment Results

The following table presents our combined ratios by segment:

	Year Ended December 31,	
	2022	2021
Excess and Surplus Lines	85.1%	125.0%
Specialty Admitted Insurance	94.3%	87.2%
Casualty Reinsurance	104.7%	187.6%
Total	93.5%	136.9%

Results for the Excess and Surplus Lines segment are as follows:

	Year Ended D			
	2022	2021	% Change	
	(\$ in tho	usands)		
Gross written premiums	\$ 921,164	\$ 833,657	10.5%	
Net written premiums	\$ 589,056	\$ 501,250	17.5%	
Net earned premiums	\$ 555,597	\$ 486,000	14.3%	
Losses and loss adjustment expenses	(366,352)	(516,299)	(29.0)%	
Underwriting expenses	(106, 194)	(91,179)	16.5%	
Underwriting profit (loss) ⁽¹⁾	\$ 83,051	\$(121,478)	_	
Ratios:				
Loss ratio	65.9%	106.2%		
Expense ratio	19.2%	18.8%		
Combined ratio	85.1%	125.0%		
Accident year loss ratio	66.0%	67.0%		
Accident year loss ratio ex-cat ⁽²⁾	65.1%	66.0%		

⁽¹⁾ Underwriting Profit (Loss) is a non-GAAP Measure. See "Reconciliation of Non-GAAP Measures."

The Excess and Surplus Lines segment produced an underwriting profit of \$83.1 million and combined ratio of 85.1% for the year ended December 31, 2022 compared to an underwriting loss of \$121.5 million and a combined ratio of 125.0% for the year ended December 31, 2021. The loss ratio of 65.9% for the year ended December 31, 2022 includes \$210,000 of net favorable reserve development (excluding adverse prior year development on the legacy Rasier business and the impact of retroactive reinsurance — see *Commercial Auto Loss Portfolio Transfer* in *Strategic Actions*) in our loss estimates for prior accident years. The loss ratio of 106.2% for the year ended December 31, 2021 included \$190.7 million of net adverse reserve development (39.2 percentage points) in our loss estimates for prior accident years, including \$200.1 million of net adverse reserve development on our commercial auto business that was almost entirely related to the legacy Rasier business that has been in runoff since 2019. We had expected that reported losses on this terminated commercial auto account would decline as the account moved further into runoff, but the continued heavy reported loss emergence in 2021 indicated more inherent severity than anticipated. In response, we meaningfully adjusted our actuarial methodology, resulting in a significant strengthening of reserves for this account.

Current accident year losses in both 2022 and 2021 include \$5.0 million of net catastrophe losses (Hurricane Ian in 2022 and Hurricane Ida in 2021) in our small Excess Property book within the Excess and Surplus Lines segment. The Excess and Surplus Lines segment has a surplus share reinsurance treaty in effect that was specifically designed to cover property risks. The surplus share treaty along with facultative reinsurance helps ensure that our net retained limit per risk will be \$5.0 million or less.

Written and earned premiums for our Excess and Surplus Lines segment grew due to attractive market conditions. Net earned premiums increased \$69.6 million or 14.3% over the prior year, including growth in lines that have meaningful ceding commissions. The segment expense ratio increased slightly over the prior year primarily due to higher compensation related expenses.

⁽²⁾ Accident year loss ratio excluding \$5.0 million of net catastrophe losses related to Hurricane Ian in the year ended December 31, 2022 and \$5.0 million of net catastrophe losses related to Hurricane Ida in the year ended December 31, 2021.

Underwriting results in the prior year were also negatively impacted by \$8.1 million of reinstatement premium, including \$6.4 million triggered by one claim on a 2019 excess of loss treaty in the Excess and Surplus Lines segment. The reinstatement premium reduced net written and net earned premium in the prior year quarter and year to date and increased the underwriting loss.

Specialty Admitted Insurance Segment

Results for the Specialty Admitted Insurance segment are as follows:

	Year Ended I		
	2022	2021	% Change
	(\$ in tho	usands)	
Gross written premiums	\$490,208	\$491,561	(0.3)%
Net written premiums	\$ 76,390	\$ 83,935	(9.0)%
Net earned premiums	\$ 74,137	\$ 75,371	(1.6)%
Losses and loss adjustment expenses	(58,548)	(55,875)	4.8%
Underwriting expenses	(11,355)	(9,829)	15.5%
Underwriting profit ^{(1),(2)}	\$ 4,234	\$ 9,667	(56.2)%
Ratios:			
Loss ratio	79.0%	74.1%	
Expense ratio	15.3%	13.1%	
Combined ratio	94.3%	87.2%	
Accident year loss ratio	84.6%	77.5%	

⁽¹⁾ Underwriting Profit is a non-GAAP Measure. See "Reconciliation of Non-GAAP Measures."

The Specialty Admitted Insurance segment generated underwriting profits of \$4.2 million and \$9.7 million (combined ratios of 94.3% and 87.2%) for the years ended December 31, 2022 and 2021, respectively. The loss ratios of 79.0% and 74.1% for the years ended December 31, 2022 and 2021 include \$4.2 million and \$2.5 million (5.6 and 3.3 percentage points, respectively) of net favorable development on prior accident years. The favorable development in both 2022 and 2021 reflects the fact that actual loss emergence of the workers' compensation book for prior accident years has been better than expected. The higher current accident year loss ratio in 2022 (84.6% compared to 77.5% in the prior year) reflects current actuarial indications and higher loss trends in the business.

The expense ratio of the Specialty Admitted Insurance segment was 15.3% for the year ended December 31, 2022 compared to the prior year ratio of 13.1%, reflecting slightly lower net earned premiums, higher compensation related expenses, and the net impact of commission, tax and assessment accrual adjustments. The segment also benefited from growth in our fronting business which led to a 4.3% increase in fee income.

⁽²⁾ Underwriting profit includes fee income of \$23.6 million and \$22.7 million for the years ended December 31, 2022 and 2021, respectively.

Casualty Reinsurance Segment

Results for the Casualty Reinsurance segment are as follows:

	Year Ended December 31,		
	2022	2021	% Change
	(\$ in thousands)		
Gross written premiums	\$ 85,208	\$ 182,081	(53.2)%
Net written premiums	\$ 83,033	\$ 159,195	(47.8)%
Net earned premiums	\$136,427	\$ 134,223	1.6%
Losses and loss adjustment expenses	(99,823)	(220,178)	(54.7)%
Underwriting expenses	(42,987)	(31,571)	36.2%
Underwriting loss ⁽¹⁾	\$ (6,383)	\$(117,526)	(94.6)%
Ratios:			
Loss ratio	73.2%	164.0%	
Expense ratio	31.5%	23.6%	
Combined ratio	104.7%	187.6%	
Accident year loss ratio	63.3%	61.5%	

⁽¹⁾ Underwriting Loss is a non-GAAP Measure. See "Reconciliation of Non-GAAP Measures."

The Casualty Reinsurance segment produced underwriting losses of \$6.4 million and \$117.5 million (combined ratios of 104.7% and 187.6%) for the years ended December 31, 2022 and 2021, respectively. The loss ratio of 73.2% for the year ended December 31, 2022 includes net adverse reserve development of \$13.4 million or 9.8 points (including \$6.8 million of net adverse reserve development on prior accident years recognized in the three months ended March 31, 2022 associated with the Casualty Re LPT). The loss ratio of 164.0% for the year ended December 31, 2021 includes \$137.6 million, or 102.5 percentage points, of net adverse development in our loss estimates for prior accident years. Actual reported and paid losses in the Casualty Reinsurance segment significantly exceeded expectations in 2021, particularly in the fourth quarter of 2021, causing us to refine some of the assumptions used to determine our best estimate of ultimate losses for this segment. Specifically, we responded to this highly elevated loss emergence by making significant adjustments to our assumed tail factors, other development factors, initial expected loss ratios, and weights given to various actuarial methods. In particular, we gave significantly more weight to incurred loss development methods and Bornhuetter — Ferguson incurred loss development methods than had been done previously. These actuarial refinements resulted in material deterioration in ultimate loss selections for underwriting years 2014 through 2018.

The Casualty Reinsurance segment focuses on proportional reinsurance which requires larger ceding commissions resulting in a higher commission expense than in our other segments. The segment typically structures its reinsurance treaties with loss mitigation features including sliding scale ceding commissions. Net adverse reserve development on treaties with such features reduced our commissions by \$11.8 million (8.8 percentage points) for the year ended December 31, 2021 compared to \$249,000 for the year ended December 31, 2022.

Corporate and Other Segment

Other operating expenses for the Corporate and Other segment include personnel costs associated with the Bermuda and U.S. holding companies, professional fees, and various other corporate expenses that were not reimbursed by our subsidiaries, including costs associated with our internal quota share, rating agencies and strategic initiatives. The expenses are included in our calculation of consolidated underwriting profit, and in our consolidated expense ratio and combined ratio.

Total operating expenses of the Corporate and Other segment were \$31.3 million and \$27.6 million for the years ended December 31, 2022 and 2021, respectively. The higher current year expenses as compared to the prior year were largely driven by higher compensation expenses due to the hiring of additional employees.

Investing Results

Net investment income was \$71.1 million for the year ended December 31, 2022 compared to \$56.9 million in the prior year. The Company's private investments generated income of \$3.4 million and \$2.2 million for the years ended December 31, 2022 and 2021, respectively. Excluding private investments, our net investment income for the year ended December 31, 2022 increased 23.9% over the prior year principally due to higher yields on fixed maturities, bank loan participations, short-term investments, and cash and cash equivalents.

Major categories of the Company's net investment income are summarized as follows:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Fixed maturity securities	\$48,647	\$42,968
Bank loan participations	12,639	10,571
Equity securities	5,680	4,883
Other invested assets:		
Renewable energy investments	4,408	(498)
Other private investments	(1,000)	2,698
	3,408	2,200
Cash, cash equivalents, restricted cash equivalents, and short-term		
investments	4,853	260
Gross investment income	75,227	60,882
Investment expense	(4,116)	(4,017)
Net investment income	\$71,111 	\$56,865
The following table summarizes our investment returns:		
	Year Ended December 31,	
	2022	2021
Annualized gross investment yield on:		
Average cash and invested assets	3.1%	2.4%
Average fixed maturity securities	3.1%	2.7%

Of our total cash and invested assets of \$2,365.5 million at December 31, 2022 (excluding restricted cash equivalents), \$173.2 million represents the cash and cash equivalents portion of the portfolio. The majority of the portfolio, or \$1,783.4 million, is comprised of fixed maturity securities that are classified as available-for-sale and carried at fair value with unrealized gains and losses on these securities reported, net of applicable taxes, as a separate component of accumulated comprehensive income or loss. The fair values of our fixed maturity securities were negatively impacted in 2022 by a heightened inflationary environment and rate actions of the Federal Reserve, which led to higher interest rates and lower fair values of our fixed maturity securities. Unrealized losses on fixed maturities recognized in other comprehensive (loss) income resulted in a \$193.0 million reduction in accumulated other comprehensive (loss) income in the year ended December 31, 2022.

Also included in our investments are \$155.0 million of bank loan participations, \$118.6 million of equity securities, \$107.8 million of short-term investments, and \$27.4 million of other invested assets.

Bank loan participations generally provide a higher yield than our portfolio of fixed maturity securities and are primarily senior, secured floating-rate debt rated "BB", "B", or "CCC" by Standard & Poor's or an equivalent rating from another nationally recognized statistical rating organization, and are therefore below investment grade. Bank loans include assignments of and participations in performing and non-performing senior corporate debt generally acquired through primary bank syndications and in secondary

markets. They consist of, but are not limited to, term loans, the funded and unfunded portions of revolving credit facilities, and similar loans and investments. Bank loan participations are measured at fair value pursuant to the Company's election of the fair value option, and changes in unrealized gains and losses in bank loan participations are reported in our income statement as net realized and unrealized gains (losses) on investments. At December 31, 2022 and 2021, the fair value of these securities was \$155.0 million and \$156.0 million, respectively.

The Company invests selectively in private debt and equity opportunities. These investments comprise the Company's other invested assets and are primarily focused in renewable energy, limited partnerships, and bank holding companies. Equity interests in various renewable energy LLCs generated investment income of \$3.8 million and losses of \$1.4 million for the years ended December 31, 2022 and 2021, respectively. The LLCs are managed by an entity for which two of our former directors serve as officers, and the Company's Non-Executive Chairman has invested in certain of these LLCs. During the fourth quarter of 2022, the underlying projects in two of our LLCs were sold at the manager's discretion. We received proceeds of \$20.2 million, and could receive additional contingent payments in the future according to terms of the transaction. The remaining investments had a carrying value of \$9.2 million at December 31, 2022. Investments in loans for renewable energy projects had investment income of \$607,000 and \$939,000 for the years ended December 31, 2022 and 2021, respectively. During 2022, the Company received principal repayments of \$2.5 million on the notes receivable. These investments had a carrying value of \$2.7 million at December 31, 2022. Two of our former directors are officers of the entities that issued the loans. The Company has invested in several limited partnerships that invest in concentrated portfolios of publicly traded small cap equities, loans of middle market private equity sponsored companies, equity tranches of collateralized loan obligations (CLOs), and tranches of distressed home loans. Investment losses from these partnerships were \$1.3 million in 2022 compared to income of \$2.4 million in 2021. Together, these limited partnerships had a carrying value of \$11.1 million at December 31, 2022. Income from the Company's investments in renewable energy LLCs and limited partnerships is recognized under the equity method of accounting. The Company also holds \$4.5 million of subordinated notes issued by a bank holding company. Interest income from the notes was \$343,000 in each of the years ended December 31, 2022 and 2021. The Company's Non-Executive Chairman was previously the Lead Independent Director of the bank holding company and an investor in the bank holding company.

For the year ended December 31, 2022, the Company recognized net realized and unrealized investment losses of \$28.3 million, including \$275,000 of net realized investment gains on the sale of fixed maturity securities, \$1.2 million of net realized investment losses on the sale of bank loans securities, \$254,000 of net realized investment losses on the sale of equity securities, \$15.9 million of losses for the change in fair value of bank loans, and \$11.2 million of losses for the change in fair value of equity securities.

For the year ended December 31, 2021, the Company recognized net realized and unrealized investment gains of \$15.6 million, including \$4.9 million of net realized investment gains on the sale of fixed maturity securities, \$833,000 of net realized investment losses on the sale of bank loans, \$543,000 of net realized investment losses on the sale of equity securities, \$6.7 million of gains for the change in fair value of bank loans, and \$5.4 million of gains for the change in fair value of equity securities.

In conjunction with its outside investment managers, the Company performs quarterly reviews of all securities within its investment portfolio to determine whether any impairment has occurred.

Management concluded that none of the fixed maturity securities with an unrealized loss at December 31, 2022 or 2021 experienced an other-than-temporary impairment. Management does not intend to sell available-for-sale securities in an unrealized loss position, and it is not "more likely than not" that the Company will be required to sell these securities before a recovery in their value to their amortized cost basis occurs.

At December 31, 2022, our available-for-sale fixed maturity securities had net unrealized losses of \$186.4 million representing 9.5% of the amortized cost of the portfolio. Additionally, at December 31, 2022, 99.8% of our fixed maturity security portfolio was rated "BBB-" or better ("investment grade") by Standard & Poor's or had an equivalent rating from another nationally recognized statistical rating organization. The average duration of our invested assets and cash, excluding restricted cash, was 4.1 years at December 31, 2022.

The amortized cost and fair value of our available-for-sale fixed maturity securities were as follows:

	December 31, 2022			December 31, 2021		
	Cost or Amortized Cost	Fair Value	% of Total Fair Value	Cost or Amortized Cost	Fair Value	% of Total Fair Value
			(\$ in tho	usands)		
Fixed maturity securities, available-for-sale:						
State and municipal	\$ 386,456	\$ 330,852	18.6%	\$ 323,773	\$ 333,717	19.9%
Residential mortgage-backed	437,702	401,249	22.5%	246,586	246,631	14.7%
Corporate	734,976	670,212	37.6%	711,930	732,335	43.7%
Commercial mortgage and asset-backed	335,066	309,015	17.3%	301,247	304,488	18.2%
U.S. Treasury securities and obligations guaranteed by the U.S. government	75,583	72,089	4.0%	60,329	60,390	3.5%
Total fixed maturity securities, available-for-sale	\$1,969,783	\$1,783,417	100.0%	\$1,643,865	\$1,677,561	100.0%

The following table sets forth the composition of the Company's portfolio of fixed maturity securities by rating as of December 31, 2022:

Standard & Poor's or Equivalent Designation	Fair Value	% of Total
	(\$ in th	ousands)
AAA	\$ 393,779	22.1%
AA	735,336	41.2%
A	488,893	27.4%
BBB	162,742	9.1%
Below BBB and unrated	2,667	0.2%
Total	\$1,783,417	100.0%

At December 31, 2022, our portfolio of available-for-sale fixed maturity securities contained corporate fixed maturity securities with a fair value of \$670.2 million. A summary of these securities by industry segment is shown below as of December 31, 2022:

Industry	Fair Value	% of Total
	(\$ in tho	ousands)
Industrials and other	\$141,721	21.1%
Consumer Discretionary	90,202	13.5%
Financial	222,777	33.2%
Health Care	50,771	7.6%
Consumer Staples	57,034	8.5%
Utilities	107,707	16.1%
Total	\$670,212	100.0%

Corporate available-for-sale fixed maturity securities include public traded securities and privately placed bonds as shown below as of December 31, 2022:

Public/Private	Fair Value	% of Total
	(\$ in the	ousands)
Publicly traded	\$593,804	88.6%
Privately placed	76,408	11.4%
Total	\$670,212	100.0%

The amortized cost and fair value of our available-for-sale investments in fixed maturity securities summarized by contractual maturity are as follows:

	December 31, 2022			
	Amortized Cost Fair Value		% of Total Fair Value	
		(\$ in thousands)		
Due in:				
One year or less	\$ 53,202	\$ 52,229	2.9%	
After one year through five years	493,890	468,007	26.2%	
After five years through ten years	366,853	320,871	18.0%	
After ten years	283,070	232,046	13.1%	
	1,197,015	1,073,153	60.2%	
Residential mortgage-backed	437,702	401,249	22.5%	
Commercial mortgage and asset-backed	335,066	309,015	17.3%	
Total	\$1,969,783	\$1,783,417	100.0%	

Other Income and Expense

Other income and expense primarily consists of non-operating expenses of \$6.0 million and \$2.6 million for the years ended December 31, 2022 and 2021, respectively. Non-operating expenses include legal fees related to a purported class action lawsuit, legal and other professional fees related to the Company's May 2021 common share offering, legal and other professional fees and other expenses related to various strategic initiatives including loss portfolio transfers accounted for as retroactive reinsurance, and employee severance costs.

Interest Expense

Interest expense was \$17.6 million and \$8.9 million for the years ended December 31, 2022 and 2021, respectively. Interest expense for the year ended December 31, 2022 includes \$3.7 million of crediting fees on the Funds Withheld Account balance under the Casualty Re LPT. The impact of rising interest rates on our variable rate senior and trust preferred debt also contributed to the higher current year interest expense. See "— Liquidity and Capital Resources — Sources and Uses of Funds" for information regarding our senior debt facilities and trust preferred securities.

Amortization of Intangibles

The Company recorded \$363,000 of amortization of intangibles in each of the years ended December 31, 2022 and 2021.

Goodwill and Impairment

We test goodwill and other intangible assets in each operating segment for impairment at least annually. The fair value of the reporting units is determined by weighting the results of a discounted cash flow analysis and a valuation derived from a market-based approach. Intangible assets are valued using

various methodologies. The projection of future cash flows is dependent upon assumptions on the future levels of income as well as business trends, prospects and market and economic conditions.

We perform this assessment to determine whether there has been any impairment in the value of goodwill or intangible assets by comparing its fair value to the net carrying value of the reporting units. If the carrying value exceeds its estimated fair value, an impairment loss is recognized and the asset is written down accordingly.

The Company completed its impairment tests and fair value analysis for goodwill and other intangible assets during the fourth quarter of 2022 and 2021. No impairment was present for the years ended December 31, 2022 or 2021.

Income Tax Expense

Our effective tax rate fluctuates from period to period based on the relative mix of income reported by country and the respective tax rates imposed by each tax jurisdiction. For the year ended December 31, 2022, our effective tax rate was 37.3%. For the year ended December 31, 2021, we had an effective tax benefit that was 11.9% of our pre-tax loss for the year. Bermuda had losses in both years due to significant adverse development on U.S. commercial auto reserves ceded from the U.S. to Bermuda under the internal quota share reinsurance in 2021 and because of the unprofitable underwriting results at JRG Re and the non-deductible Bermuda holding company expenses in both 2021 and 2022. The Company does not receive a U.S. tax deduction for losses in Bermuda. For U.S.-sourced income, the Company's U.S. federal income tax expense differs from the amounts computed by applying the federal statutory income tax rate to income before taxes due primarily to interest income on tax-advantaged state and municipal securities, dividends received income, and excess tax benefits and expenses on share based compensation.

The Company has a deferred tax asset of \$23.3 million at December 31, 2022 associated with unrealized losses in the Company's available-for-sale fixed maturity securities portfolio. The unrealized losses are attributable to rising market interest rates and other economic factors rather than credit-related factors of the issuers. The Company does not intend to sell available-for-sale debt securities in an unrealized loss position, and it is not "more likely than not" that the Company will be required to sell these securities before a recovery in their fair value to their amortized cost basis occurs. The Company's hold to recovery assertion related to investments in an unrealized loss position is considered a tax planning strategy. Both the cash generated by the Company from operating activities and the unused capacity on the Company's unsecured revolving credit facilities reduce the likelihood of having to sell debt securities in an unrealized loss position. As a result, the Company has concluded that no valuation allowance is required for the deferred tax asset associated with unrealized losses on its investments at December 31, 2022.

Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

For a discussion of our results for the year ended December 31, 2021 as compared to year ended December 31, 2020, please refer to our 2021 Form 10-K filed with the SEC on March 1, 2022.

Liquidity and Capital Resources

Sources and Uses of Funds

Our sources of funds consist primarily of premiums written, investment income, reinsurance recoveries, proceeds from sales and redemptions of investments, borrowings on our credit facilities, and the issuance of common and Series A Preferred Shares. We use operating cash flows primarily to pay operating expenses, losses and loss adjustment expenses, reinsurance premiums, and income taxes. Cash flow from operations may differ substantially from net income. The potential for a large claim under an insurance or reinsurance contract means that substantial and unpredictable payments may need to be made within relatively short periods of time.

The following table summarizes our cash flows:

	Year Ended December 31,			
	2022 2021		2020	
		(in thousands)		
Cash and cash equivalents provided by (used in):				
Operating activities (excluding restricted cash equivalents)	\$ 221,524	\$(155,631)	\$ 65,414	
Investing activities	(328,154)	35,823	(175,991)	
Financing activities	89,671	147,671	65,925	
Change in cash and cash equivalents	(16,959)	27,863	(44,652)	
Change in restricted cash equivalents (operating activities)	1,210	(757,915)	(339,244)	
Change in cash, cash equivalents, and restricted cash equivalents	\$ (15,749)	\$(730,052)	\$(383,896)	

Cash provided by operating activities excluding restricted cash equivalents of \$221.5 million for the year ended December 31, 2022 was driven by the growth in our U.S. segments and the collection of premiums receivable at a quicker rate than payments of loss and loss adjustment expenses. Cash used in operating activities excluding restricted cash equivalents of \$155.6 million for the year ended December 31, 2021 primarily reflects the outflow of funds to effect the Commercial Auto LPT in the third quarter of that year. For the year ended December 31, 2020, cash provided by operations of \$65.4 million was impacted by the run-off of Rasier. There were no associated premiums collected in 2020 for the Rasier policies terminated on December 31, 2019, but claim payments associated with the run-off continued in 2020.

In 2022 and 2020, cash used in investing activities of \$328.2 million and \$176.0 million reflects our efforts to enhance the yield in our investment portfolio by investing available cash and cash equivalents into higher yielding investments. Cash provided by investing activities of \$35.8 million for the year ended December 31, 2021 was primarily due to the investments sold and funds withdrawn from our investment portfolio to effect the Commercial Auto LPT in the third quarter of that year. Cash and cash equivalents (excluding restricted cash equivalents) comprised 7.3%, 8.2%, and 6.9% of total cash and invested assets at December 31, 2022, 2021, and 2020, respectively.

Cash provided by financing activities of \$89.7 million for the year ended December 31, 2022 includes \$144.9 million of net proceeds (after expenses) from the issuance and sale of 150,000 Series A Preferred Shares on March 1, 2022. The proceeds were used for general corporate purposes and to repay \$40.0 million of loans outstanding on the 2017 Facility (as defined below) on March 28, 2022. Financing activities for the year ended December 31, 2022 includes \$6.1 million of dividends paid on the Series A Preferred Shares. Cash provided by financing activities also includes dividends paid to common shareholders of \$7.8 million in 2022, \$43.2 million in 2021, and \$37.1 million in 2020. On May 10, 2021, the Company closed on a public offering of its common shares. The Company received net proceeds (before expenses) of \$192.1 million. The proceeds were used for general corporate purposes. In 2020, net draws on our senior credit facilities of \$104.0 million were used to help support our growth.

As permitted under the agreements establishing the Indemnity Trust and the LPT Trust, we have withdrawn collateral from the Indemnity Trust and the LPT Trust to fund the Loss Fund Trust as required under the Administrative Services Agreement. Amounts on deposit in the Loss Fund Trust are included in restricted cash equivalents on the Company's consolidated balance sheet. See *Amounts Recoverable from an Indemnifying Party and Reinsurer on Legacy Commercial Auto Book* below.

Dividends

We are organized as a Bermuda holding company with our operations conducted by our wholly-owned subsidiaries. Accordingly, our holding company may receive cash through loans from banks, issuance of equity and debt securities, corporate service fees or dividends received from our subsidiaries and/or other transactions. Our U.S. holding company may receive cash in a similar manner and also through payments from our subsidiaries pursuant to our U.S. consolidated tax allocation agreement.

The payment of dividends by our subsidiaries to us is limited by statute. In general, the laws and regulations applicable to our domestic insurance subsidiaries limit the aggregate amount of dividends or other distributions that they may declare or pay within any 12-month period without advance regulatory approval. Generally, the limitations are based on the greater of statutory net income for the preceding year or 10.0% of statutory surplus at the end of the preceding year. In addition, insurance regulators have broad powers to prevent reduction of statutory surplus to inadequate levels and could refuse to permit the payment of dividends calculated under any applicable formula. See Item 1 — "Regulation — U.S. Insurance Regulation — State Regulation" for additional information. The maximum amount of dividends available to the U.S. holding company from our U.S. insurance subsidiaries during 2023 without regulatory approval is \$53.7 million.

The Bermuda Insurance Act of 1978 prohibits an insurer from declaring or paying a dividend if it is in breach of its minimum solvency margin, its enhanced capital requirement, or its minimum liquidity ratio, or if the declaration or payment of such dividend would cause such a breach. An insurer can declare or pay dividends without prior regulatory approval up to 25% of the total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet). See Item 1- "Regulation- Bermuda Insurance Regulation- Restrictions on Dividends and Distributions" for additional information. Based on that calculation, the maximum amount of dividends available to us from JRG Re without regulatory approval in 2023 is calculated to be approximately \$93.9 million. However, any dividend payment is contingent upon continued compliance with Bermuda regulatory requirements, including but not limited to the enhanced solvency requirement calculations.

Holders of the Series A Preferred Shares are entitled to a dividend at the initial rate of 7% of the Liquidation Preference per annum, paid in cash, in-kind in common shares or in Series A Preferred Shares, at our election. On the five-year anniversary of the Closing Date, and each five-year anniversary thereafter, the dividend rate will reset to a rate equal to the five-year U.S. treasury rate plus 5.2%. Dividends accrue and are payable quarterly. During 2022, cash dividends of \$8.8 million were declared, of which \$2.6 million was payable at December 31, 2022.

At December 31, 2022, our Bermuda holding company had \$277,000 of cash and cash equivalent assets. Our U.S. holding company had \$28.1 million of cash and invested assets at December 31, 2022, comprised of cash and cash equivalents of \$15.5 million, short-term investments of \$10.0 million and other invested assets of \$2.6 million, which are not subject to regulatory restrictions. Additionally, our U.K. intermediate holding company had no invested assets and cash of less than \$10,000 at December 31, 2022.

Credit Agreements

The Company has a \$315.0 million senior revolving credit facility (as amended or amended and restated, the "2013 Facility"). The 2013 Facility is comprised of the following at December 31, 2022:

- A \$102.5 million secured revolving facility utilized by JRG Re to issue letters of credit for the benefit
 of third-party reinsureds. This portion of our credit facility is secured by our investment securities.
 At December 31, 2022, the Company had \$44.5 million of letters of credit issued under the secured
 facility.
- A \$212.5 million unsecured revolving facility to meet the working capital needs of the Company. All unpaid principal on the revolver is due at maturity. Interest accrues quarterly and is payable in arrears at 3-month LIBOR plus a margin which at December 31, 2022 was 1.5% and is subject to change according to terms in the credit agreement. At December 31, 2022 and 2021, the Company had a drawn balance of \$185.8 million outstanding on the unsecured revolver.

The 2013 Facility has been amended from time to time since its inception in 2013. On November 8, 2019, the Company entered into a Second Amended and Restated Credit Agreement for the 2013 Facility which, among other things, extended the maturity date of the 2013 Facility until November 8, 2024, increased the amount available under the unsecured revolving credit facility to \$212.5 million, lowered the applicable interest rate and letter of credit fees, and modified certain negative covenants to be less restrictive.

The 2013 Facility contains certain financial and other covenants (including minimum net worth, maximum ratio of total adjusted debt outstanding to total capitalization, and financial strength ratings) with which the Company was in compliance at December 31, 2022.

On August 2, 2017, the Company, and its wholly-owned subsidiary, JRG Re, together as borrowers, entered into a credit agreement (the "2017 Facility") that provides the Company with a revolving line of credit of up to \$100.0 million, which may be used for loans and letters of credit made or issued, at the borrowers' option, on a secured or unsecured basis. Obligations under the 2017 Facility carry a variable rate of interest subject to terms in the credit agreement (LIBOR plus a margin of 1.5% at December 31, 2022) and will mature 30 days after notice of termination from the lender. The 2017 Facility contains certain financial and other covenants with which we are in compliance at December 31, 2022. The loans and letters of credit made or issued under the revolving line of credit of the 2017 Facility may be used to finance the borrowers' general corporate purposes. The 2017 Facility has been amended from time to time since its inception in 2017. On November 8, 2019, the Company entered into a First Amendment to Credit Agreement which, among other things, lowered the applicable interest rate and modified certain negative covenants to be less restrictive. At December 31, 2022, unsecured loans of \$21.5 million and secured letters of credit totaling \$22.9 million were outstanding on the 2017 Facility. During the three months ended March 31, 2022, the Company repaid \$40.0 million of loans that were outstanding under the 2017 Facility.

On May 26, 2004, we issued \$15.0 million of senior debt due April 29, 2034. The senior debt is not redeemable by the holder or subject to sinking fund requirements. Interest accrues quarterly and is payable in arrears at a floating rate per annum equal to the 3-month LIBOR plus 3.85%. This senior debt is redeemable at par prior to its stated maturity at our option in whole or in part. The terms of the senior debt contain certain covenants, with which we are in compliance at December 31, 2022, and which, among other things, restrict our ability to assume senior indebtedness secured by our U.S. holding company's common stock or its subsidiaries' capital stock or to issue shares of its subsidiaries' capital stock.

From May 2004 through January 2008, we sold trust preferred securities through five Delaware statutory trusts sponsored and wholly-owned by the Company or its subsidiaries. Each trust used the net proceeds from the sale of its trust preferred securities to purchase our floating-rate junior subordinated debt.

The following table summarizes the nature and terms of the junior subordinated debt and trust preferred securities outstanding at December 31, 2022 (including the Company's repurchase of a portion of these trust preferred securities):

Franklin

	James River Capital Trust I	James River Capital Trust II	James River Capital Trust III	James River Capital Trust IV	Holdings II (Bermuda) Capital Trust I
			(\$ in thousands	5)	
Issue date	May 26, 2004	December 15, 2004	June 15, 2006	December 11, 2007	January 10, 2008
Principal amount of trust preferred securities	\$7,000	\$15,000	\$20,000	\$54,000	\$30,000
Principal amount of junior subordinated debt	\$7,217	\$15,464	\$20,619	\$55,670	\$30,928
Carrying amount of junior subordinated debt net of repurchases	\$7,217	\$15,464	\$20,619	\$44,827	\$15,928
Maturity date of junior subordinated debt, unless accelerated earlier	May 24, 2034	December 15, 2034	June 15, 2036	December 15, 2037	March 15, 2038
Trust common stock	\$ 217	\$ 464	\$ 619	\$ 1,670	\$ 928
Interest rate, per annum	Three-Month LIBOR plus 4.0%	Three-Month LIBOR plus 3.4%	Three-Month LIBOR plus 3.0%	Three-Month LIBOR plus 3.1%	Three-Month LIBOR plus 4.0%

All of the junior subordinated debt is currently redeemable at 100.0% of the unpaid principal amount at our option.

The junior subordinated debt contains certain covenants with which we are in compliance as of December 31, 2022.

At December 31, 2022 and December 31, 2021, the Company's leverage ratio was 22.9% and 31.1%, respectively. The leverage ratio is defined in our senior credit agreements as the ratio of adjusted consolidated debt to total capital. Adjusted consolidated debt treats trust preferred securities as equity capital up to 15% of total capital. Total capital is defined as total debt plus tangible equity excluding accumulated other comprehensive income. The maximum leverage ratio permitted by the agreements is 35.0%. Having debt as part of our capital structure allows us to generate a higher return on equity and greater book value per share results than we could by using equity capital alone.

Ceded Reinsurance

Our insurance segments enter into reinsurance contracts to limit our exposure to potential losses arising from large risks, to protect against the aggregation of several risks in a common loss occurrence, and to provide additional capacity for growth. Our reinsurance is contracted under excess of loss and quota share reinsurance contracts. In excess of loss reinsurance, the reinsurer agrees to assume all or a portion of the ceding company's losses in excess of a specified amount. The premiums payable to the reinsurer are negotiated by the parties based on their assessment of the amount of risk being ceded to the reinsurer because the reinsurer does not share proportionately in the ceding company's losses. In quota share reinsurance, the reinsurer agrees to assume a specified percentage of the ceding company's losses arising out of a defined class of business in exchange for a corresponding percentage of premiums. For the years ended December 31, 2022, 2021, and 2020 our net premium retention was 50.0%, 49.4% and 51.5%, respectively.

The following is a summary of our Excess and Surplus Lines segment's ceded reinsurance in place as of December 31, 2022:

Line of Business	Company Retention
Casualty	
Primary Specialty Casualty, including Professional Liability	Up to \$1.0 million per occurrence, subject to a \$1.0 million aggregate deductible. (1)
Primary Casualty	Up to \$2.0 million per occurrence. (2)
Excess Casualty	Up to \$2.0 million per occurrence. (3)
Property	Up to \$5.0 million per event. (4)

- (1) Except for Life Sciences quota share carve out, which is up to \$2.0 million per occurrence.
- (2) Total exposure to any one claim is generally \$1.0 million.
- (3) For policies with an occurrence limit up to \$10.0 million, the excess casualty treaty is set such that our retention is no more than \$2.0 million.
- (4) The property catastrophe reinsurance treaty has a limit of \$55.0 million with one reinstatement.

We use catastrophe modeling software to analyze the risk of severe losses from hurricanes and earthquakes on our exposure. We utilize the model in our risk selection, pricing, and to manage our overall portfolio probable maximum loss ("PML") accumulations. A PML is an estimate of the amount we would expect to pay in any one catastrophe event within a given annual probability of occurrence (i.e. a return period or loss exceedance probability).

In our Excess and Surplus Lines segment, we write a small book of excess property insurance, but we do not write primary property insurance. The Excess and Surplus Lines segment has a surplus share reinsurance treaty in effect that was specifically designed to cover property risks. The surplus share treaty along with facultative reinsurance helps ensure that our net retained limit per risk will be \$5.0 million or less.

Based upon the modeling of our Excess and Surplus Lines and Specialty Admitted segments, it would take an event at the 1 in 1000 year PML to exhaust our \$60.0 million property catastrophe reinsurance. In the event of a catastrophe loss exhausting our \$60.0 million property catastrophe reinsurance, we estimate our pre-tax cost would not exceed 2.5% of shareholders' equity, including reinstatement premiums payable and net retentions. In addition to this retention, we would retain any losses in excess of our reinsurance coverage limits.

On September 27, 2021, James River entered into the Commercial Auto LPT with Aleka to reinsure substantially all of the Excess and Surplus Lines segment's legacy portfolio of commercial auto policies previously issued to Rasier. See "Amounts Recoverable from an Indemnifying Party and Reinsurer on the Legacy Commercial Auto Book" below for further information on this reinsurance agreement.

The following is a summary of our Specialty Admitted Insurance segment's ceded reinsurance in place as of December 31, 2022:

Line of Business	Coverage
Casualty	
Workers' Compensation	Quota share coverage for 65.5% of the first \$1.0 million. (1)(2) Excess of loss coverage for \$29.0 million in excess of \$1.0 million. (1)(2)
Auto Programs	Quota share coverage for 62.5-90% of limits up to \$1.5 million liability and \$7.5 million physical damage per occurrence.
General Liability & Professional Liability – Programs	Quota share coverage for 62.5%-100% of limits up to \$3.0 million per occurrence.
Umbrella and Excess Casualty – Programs	Quota share coverage for at least 65% of limits up to \$10.0 million per occurrence, and 75% of excess of loss coverage for \$5.0 million in excess of \$10.0 million.
Property	
Property within Package – Programs	Quota share coverage for 100% of limits up to \$40.0 million per occurrence.
Excess Property	Quota share coverage for 100% of limits up to \$16.9 million.
Catastrophe Coverage	Excess of Loss coverage for \$59.0 million in excess of \$1.0 million per occurrence.
Aviation Programs	Quota share coverage for 80% of limits up to \$20 million liability and \$2.5 million hull per occurrence, each aircraft; and excess of loss coverage for up to \$8.7 million excess of \$300,000 of our 20% share of the quota share each occurrence.

⁽¹⁾ Excluding one program which has quota share coverage for 84% of the first \$1.0 million per occurrence and excess of loss coverage for \$49.0 million in excess of \$1.0 million per occurrence.

Our Specialty Admitted Insurance segment purchases reinsurance for at least 50% of the exposed limits on specialty admitted property-casualty business. The segment enters into reinsurance contracts for the individual risk workers' compensation business as well as fronting and program business. While the segment focuses on casualty business, incidental property risk is incurred in the fronting and program business. The segment is covered for \$59.0 million in excess of \$1.0 million per occurrence to manage its property exposure to an approximate 1 in 1,000 year PML.

In our Casualty Reinsurance segment, we also have limited property catastrophe exposure on treaties in run-off, primarily through auto physical damage coverage. In the aggregate, we believe our pre-tax groupwide PML from a 1 in 1,000 year property catastrophe event would not exceed 2.5% of shareholders' equity, inclusive of reinstatement premiums payable.

On February 23, 2022, JRG Re entered into the Casualty Re LPT with FRL to reinsure the majority of the segment risk, which closed on March 31, 2022. See "Strategic Actions — Loss Portfolio Transfers — Casualty Re Loss Portfolio Transfer" above for further information on this retrocession agreement.

⁽²⁾ Includes any residual market pools.

We also had a contingency clash reinsurance treaty to cover both the Excess and Surplus Lines and Specialty Admitted Insurance segments in the event of a claim incident involving more than one of our insureds in addition to Extra Contractual and Excess Policy Limits protection. The treaty covered \$10.0 million in excess of a \$2.0 million retention for loss occurrences within the treaty term. This coverage was put into runoff effective July 1, 2022. As of December 31, 2022, our average net retained limit per risk is \$2.5 million.

Effective January 1, 2020, we purchased an additional \$10.0 million in claims made coverage for excess policy limits and extra contractual obligations exposures above the clash and contingency treaty for the period 2014 to present. This treaty had one reinstatement and expired on December 31, 2022.

The Company's insurance segments remain liable to policyholders if its reinsurers are unable to meet their contractual obligations under applicable reinsurance agreements. We establish an allowance for credit losses for our current estimate of uncollectible reinsurance recoverables. At December 31, 2022, the allowance for credit losses on reinsurance recoverables was \$612,000. To minimize exposure to significant losses from reinsurance insolvencies, the Company evaluates the financial condition of its reinsurers and monitors concentrations of credit risk. The Company generally seeks to purchase reinsurance from reinsurers with A.M. Best financial strength ratings of "A-" (Excellent) or better. The Company's reinsurance contracts generally require reinsurers that are not authorized as reinsurers under U.S. state insurance regulations or that experience rating downgrades from rating agencies below specified levels to fund their share of the Company's ceded outstanding losses and loss adjustment expense reserves, typically through the use of irrevocable and unconditional letters of credit. In fronting arrangements, which the Company conducts through its Specialty Admitted Insurance segment, we are subject to credit risk with regard to insurance companies who act as reinsurers for us in such arrangements. We customarily require a collateral trust arrangement to secure the obligations of the insurance entity for whom we are fronting.

At December 31, 2022, we had reinsurance recoverables on unpaid losses of \$1,520.1 million (net of a \$612,000 allowance for credit losses) and reinsurance recoverables on paid losses of \$114.2 million, and all material recoverable amounts were from companies with A.M. Best ratings of "A-" (Excellent) or better, or are collateralized by the reinsurer for our benefit through letters of credit or funds on deposit in trust accounts.

The following table sets forth our most significant reinsurers by amount of reinsurance recoverables and the amount of reinsurance recoverables pertaining to each such reinsurer as well as its A.M. Best rating as of December 31, 2022:

Reinsurer	Reinsurance Recoverable as of December 31, 2022	A.M. Best Rating December 31, 2022
	(in thousands)	
Swiss Reinsurance America Corporation	\$ 340,393	A+
Fortitude Re (Casualty Re LPT)	244,657	A
Aleka Insurance Company (Commercial Auto LPT)	132,049	Unrated ⁽¹⁾
Berkley Insurance Company	130,860	A+
Hannover Ruck SE	50,764	A+
Safety National Casualty	46,769	A++
Endurance Assurance Corporation	45,300	A+
American European Insurance Company	38,891	$B^{(2)}$
Munich Reinsurance America	33,699	A+
Aioi Nissay Dowa Insurance Company	25,583	A+
Top 10 Total	1,088,965	
Other	431,148	
Total	\$1,520,113	

⁽¹⁾ This reinsurer is unrated. All material reinsurance amounts from this reinsurer are collateralized.

Amounts Recoverable from an Indemnifying Party and Reinsurer on Legacy Commercial Auto Book

James River previously issued a set of commercial auto insurance contracts to Rasier (the "Rasier Commercial Auto Policies") under which James River pays losses and loss adjustment expenses on the contracts. James River has indemnity agreements with Rasier (non-insurance entities) (collectively, the "Indemnity Agreements") and is contractually entitled to reimbursement for the portion of the losses and loss adjustment expenses paid on behalf of Rasier under the Rasier Commercial Auto Policies and other expenses incurred by James River. On September 27, 2021, James River entered into a loss portfolio transfer reinsurance agreement (the "Commercial Auto LPT") with Aleka to reinsure substantially all of the Rasier Commercial Auto Policies for which James River is not otherwise indemnified by Rasier under the Indemnity Agreements. Under the terms of the Commercial Auto LPT, effective as of July 1, 2021, James River ceded to Aleka approximately \$345.1 million of commercial auto liabilities relating to Rasier Commercial Auto Policies written in the years 2013-2019, which amount constituted the reinsurance premium. For the year ended December 31, 2022, due to adverse paid loss trends on the legacy Rasier business, the Company recognized adverse prior year development of \$46.7 million on the reserves subject to the Commercial Auto LPT, bringing the cumulative amount ceded under the Commercial Auto LPT to \$391.8 million at December 31, 2022.

Each of Rasier and Aleka are required to post collateral under the Indemnity Agreements and the Commercial Auto LPT:

• Pursuant to the Indemnity Agreements, Rasier is required to post collateral equal to 102% of James River's estimate of the amounts that are recoverable or may be recoverable under the indemnity agreements, including, among other things, case loss and loss adjustment expense reserves, IBNR loss and loss adjustment expense reserves, extra contractual obligations and excess policy limits liabilities. The collateral is provided through a collateral trust arrangement (the "Indemnity Trust") in favor of James River by Aleka. In connection with the execution of the Commercial Auto LPT,

⁽²⁾ This reinsurer is below A-. All material reinsurance recoverable amounts from this reinsurer are collateralized.

James River returned \$691.3 million to the Indemnity Trust, representing the remaining balance of the amount withdrawn in October 2019, as was permitted under the indemnification agreements with Rasier and the associated trust agreement. At December 31, 2022, the balance in the Indemnity Trust was \$267.0 million, and, together with the balance of the Loss Fund Trust (as defined below) attributable to the Indemnity Agreements as described below, the total balance of collateral securing Rasier's obligations under the Indemnity Agreements was \$336.2 million.

• Pursuant to the Commercial Auto LPT, Aleka is required to post collateral equal to 102% of James River's estimate of Aleka's obligations under the Commercial Auto LPT, calculated in accordance with standard actuarial principles and based on reserves recorded in our statutory financial statements. The collateral is provided through a collateral trust arrangement (the "LPT Trust") established in favor of James River by Aleka. At December 31, 2022, the balance in the LPT Trust was \$121.9 million, and, together with the balance of the Loss Fund Trust (as defined below) attributable to the Commercial Auto LPT as described below, the total balance of collateral securing Aleka's obligations under the Commercial Auto LPT was \$150.0 million. At December 31, 2022, the total reinsurance recoverables under the Commercial Auto LPT was \$145.2 million (including \$132.0 million of unpaid recoverables and \$13.2 million of paid recoverables).

In connection with the execution of the Commercial Auto LPT, James River and Aleka entered into an administrative services agreement (the "Administrative Services Agreement") with a third party claims administrator (the "Administrator") pursuant to which the Administrator handles the claims on the Rasier Commercial Auto Policies for the remaining life of those claims. The claims paid by the Administrator are reimbursable by James River, and pursuant to the Administrative Services Agreement, James River established a loss fund trust account for the benefit of the Administrator (the "Loss Fund Trust") to collateralize its claims payment reimbursement obligations. James River funds the Loss Fund Trust using funds withdrawn from the Indemnity Trust, funds withdrawn from the LPT Trust, and its own funds, in each case in an amount equal to the pro rata portion of the required Loss Fund Trust balance attributable to the Indemnity Agreements, the Commercial Auto LPT and James River's existing third party reinsurance agreements, respectively. At December 31, 2022, the balance in the Loss Fund Trust was \$103.2 million, including \$69.2 million representing collateral supporting Rasier's obligations under the Indemnity Agreements and \$28.2 million representing collateral supporting Aleka's obligations under the Commercial Auto LPT. Funds posted to the Loss Fund Trust are classified as restricted cash equivalents on the Company's balance sheet.

While the Commercial Auto LPT brings economic finality to substantially all of the Rasier Commercial Auto Policies, the Company has credit exposure to Rasier and Aleka under the Indemnity Agreements and the Commercial Auto LPT if the estimated losses and expenses of the Rasier Commercial Auto Policies grow at a faster pace than the growth in our collateral balances. In addition, we have credit exposure if our estimates of future losses and loss adjustment expenses and other amounts recoverable under the Indemnity Agreements and the Commercial Auto LPT, which are the basis for establishing the collateral balances, are lower than actual amounts paid or payable. The amount of our credit exposure in any of these instances could be material. To mitigate these risks, we closely and frequently monitor our exposure compared to our collateral held, and we request additional collateral in accordance with the terms of the Commercial Auto LPT and Indemnity Agreements when our analysis indicates that we have uncollateralized exposure.

Ratings

The A.M. Best financial strength rating for our group's regulated insurance and reinsurance subsidiaries is "A-" (Excellent) with a stable outlook. This rating reflects A.M. Best's opinion of our insurance and reinsurance subsidiaries' financial strength, operating performance and ability to meet obligations to policyholders and is not an evaluation directed towards the protection of investors. The rating for our operating insurance and reinsurance companies of "A-" (Excellent) is the fourth highest rating of the thirteen ratings issued by A.M. Best and is assigned to insurers that have, in A.M. Best's opinion, an excellent ability to meet their ongoing obligations to policyholders. On March 4, 2021, A.M. Best announced that it reduced the outlook on our regulated insurance subsidiaries to negative from stable on the "A" (Excellent) financial strength rating on such entities following our announcement of \$86.0 million of adverse development on reserves for losses and loss adjustment expenses in the fourth quarter of 2020 principally

related to our commercial auto business in our Excess and Surplus Lines segment. On May 7, 2021, following the Company's announcement of \$168.7 million of further adverse development in the first quarter of 2021 on reserves for losses and loss adjustment expenses in our Excess and Surplus Lines segment, inclusive of \$170.0 million of unfavorable development in our commercial auto business, A.M. Best announced a downgrade of our financial strength rating to "A-" (Excellent) and maintained a negative outlook on our regulated insurance subsidiaries. The Company's outlook was upgraded to stable by A.M. Best in the third quarter of 2021 following the closing of the Commercial Auto LPT which reinsures substantially all of the legacy commercial auto business.

The financial strength ratings assigned by A.M. Best have an impact on the ability of our regulated subsidiaries to attract and retain agents and brokers and on the risk profiles of the submissions for insurance that our subsidiaries receive. We believe the "A-" (Excellent) ratings assigned to our insurance and reinsurance subsidiaries allow our subsidiaries to actively pursue relationships with the agents and brokers identified in their marketing plans.

Series A Preferred Shares

The Company closed on the issuance and sale of 150,000 Series A Preferred Shares on March 1, 2022 for an aggregate purchase price of \$150.0 million, or \$1,000 per share, in a private placement. The Series A Preferred Shares are convertible into the Company's common shares at the option of the holder at any time, or at the Company's option under certain circumstances. Dividends on the Series A Preferred Shares accrue quarterly at the initial rate of 7% of the Liquidation Preference per annum, which may be paid in cash, in-kind in common shares or in Series A Preferred Shares, at the Company's election.

Equity

The Company issued 97,171 common shares in the twelve months ended December 31, 2022 related to vesting of restricted share units ("RSUs"), increasing the total common shares outstanding from 37,373,066 at December 31, 2021 to 37,470,237 at December 31, 2022.

Share Based Compensation Expense

For the years ended December 31, 2022, 2021, and 2020, the Company recognized \$8.1 million, \$6.7 million and \$7.6 million, respectively, of share based compensation expense. As of December 31, 2022, the Company had \$11.2 million of unrecognized share based compensation expense expected to be charged to earnings over a weighted-average period of 1.8 years.

Equity Incentive Plans

Options

The following table summarizes the option activity:

	Year Ended December 31,						
	2022		2021		202	0	
	Shares	Weighted- Average Exercise Price	Shares	Weighted- Average Exercise Price	Shares	Weighted- Average Exercise Price	
Outstanding:							
Beginning of year	287,974	\$35.26	463,324	\$32.25	643,851	\$30.41	
Granted	_	\$ —	_	\$ —	_	\$ —	
Exercised	_	\$ —	(126,798)	\$22.26	(180,527)	\$25.70	
Forfeited	_	\$ —	(48,552)	\$40.42	_	\$ —	
End of year	287,974	\$35.26	287,974	\$35.26	463,324	\$32.25	
Exercisable, end of year	287,974	\$35.26	287,974	\$35.26	463,324	\$32.25	

All of the outstanding options vested over three years and have a contractual life of seven years from the original date of grant.

RSUs

The following table summarizes the RSU activity:

	Year Ended December 31,					
	2022		2021		2020	
	Shares	Weighted- Average Grant Date Fair Value	Shares	Weighted- Average Grant Date Fair Value	Shares	Weighted- Average Grant Date Fair Value
Unvested, beginning of year	292,135	\$45.89	399,856	\$43.59	340,368	\$41.50
Granted	560,680	\$20.61	161,971	\$47.82	272,608	\$45.11
Vested	(147,530)	\$45.16	(194,157)	\$42.74	(165,344)	\$41.49
Forfeited	(39,827)	\$25.41	(75,535)	\$45.98	(47,776)	\$44.57
Unvested, end of year	665,458	\$25.98	292,135	\$45.89	399,856	\$43.59

Outstanding RSUs granted to employees generally vest ratably over a three year vesting period. RSUs granted to non-employee directors have a one year vesting period.

Material Cash Requirements

We believe the cash generating capability of our operations, together with our revolving credit facilities, and ability to raise capital through future equity offerings, will be adequate to meet our short and long-term cash requirements and provide the financial strength necessary to support our business growth.

The following table illustrates our material cash requirements by due date as of December 31, 2022:

	Payments Due by Period				
	Total	2023	2024-2025	2026-2027	Thereafter
			(in thousands)		
Reserve for losses and loss adjustment expenses	\$2,768,995	\$908,204	\$1,280,366	\$380,623	\$199,802
Long-term debt:					
Senior debt	222,300	_	185,800	_	36,500
Junior subordinated debt	104,055	_	_	_	104,055
Operating lease obligations	9,613	3,935	5,181	497	_
Interest on debt obligations	159,458	23,020	31,019	19,696	85,723
Total	\$3,264,421	\$935,159	\$1,502,366	\$400,816	\$426,080

The reserve for losses and loss adjustment expenses represent management's estimate of the ultimate cost of settling losses. As more fully discussed in "— Critical Accounting Policies — Reserves for Losses and Loss Adjustment Expenses" above, the estimation of losses is based on various complex and subjective judgments. Actual losses paid may differ, perhaps significantly, from the reserve estimates reflected in our consolidated financial statements. Similarly, the timing of payment of our estimated losses is not fixed and there may be significant changes in actual payment activity. The assumptions used in estimating the likely payments due by period are based on our historical claims payment experience and industry payment patterns, but due to the inherent uncertainty in the process of estimating the timing of such payments, there is a risk that the amounts paid in any such period can be significantly different from the amounts disclosed above.

The amounts in the above table represent our gross estimates of known liabilities as of December 31, 2022 and do not include any allowance for claims for future events within the time period specified. Accordingly, it is highly likely that the total amounts paid out in the time periods shown will be greater than those indicated in the table.

Interest on debt obligations was calculated using the LIBOR rate as of December 31, 2022 with the assumption that interest rates would remain flat over the remainder of the period that the debt was outstanding.

The Company owns investments in limited partnerships that invest in concentrated portfolios including publicly traded small cap equities, loans of middle market private equity sponsored companies, private equity general partnership interests, commercial mortgage-backed securities, and tranches of distressed home loans. At December 31, 2022, the Company's Excess and Surplus Lines segment has outstanding commitments to invest another \$5.3 million in these limited partnerships.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Underwriting Performance Ratios

The following table provides the underwriting performance ratios of the Company inclusive of the business subject to retroactive reinsurance accounting for loss portfolio transfers. There is no economic impact to the Company over the life of a loss portfolio transfer contract so long as any additional losses subject to the contract are within the limit of the loss portfolio transfer and the counterparty performs under the contract. Retroactive reinsurance accounting is not indicative of our current and ongoing operations. Management believes that providing loss ratios and combined ratios on business not subject to retroactive reinsurance accounting for loss portfolio transfers gives the users of our financial statements useful information in evaluating our current and ongoing operations.

	Years Ended December 31		ber 31,
	2022	2021	2020
Excess and Surplus Lines:			
Loss Ratio	65.9%	106.2%	76.7%
Impact of retroactive reinsurance	2.8%	%	%
Loss Ratio including impact of retroactive reinsurance	68.7%	106.2%	76.7%
Combined Ratio	85.1%	125.0%	97.7%
Impact of retroactive reinsurance	2.8%	%	%
Combined Ratio including impact of retroactive reinsurance			
Casualty Reinsurance:			
Loss Ratio	73.2%	164.0%	88.1%
Impact of retroactive reinsurance	3.2%	%	%
Loss Ratio including impact of retroactive reinsurance	76.4%	164.0%	88.1%
Combined Ratio	104.7%	187.6%	113.7%
Impact of retroactive reinsurance	3.2%	%	%
Combined Ratio including impact of retroactive reinsurance			
Consolidated:			
Loss Ratio	68.5%	113.9%	78.9%
Impact of retroactive reinsurance	2.6%	%	%
Loss Ratio including impact of retroactive reinsurance	71.1%	113.9%	78.9%
Combined Ratio	93.5%	136.9%	105.6%
Impact of retroactive reinsurance			
Combined Ratio including impact of retroactive reinsurance			105.6%

Reconciliation of Non-GAAP Measures

See "Key Metrics" above for description of why management believes the following Non-GAAP measures provide useful information about our financial condition and results of operation.

Reconciliation of Underwriting Profit

We define underwriting profit as net earned premiums and gross fee income (in specific instances when the Company is not retaining insurance risk) less losses and loss adjustment expenses on business not subject to retroactive reinsurance accounting for loss portfolio transfers and other operating expenses. Other operating expenses include the underwriting, acquisition, and insurance expenses of the operating segments and, for consolidated underwriting profit, the expenses of the Corporate and Other segment. Our definition of underwriting profit may not be comparable to that of other companies.

The following table reconciles the underwriting profit (loss) of the operating segments by individual segment to consolidated income (loss) before income taxes for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
		(in thousands)	
Underwriting profit (loss) of the operating segments:			
Excess and Surplus Lines	\$ 83,051	\$(121,478)	\$ 9,752
Specialty Admitted Insurance	4,234	9,667	4,185
Casualty Reinsurance	(6,383)	(117,526)	(18,364)
Total underwriting profit (loss) of the operating segments	80,902	(229,337)	(4,427)
Other operating expenses of the Corporate and Other segment	(31,260)	(27,609)	(29,418)
Underwriting profit (loss) ⁽¹⁾	49,642	(256,946)	(33,845)
Losses and loss adjustment expenses — retroactive reinsurance	(20,091)	_	_
Net investment income	71,111	56,865	73,368
Net realized and unrealized gains (losses) on investments	(28,318)	15,564	(16,030)
Other income	981	353	1,153
Other expenses	(5,997)	(2,585)	(2,138)
Interest expense	(17,578)	(8,922)	(10,033)
Amortization of intangible assets	(363)	(363)	(538)
Income (loss) before income taxes	\$ 49,387	\$(196,034)	\$ 11,937

⁽¹⁾ Underwriting profit (loss) includes gross fee income of \$23.6 million, \$22.7 million, and \$20.9 million for the years ended December 31, 2022, 2021, and 2020, respectively.

Reconciliation of Adjusted Net Operating Income (Loss)

Adjusted net operating income is defined as income available to common shareholders excluding a) the impact of loss portfolio transfers accounted for as retroactive reinsurance, b) net realized and unrealized gains (losses) on investments, c) certain non-operating expenses such as professional service fees related to a purported class action lawsuit, various strategic initiatives, and the filing of registration statements for the offering of securities, and d) severance costs associated with terminated employees. Adjusted net operating income should not be viewed as a substitute for net income calculated in accordance with GAAP, and our definition of adjusted net operating income may not be comparable to that of other companies.

Our income (loss) available to common shareholders for the years ended December 31, 2022, 2021 and 2020 reconciles to our adjusted net operating income (loss) as follows:

	Year Ended December 31,					
	2022		202	21	2020	
	Income Before Taxes	Net Income	Loss Before Taxes	Net Loss	Income Before Taxes	Net Income
			(in thous	ands)		
Income (loss) available to common shareholders	\$40,637	\$22,223	\$(196,034)	\$(172,799)	\$11,937	\$ 4,824
Losses and loss adjustment expenses – retroactive reinsurance	20,091	16,786	_	_	_	_
Net realized and unrealized investment						
losses (gains)	28,318	25,014	(15,564)	(13,292)	16,030	14,840
Other expenses	5,519	5,519	2,214	1,846	1,967	1,554
Adjusted net operating income (loss)	\$94,565	\$69,542	\$(209,384)	\$(184,245)	\$29,934	\$21,218

Tangible Equity and Tangible Equity per Share

Tangible equity is defined as shareholders' equity plus mezzanine Series A Preferred Shares and the unrecognized deferred retroactive reinsurance gain on loss portfolio transfers less goodwill and intangible assets, net of amortization. Tangible equity per share represents tangible equity divided by the sum of total common shares outstanding plus the common shares resulting from an assumed conversion of the outstanding Series A Preferred Shares into common shares (at the current conversion price). Our definitions of tangible equity and tangible equity per share may not be comparable to that of other companies, and they should not be viewed as a substitute for shareholders' equity and shareholders' equity per share calculated in accordance with GAAP.

The following table reconciles shareholders' equity to tangible equity as of December 31, 2022, 2021 and 2020:

	As of December 31,					
	2022		2021		2020	
	Equity	Equity per share	Equity	Equity per share	Equity	Equity per share
		(in t	housands, except p	er share amo	unts)	
Shareholders' equity	\$ 553,766	\$14.78	\$ 725,362	\$19.41	\$ 795,608	\$25.96
Series A redeemable preferred						
shares	144,898				_	
Deferred reinsurance gain	20,091		_		_	
Less:						
Goodwill	181,831		181,831		181,831	
Intangible assets, net	35,676		36,039		36,402	
Tangible equity	\$ 501,248	\$11.63	\$ 507,492	\$13.58	\$ 577,375	\$18.84
Common shares outstanding	37,470,237		37,373,066		30,649,261	
Common shares from assumed conversion of Series A Preferred Shares	5,640,158					
Common shares outstanding after assumed conversion of						
Series A Preferred Shares	43,110,395		37,373,066		30,649,261	

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk of economic losses due to adverse changes in the estimated fair value of a financial instrument as the result of changes in equity prices, interest rates, foreign currency exchange rates and commodity prices. Our consolidated balance sheets include assets and liabilities with estimated fair values that are subject to market risk. Our primary market risks have been interest rate risk associated with investments in fixed maturities and equity price risk associated with investments in equity securities. We do not have material exposure to foreign currency exchange rate risk or commodity risk.

Interest Rate Risk

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

The majority of our investable assets come from premiums paid by policyholders. These funds are invested predominantly in high quality corporate, government and municipal bonds with relatively short durations. Total invested assets and cash, excluding restricted cash, has an average duration of approximately 4.1 years at December 31, 2022, and fixed maturity securities and preferred stock investments in the portfolio have an average rating by at least one nationally recognized rating organization of "AA-". See Note 2 to the Notes to the Audited Consolidated Financial Statements for disclosure of contractual maturity dates of our fixed maturity portfolio. The changes in the estimated fair value of the fixed maturity portfolio classified as available-for-sale are presented as a component of shareholders' equity in accumulated other comprehensive (loss) income, net of taxes.

In 2022, the fair values of our fixed maturity securities were negatively impacted by higher interest rates. For the year ended December 31, 2022, unrealized losses on fixed maturities of \$193.0 million were recognized in other comprehensive loss.

We work to manage the impact of interest rate fluctuations on our fixed maturity and preferred stock portfolio. The effective duration is managed with consideration given to the estimated duration of our liabilities. We have investment guidelines that set targets for average duration and maturity.

Our investment manager employs a model to estimate the effect of interest rate risk on the fair values of our fixed maturity and preferred stock securities and our bank loan participations. Our bank loan participations are primarily floating-rate debt and have limited exposure to interest rate risk with the majority resetting monthly. Therefore, their fair values are less sensitive to changes in interest rates than our fixed maturity and preferred stock securities. The model estimates the impact of interest rate changes on a wide range of factors, including duration and prepayment. Fair values of borrowings are estimated based on the net present value of cash flows, using a representative set of possible future interest rate scenarios. The model requires that numerous assumptions be made about the future. To the extent that any of the assumptions are invalid, incorrect estimates could result. The usefulness of a single point-in-time model is limited, as it is unable to accurately incorporate the full complexity of market interactions.

The following table summarizes our interest rate risk and shows the effect of hypothetical changes in interest rates as of December 31, 2022. The selected hypothetical changes do not indicate what could be the potential best or worst case scenarios.

	As of December 31, 2022				
	Estimated Fair Value	Hypothetical Change in Interest Rates (bp=basis points)	Estimated Fair Value after Hypothetical Change in Interest Rates	Estimated Hypothetical Percentage Increase (Decrease) in Fair Value	
		(\$	s in thousands)		
Total fixed maturity and					
preferred stock investments	\$1,854,248	200 bp decrease	\$2,029,589	9.5%	
		100 bp decrease	1,941,894	4.7%	
		100 bp increase	1,766,651	(4.7)%	
		200 bp increase	1,679,104	(9.4)%	
Bank loan participations	\$ 154,991	200 bp decrease	\$ 154,848	(0.1)%	
		100 bp decrease	154,937		
		100 bp increase	155,008		
		200 bp increase	154,989		
Senior debt and junior					
subordinated debt	\$ 353,212	200 bp decrease	\$ 323,281	(8.5)%	
		100 bp decrease	338,246	(4.2)%	
		100 bp increase	368,177	4.2%	
		200 bp increase	383,142	8.5%	

Equity Price Risk

A portion of our equity securities portfolio is invested in common stocks, which have historically produced higher long-term returns relative to fixed maturities. The changes in the estimated fair value of the common stocks in our equity securities portfolio are recognized in net income.

At December 31, 2022, our common stock investments were concentrated in terms of the number of issuers and industries. Such concentrations can lead to higher levels of price volatility.

The following table summarizes the equity price risk related to common stock and shows the effect of a hypothetical 35% increase or decrease in the fair value of the common stocks in our equity securities portfolio as of December 31, 2022. We believe that this range represents a reasonably likely scenario, as the largest annual increases and decreases in the S&P 500 Index in the past twenty-five years were 31.0% in 1997 and (38.5%) in 2008. The selected hypothetical changes do not indicate what could be the potential best or worst case scenarios.

	As of December 31, 2022		
	Estimated Fair Value	Hypothetical Price Change	Estimated Fair Value after Hypothetical Change in Prices
		(\$ in thousands)
Equity securities – common stock	\$47,796	35% increase	\$64,525
		35% decrease	31,067

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The report of our independent registered public accounting firm and our Consolidated Financial Statements and required Financial Statement Schedules are filed pursuant to this Item 8 and are included later in this report. See Index to Financial Statements and Schedules on page F-1.

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

Not applicable.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to allow timely decisions regarding required disclosure. In connection with the preparation of this Annual Report on Form 10-K, our management carried out an evaluation, under the supervision and with the participation of our CEO and CFO, as of December 31, 2022, of the effectiveness of the design and operation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) and 15d-15(e) under the Exchange Act. Based upon this evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of December 31, 2022.

Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that: pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has conducted an assessment, including testing, of the effectiveness of our internal control over financial reporting as of December 31, 2022. In making its assessment of internal control over financial reporting, management used the criteria in *Internal Control* — *Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, the Company's management has concluded that, as of December 31, 2022, the Company's internal control over financial reporting was effective.

Ernst & Young LLP, the independent registered public accounting firm that audited the Consolidated Financial Statements of the Company included in this Annual Report, has audited the effectiveness of internal control over financial reporting as of December 31, 2022. Their attestation report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2022, is included with our financial statements.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during our quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

The effectiveness of any system of controls and procedures is subject to certain limitations, and, as a result, there can be no assurance that our controls and procedures will detect all errors or fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system will be attained.

Item 9B. OTHER INFORMATION

None.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 may be incorporated by reference to the definitive James River Group Holdings, Ltd. Proxy Statement, or alternatively, disclosed in an amendment to this Annual Report on Form 10-K, in either case to be filed with the SEC not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 11. EXECUTIVE COMPENSATION

The information required by Item 11 may be incorporated by reference to the definitive James River Group Holdings, Ltd. Proxy Statement, or alternatively, disclosed in an amendment to this Annual Report on Form 10-K, in either case to be filed with the SEC not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

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

The information required by Item 12 may be incorporated by reference to the definitive James River Group Holdings, Ltd. Proxy Statement, or alternatively, disclosed in an amendment to this Annual Report on Form 10-K, in either case to be filed with the SEC not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

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

The information required by Item 13 may be incorporated by reference to the definitive James River Group Holdings, Ltd. Proxy Statement, or alternatively, disclosed in an amendment to this Annual Report on Form 10-K, in either case to be filed with the SEC not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by Item 14 may be incorporated by reference to the definitive James River Group Holdings, Ltd. Proxy Statement, or alternatively, disclosed in an amendment to this Annual Report on Form 10-K, in either case to be filed with the SEC not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

PART IV

Item 15. EXHIBIT AND FINANCIAL STATEMENT SCHEDULES

(a) (1) and (2) Financial Statements and Financial Statement Schedules.

See "Index to Financial Statements and Schedules" on Page F-1.

(3) Exhibits

Exhibit Number	Description
3.1	Certificate of Incorporation of James River Group Holdings, Ltd. (incorporated by reference to Exhibit 3.1 of the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 7, 2014)
3.2	Certificate of Incorporation on Change of Name (incorporated by reference to Exhibit 3.2 of the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 7, 2014)
3.3	Memorandum of Association of James River Group Holdings, Ltd. (incorporated by reference to Exhibit 3.3 of the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 7, 2014)
3.4	Certificate of Deposit of Memorandum of Increase of Share Capital, dated December 24, 2007 (incorporated by reference to Exhibit 3.4 of the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 7, 2014)
3.5	Certificate of Deposit of Memorandum of Increase of Share Capital, dated October 7, 2009 (incorporated by reference to Exhibit 3.5 of the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 7, 2014)
3.6	Fourth Amended and Restated Bye-Laws of James River Group Holdings, Ltd.
4.1	Form of Certificate of Common Shares (incorporated by reference to Exhibit 4.1 of Amendment No. 3 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on December 9, 2014)
4.2	Indenture, dated as of May 26, 2004, by and between James River Group, Inc. and Wilmington Trust Company, as Trustee, relating to Floating Rate Senior Debentures Due 2034+
4.3	Indenture, dated as of May 26, 2004, by and between James River Group, Inc. and Wilmington Trust Company, as Trustee, relating to Floating Rate Junior Subordinated Debentures Due 2034+
4.4	Amended and Restated Declaration of Trust of James River Capital Trust I, dated as of May 26, 2004, by and among James River Group, Inc., as Sponsor, Wilmington Trust Company, as Institutional Trustee and Delaware Trustee, the Regular Trustees (as defined therein), and the holders, from time to time, of undivided beneficial interests in James River Capital Trust I+
4.5	Preferred Securities Guarantee Agreement, dated as of May 26, 2004, by James River Group, Inc., as Guarantor, and Wilmington Trust Company, as Preferred Guarantee Trustee, for the benefit of the holders of James River Capital Trust I+
4.6	Indenture, dated as of December 15, 2004, by and between James River Group, Inc. and Wilmington Trust Company, as Trustee, relating to Floating Rate Junior Subordinated Deferrable Interest Debentures Due 2034+
4.7	Amended and Restated Declaration of Trust of James River Capital Trust II, dated as of December 15, 2004, by and among James River Group, Inc., as Sponsor, Wilmington Trust Company, as Institutional Trustee and Delaware Trustee, the Administrators (as defined therein), and the holders, from time to time, of undivided beneficial interests in the James River Capital Trust II+
4.8	Guarantee Agreement, dated as of December 15, 2004, by James River Group, Inc., as Guarantor, and Wilmington Trust Company, as Guarantee Trustee, for the benefit of the holders, from time to time, of the capital securities of James River Capital Trust II+
4.9	Indenture, dated June 15, 2006, by and between James River Group, Inc. and Wilmington Trust Company, as Trustee, relating to Floating Rate Junior Subordinated Deferrable Interest Debentures Due 2036+

Exhibit Number	Description
4.10	Amended and Restated Declaration of Trust of James River Capital Trust III, dated as of June 15, 2006, by and among James River Group, Inc., as Sponsor, Wilmington Trust Company, as Institutional Trustee and Delaware Trustee, the Administrators (as defined therein) and the holders, from time to time, of undivided beneficial interests in the James River Capital Trust III+
4.11	Guarantee Agreement, dated as of June 15, 2006, by James River Group, Inc., as Guarantor, and Wilmington Trust Company, as Guarantee Trustee, for the benefit of the holders, from time to time, of the capital securities of James River Capital Trust III+
4.12	Indenture, dated December 11, 2007, by and between James River Group, Inc. and Wilmington Trust Company, as Trustee, relating to Fixed/Floating Rate Junior Subordinated Deferrable Interest Debentures Due 2037+
4.13	Amended and Restated Declaration of Trust, dated December 11, 2007, by and among James River Group, Inc., as Sponsor, Wilmington Trust Company, as Institutional Trustee and Delaware Trustee and the Administrators (as defined therein) and the holders, from time to time, of undivided beneficial interests in James River Capital Trust IV+
4.14	Guarantee Agreement, dated as of December 11, 2007, by James River Group, Inc., as Guarantor, and Wilmington Trust Company, as Guarantee Trustee, for the benefit of the holders, from time to time, of the capital securities of James River Capital Trust IV+
4.15	Indenture, dated as of January 10, 2008, among James River Group Holdings, Ltd. and Wilmington Trust Company, as Trustee relating to Fixed/Floating Rate Junior Subordinated Deferrable Interest Debentures Due 2038+
4.16	Amended and Restated Declaration of Trust, dated as of January 10, 2008, by and among James River Group Holdings, Ltd., as Sponsor, Wilmington Trust Company, as Institutional Trustee and Delaware Trustee and the Administrators (as defined therein) for the benefit of the holders, from time to time, of undivided beneficial interest in Franklin Holdings II (Bermuda) Capital Trust I+
4.17	Guarantee Agreement, dated as of January 10, 2008, by and among James River Group Holdings, Ltd., as Guarantor, and Wilmington Trust Company, as Guarantee Trustee, for the benefit of the holders, from time to time, of the capital securities of Franklin Holdings II (Bermuda) Capital Trust I+
4.18	Description of Registrant's Securities Registered under Section 12 of the Securities Exchange Act of 1934
10.1	Second Amended and Restated Credit Agreement, dated as of November 8, 2019, by and among James River Group Holdings, Ltd., JRG Reinsurance Company, Ltd., KeyBank National Association as Administrative Agent and Letter of Credit Issuer, KeyBank National Association, SunTrust Robinson Humphrey, Inc., and BMO Capital Markets Corp. as Joint Book Runners and Joint Lead Arrangers, Bank of Montreal and SunTrust Bank as Co-Syndication Agents, and the lender parties thereto (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K filed on November 12, 2019, Commission File No. 001-36777)
10.2	First Amendment to Second Amended and Restated Credit Agreement, dated as of February 18, 2022, by and among James River Group Holdings, Ltd., JRG Reinsurance Company Ltd., KeyBank National Association as Administrative Agent and the lenders party thereto (incorporated by reference to Exhibit 10.2 of the Annual Report on Form 10-K filed on March 1, 2022, Commission File No. 001-36777)
10.3	Second Amendment to Second Amended and Restated Credit Agreement, dated as of January 27, 2023, by and among James River Group Holdings, Ltd., JRG Reinsurance Company Ltd., KeyBank National Association as Administrative Agent and the lenders party thereto

Exhibit Number	Description
10.4	Continuing Guaranty of Payment, dated as of June 5, 2013, by James River Group, Inc., as Guarantor, pursuant to Credit Agreement, dated as of June 5, 2013, among James River Group Holdings, Ltd. and JRG Reinsurance Company Ltd., KeyBank National Association, as Administrative Agent and as Letter of Credit Issuer, and certain Lender parties (incorporated by reference to Exhibit 10.2 of the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 7, 2014)
10.5	Continuing Guaranty of Payment, dated as of December 15, 2015, by James River Group Holdings UK Limited, pursuant to Credit Agreement, dated as of June 5, 2013, among James River Group Holdings, Ltd. and JRG Reinsurance Company Ltd., KeyBank National Association, as Administrative Agent and as Letter of Credit Issuer, and certain Lender parties (incorporated by reference to Exhibit 10.5 to the Annual Report on Form 10-K filed on March 10, 2016, Commission File No. 001-36777)
10.6	Credit Agreement, dated as of August 2, 2017, among James River Group Holdings, Ltd., JRG Reinsurance Company Ltd. and BMO Harris Bank N.A. (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K filed on August 3, 2017, Commission File No. 001-36777)
10.7	First Amendment to Credit Agreement dated as of November 8, 2019 by and among James River Group Holdings, Ltd. and JRG Reinsurance Company Ltd., as the borrowers, and BMO Harris Bank, N.A., as the lender (incorporated by reference to Exhibit 10.2 of the Current Report on Form 8-K filed on November 12, 2019, Commission File No. 001-36777)
10.8	Second Amendment to Credit Agreement dated as of February 18, 2022 by and among James River Group Holdings, Ltd. and JRG Reinsurance Company Ltd. as the borrowers, and BMO Harris Bank N.A., as the lender (incorporated by reference to Exhibit 10.7 of the Annual Report on Form 10-K filed on March 1, 2022, Commission File No. 001-36777)
10.9	Third Amendment to Credit Agreement dated as of January 27, 2023 by and among James River Group Holdings, Ltd. and JRG Reinsurance Company Ltd. as the borrowers, and BMO Harris Bank N.A., as the lender
10.10	Pledge and Security Agreement, dated as of August 2, 2017, by and between JRG Reinsurance Company Ltd., and BMO Harris Bank N.A. (incorporated by reference to Exhibit 10.2 of the Current Report on Form 8-K filed on August 3, 2017, Commission File No. 001-36777)
10.11	Form of Director and Officer Indemnification Agreement (incorporated by reference to Exhibit 10.7 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)
10.12	Amended and Restated James River Group Holdings, Ltd. Equity Incentive Plan (incorporated by reference to Exhibit 10.8 of the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 7, 2014)*
10.13	Form of Stock Option Agreement (Amended and Restated James River Group Holdings, Ltd. Equity Incentive Plan) (incorporated by reference to Exhibit 10.9 of the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 7, 2014)*
10.14	First Amendment to the Amended and Restated James River Group Holdings, Ltd. Equity Incentive Plan (incorporated by reference to Exhibit 10.10 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)*
10.15	James River Group Holdings, Ltd. 2014 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.11 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)*
10.16	Amendment to the James River Group Holdings, Ltd. 2014 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K filed on May 3, 2017, Commission File No. 001-36777)*

Exhibit Number	Description
10.17	Second Amendment to the James River Group Holdings, Ltd. 2014 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on October 26, 2022, Commission File No. 001-36777)*
10.18	Form of Nonqualified Share Option Agreement (James River Group Holdings, Ltd. 2014 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.12 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)*
10.19	Form of Restricted Share Award Agreement (James River Group Holdings, Ltd. 2014 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.13 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)*
10.20	Form of Restricted Share Unit Award Agreement (James River Group Holdings, Ltd. 2014 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.14 of Amendment No. 3 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on December 9, 2014)*
10.21	Form of Performance Restricted Share Unit Agreement
10.22	Form of Service-Based Restricted Share Unit Agreement
10.23	James River Group Holdings, Ltd. Short-Term Incentive Plan
10.24	James River Group Holdings, Ltd. 2014 Non-Employee Director Incentive Plan (incorporated by reference to Exhibit 10.15 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)*
10.25	Amendment to the 2014 Non-Employee Director Incentive Plan (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K filed on May 1, 2019, Commission File No. 001-36777)*
10.26	Form of Restricted Share Award Agreement (James River Group Holdings, Ltd. 2014 Non-Employee Director Incentive Plan) (incorporated by reference to Exhibit 10.16 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)*
10.27	Form of Restricted Share Unit Award Agreement (James River Group Holdings, Ltd., 2014 Non-Employee Director Incentive Plan) (incorporated by reference to Exhibit 10.17 of Amendment No. 3 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on December 9, 2014)*
10.28	James River Management Company, Inc. Leadership Recognition Program (incorporated by reference to Exhibit 10.18 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)*
10.29	Employment Agreement, dated October 28, 2020, by and among Frank N. D'Orazio, James River Group Holdings, Ltd., and its subsidiary, James River Group, Inc. (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on November 2, 2020, Commission File No. 001-36777) *
10.30	Employment Agreement, dated December 19, 2016, by and among James River Group Holdings, Ltd., James River Group, Inc., and Sarah C. Doran (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on December 22, 2016, Commission File No. 001-36777)*
10.31	Amendment to Employment Agreement dated December 19, 2016, between Sarah C. Doran and James River Group Holdings, Ltd., and its subsidiary, James River Group, Inc. (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed on November 8, 2018, Commission File No. 001-36777)*

Exhibit Number	Description
10.32	Amended and Restated Employment Agreement, dated January 15, 2018, by and among James River Group, Inc., certain subsidiaries of James River Group, Inc. and Richard Schmitzer (incorporated by reference to Exhibit 10.22 to Annual Report on Form 10-K filed on March 1, 2018, Commission File No. 001-36777)*
10.33	James River Management Company, Inc. Leadership Recognition Program Award Letter, dated September 30, 2011 to Richard Schmitzer (incorporated by reference to Exhibit 10.22 of Amendment No. 1 to the Registration Statement on Form S-1, Registration No. 333-199958, filed with the Commission on November 24, 2014)*
10.34	Employment Agreement, dated September 17, 2018, by and among James River Group, Inc., certain subsidiaries of James River Group, Inc. and Terry McCafferty, as supplemented by a letter agreement dated October 12, 2018 (incorporated by reference to Exhibit 10.30 to the Annual Report on Form 10-K filed on February 27, 2019, Commission File No. 001-36777)*
10.35	Employment Agreement, dated April 5, 2018, by and among JRG Reinsurance Company, Ltd. and Daniel Heinlein (incorporated by reference to Exhibit 10.31 to the Annual Report on Form 10-K filed on February 27, 2019, Commission File No. 001-36777)*
10.36	Investment Agreement, dated February 24, 2022, by and between James River Group Holdings, Ltd. and GPC Partners Investments (Thames) LP (incorporated by reference to Exhibit 10.1 on the Current Report on Form 8-K filed on February 28, 2022; Commission File No. 001-36777)
10.37	Amendment No. 1 to Investment Agreement, dated March 1, 2022, by and between James River Group Holdings, Ltd. and GPC Partners Investments (Thames) LP (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed on May 10, 2022; Commission File No. 001-36777)
10.38	Certificate of Designations of 7% Series A Perpetual Cumulative Convertible Preferred Shares of James River Group Holdings, Ltd. dated March 1, 2022 (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q filed on May 10, 2022; Commission File No. 001-36777)
10.39	Registration Rights Agreement, dated March 1, 2022, by and between James River Group Holdings, Ltd. and GPC Partners Investments (Thames) LP (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q filed on May 10, 2022; Commission File No. 001-36777)
10.40	Loss Portfolio Transfer Reinsurance Agreement dated September 27, 2021 between James River Insurance Company and James River Casualty Company and Aleka Insurance, Inc. (incorporated by reference to Exhibit 10.1 on the Current Report on Form 8-K filed on September 30, 2021, Commission File No. 001-36777)
10.41	Trust Agreement dated September 27, 2021 among James River Insurance Company and James River Casualty Company, Aleka Insurance, Inc., and Wells Fargo Bank, N.A. (incorporated by reference to Exhibit 10.2 on the Current Report on Form 8-K filed on September 30, 2021, Commission File No. 001-36777)
10.42	Loss Portfolio Transfer Retrocession Agreement entered into on February 23, 2022 by and between JRG Reinsurance Company Ltd. and Fortitude Reinsurance Company Ltd. (incorporated by reference to Exhibit 10.2 on the Current Report on Form 8-K filed on February 28, 2022; Commission File No. 001-36777)
21.1	List of subsidiaries of James River Group Holdings, Ltd.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
31.1	Principal Executive Officer Certification pursuant to Rule 13a-14(a)/15d-14(a)
31.2	Principal Financial Officer Certification pursuant to Rule 13a-14(a)/15d-14(a)
32.1	Principal Executive Officer and Principal Financial Officer Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document

Exhibit Number	Description
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File — the cover page XBRL tags are embedded within the Inline XBRL document in Exhibit 101.

^{*} Denotes a management contract or compensatory plan or arrangement.

Item 16. FORM 10-K SUMMARY

Not applicable.

⁺ Exhibit not filed with the Securities and Exchange Commission pursuant to Item 601(b)(4)(iii) of Regulation S-K. The Company will furnish a copy to the SEC upon request.

SIGNATURES

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

JAMES RIVER GROUP HOLDINGS, LTD.

By: /s/ Frank N. D'Orazio	February 28, 2023
Frank N. D'Orazio	
Chief Executive Officer and Director	

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.

NAME	TITLE	DATE
/s/ Frank N. D'Orazio Frank N. D'Orazio	Chief Executive Officer and Director (Principal Executive Officer)	February 28, 2023
/s/ Sarah C. Doran Sarah C. Doran	Chief Financial Officer (Principal Financial Officer)	February 28, 2023
/s/ Michael E. Crow Michael E. Crow	Principal Accounting Officer	February 28, 2023
/s/ J. Adam Abram J. Adam Abram	Director, Non-Executive Chairman of the Board	February 28, 2023
/s/ Matthew B. Botein Matthew B. Botein	Director	February 28, 2023
/s/ Thomas L. Brown Thomas L. Brown	Director	February 28, 2023
/s/ Kirstin M. Gould Kirstin M. Gould	Director	February 28, 2023
/s/ Peter B. Migliorato Peter B. Migliorato	Director	February 28, 2023
/s/ Michael T. Oakes Michael T. Oakes	Director	February 28, 2023
/s/ Patricia H. Roberts Patricia H. Roberts	Director	February 28, 2023
/s/ Ollie L. Sherman, Jr. Ollie L. Sherman, Jr.	Director	February 28, 2023

JAMES RIVER GROUP HOLDINGS, LTD. AND SUBSIDIARIES

INDEX TO FINANCIAL STATEMENTS AND SCHEDULES

	Page
Report of Independent Registered Public Accounting Firm (PCAOB ID: 42)	F-2
Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting	F-4
Consolidated Balance Sheets as of December 31, 2022 and 2021	F-6
Consolidated Statements of Income (Loss) and Comprehensive (Loss) Income for the Years Ended December 31, 2022, 2021 and 2020	F-8
Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2021, 2020 and 2019	F-9
Consolidated Statements of Cash Flows for the Years Ended December 31, 2022, 2021 and 2020	F-10
Notes to Consolidated Financial Statements for the Years Ended December 31, 2022, 2021 and 2020	F-12
Schedule I Summary of Investments	F-68
Schedule II Condensed Financial Information of Registrant	F-69
Schedule III Supplementary Insurance Information	F-73
Schedule IV Reinsurance	F-74
Schedule V Valuation and Qualifying Accounts	F-75
Schedule VI Supplementary Information Concerning Property Casualty Insurance Operations	F-76

JAMES RIVER GROUP HOLDINGS, LTD. AND SUBSIDIARIES

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of James River Group Holdings, Ltd.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of James River Group Holdings, Ltd. and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of income (loss) and comprehensive (loss) income, changes in shareholders' equity 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(a) (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 28, 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 Matter

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

Valuation of reserves for losses and loss adjustment expenses

Description of the Matter

At December 31, 2022, the Company's reserve for losses and loss adjustment expenses balance was \$2.8 billion. As described in Notes 1 and 7 of the consolidated financial statements, reserves for losses and loss adjustment expenses reflect the estimated ultimate cost of all incurred unpaid claims including estimates of claims incurred but not reported and loss adjustment expenses as of the balance sheet date. The estimate of ultimate losses and loss adjustment expenses relies on key judgments, including the weighting of five actuarial methods by line of business and accident year. Actuarial assumptions include initial expected loss ratios, and incurred and paid loss development factors.

The subjectivity and uncertainty of estimating the reserve for losses and loss adjustment expenses is caused by various factors including the uncertainty of future frequency and severity of claims, economic and social trends including inflation, changes in the business and exposure mix, as well as changes in operations. As such, performing audit procedures to evaluate the reserve for losses and loss adjustment expenses required a high degree of auditor judgment and an increased extent of effort, including the involvement of our actuarial specialists.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of controls related to the valuation of the reserve for losses and loss adjustment expenses. This included testing controls that management has in place over the inputs, methods and assumptions used in estimating the reserve.

To test the reserve for losses and loss adjustment expenses, we evaluated the methods and assumptions used by the Company with the assistance of our actuarial specialists. We compared the Company's prior year assumptions of expected development of ultimate loss to actual losses incurred during the current year to identify potential management bias in the determination of the reserve for losses and loss adjustment expenses. We evaluated management's application of actuarial reserving methods and aforementioned factors, including actuarial assumptions and judgments impacting loss reserves. We independently projected reserves for selected lines of business using actual historical data and loss development patterns, as well as industry data and other benchmarks where applicable, and compared management's recorded reserves to these independent estimates.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2003.

Charlotte, North Carolina February 28, 2023

JAMES RIVER GROUP HOLDINGS, LTD. AND SUBSIDIARIES

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of James River Group Holdings, Ltd.

Opinion on Internal Control over Financial Reporting

We have audited James River Group Holdings, Ltd. 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, James River Group Holdings, Ltd. 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 of the Company as of December 31, 2022 and 2021, the related consolidated statements of income (loss) and comprehensive (loss) income, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and related notes and financial statement schedules listed in the Index at Item 15(a) and our report dated February 28, 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 Annual 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

Charlotte, North Carolina February 28, 2023

JAMES RIVER GROUP HOLDINGS, LTD. AND SUBSIDIARIES

Consolidated Balance Sheets

	December 31,	
	2022	2021
	(in thousands)	
Assets		
Invested assets:		
Fixed maturity securities, available-for-sale, at fair value (amortized cost: 2022 – \$1,969,783; 2021 – \$1,643,865)	\$1,783,417	\$1,677,561
Equity securities, at fair value (cost: 2022 – \$117,169; 2021 – \$95,783)	118,627	108,410
Bank loan participations, at fair value	154,991	156,043
Short-term investments	107,812	136,563
Other invested assets	27,447	51,908
Total invested assets	2,192,294	2,130,485
Cash and cash equivalents	173,164	190,123
Restricted cash equivalents	103,215	102,005
Accrued investment income	14,418	11,037
Premiums receivable and agents' balances, net	340,525	393,967
Reinsurance recoverable on unpaid losses, net	1,520,113	1,348,628
Reinsurance recoverable on paid losses	114,242	82,235
Prepaid reinsurance premiums	274,165	291,498
Deferred policy acquisition costs	59,603	68,526
Intangible assets, net	35,676	36,039
Goodwill	181,831	181,831
Deferred tax assets, net	48,844	26,430
Income taxes receivable	_	3,337
Other assets	78,985	82,409
Total assets	\$5,137,075	\$4,948,550

Consolidated Balance Sheets

	December 31,		
	2022	2021	
	(in thousands, except share amou		
Liabilities and shareholders' equity			
Liabilities:			
Reserve for losses and loss adjustment expenses	\$2,768,995	\$2,748,473	
Unearned premiums	676,016	727,552	
Payables to reinsurers	123,502	135,617	
Funds held	310,953	97,360	
Deferred reinsurance gain	20,091	_	
Senior debt	222,300	262,300	
Junior subordinated debt	104,055	104,055	
Accrued expenses	59,566	57,920	
Income taxes payable	13,900	_	
Other liabilities	139,033	89,911	
Total liabilities	4,438,411	4,223,188	
Commitments and contingent liabilities			
Series A redeemable preferred shares – 2022 and 2021: \$0.00125 par value; 20,000,000 shares authorized; 150,000 and no shares issued and outstanding	144,898	_	
Shareholders' equity:			
Common Shares – \$0.0002 par value; 200,000,000 shares authorized. 2022 and 2021: 37,470,237 and 37,373,066 shares issued and outstanding, respectively	7	7	
Additional paid-in capital	868,858	862,040	
Retained deficit	(152,055)	(166,663)	
Accumulated other comprehensive (loss) income	(163,044)	29,978	
Total shareholders' equity	553,766	725,362	
Total liabilities, Series A redeemable preferred shares, and shareholders'			
equity	\$5,137,075	\$4,948,550	
1 2	=======================================		

Consolidated Statements of Income (Loss) and Comprehensive (Loss) Income

	Year Ended December 31,				
	2022	2021	2020		
	(in thous	ands, except share	amounts)		
Revenues:					
Gross written premiums	\$ 1,496,580	\$ 1,507,299	\$ 1,257,000		
Ceded written premiums	(748,101)	(762,919)	(609,226)		
Net written premiums	748,479	744,380	647,774		
Change in net unearned premiums	17,682	(48,786)	(40,968)		
Net earned premiums	766,161	695,594	606,806		
Net investment income	71,111	56,865	73,368		
Net realized and unrealized (losses) gains on investments	(28,318)	15,564	(16,030)		
Other income	4,742	4,857	4,545		
Total revenues	813,696	772,880	668,689		
Expenses:					
Losses and loss adjustment expenses	544,814	792,352	478,545		
Other operating expenses	195,557	164,692	165,498		
Other expenses	5,997	2,585	2,138		
Interest expense	17,578	8,922	10,033		
Amortization of intangible assets	363	363	538		
Total expenses	764,309	968,914	656,752		
Income (loss) before income taxes	49,387	(196,034)	11,937		
Income tax expense (benefit):					
Current	13,787	(2,835)	11,534		
Deferred	4,627	(20,400)	(4,421)		
	18,414	(23,235)	7,113		
Net income (loss)	30,973	(172,799)	4,824		
Dividends on Series A preferred shares	(8,750)	_			
Net income (loss) available to common shareholders	\$ 22,223	\$ (172,799)	\$ 4,824		
Other comprehensive (loss) income:					
Net unrealized (losses) gains, net of taxes of \$(27,041) in 2022, \$(7,135) in 2021, and \$6,874 in 2020	(193,022)	(51,921)	50,785		
Total comprehensive (loss) income	\$ (162,049)	\$ (224,720)	\$ 55,609		
Net income (loss) per common share:					
Basic	\$ 0.59	\$ (4.94)	\$ 0.16		
Diluted	\$ 0.59	\$ (4.94)	\$ 0.16		
Dividend declared per common share	\$ 0.20	\$ 1.20	\$ 1.20		
Weighted-average common shares outstanding:					
Basic	37,442,856	34,956,957	30,552,210		
Diluted	37,650,969	34,956,957	30,884,416		

Consolidated Statements of Changes in Shareholders' Equity

	Number of Common Shares Outstanding	Common Shares (Par)	Additional Paid-in Capital	Retained (Deficit) Earnings	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
			in thousands, e	xcept share am	ounts)	
Balances at December 31, 2019	30,424,391	\$ 6	\$657,875	\$ 89,586	\$ 31,114	\$ 778,581
Net income	_	_	_	4,824	_	4,824
Other comprehensive income	_	_	_	_	50,785	50,785
Exercise of stock options	113,346	_	1,327	_	_	1,327
Vesting of RSUs	111,524	_	(2,351)	_	_	(2,351)
Compensation expense under share incentive plans	_	_	7,625	_	_	7,625
Dividends on common shares	_	_	_	(37,091)	_	(37,091)
Cumulative effect of fair value option election (see Note 2)	_	_	_	(7,827)	_	(7,827)
Cumulative effect of adoption of ASU No. 2016-13				(265)		(265)
Balances at December 31, 2020	30,649,261	\$ 6	\$664,476	\$ 49,227	\$ 81,899	\$ 795,608
Net loss	_	_	_	(172,799)	_	(172,799)
Other comprehensive loss	_	_	_	_	(51,921)	(51,921)
Issuance of common shares	6,497,500	1	192,106	_	_	192,107
Exercise of stock options	93,446	_	1,671	_	_	1,671
Vesting of RSUs	132,859	_	(2,871)	_	_	(2,871)
Compensation expense under share incentive plans	_	_	6,658	_	_	6,658
Dividends on common shares				(43,091)		(43,091)
Balances at December 31, 2021	37,373,066	\$ 7	\$862,040	\$(166,663)	\$ 29,978	\$ 725,362
Net income	_	_	_	30,973	_	30,973
Other comprehensive loss	_	_	_	_	(193,022)	(193,022)
Vesting of RSUs	97,171	_	(1,304)	_	_	(1,304)
Compensation expense under share incentive plans	_	_	8,122	_	_	8,122
Dividends on Series A preferred shares	_	_	_	(8,750)	_	(8,750)
Dividends on common shares				(7,615)		(7,615)
Balances at December 31, 2022	37,470,237	\$ 7	\$868,858	\$(152,055)	\$(163,044)	\$ 553,766

Consolidated Statements of Cash Flows

2	022	2021	
		2021	2020
		(in thousands)	
Operating activities			
	0,973	\$ (172,799)	\$ 4,824
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Deferred policy acquisition costs	9,648)	(75,236)	(76,525)
Amortization of policy acquisition costs	88,571	69,663	75,578
Net realized and unrealized losses (gains) on investments 2	28,318	(15,564)	16,030
Distributions from equity method investments	4,364	2,434	3,162
Income from equity method investments ((2,458)	(918)	(3,208)
Deferred U.S. federal income tax benefit	4,627	(20,400)	(4,421)
Provision for depreciation and amortization	1,048	4,715	5,019
Share based compensation expense	8,122	6,658	7,625
Excess tax benefits from equity incentive plan transactions	530	(208)	(679)
Change in operating assets and liabilities:			
Reserve for losses and loss adjustment expenses	20,522	556,393	146,574
Unearned premiums	51,536)	97,181	105,994
Premiums receivable and agents' balances	3,442	(46,865)	(115)
Reinsurance balances	6,310	(601,632)	(213,264)
Funds held (6	50,900)	(762,560)	(339,244)
Payable to insurance companies ((2,770)	2,286	(396)
Other	3,219	43,306	(784)
Net cash provided by (used in) operating activities (a)	22,734	(913,546)	(273,830)
Investing activities			
Fixed maturity securities:			
Purchases	9,576)	(362,537)	(573,482)
Sales	6,872	135,913	37,674
Maturities and calls	4,725	296,170	240,322
Equity Securities:			
Purchases	8,801)	(21,845)	(16,713)
Sales	7,214	7,227	6,838
Bank loan participations:			
Purchases	39,450)	(126,369)	(77,965)
Sales	52,042	65,291	135,664
Maturities	2,417	59,799	32,653
Other invested assets:			
Purchases	(150)	(12,394)	(1,937)
Return of capital	20,170	1,758	353
Repayments and redemptions	2,535	3,760	16,292

Consolidated Statements of Cash Flows (continued)

	Year Ended December 31,			
	2022	2021	2020	
		(in thousands)		
Securities receivable or payable, net	(6,684)	1,627	(1,777)	
Short-term investments, net	28,751	(6,274)	26,636	
Purchases of property and equipment	(8,219)	(6,303)	(549)	
Net cash (used in) provided by investing activities	(328,154)	35,823	(175,991)	
Financing activities				
Senior debt issuances	_	_	164,000	
Senior debt repayments	(40,000)	_	(60,000)	
Issuance of Series A preferred shares (Note 11)	144,898	_	_	
Issuances of common shares — public offering	_	192,107	_	
Issuances of common shares under equity incentive plans	_	1,877	2,580	
Common share repurchases	(1,304)	(3,077)	(3,604)	
Dividends on Series A preferred shares	(6,125)	_	_	
Dividends on common shares	(7,798)	(43,236)	(37,051)	
Net cash provided by financing activities	89,671	147,671	65,925	
Change in cash, cash equivalents, and restricted cash equivalents	(15,749)	(730,052)	(383,896)	
Cash, cash equivalents, and restricted cash equivalents at beginning				
of year	292,128	1,022,180	1,406,076	
Cash, cash equivalents, and restricted cash equivalents at end of				
year	\$ 276,379	\$ 292,128	\$1,022,180	
Supplemental information				
U.S. federal income taxes (refunded) paid, net	\$ (3,470)	\$ (3,932)	\$ 17,236	
Interest paid	\$ 17,425	\$ 9,927	\$ 11,305	
Restricted cash equivalents at beginning of year	\$ 102,005	\$ 859,920	\$1,199,164	
Restricted cash equivalents at end of year	103,215	102,005	859,920	
Change in restricted cash equivalents	\$ 1,210	\$ (757,915)	\$ (339,244)	

⁽a) Cash provided by (used in) operating activities for the years ended December 31, 2022, 2021, and 2020 reflects the activity in restricted cash equivalents above. As permitted under the agreements establishing the Indemnity Trust and the LPT Trust, we have withdrawn collateral from the Indemnity Trust and the LPT Trust to fund the Loss Fund Trust as required under the Administrative Services Agreement. Amounts on deposit in the Loss Fund Trust are included in restricted cash equivalents on the Company's consolidated balance sheets. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations — Amounts Recoverable from an Indemnifying Party and Reinsurer on Legacy Commercial Auto Book". Excluding the restricted cash activity above, cash provided by (used in) operating activities was \$221.5 million, \$(155.6) million, and \$65.4 million for the years ended December 31, 2022, 2021, and 2020, respectively. The cash used in operating activities (excluding restricted cash equivalents) in 2021 was largely driven by \$317.6 million paid to effect a loss portfolio transfer reinsurance transaction.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies

Organization

James River Group Holdings, Ltd. (referred to as "JRG Holdings" or, with its subsidiaries, the "Company") is an exempted holding company registered in Bermuda, organized for the purpose of acquiring and managing insurance and reinsurance entities.

The Company owns five insurance companies based in the United States ("U.S.") focused on specialty insurance niches and a Bermuda-based reinsurance company as described below:

- James River Group Holdings UK Limited ("James River UK") is an insurance holding company formed in 2015 in the United Kingdom ("U.K."). The Company contributed James River Group, Inc. ("James River Group"), a U.S. insurance holding company, to James River UK in 2015.
- James River Group is a Delaware domiciled insurance holding company formed in 2002, which owns
 all of the Company's U.S.-based subsidiaries, either directly or indirectly through one of its whollyowned U.S. subsidiaries. James River Group oversees the Company's U.S. insurance operations and
 maintains all of the outstanding debt in the U.S.
- James River Insurance Company ("James River Insurance") is an Ohio domiciled excess and surplus lines insurance company that, with its wholly-owned insurance subsidiary, James River Casualty Company, is authorized to write business in every state and the District of Columbia.
- Falls Lake National Insurance Company ("Falls Lake National") is an Ohio domiciled insurance company which wholly owns Stonewood Insurance Company ("Stonewood Insurance"), a North Carolina domiciled company, and Falls Lake Fire and Casualty Company, a California domiciled company. Falls Lake National primarily writes specialty admitted fronting and program business and individual risk workers' compensation insurance.
- JRG Reinsurance Company Ltd. ("JRG Re") was formed in 2007 and commenced operations in 2008. JRG Re, a Bermuda domiciled reinsurer, primarily provides non-catastrophe casualty reinsurance to U.S. third parties and, through December 31, 2017, to the Company's U.S.-based insurance subsidiaries.

Basis of Presentation and Principles of Consolidation

The consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles ("GAAP"), which vary in some respects from statutory accounting practices ("SAP") which are prescribed or permitted by the various state insurance departments in the U.S. or by insurance regulators in Bermuda. The accompanying consolidated financial statements include the accounts and operations of the Company and its subsidiaries. Intercompany transactions and balances have been eliminated.

Estimates and Assumptions

Preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying disclosures. Those estimates are inherently subject to change, and actual results may ultimately differ from those estimates.

Fixed Maturity and Equity Securities

Fixed maturity securities classified as "available-for-sale" are carried at fair value, and unrealized gains and losses on such securities, net of any deferred taxes, are reported as a separate component of accumulated other comprehensive income. The Company does not have any securities classified as "held-to-maturity" or "trading".

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies (continued)

Fair value generally represents quoted market value prices for securities traded in the public marketplace or prices analytically determined using bid or closing prices for securities not traded in the public marketplace.

Premiums and discounts on mortgage-backed securities and asset-backed securities are amortized or accrued using the constant yield method which considers anticipated prepayments at the date of purchase. To the extent that the estimated lives of such securities change as a result of changes in estimated prepayment rates, the adjustments are included in net investment income using the retrospective method.

Realized investment gains or losses are determined on a specific identification basis. Interest income is recognized as earned, and dividend income is recognized on the ex-dividend date.

The Company adopted ASU 2016-13, *Financial Instruments* — *Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* on January 1, 2020. This update changed the impairment model for available-for-sale fixed maturities and requires the Company to determine whether unrealized losses on available-for-sale fixed maturities are due to credit-related factors. An allowance for credit losses is established for any credit-related impairments, limited to the amount by which fair value is below amortized cost. Changes in the allowance for credit losses are recognized in earnings and included in net realized and unrealized gains (losses) on investments. Unrealized losses that are not credit-related continue to be recognized in other comprehensive income.

The Company considers the extent to which fair value is below amortized cost in determining whether a credit-related loss exists. The Company also considers the credit quality rating of the security, with a special emphasis on securities downgraded below investment grade. A comparison is made between the present value of expected future cash flows for a security and its amortized cost. If the present value of future expected cash flows is less than amortized cost, a credit loss is presumed to exist and an allowance for credit losses is established. Management may conclude that a qualitative analysis is sufficient to support its conclusion that the present value of the expected cash flows equals or exceeds a security's amortized cost.

Bank Loan Participations

Bank loan participations are managed by a specialized outside investment manager. In connection with the adoption of ASU 2016-13, the Company elected the fair value option in accounting for bank loan participations effective January 1, 2020. Under the fair value option, bank loan participations are measured at fair value, and changes in unrealized gains and losses in bank loan participations are reported in our income statement as net realized and unrealized gains (losses) on investments.

Losses due to credit-related impairments on bank loan participations are determined based upon consultations and advice from the Company's specialized investment manager and consideration of any adverse situations that could affect the borrower's ability to repay, the estimated value of underlying collateral, and other relevant factors.

Interest income is accrued on the unpaid principal balance. Discounts and premiums are amortized to income using the interest method.

Generally, the accrual of interest on a bank loan participation is discontinued when the contractual payment of principal or interest has become 90 days past due or management has serious doubts about further collectability of principal or interest. A bank loan participation may remain on accrual status if it is in the process of collection and is either guaranteed or well secured. Interest received on nonaccrual loans generally is reported as investment income. There were no bank loans on nonaccrual status at December 31, 2022 or 2021.

Generally, bank loan participations are restored to accrual status when the obligation is brought current, has performed in accordance with the contractual terms for a reasonable period of time, and the ultimate collectability of the total contractual principal and interest is no longer in doubt.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies (continued)

Other Invested Assets

Other invested assets at December 31, 2022 and 2021 include the Company's interests in private debt and equity investments. The investments are primarily focused in renewable energy, limited partnerships, and bank holding companies. Equity interests in various limited liability companies ("LLCs") and limited partnerships are accounted for under the equity method, as the Company has determined that the equity method best reflects its economic interest in the underlying equity investment.

Short-Term Investments

Short-term investments are carried at amortized cost, which approximates fair value. Short-term investments have maturities greater than three months but less than one year at the date of purchase.

Cash Equivalents

The Company considers highly liquid investments with maturities of three months or less at the date of purchase to be cash equivalents.

Restricted Cash Equivalents

The Company considers highly liquid investments with maturities of three months or less at the date of purchase that are segregated for a specific use to be restricted cash equivalents. Certain restricted cash equivalents invested in funds with floating net asset values are measured at fair value with changes in fair value recognized in net income.

Direct Written Premiums

Direct written premiums are earned on a pro rata basis over the terms of the policies, generally 12 months. The portion of premiums written applicable to the unexpired terms of the policies in force is recorded as unearned premiums. Policies are accounted for on an individual basis, with no aggregation by counterparty.

Assumed Reinsurance Premiums

Assumed reinsurance written premiums include amounts reported by brokers and ceding companies, supplemented by the Company's own estimates of premiums when reports have not been received. Premiums on the Company's excess of loss and pro rata reinsurance contracts are estimated when the business is underwritten. For excess of loss contracts, the deposit premium, as defined in the contract, is generally recorded as an estimate of premiums written at the inception date of the treaty. Estimates of premiums written under pro rata contracts are recorded in the period in which the underlying risks are expected to begin and are based on information provided by the brokers and the ceding companies.

Reinsurance premium estimates are reviewed by management periodically. Any adjustment to these estimates is recorded in the period in which it becomes known.

Reinsurance premiums assumed are earned over the terms of the underlying policies or reinsurance contracts. Contracts and policies written on a "losses occurring" basis cover claims that may occur during the term of the contract or policy, which is typically 12 months. Accordingly, the premium is earned evenly over the term. Contracts which are written on a "risks attaching" basis cover claims which attach to the underlying insurance policies written during the terms of such contracts. Premiums earned on such contracts usually extend beyond the original term of the reinsurance contract, typically resulting in

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies (continued)

recognition of premiums earned over a 24-month period in proportion to the level of underlying exposure. Contracts are accounted for on an individual basis, with no aggregation by counterparty.

Premiums Receivable and Agents' Balances, Net

Premiums receivable and agents' balances are carried at face value net of any allowance for credit losses. The allowance for credit losses represents the current estimate of expected credit losses based on the Company's assessment of the collectability of receivables that are past due, historical collection percentages, and consideration of current economic conditions and expectations of future conditions that could affect ultimate collections. Receivables greater than 90 days past due were \$9.4 million and \$7.5 million at December 31, 2022 and 2021, respectively. The allowance for credit losses was \$16.2 million for the year ended December 31, 2022 and 2021, respectively. Credit loss expense was \$1.1 million for the year ended December 31, 2022, \$9.4 million for the year ended December 31, 2021 (\$7.1 million of which was deducted from amounts due to our reinsurers), and \$3.3 million for the year ended December 31, 2020. Receivables written off against the allowance for credit losses totaled \$1.5 million for the year ended December 31, 2022, \$1.1 million for the year ended December 31, 2021, and \$660,000 for the year ended December 31, 2020. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote.

Deferred Policy Acquisition Costs

Costs which are incrementally or directly related to the successful acquisition of new or renewal insurance business are deferred. These deferred costs are primarily commissions to agents, ceding commissions paid on reinsurance assumed, premium taxes, and the portion of underwriting fixed compensation and payroll related fringe benefits directly related to an insurance contract that has been acquired, net of ceding commissions related to reinsurance ceded. Amortization of such policy acquisition costs is charged to expense in proportion to premium earned over the estimated policy life. To the extent that unearned premiums on existing policies are not adequate to cover projected related costs and expenses, deferred policy acquisition costs are charged to earnings. The Company considers anticipated investment income in determining whether a premium deficiency exists.

Reinsurance and Adjustable Features of Insurance and Reinsurance Contracts

Certain premiums and losses are ceded to other insurance companies or assumed from other insurance companies under various excess of loss and quota-share reinsurance contracts. The Company enters into ceded reinsurance contracts to limit its exposure to large losses, to limit exposure on new lines of insurance written by the Company, and to provide additional capacity for growth.

Premiums, commissions, and losses and loss adjustment expenses on reinsured business are accounted for on a basis consistent with that used in accounting for the original policies issued and the terms of the reinsurance contracts. Reinsurance recoverables and prepaid reinsurance premiums are reported as assets. The Company uses a provision matrix to calculate the allowance for credit losses on reinsurance recoverables by applying impairment rates based on historical loss data to similarly rated reinsurance companies based on the expected duration of the receivables. The Company also considers the expected impact of current and future expected economic conditions and adjusts estimates if needed based on an evaluation of these factors. The allowance for credit losses on reinsurance recoverables at December 31, 2022 and 2021 was \$612,000 and \$631,000, respectively. Other amounts payable to insurance companies and reinsurers or receivable from insurance companies and reinsurers are netted where the right of offset exists. The Company receives ceding commissions in connection with certain ceded reinsurance. The ceding commissions are recorded as a reduction of other operating expenses.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies (continued)

Certain reinsurance contracts include provisions that adjust premiums or acquisition expenses based upon the loss experience under the contracts. Premiums written and earned, as well as related acquisition expenses are recorded based upon the projected loss experience under the contracts.

The Company's Specialty Admitted Insurance segment writes insurance under specialty admitted fronting and program arrangements. The fronting and program arrangements may contain contractual provisions that adjust acquisition expenses based upon loss experience under the contracts. The specialty admitted fronting and program arrangements are significantly reinsured. These reinsurance contracts may also contain provisions that adjust premiums or acquisition expenses based upon the loss experience under the contracts. Premiums written and earned, as well as related acquisition expenses, are recorded based upon the projected loss experience under the contracts.

Other Income

Other income is principally comprised of fee income earned on policies for which the Company has no exposure to underwriting risk. Fee income of \$3.8 million, \$4.5 million, and \$3.4 million is included in other income for the years ended December 31, 2022, 2021, and 2020, respectively. Fees are earned on a pro rata basis over the service period of the underlying business. Policies are accounted for on an individual basis, with no aggregation by counterparty.

Income Taxes

Deferred tax assets and deferred tax liabilities are provided for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of assets and liabilities and their respective U.S. tax basis. Deferred tax assets and liabilities are measured using enacted U.S. corporate tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Deferred tax assets are reduced by a valuation allowance only when management believes it is more likely than not that some, or all, of the deferred tax assets will not be realized. The Company determined that no valuation allowance was necessary at December 31, 2022 or 2021.

Goodwill

Goodwill is tested annually for impairment in the fourth quarter of each calendar year, or more frequently if events or changes in circumstances indicate that the carrying amount of the Company's reporting units, including goodwill, may exceed their fair values. The Company first assesses qualitative factors in determining whether it is necessary to perform the quantitative goodwill impairment test. If management determines that it is more likely than not that the fair value of a reporting unit is less than the carrying value based on qualitative factors then they will perform the quantitative goodwill impairment test. For the quantitative goodwill impairment testing, the fair value of the reporting units is determined using a combination of a market approach and an income approach which projects the future cash flows produced by the reporting units and discounts those cash flows to their present value. The projection of future cash flows is necessarily dependent upon assumptions on the future levels of income as well as business trends, prospects, market, and economic conditions. The results of the two approaches are weighted to determine the fair value of each reporting unit. When the fair value is less than the carrying value of the net assets of the reporting unit, including goodwill, an impairment loss is charged to operations. To determine the amount of any goodwill impairment, the implied fair value of reporting unit goodwill is compared to the carrying amount of that goodwill. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination is determined. That is, the fair value of a reporting unit is assigned to all of the assets and liabilities of that unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination. The excess of the fair value of a reporting unit over the amounts assigned to its assets and liabilities is the implied fair value of goodwill.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies (continued)

Intangible Assets, Net

Intangible assets are initially recognized and measured at fair value. Specifically identified intangible assets with indefinite lives include trademarks and state insurance licenses and authorities. Other specifically identified intangible assets with lives ranging from 7.0 to 27.5 years represent relationships with brokers. These intangible assets are amortized on a straight-line basis over their estimated useful lives.

Intangible assets with indefinite useful lives are reviewed for impairment at least annually. In evaluating whether there has been impairment to the intangible asset, management determines the fair value of the intangible asset and compares the resulting fair value to the carrying value of the intangible asset. If the carrying value exceeds the fair value, the intangible asset is written down to fair value, and the impairment is reported through earnings. The Company evaluates intangible assets with definite lives for impairment when impairment indicators are noted.

Impairment of Long-Lived Assets

Long-lived assets with finite lives are tested for impairment whenever recognized events or changes in circumstances indicate the carrying value of these assets may not be recoverable. If indicators of impairment are present, fair value is calculated using estimated future cash flows expected to be generated from the use of those assets. An impairment loss is recognized only if the carrying amount of a long-lived asset or asset group is not recoverable and exceeds its fair value. The carrying amount of a long-lived asset or asset group is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset or asset group. That assessment is based on the carrying amount of the asset or asset group at the date it is tested for recoverability. An impairment loss is measured as the amount by which the carrying amount of a long-lived asset or asset group exceeds its fair value.

Property and Equipment, Net

Property and equipment, which is included in "other assets" in the accompanying consolidated balance sheets, is reported at cost less accumulated depreciation and is depreciated principally on a straight-line basis over the estimated useful lives of the depreciable assets, generally three years to ten years.

Reserve for Losses and Loss Adjustment Expenses

The reserve for losses and loss adjustment expenses represents the estimated ultimate cost of all reported and unreported losses and loss adjustment expenses incurred and unpaid at the balance sheet date. The Company does not discount this reserve. The process of estimating the reserve for losses and loss adjustment expenses requires a high degree of judgment and is subject to a number of variables. The reserve for losses and loss adjustment expenses is estimated using individual case-basis valuations and statistical analyses. Those estimates are subject to the effects of trends in loss severity and frequency.

The Company utilizes various actuarially-accepted reserving methodologies in determining the continuum of expected outcomes for its reserves. These methodologies utilize various inputs, including management's initial expected loss ratio (the ratio of losses and loss adjustment expenses incurred to net earned premiums), expected reporting patterns and payment patterns for losses and loss adjustment expenses (based on insurance industry data and the Company's own experience), and the Company's actual paid and reported losses and loss adjustment expenses. An internal actuary reviews these results and (after applying appropriate professional judgment and other actuarial techniques that are considered necessary) presents recommendations to the Company's management. Management uses this information and its judgment to make decisions on the final recorded reserve for losses and loss adjustment expenses. Management believes that the use of judgment is necessary to arrive at a best estimate for the reserve for losses and loss adjustment expenses given the long-tailed nature of the business generally written by the Company and the

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies (continued)

limited operating experience of the Casualty Reinsurance segment, the fronting and program business in the Specialty Admitted Insurance segment, and the commercial auto business in the Excess and Surplus Lines segment. Judgment is also required to make actuarial adjustments, if needed, for changes in claims processing and case reserving that could cause current reported loss and paid loss development patterns to deviate from historical patterns. The Company believes that the insurance that it writes is subject to above-average variation in reserve estimates. The Excess and Surplus Lines market is subject to high policyholder turnover and changes in underlying mix of exposures. This turnover and change in underlying mix of exposures can cause actuarial estimates based on prior experience to be less reliable than estimates for more stable, admitted books of business.

Catastrophes of significant magnitude, including hurricanes and earthquakes, involve complex coverage issues. In estimating the reserve for losses and loss adjustment expenses for these catastrophes, management uses case reserve estimates based on information obtained from site inspections by the Company's adjustors and the terms of coverage provided in the policies. Management estimates reserves for incurred but not reported claims for these catastrophes using judgment based on an assessment of the Company's property insurance exposures where the catastrophes occur and the Company's progress in settling claims.

Although management believes that the reserve for losses and loss adjustment expenses is reasonable, it is possible that the Company's actual incurred losses and loss adjustment expenses will not develop in a manner consistent with the assumptions inherent in the determination of these reserves. Specifically, the Company's actual ultimate loss ratio could differ from management's initial expected loss ratio and/or the Company's actual reporting patterns for losses could differ from the expected reporting patterns. Accordingly, the ultimate settlement of losses and the related loss adjustment expenses may vary significantly from the estimates included in the Company's consolidated financial statements. These estimates are reviewed continually by management and are adjusted as necessary as experience develops or new information becomes known; such adjustments are included in current operations.

Share Based Compensation

The Company expenses the fair value of share equity awards over the vesting period of the award on a straight-line basis. The Black-Scholes-Merton option pricing model is used to value the options granted (see Note 13). Forfeitures of share-based awards are recognized as they occur. As the share based compensation expense is incurred, a corresponding increase to additional paid-in capital in shareholders' equity is recognized. Share based compensation expense is reflected in "other operating expenses" in the accompanying consolidated statements of income (loss) and comprehensive (loss) income.

Variable Interest Entities

Entities that do not have sufficient equity at risk to allow the entity to finance its activities without additional financial support or in which the equity investors, as a group, do not have the characteristic of a controlling financial interest are referred to as variable interest entities ("VIE"). A VIE is consolidated by the variable interest holder that is determined to have the controlling financial interest (primary beneficiary) as a result of having both the power to direct the activities of a VIE that most significantly impact the VIE's economic performance and the obligation to absorb losses or right to receive benefits from the VIE that could potentially be significant to the VIE. The Company determines whether it is the primary beneficiary of an entity subject to consolidation based on a qualitative assessment of the VIE's capital structure, contractual terms, nature of the VIE's operations and purpose, and the Company's relative exposure to the related risks of the VIE on the date it becomes initially involved in the VIE. The Company reassesses its VIE determination with respect to an entity on an ongoing basis.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies (continued)

The Company holds interests in VIEs through certain equity method investments included in "other invested assets" in the accompanying consolidated balance sheets. The Company has determined that it should not consolidate any of the VIEs as it is not the primary beneficiary in any of the relationships. Although the investments resulted in the Company holding variable interests in the entities, they did not empower the Company to direct the activities that most significantly impact the economic performance of the entities. The Company's investments related to these VIEs totaled \$9.2 million and \$26.9 million as of December 31, 2022 and 2021, respectively, representing the Company's maximum exposure to loss.

Earnings (Loss) Per Share

Basic earnings (loss) per share excludes dilution and is computed by dividing net income (loss) by the weighted-average number of common shares outstanding for the period. Diluted earnings (loss) per share reflects the dilution that could occur if securities or other contracts to issue common shares were exercised or converted into common shares as calculated using the treasury stock method. When inclusion of potential common shares increases the earnings per share or reduces the loss per share, the effect on earnings is anti-dilutive, and the diluted net earnings or net loss per share is computed excluding these potential common shares.

The following represents a reconciliation of the numerator and denominator of the basic and diluted earnings (loss) per common share computations contained in the consolidated financial statements.

	Year Ended December 31,						
	2022		2022 2021			2020	
	(in thousands, except share and per sha				share	hare amounts)	
Net income (loss)	\$	30,973	\$	(172,799)	\$	4,824	
Less: Dividends on Series A preferred shares		(8,750)		_			
Net income (loss) available to common shareholders	\$	22,223	\$	(172,799)	\$	4,824	
Weighted average common shares outstanding:							
Basic	37	,442,856	3	4,956,957	30	,552,210	
Dilutive potential common shares		208,113			332,200		
Diluted	_37	7,650,969	34,956,957		30,884,416		
Net income (loss) per common share:							
Basic	\$	0.59	\$	(4.94)	\$	0.16	
Dilutive potential common shares		_		_		_	
Diluted	\$	0.59	\$	(4.94)	\$	0.16	

For the years ended December 31, 2022 and 2021, potential common shares of 4,728,461 and 175,360, respectively, were excluded from the calculation of diluted earnings (loss) per common share as their effects were anti-dilutive. For the year ended December 31, 2020, all potential common shares were dilutive.

Adopted Accounting Standards

In August 2020, the FASB issued ASU 2020-06, Debt — Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40), Accounting for Convertible Instruments and Contracts in an Entity's Own Equity. ASU 2020-06 simplifies the accounting for convertible debt instruments and convertible preferred stock and became effective for interim and annual periods beginning after December 15, 2021. The Company adopted the new standard

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

1. Accounting Policies (continued)

concurrent with the issuance of our 7% Series A Perpetual Cumulative Convertible Preferred Shares, par value \$0.00125 per share, on March 1, 2022. Under ASU 2020-06, embedded conversion features are no longer separated from the host contract for convertible instruments with conversion features that are not required to be accounted for as derivatives under Topic 815, or that do not result in substantial premiums accounted for as paid-in capital. The new guidance also requires entities to use the if-converted method for all convertible instruments in the diluted earnings per share calculation and generally requires them to include the effect of potential share settlement for instruments that may be settled in cash or shares. Adoption of the new standard did not materially impact our financial position, results of operations, or earnings per share for the year ended December 31, 2022.

Prospective Accounting Standards

There are no prospective accounting standards which are expected to have a material impact on our financial statements subsequent to December 31, 2022.

2. Investments

The Company's available-for-sale fixed maturity securities are summarized as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(in the		
December 31, 2022				
Fixed maturity securities:				
State and municipal	\$ 386,456	\$ 712	\$ (56,316)	\$ 330,852
Residential mortgage-backed	437,702	801	(37,254)	401,249
Corporate	734,976	1,528	(66,292)	670,212
Commercial mortgage and asset-backed	335,066	76	(26,127)	309,015
U.S. Treasury securities and obligations guaranteed by the U.S. government	75,583	8	(3,502)	72,089
Total fixed maturity securities, available-for-sale	\$1,969,783	\$ 3,125	\$(189,491)	\$1,783,417
December 31, 2021				
Fixed maturity securities:				
State and municipal	\$ 323,773	\$12,156	\$ (2,212)	\$ 333,717
Residential mortgage-backed	246,586	2,384	(2,339)	246,631
Corporate	711,930	26,119	(5,714)	732,335
Commercial mortgage and asset-backed	301,247	4,941	(1,700)	304,488
U.S. Treasury securities and obligations guaranteed by the U.S. government	60,329	653	(592)	60,390
Total fixed maturity securities, available-for-sale	\$1,643,865	\$46,253	\$ (12,557) ===================================	\$1,677,561

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

2. Investments (continued)

The amortized cost and fair value of available-for-sale investments in fixed maturity securities at December 31, 2022 are summarized, by contractual maturity, as follows:

	Cost or Amortized Cost			Fair Value
		(in tho	usan	ds)
One year or less	\$	53,202	\$	52,229
After one year through five years		493,890		468,007
After five years through ten years		366,853		320,871
After ten years		283,070		232,046
Residential mortgage-backed		437,702		401,249
Commercial mortgage and asset-backed		335,066		309,015
Total	\$1	,969,783	\$1	,783,417

Actual maturities may differ for some securities because borrowers have the right to call or prepay obligations with or without penalties.

The following table shows the Company's gross unrealized losses and fair value for available-for-sale securities aggregated by investment category and the length of time that individual securities have been in a continuous unrealized loss position:

_	Less Than 1	12 Months	12 Month	s or More	Total		
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	
			(in thou	usands)			
December 31, 2022							
Fixed maturity securities:							
State and municipal	241,586	\$ (34,840)	\$ 72,805	\$(21,476) \$	314,391	\$ (56,316)	
Residential mortgage-backed	225,870	(18,823)	98,594	(18,431)	324,464	(37,254)	
Corporate	412,942	(33,417)	167,541	(32,875)	580,483	(66,292)	
Commercial mortgage and asset-							
backed	184,985	(12,829)	114,955	(13,298)	299,940	(26,127)	
U.S. Treasury securities and							
obligations guaranteed by the							
U.S. government	47,106	(1,699)	21,808	(1,803)	68,914	(3,502)	
Total fixed maturity securities,							
available-for-sale	51,112,489	\$(101,608)	\$475,703	\$(87,883) \$	1,588,192	\$(189,491)	
December 31, 2021							
Fixed maturity securities:							
State and municipal	93,313	\$ (2,162)	\$ 1,150	\$ (50)\$	94,463	\$ (2,212)	
Residential mortgage-backed	140,386	(2,337)	147	(2)	140,533	(2,339)	
Corporate	179,078	(4,232)	18,635	(1,482)	197,713	(5,714)	
Commercial mortgage and asset-							
backed	159,289	(1,695)	1,229	(5)	160,518	(1,700)	
U.S. Treasury securities and							
obligations guaranteed by the							
U.S. government	24,378	(592)	_		24,378	(592)	
Total fixed maturity securities, available-							
for-sale	5 596,444	\$ (11,018)	\$ 21,161	\$ (1,539) \$	617,605	<u>\$ (12,557)</u>	

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

2. Investments (continued)

At December 31, 2022, the Company held fixed maturity securities of 560 issuers that were in an unrealized loss position with a total fair value of \$1,588.2 million and gross unrealized losses of \$189.5 million. None of the fixed maturity securities with unrealized losses has ever missed, or been delinquent on, a scheduled principal or interest payment. At December 31, 2022, 99.8% of the Company's fixed maturity security portfolio was rated "BBB-" or better ("investment grade") by Standard & Poor's or received an equivalent rating from another nationally recognized rating agency. Fixed maturity securities with ratings below investment grade by Standard & Poor's or another nationally recognized rating agency at December 31, 2022 had an aggregate fair value of \$2.7 million and an aggregate net unrealized loss of \$221,000.

The Company adopted ASU 2016-13, *Financial Instruments* — *Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* on January 1, 2020. This update changed the impairment model for available-for-sale fixed maturities and requires the Company to determine whether unrealized losses on available-for-sale fixed maturities are due to credit-related factors. An allowance for credit losses is established for any credit-related impairments, limited to the amount by which fair value is below amortized cost. Changes in the allowance for credit losses are recognized in earnings and included in net realized and unrealized gains (losses) on investments. Unrealized losses that are not credit-related continue to be recognized in other comprehensive income.

The Company considers the extent to which fair value is below amortized cost in determining whether a credit-related loss exists. The Company also considers the credit quality rating of the security, with a special emphasis on securities downgraded below investment grade. A comparison is made between the present value of expected future cash flows for a security and its amortized cost. If the present value of future expected cash flows is less than amortized cost, a credit loss is presumed to exist and an allowance for credit losses is established. Management may conclude that a qualitative analysis is sufficient to support its conclusion that the present value of expected cash flows equals or exceeds a security's amortized cost. As a result of this review, management concluded that there were no credit-related impairments of fixed maturities at December 31, 2022, 2021, or 2020. Management does not intend to sell the securities in an unrealized loss position, and it is not "more likely than not" that the Company will be required to sell these securities before a recovery in their value to their amortized cost basis occurs.

In connection with the adoption of ASU 2016-13, the Company elected the fair value option in accounting for bank loan participations effective January 1, 2020. The targeted transition relief offered by ASU 2019-05, *Financial Instruments* — *Credit Losses (Topic 326): Targeted Transition Relief* was applied to elect the fair value option to account for bank loan participations already held at the January 1, 2020 date of adoption. Under the fair value option, bank loan participations are measured at fair value, and changes in unrealized gains and losses in bank loan participations are reported in our income statement as net realized and unrealized gains (losses) on investments. At adoption on January 1, 2020, the Company applied the amendments on a modified retrospective basis, reducing the carrying value of its bank loan portfolio to fair value through an \$8.4 million adjustment with a \$7.8 million (net of tax) cumulative effect adjustment to reduce retained earnings.

Applying the fair value option to the bank loan portfolio increases volatility in the Company's financial statements, but management believes it is less subjective and less burdensome to implement and maintain than ASU 2016-13, which would have otherwise been required. At December 31, 2022, the Company's bank loan portfolio had an aggregate unpaid principal balance of \$175.7 million and an aggregate fair value of \$155.0 million. Investment income on bank loan participations included in net investment income was \$12.6 million, \$10.6 million, \$12.2 million during the years ended December 31, 2022, 2021, and 2020 respectively. Net realized and unrealized (losses) gains on investments includes losses of \$15.9 million and gains of \$6.7 million and \$1.3 million related to changes in unrealized gains and losses on bank loan participations for the years ended December 31, 2022, 2021, and 2020, respectively. For the year ended

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

2. Investments (continued)

December 31, 2022, management concluded that \$1.5 million of the unrealized losses were due to credit-related impairments. Management concluded that none of the unrealized losses were due to credit-related impairments for the year ended December 31, 2021. For the year ended December 31, 2020, management concluded that \$8.3 million of the unrealized losses were due to credit-related impairments. Losses due to credit-related impairments were determined based upon consultations and advice from the Company's specialized investment manager and consideration of any adverse situations that could affect the borrower's ability to repay, the estimated value of underlying collateral, and other relevant factors.

Bank loan participations generally have a credit rating that is below investment grade (i.e. below "BBB-" for Standard & Poor's) at the date of purchase. These bank loans are primarily senior, secured floating-rate debt rated "BB", "B", or "CCC" by Standard & Poor's or an equivalent rating from another nationally recognized rating agency. These bank loans include assignments of, and participations in, performing and non-performing senior corporate debt generally acquired through primary bank syndications and in secondary markets. Bank loans consist of, but are not limited to, term loans, the funded and unfunded portions of revolving credit loans, and other similar loans and investments. Management believed that it was probable at the time that these loans were acquired that the Company would be able to collect all contractually required payments receivable.

Interest income on bank loan participations is accrued on the unpaid principal balance, and discounts and premiums on bank loan participations are amortized to income using the interest method. Generally, the accrual of interest on a bank loan participation is discontinued when the contractual payment of principal or interest has become 90 days past due or management has serious doubts about further collectability of principal or interest. A bank loan participation may remain on accrual status if it is in the process of collection and is either guaranteed or well secured. Generally, bank loan participations are restored to accrual status when the obligation is brought current, has performed in accordance with the contractual terms for a reasonable period of time, and the ultimate collectability of the total contractual principal and interest is no longer in doubt. Interest received on nonaccrual loans generally is reported as investment income. There were no bank loans on nonaccrual status at December 31, 2022 or 2021.

Major categories of the Company's net investment income are summarized as follows:

	Year Ended December 31,			
	2022	2021	2020	
	(in thousands)		
Fixed maturity securities	\$48,647	\$42,968	\$45,070	
Bank loan participations	12,639	10,571	12,150	
Equity securities	5,680	4,883	4,800	
Other invested assets	3,408	2,200	9,181	
Cash, cash equivalents, restricted cash equivalents, and short-term				
investments	4,853	260	6,619	
Gross investment income	75,227	60,882	77,820	
Investment expense	(4,116)	(4,017)	(4,452)	
Net investment income	\$71,111	\$56,865	\$73,368	

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

2. Investments (continued)

The Company's net realized and unrealized gains and losses on investments are summarized as follows:

	Year Ended December 31,			
	2022	2021	2020	
	(in thousands))	
Fixed maturity securities:				
Gross realized gains	\$ 1,698	\$ 4,988	\$ 1,098	
Gross realized losses	(1,423)	(64)	(53)	
	275	4,924	1,045	
Equity securities:				
Gross realized gains	1,253	284	_	
Gross realized losses	(1,507)	(827)	(1,441)	
Changes in fair values of equity securities	(11,168)	5,350	(215)	
	(11,422)	4,807	(1,656)	
Bank loan participations:				
Gross realized gains	230	555	554	
Gross realized losses	(1,403)	(1,388)	(17,286)	
Changes in fair values of bank loan participations	(15,867)	6,661	1,318	
	(17,040)	5,828	(15,414)	
Short-term investments and other:				
Gross realized gains	1	75	77	
Gross realized losses	(133)	(150)	(2)	
Changes in fair values of short-term investments and other	1	80	(80)	
	(131)	5	(5)	
Total	\$(28,318)	\$15,564	\$(16,030)	

The change in the Company's available-for-sale fixed maturity gross unrealized net losses was \$(220.1) million for the year ended December 31, 2022. The change in the Company's available-for-sale fixed maturity gross unrealized net (losses) gains was \$(59.1) million and \$57.7 million for the years ended December 31, 2021 and 2020, respectively.

The Company invests selectively in private debt and equity opportunities. These investments, which together comprise the Company's other invested assets, are primarily focused in renewable energy, limited partnerships, and bank holding companies.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

2. Investments (continued)

	Carrying Value		Investment Income				
	Decem	ber 31,	Year E	nded Decemb	er 31,		
	2022	2021	2022	2021	2020		
		(i	in thousands)				
Renewable energy LLCs ^(a)							
Excess and Surplus Lines	\$ 9,159	\$24,211	\$ 3,366	\$ (625)	\$ —		
Corporate & Other		2,709	435	(812)	2,016		
	9,159	26,920	3,801	(1,437)	2,016		
Renewable energy notes receivable ^(b)							
Excess and Surplus Lines	1,202	2,329	270	417	_		
Corporate & Other	1,503	2,911	337	522	5,630		
	2,705	5,240	607	939	5,630		
Limited partnerships ^(c)							
Excess and Surplus Lines	10,019	13,098	(805)	1,417	272		
Corporate & Other	1,064	2,150	(538)	938	920		
	11,083	15,248	(1,343)	2,355	1,192		
Bank holding companies ^(d)							
Excess and Surplus Lines	4,500	4,500	343	200	_		
Corporate & Other	_	_	_	143	343		
	4,500	4,500	343	343	343		
Total other invested assets							
Excess and Surplus Lines	24,880	44,138	3,174	1,409	272		
Corporate & Other	2,567	7,770	234	791	8,909		
	\$27,447	\$51,908	\$ 3,408	\$ 2,200	\$9,181		

⁽a) The Company's Excess and Surplus Lines and Corporate and Other segments own equity interests ranging from 2.6% to 4.9% in various LLCs whose principal objective is capital appreciation and income generation from owning and operating renewable energy production facilities (wind and solar). The LLCs are managed by an entity for which two of our former directors served as officers, and the Company's Non-Executive Chairman has invested in certain of these LLCs. The equity method is used to account for the Company's LLC investments. Income for the LLCs primarily reflects adjustments to the carrying values of investments in renewable energy projects to their determined fair values. The fair value adjustments are included in revenues for the LLCs. Expenses for the LLCs are not significant and are comprised of administrative and interest expenses. During the fourth quarter of 2022, the underlying projects in two of our LLCs were sold at the manager's discretion. We received \$20.2 million, comprised of \$17.2 million in the Excess and Surplus Lines segment and \$3.0 million in the Corporate and Other segment, and could receive additional contingent payments in the future according to terms of the transaction. The Company received cash distributions from all renewable energy investments totaling \$21.6 million and \$1.8 million for the years ended December 31, 2022 and 2021, respectively.

⁽b) The Company's Excess and Surplus Lines and Corporate and Other segments have invested in notes receivable for renewable energy projects. At December 31, 2022, the Company held two notes issued by an entity for which two of our former directors serve as officers. Interest on the notes, which mature in 2025, is fixed at 12%. During the year ended December 31, 2022, the Company received principal

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

2. Investments (continued)

repayments of \$1.1 million and \$1.4 million on the notes receivable in the Company's Excess and Surplus Lines segment and Corporate and Other segment, respectively. During the year ended December 31, 2021, the Company received principal repayments of \$1.7 million and \$2.1 million on the notes receivable in the Company's Excess and Surplus Lines segment and Corporate and Other segment, respectively.

- (c) The Company owns investments in limited partnerships that invest in concentrated portfolios including publicly-traded small cap equities, loans of middle market private equity sponsored companies, private equity general partnership interests, commercial mortgage-backed securities, and tranches of distressed home loans. Income from the partnerships is recognized under the equity method of accounting. During the year ended December 31, 2022, the Company recognized an impairment loss of \$538,000 on one limited partnership in the Corporate & Other segment. At December 31, 2022, the Company's Excess and Surplus Lines segment has outstanding commitments to invest another \$5.3 million in these limited partnerships.
- (d) The Company's Excess and Surplus Lines segment holds \$4.5 million of subordinated notes issued by a bank holding company for which the Company's Non-Executive Chairman was previously the Lead Independent Director and an investor and for which one of the Company's directors is also an investor (the "Bank Holding Company"). Interest on the notes, which mature in 2023, is fixed at 7.6% per annum.

The Company maintains fixed maturity securities, short-term investments, accrued investment income, and cash and cash equivalents amounting to \$515.7 million at December 31, 2022 in trust accounts or on deposit as collateral for outstanding letters of credit issued as security to third-party reinsureds on reinsurance assumed by JRG Re.

At December 31, 2022 and 2021, cash and investments with a fair value of \$61.0 million and \$54.9 million, respectively, were on deposit with state insurance departments to satisfy regulatory requirements.

3. Deferred Policy Acquisition Costs

An analysis of deferred policy acquisition costs is as follows:

	Year Ended December 31,			
	2022	2021	2020	
		(in thousands)		
Balance at beginning of period	\$ 68,526	\$ 62,953	\$ 62,006	
Policy acquisition costs deferred:				
Commissions	55,542	51,466	51,306	
Underwriting and other issue expenses	24,106	23,770	25,219	
	79,648	75,236	76,525	
Amortization of policy acquisition costs	(88,571)	(69,663)	(75,578)	
Net change	(8,923)	5,573	947	
Balance at end of period	\$ 59,603	\$ 68,526	\$ 62,953	

4. Goodwill and Intangible Assets

On December 11, 2007, the Company completed an acquisition of James River Group by acquiring 100% of the outstanding shares of James River Group common stock, referred to herein as the "Merger".

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

4. Goodwill and Intangible Assets (continued)

The transaction was accounted for under the purchase method of accounting, and goodwill and intangible assets were recognized by the Company as a result of the transaction.

All of the Company's goodwill is an asset of the Excess and Surplus Lines segment. The Company's annual testing performed in the fourth quarter of 2022, 2021 and 2020 indicated that no impairment of goodwill had occurred. The carrying amount of goodwill at December 31, 2022 and 2021 was \$181.8 million. Accumulated goodwill impairment losses were \$99.6 million at December 31, 2022 and 2021. The most recent goodwill impairment losses occurred in 2010.

Specifically identifiable intangible assets were acquired in the Merger. During the fourth quarters of 2022, 2021 and 2020, the indefinite-lived intangible assets for trademarks and insurance licenses and authorities were tested for impairment. Intangible assets for broker relationships that have specific lives and are subject to amortization were also reviewed for impairment. There were no impairments recognized in 2022, 2021, or 2020.

The gross carrying amounts and accumulated amortization for each major specifically identifiable intangible asset class were as follows:

		December 31,						
			2022	2021				
	Weighted- Average Life (Years)	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization			
			(in tho	usands)				
Trademarks	Indefinite	\$22,200	\$ —	\$22,200	\$ —			
Insurance licenses and authorities	Indefinite	8,964	_	8,964	_			
Identifiable intangibles not subject to amortization		31,164		31,164				
Broker relationships	24.6	11,611	7,099	11,611	6,736			
Identifiable intangible assets subject to								
amortization		11,611	7,099	11,611	6,736			
		\$42,775	<u>\$7,099</u>	\$42,775	\$6,736			

Future estimated amortization of specifically identifiable intangible assets as of December 31, 2022 is as follows (*in thousands*):

2023	\$ 363
2024	363
2025	363
2026	363
2027	363
Thereafter	2,696
Total	\$4,511

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

4. Goodwill and Intangible Assets (continued)

The table below summarizes the changes in the net carrying values of intangible assets by segment for the year ended December 31, 2022:

	December 31, 2021 Net Carrying Value	Amortization	Impairment Losses	December 31, 2022 Net Carrying Value
		(in thou	sands)	
Excess and Surplus Lines				
Trademarks	\$19,700	\$ —	\$	\$19,700
Insurance licenses and authorities	4,900	_	_	4,900
Broker relationships	4,874	(363)	_	4,511
	29,474	(363)		29,111
Specialty Admitted Insurance				
Trademarks	2,500	_	_	2,500
Insurance licenses and authorities	4,065	_	_	4,065
	6,565			6,565
Total identifiable intangible assets	\$36,039	\$(363)	<u>\$—</u>	\$35,676

The table below summarizes the changes in the net carrying values of intangible assets by segment for the year ended December 31, 2021:

	December 31, 2020 Net Carrying Value	Amortization	Impairment Losses	December 31, 2021 Net Carrying Value
		(in thou	sands)	
Excess and Surplus Lines				
Trademarks	\$19,700	\$ —	\$	\$19,700
Insurance licenses and authorities	4,900	_	_	4,900
Broker relationships	5,237	(363)	_	4,874
	29,837	(363)	_	29,474
Specialty Admitted Insurance				
Trademarks	2,500	_	_	2,500
Insurance licenses and authorities	4,065	_	_	4,065
	6,565		_	6,565
Total identifiable intangible assets	\$36,402	<u>\$(363)</u>	<u>\$—</u>	\$36,039

Amortization of intangible assets was \$366,000 for the Excess and Surplus Lines segment and \$172,000 for the Specialty Admitted Insurance segment for the year ended December 31, 2020.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

5. Property and Equipment, Net

Property and equipment, net of accumulated depreciation, is included in "other assets" on the consolidated balance sheets and consists of the following:

	Decem	ber 31,	
	2022	2021	
	(in thousands)		
Electronic data processing hardware and software	\$ 3,586	\$ 2,492	
Furniture and equipment	2,221	2,221	
Property and equipment, cost basis	5,807	4,713	
Accumulated depreciation	(4,449)	(3,932)	
Property and equipment, net	\$ 1,358	\$ 781	

6. Leases

The Company has entered into operating leases for office space in Bermuda, North Carolina, Virginia, Arizona, and Georgia. The present value of future lease payments for the Company's leases with terms greater than 12 months are included on the consolidated balance sheets as lease liabilities and right-of-use lease assets. For leases with terms of 12 months or less, lease payments are recognized in other operating expenses on a straight-line basis over the lease term.

Total expected lease payments are based on the lease payments specified in the contract and the stated term, including any options to extend or terminate that the Company is reasonably certain to exercise. The Company elected the practical expedient to account for lease components and any associated non-lease components as a single lease component, and therefore allocates all of the expected lease payments to the lease component.

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

At December 31, 2022, lease liabilities and right-of-use assets associated with the Company's operating leases were \$9.1 million and \$8.2 million, respectively (\$12.8 million and \$11.7 million at December 31, 2021, respectively). The weighted-average discount rate and weighted average remaining lease term for operating leases was 4.1% and 3.1 years, respectively, as of December 31, 2022.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

6. Leases (continued)

The table below summarizes maturities of the Company's operating lease liabilities as of December 31, 2022, which reconciles to total lease liabilities included in other liabilities on the Company's consolidated balance sheets:

Years ending December 31,	(in thousands)
2023	\$3,935
2024	2,625
2025	2,556
2026	407
2027	90
Thereafter	_
Total lease payments	9,613
Less imputed interest	(521)
Total operating lease liabilities	\$9,092

Operating lease liabilities include \$6.7 million associated with office space in a building that is owned by a partnership in which the Company has a minority interest.

Operating lease costs were \$5.0 million, \$5.1 million, and \$5.0 million for the years ended December 31, 2022, 2021, and 2020, respectively. Operating lease costs are primarily comprised of rental expense for operating leases. Rental expense is recognized on a straight line basis over the lease term and includes amortization of the right-of-use lease asset and imputed interest on the lease liability. Operating lease costs are included in other operating expenses in the Company's consolidated statements of income (loss) and comprehensive (loss) income.

7. Reserve for Losses and Loss Adjustment Expenses

In establishing the reserve for losses and loss adjustment expenses, the Company's internal actuaries estimate an initial expected ultimate loss ratio for each of our lines of business by accident year (or for the Casualty Reinsurance segment, on a contract by contract basis). Input from the Company's underwriting and claims departments, including premium pricing assumptions and historical experience, are considered by the Company's internal actuaries in estimating the initial expected loss ratios. The Company's internal actuaries generally utilize five actuarial methods in their estimation process for the reserve for losses and loss adjustment expenses. These five methods utilize, to varying degrees, the initial expected loss ratio, detailed statistical analysis of past claims reporting and payment patterns, claims frequency and severity, paid loss experience, industry loss experience, and changes in market conditions, policy forms, exclusions, and exposures.

In applying these methods to develop an estimate of the reserve for losses and loss adjustment expenses, our internal actuaries use judgment to determine three key parameters for each accident year and line of business: the initial expected loss ratios, the incurred and paid loss development factors and the weighting of the five actuarial methods to be used for each accident year and line of business. For the Excess and Surplus Lines segment, the internal actuaries perform a study on each of these parameters at least annually and make recommendations for the initial expected loss ratios, the incurred and paid loss development factors and the weighting of the five actuarial methods by accident year and line of business. Members of management's Reserve Committee review and approve the parameter review actuarial recommendations, and absent any developments requiring an earlier review, these approved parameters are used in the reserve estimation process for the next four quarters at which time a new parameter study is performed. For the

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Specialty Admitted Insurance segment, expected loss ratios, loss development factors, and loss cost trends are reviewed and updated at least annually. For the Casualty Reinsurance segment, periodic assessments are made on a contract by contract basis. Method weights are generally less rigid for the Casualty Reinsurance segment given the heterogeneous nature of the various contracts, and the potential for significant changes in mix of business within individual treaties.

Different reserving methods are appropriate in different situations, and the Company's internal actuaries use their judgment and experience to determine the weighting of the methods to use for each accident year and each line of business and, for the Casualty Reinsurance segment, on a contract by contract basis. For example, the current accident year has very little incurred and paid loss development data on which to base reserve projections. As a result, the Company relies heavily on the initial expected loss ratio in estimating reserves for the current accident year. The Company generally sets the initial expected loss ratio for the current accident year consistent with the internal actuaries' pricing assumptions adjusted upward where warranted based on management's judgment in order to produce the best estimate. We believe that this is a reasonable and appropriate reserving assumption for the current accident year since our pricing assumptions are actuarially driven and since the Company expects to make an acceptable return on the new business written. If actual loss emergence is better than our initial expected loss ratio assumptions, we will experience favorable development and if it is worse than our initial expected loss ratio assumptions, we will experience adverse development. Conversely, sufficient incurred and paid loss development data is available for the oldest accident years, so more weight is given to this development data and less weight is given to the initial expected loss ratio.

The following table provides a reconciliation of the beginning and ending reserve balances for losses and loss adjustment expenses, net of reinsurance, to the gross amounts reported in the consolidated balance sheets. Reinsurance recoverables on unpaid losses and loss adjustment expenses are presented gross of an allowance for credit losses on reinsurance balances of \$612,000, \$631,000, and \$335,000 at December 31, 2022, 2021, and 2020, respectively.

	Year Ended December 31,			
	2022	2021	2020	
		(in thousands)		
Reserve for losses and loss adjustment expenses net of reinsurance recoverables at beginning of period	\$1,399,214	\$1,386,061	\$1,377,461	
Add: Incurred losses and loss adjustment expenses net of reinsurance:				
Current year	515,653	466,574	386,341	
Prior years – retroactive reinsurance	20,091	_	_	
Prior years – excluding retroactive reinsurance	9,070	325,778	92,204	
Total incurred losses and loss and adjustment expenses	544,814	792,352	478,545	
Deduct: Loss and loss adjustment expense payments net of reinsurance:				
Current year	35,102	35,006	31,952	
Prior years	357,366	487,741	437,993	
Total loss and loss adjustment expense payments	392,468	522,747	469,945	
Deduct: Deferred reinsurance gain – retroactive reinsurance	20,091			
Deduct: Loss reserves ceded in loss portfolio transfers	299,493	256,452	_	

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

	Year Ended December 31,				
	2022	2021	2020		
		(in thousands)			
Add: Changes in reinsurance recoverable of Casualty Re LPT unrelated to net reserve activity	16,294				
Reserve for losses and loss adjustment expenses net of reinsurance recoverables at end of period	1,248,270	1,399,214	1,386,061		
Add: Reinsurance recoverables on unpaid losses and loss adjustment expenses at end of period	1,520,725	1,349,259	806,019		
Reserve for losses and loss adjustment expenses gross of reinsurance recoverables on unpaid losses and loss adjustment expenses at end of period	\$2,768,995	\$2,748,473	\$2,192,080		

The foregoing reconciliation shows that \$9.1 million of adverse development was experienced in 2022 on the reserve for losses and loss adjustment expenses held at December 31, 2021 (excluding adverse prior year development on the loss portfolio transfers subject to retroactive reinsurance accounting — see *Loss Portfolio Transfers* below). This adverse reserve development included \$210,000 of favorable development in the Excess and Surplus Lines segment, \$4.2 million of favorable development in the Specialty Admitted Insurance segment, and \$13.4 million of adverse development in the Casualty Reinsurance segment, including \$6.8 million of net adverse reserve development in the three months ended March 31, 2022 associated with the Casualty Re LPT. The Company also experienced \$5.0 million of net catastrophe losses in the current accident year in 2022 related to Hurricane Ian.

The foregoing reconciliation shows that \$325.8 million of adverse development was experienced in 2021 on the reserve for losses and loss adjustment expenses held at December 31, 2020. This adverse reserve development included \$190.7 million of adverse development in the Excess and Surplus Lines segment including \$200.1 million of adverse development in the commercial auto line of business that was primarily related to the 2019 and prior accident years with Rasier LLC and its affiliates (collectively, "Rasier"). The adverse development for commercial auto was partially offset by \$9.4 million of favorable development in other Excess and Surplus Lines underwriting divisions. Favorable reserve development in the Specialty Admitted Insurance segment was \$2.5 million as losses on our workers' compensation business written prior to 2020 continued to develop more favorably than we had anticipated. The Casualty Reinsurance segment experienced \$137.6 million of adverse development on prior accident years. Actual reported and paid losses in the Casualty Reinsurance segment significantly exceeded expectations in 2021, particularly in the fourth quarter of 2021, causing us to refine some of the assumptions used to determine our best estimate of ultimate losses for this segment. Specifically, we responded to this highly elevated loss emergence by making significant adjustments to our assumed tail factors, other development factors, initial expected loss ratios, and weights given to various actuarial methods. In particular, we gave significantly more weight to incurred loss development methods and Bornhuetter — Ferguson incurred loss development methods than had been done previously. These actuarial refinements resulted in material deterioration in ultimate loss selections for underwriting years 2014 through 2018. The adverse development was concentrated in a few large treaties for general liability and professional liability lines of business. Of the \$137.6 million of adverse development recognized in 2021, \$113.4 million was concentrated in these treaties. The Company also experienced \$5.0 million of net catastrophe losses in the current accident year in 2021 related to Hurricane Ida.

The foregoing reconciliation shows that \$92.2 million of adverse development was experienced in 2020 on the reserve for losses and loss adjustment expenses held at December 31, 2019. This adverse reserve development included \$59.4 million of adverse development in the Excess and Surplus Lines segment including \$91.4 million of adverse development in the commercial auto line of business that was primarily

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

related to the 2018 and prior accident years with Rasier. The adverse development for commercial auto was partially offset by \$32.0 million of favorable development in other Excess and Surplus Lines underwriting divisions that was primarily related to the 2018 and 2019 accident years. The Company also experienced \$5.0 million of favorable development on prior accident years in the Specialty Admitted Insurance segment, as losses on our workers' compensation business written prior to 2019 continued to develop more favorably than we had anticipated. The Casualty Reinsurance segment experienced \$37.8 million of adverse development on prior accident years primarily in accident years 2014 through 2018. This adverse development was mainly in the general liability and commercial auto lines of business.

Loss Portfolio Transfers

Loss portfolio transfers are a form of reinsurance utilized by the Company to transfer losses and loss adjustment expenses and associated risk of adverse development on covered subject business, as defined in the respective agreements, to an assuming reinsurer in exchange for a reinsurance premium. Loss portfolio transfers can bring economic finality on the subject risks when they no longer meet the Company's appetite or are no longer aligned with the Company's risk management guidelines.

Commercial Auto Loss Portfolio Transfer

On September 27, 2021, James River Insurance Company and James River Casualty Company (together, "James River") entered into a loss portfolio transfer transaction (the "Commercial Auto LPT") with Aleka Insurance, Inc. ("Aleka"), a captive insurance company affiliate of Rasier LLC, to reinsure substantially all of the Excess and Surplus Lines segment's legacy portfolio of commercial auto policies previously issued to Rasier LLC and its affiliates (collectively, "Rasier") for which James River is not otherwise indemnified by Rasier. Under the terms of the transaction, effective as of July 1, 2021, James River ceded to Aleka approximately \$345.1 million of commercial auto liabilities relating to Rasier policies written in the years 2013-2019, which amount constituted the reinsurance premium. The reinsurance coverage is structured to be fully collateralized, is not subject to an aggregate limit, and is subject to certain exclusions. A pre-tax loss of \$29.6 million was recognized as adverse loss and loss adjustment reserve development in the Excess and Surplus Lines segment for the third quarter of 2021 associated with the loss portfolio transfer.

Casualty Re Loss Portfolio Transfer

On February 23, 2022, JRG Re entered into a loss portfolio transfer retrocession agreement (the "Casualty Re LPT") with Fortitude Reinsurance Company Ltd. ("FRL") under which FRL reinsures the majority of the reserves in the Company's Casualty Reinsurance segment. Under the terms of the transaction, which closed on March 31, 2022 (the "Retrocession Closing Date"), JRG Re (a) ceded to FRL all existing and future claims for losses arising under certain casualty reinsurance agreements with underlying insurance companies with treaty inception dates ranging from 2011 to 2020 (the "Subject Business"), in each case net of third-party reinsurance and other recoveries, up to an aggregate limit of \$400.0 million; (b) continues to manage and retain the benefit of other third-party reinsurance on the Subject Business; (c) paid FRL a reinsurance premium of \$335.0 million, \$310.0 million of which JRG Re credited to a notional funds withheld account (the "Funds Withheld Account") and \$25.0 million of which was paid in cash to FRL; and (d) pays FRL a 2% per annum crediting rate on the Funds Withheld Account balance on a quarterly basis. The total premium, initial Funds Withheld Account credit, and aggregate limit was adjusted for claims paid from October 1, 2021 to the Retrocession Closing Date. The Casualty Reinsurance segment incurred \$6.8 million of net adverse reserve development in the three months ended March 31, 2022 associated with the Casualty Re LPT.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Retroactive Reinsurance Accounting

The Company periodically reevaluates the remaining reserves subject to the Commercial Auto LPT and the Casualty Re LPT (the "Loss Portfolio Transfers"), and when recognized adverse prior year development on the subject business causes the cumulative amounts ceded under a loss portfolio transfer to exceed the consideration paid, the loss portfolio transfer moves into a gain position subject to retroactive reinsurance accounting under GAAP. Gains are deferred under retroactive reinsurance accounting and recognized in earnings in proportion to actual paid recoveries under the loss portfolio transfer using the recovery method. While the deferral of gains can introduce volatility in our results in the short-term, over the life of the contract, we would expect no economic impact to the Company as long as any additional losses are within the limit of the loss portfolio transfer and the counterparty performs under the contract. The impact of retroactive reinsurance accounting is not indicative of our current and ongoing operations.

For the year ended December 31, 2022, due to adverse paid loss trends on the legacy Rasier business, the Company recognized adverse prior year development of \$46.7 million on the reserves subject to the Commercial Auto LPT, resulting in a corresponding additional amount ceded under the Commercial Auto LPT. As a result, the cumulative amounts ceded under the Commercial Auto LPT exceed the consideration paid, moving the Commercial Auto LPT into a gain position. Similarly, due to adverse paid and reported loss trends on the business subject to the Casualty Re LPT, the Company ceded an additional \$6.1 million of losses recoverable under the Casualty Re LPT for the year ended December 31, 2022, moving the Casualty Re LPT also into a gain position and, accordingly, the Company has applied retroactive reinsurance accounting to both loss portfolio transfers. Retroactive reinsurance benefits totaling \$32.7 million (\$31.0 million for the Commercial Auto LPT and \$1.7 million for the Casualty Re LPT) were recorded in losses and loss adjustment expenses on the Consolidated Statements of Income (Loss) and Comprehensive (Loss) Income for the year ended December 31, 2022 using the recovery method. As of December 31, 2022, the cumulative amounts ceded under the Loss Portfolio Transfers was \$732.9 million (\$391.8 million under the Commercial Auto LPT and \$341.1 million under the Casualty Re LPT). At December 31, 2021, \$345.1 million was ceded under the Commercial Auto LPT. The total unrecognized deferred retroactive reinsurance gain of \$20.1 million (\$15.7 million related to the Commercial Auto LPT and \$4.4 million related to the Casualty Re LPT) at December 31, 2022 under the Loss Portfolio Transfers is separately presented on the Company's Consolidated Balance Sheets. The Company has \$58.9 million of aggregate limit remaining under the Casualty Re LPT at December 31, 2022.

The following tables present incurred and paid losses and loss adjustment expenses, net of reinsurance as of December 31, 2022 for: (1) the Excess and Surplus Lines segment split between all excess and surplus lines business excluding commercial auto, and separately, commercial auto, (2) the Specialty Admitted Insurance segment split between individual risk workers' compensation and fronting and programs, and (3) the Casualty Reinsurance segment. The information provided herein about incurred and paid accident year claims development for the years ended December 31, 2021 and prior is presented as "unaudited" supplementary information.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Excess and Surplus Lines — Excluding Commercial Auto

Incurred losses and loss adjustment expenses, net of reinsurance (in thousands)

Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2013	\$96,729	\$ 96,064	\$ 85,433	\$ 81,009	\$ 82,830	\$ 83,855	\$ 82,732	\$ 82,517	\$ 83,594	\$ 84,376
2014		114,942	104,092	90,267	82,232	84,074	88,904	90,191	90,944	91,391
2015			126,443	113,417	104,847	102,434	103,688	110,466	114,398	116,085
2016				138,507	125,093	126,050	126,971	125,097	132,235	135,491
2017					144,349	131,897	132,136	124,265	128,674	134,272
2018						167,004	158,458	146,633	150,687	151,563
2019							214,653	194,759	189,671	188,061
2020								239,897	211,732	207,210
2021									304,435	286,343
2022										340,436
Total										\$1,735,228

Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2013	\$3,867	\$14,509	\$30,382	\$44,421	\$59,641	\$66,553	\$71,035	\$74,635	\$ 76,295	\$ 80,137
2014		3,412	16,969	28,212	43,891	58,774	71,549	76,523	79,980	85,433
2015			4,048	17,164	34,801	55,911	73,455	87,344	94,494	103,138
2016				5,180	22,852	46,045	70,105	90,166	102,072	116,059
2017					5,290	22,956	42,764	64,924	81,303	102,866
2018						6,000	26,160	50,679	76,494	105,538
2019							8,235	31,346	62,227	103,836
2020								8,642	34,561	73,106
2021									11,693	55,070
2022										12,713
Total										\$837,896
All outstanding losses and loss adjustment expenses prior to 2013, net of reinsurance (53 claims										
outstanding)										\$ 10,383
Total outstanding	ng losses a	and loss ad	justment e	expenses, n	et of reins	urance				\$907,715

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Excess and Surplus Lines — Commercial Auto

Incurred losses and loss adjustment expenses, net of reinsurance (in thousands)

Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2013	\$1,255	\$ 1,300	\$ 1,451	\$ 1,351	\$ 1,301	\$ 1,277	\$ 1,277	\$ 1,277	\$ 1,277	\$ 1,277
2014		20,487	14,071	17,233	18,953	19,779	18,303	19,196	20,013	20,222
2015			30,109	33,113	35,149	36,139	36,636	37,839	38,046	37,915
2016				74,340	109,286	126,791	147,122	157,712	164,399	164,046
2017					207,355	208,743	272,421	319,472	355,713	366,636
2018						255,881	230,220	283,408	349,067	371,637
2019							262,306	240,773	339,771	365,279
2020								19,133	10,899	12,324
2021									21,154	16,565
2022										26,126
Total										\$1,382,027

Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021		2022
2013	\$60	\$1,182	\$1,285	\$ 1,291	\$ 1,275	\$ 1,275	\$ 1,275	\$ 1,275	\$ 1,275	\$	1,275
2014		6,166	8,645	12,679	16,359	18,678	17,745	18,301	19,163		20,070
2015			8,356	15,234	24,282	31,592	34,819	35,983	36,710		37,462
2016				18,295	54,054	89,381	125,108	141,545	152,030		158,819
2017					41,467	107,377	192,961	252,169	309,860		344,235
2018						45,136	119,099	184,686	257,346		329,009
2019							44,225	107,182	192,982		285,725
2020								628	2,854		7,304
2021									2,810		4,313
2022											1,897
Total										\$1,	,190,109
Total outstanding	ng losses a	nd loss ad	justment e	expenses, n	et of reins	surance bef	ore Rasier	LPT		\$	191,918
Reinsurance rec	overable f	or Rasier I	_PT							\$	132,049
Total outstandir	ng losses a	nd loss ad	justment e	expenses, n	et of reins	surance				\$	59,869

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Specialty Admitted — Individual Risk Workers' Compensation

Incurred losses and loss adjustment expenses, net of reinsurance (in thousands)

Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2013	\$12,525	\$13,668	\$12,786	\$11,578	\$10,907	\$10,909	\$10,909	\$10,598	\$10,573	\$ 10,438
2014		16,638	16,652	14,620	13,890	12,704	12,704	12,573	12,685	12,553
2015			20,938	21,274	19,741	18,376	17,626	16,492	16,468	16,409
2016				21,678	20,299	18,050	15,800	14,050	13,069	12,790
2017					24,869	22,071	19,779	18,810	16,606	15,487
2018						16,432	16,288	16,038	14,200	12,139
2019							20,253	21,056	20,631	18,129
2020								20,137	22,240	19,389
2021									14,519	14,713
2022										14,507
Total										\$146,554

Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2013	\$4,487	\$8,723	\$ 9,846	\$10,246	\$10,263	\$10,309	\$10,337	\$10,335	\$10,336	\$ 10,337
2014		4,633	10,648	12,041	12,236	12,282	12,282	12,276	12,287	12,306
2015			6,604	13,285	15,118	15,889	15,901	16,068	16,069	16,071
2016				4,664	10,227	12,135	12,432	12,481	12,483	12,483
2017					6,546	12,782	14,285	15,195	15,210	15,236
2018						4,497	9,034	11,412	11,746	11,765
2019							5,473	13,776	16,254	16,909
2020								7,394	14,668	16,665
2021									5,874	10,780
2022										5,943
Total										\$128,495
All outstandir	ng losses a	and loss a	adjustmer	nt expense	es prior to	2013, ne	t of reins	urance (7	claims	
outstanding	g)									\$ 809
Outstanding l	osses and	l loss adju	istment e	xpenses a	ssumed fi	rom invol	untary w	orkers'		
compensati	on pools									\$ 3,564
Total outstand	ding losse	s and los	s adjustm	ent exper	nses, net c	of reinsura	ance			\$ 22,432

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Specialty Admitted — Fronting and Programs

Incurred losses and loss adjustment expenses, net of reinsurance (in thousands)

Accident Year	2013	20	014	20	015	2	016	2	017	20	018	2	019	20	020	2	021	2	2022
2013	\$104	\$	80	\$	52	\$	52	\$	52	\$	52	\$	52	\$	52	\$	52	\$	52
2014		3	,460	3	,468	3	3,818		3,425	3	3,228	3	3,083	3	,081	3	3,068		3,061
2015				7	,136	ç	9,632	9	9,358	8	3,974	8	3,384	8	,444	8	3,436		8,279
2016						11	1,542	1:	5,670	14	1,682	1:	5,522	14	,468	15	5,090		14,304
2017								2	1,229	24	1,271	2	5,201	24	,728	25	5,097	2	24,893
2018										21	,758	20	0,677	19	,822	20),158		19,268
2019												18	8,832	19	,020	19	9,991		18,956
2020														25	,433	28	3,131	3	31,555
2021																39	999,	4	44,857
2022																			47,262
Total																		\$2	12,487

Accident Year	2013	2014	20)15	20	016	20	17	20	018	2	2019	2	020	2	021		2022
2013	\$28	\$ 52	\$	52	\$	52	\$	52	\$	52	\$	52	\$	52	\$	52	\$	52
2014		883	1	687	2,	,369	2,	728	2,	854		2,916	,	2,917	2	2,926		2,939
2015			2	058	4	,666	6,	165	6,	919		7,329	,	7,654	-	7,728		7,824
2016					1,	,894	5,	123	6,	,888	1	0,732	10	0,896	1	1,711		12,142
2017							1,	223	6,	682	1	3,065	1:	5,854	18	3,219		20,655
2018										885		4,972	10	0,495	12	2,631		14,059
2019												4,358		5,125	Ģ	9,958		13,007
2020														5,375	1.	5,678		20,903
2021															8	3,347		18,106
2022																		13,018
Total																	\$1	22,705
All outstandin	ng losses a	and loss a	dju	stmen	t ex	pense	es, ne	et of	reins	suran	ce						\$	89,782
Outstanding lo	osses and	loss adju	stm	ent ex	kper	ises, a	ıssur	ned f	rom	invo	lunt	ary po	ools				\$	967
Total outstand	ling losse	s and loss	ad	ustm	ent	exper	ises,	net o	f rei	insur	anc	e					\$	90,749

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Casualty Reinsurance

Incurred losses and loss adjustment expenses, net of reinsurance (in thousands)

Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021		2022
2013	\$133,230	\$130,361	\$131,352	\$134,446	\$137,801	\$143,124	\$146,760	\$149,682	\$153,622	\$	154,225
2014		118,881	115,927	114,636	116,981	121,200	126,160	130,822	139,208		139,341
2015			119,157	108,870	108,699	109,117	114,517	120,185	133,790		135,112
2016				112,759	105,533	103,544	108,222	114,979	132,058		133,990
2017					134,628	128,472	129,800	138,831	176,828		179,757
2018						121,529	119,098	125,715	163,957		165,417
2019							86,022	85,549	100,895		101,462
2020								80,374	81,800		82,626
2021									82,610		85,582
2022											108,751
Total										\$1.	,286,263

Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2013	\$59,756	\$75,094	\$93,902	\$108,396	\$119,256	\$127,732	\$134,644	\$139,250	\$142,824	\$146,765
2014		41,421	58,601	76,302	89,899	101,366	110,374	117,971	125,444	131,196
2015			40,021	53,986	68,002	80,208	90,661	100,548	110,692	121,675
2016				36,268	50,905	65,409	78,145	90,356	104,115	117,831
2017					47,739	72,891	90,117	106,942	126,747	151,158
2018						30,903	50,274	69,123	90,054	118,445
2019							12,646	25,453	37,488	56,907
2020								5,589	15,270	26,690
2021									2,082	11,078
2022										1,787
Total										\$883,532
All outstanding	losses and	d loss adju	stment ex	penses pric	or to 2013,	net of rein	nsurance .			\$ 9,431
Total outstandi	ng losses a	and loss ad	justment o	expenses, n	et of reins	urance bef	fore Casua	lty Re LP	Γ	\$412,162
Reinsurance rec	coverable f	for Casualt	y Re LPT							244,657
Total outstandi	ng losses a	and loss ad	justment o	expenses, n	et of reins	urance				\$167,505

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

The reconciliation of the net incurred and paid claims development tables to the reserve for losses and loss adjustment expenses in the consolidated balance sheet at December 31, 2022 is as follows (in thousands):

E&S – excluding commercial auto	\$ 907,715
E&S – commercial auto	59,869
Specialty Admitted – individual risk workers' compensation	22,432
Specialty Admitted – fronting and programs	90,749
Casualty Reinsurance	167,505
Net reserve for losses and loss adjustment expenses	1,248,270
Reinsurance recoverables on unpaid losses (gross of \$612,000 allowance for credit	
losses on reinsurance recoverables)	1,520,725
Gross reserve for losses and loss adjustment expenses	\$2,768,995

The following is unaudited supplementary information about average annual percentage payouts of incurred claims by age, net of reinsurance, as of December 31, 2022.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
E&S – excluding commercial										
auto	3.9%	13.2%	16.2%	17.9%	16.0%	11.8%	6.8%	5.2%	4.0%	4.6%
E&S – commercial auto	13.4%	24.7%	21.7%	17.3%	10.6%	2.8%	2.2%	2.1%	2.2%	0.0%
Specialty Admitted – individual risk workers' compensation	28.5%	31.4%	15.1%	8.7%	6.4%	3.2%	2.0%	1.0%	1.1%	0.9%
Specialty Admitted – fronting										
and programs	18.8%	21.4%	21.8%	12.5%	8.3%	6.4%	3.6%	3.8%	1.4%	2.0%
Casualty Reinsurance	19.4%	11.6%	11.6%	11.3%	10.1%	8.6%	6.9%	5.5%	3.2%	2.6%

In determining the cumulative number of reported claims, the Company measures claim counts by individual claimant for individual risk workers' compensation policies in the Specialty Admitted Insurance segment. In the Excess and Surplus Lines insurance segment and for fronting and programs in the Specialty Admitted Insurance segment, the Company measures claim counts by claim event. The claim counts include all claims reported, even if the Company does not establish a liability for the claim (i.e. reserve for losses and loss adjustment expenses).

The Casualty Reinsurance segment typically assumes written premium under quota share arrangements. The Company typically does not have direct access to claim frequency information underlying its assumed quota share arrangements given the nature of that business. In addition, multiple claims are often aggregated by the ceding company before being reported to the Company. We do not use claim frequency information in the Casualty Reinsurance segment in the determination of loss reserves or for other internal purposes. Based on these considerations, the Company does not believe providing claims frequency information is practicable as it relates to the Casualty Reinsurance segment.

The table below provides information on IBNR liabilities and claims frequency for: (1) the Excess and Surplus Lines segment split between commercial auto and all non commercial auto, and (2) the Specialty Admitted Insurance segment split between individual risk workers' compensation and fronting and programs:

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Excess and Surplus Lines — Excluding Commercial Auto

Accident Year	Incurred Losses and Loss Adj Expenses	IBNR	Cumulative # of Reported Claims
		\$ in thousands)	
2013	\$ 84,376	\$ 1,198	2,525
2014	91,391	1,446	2,255
2015	116,085	2,250	2,668
2016	135,491	3,187	3,167
2017	134,272	5,842	3,261
2018	151,563	16,626	4,561
2019	188,061	34,591	5,834
2020	207,210	74,904	5,071
2021	286,343	180,621	4,151
2022	340,436	301,739	2,694

Excess and Surplus Lines — Commercial Auto

Accident Year	Incurred Losses and Loss Adj Expenses	IBNR before Rasier LPT	IBNR net of Rasier LPT	Cumulative # of Reported Claims
		(\$ in thou	isands)	
2013	\$ 1,277	\$ 1	\$ 1	54
2014	20,222	152	3	7,764
2015	37,915	414	22	41,771
2016	164,046	1,305	165	89,117
2017	366,636	3,189	197	134,150
2018	371,637	3,473	301	97,339
2019	365,279	3,711	421	71,444
2020	12,324	234	234	622
2021	16,565	7,434	7,434	771
2022	26,126	22,093	22,093	427

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

Specialty Admitted — Individual Risk Workers' Compensation

Accident Year	Incurred Losses and Loss Adj Expenses	IBNR	Cumulative # of Reported Claims
	(\$	in thousands)
2013	\$10,438	\$ 101	540
2014	12,553	156	851
2015	16,409	338	975
2016	12,790	307	836
2017	15,487	156	1,093
2018	12,139	313	1,238
2019	18,129	548	1,554
2020	19,389	1,203	1,378
2021	14,713	1,945	1,290
2022	14,507	2,709	997

Specialty Admitted — Fronting and Programs

Accident Year	Incurred Losses and Loss Adj Expenses		IBNR		Cumulative # of Reported Claims
	(\$ in thousands)				
2013	\$	52	\$	_	22
2014	3,061			122	858
2015	8,279			101	1,363
2016	14,304		1	1,394	2,819
2017	24	,893	2	2,684	6,798
2018	19	,268	2	2,244	7,390
2019	18,956		2	2,756	8,117
2020	31,555		4	4,392	8,763
2021	44,857		1.	5,991	10,049
2022	47	,262	26	5,836	7,540

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

7. Reserve for Losses and Loss Adjustment Expenses (continued)

The table below provides information on IBNR liabilities for the Casualty Reinsurance segment:

Accident Year	Incurred Losses and Loss Adj Expenses	IBNR before Casualty Re LPT	IBNR Net of Casualty Re LPT
		(\$ in thousands)	
2013	\$154,225	\$ 1,134	\$ 480
2014	139,341	2,217	414
2015	135,112	5,467	996
2016	133,990	7,782	1,401
2017	179,757	18,491	2,613
2018	165,417	25,512	4,001
2019	101,462	31,177	4,572
2020	82,626	47,915	8,806
2021	85,582	62,416	26,045
2022	108,751	65,167	56,748

The Company has not provided insurance coverage that could reasonably be expected to produce material levels of asbestos claims activity. In addition, management does not believe that the Company is exposed to environmental liability claims other than those which it has specifically underwritten and priced as an environmental exposure.

8. Reinsurance

The Company remains liable to policyholders if its reinsurers are unable to meet their contractual obligations under applicable reinsurance agreements. To minimize exposure to significant losses from reinsurance insolvencies, the Company evaluates the financial condition of its reinsurers and monitors concentrations of credit risk. The Company's reinsurance contracts generally require reinsurers that are not authorized as reinsurers under U.S. state insurance regulations or that experience rating downgrades from rating agencies below specified levels to fund their share of the Company's ceded outstanding losses and loss adjustment expense reserves, typically through the use of irrevocable and unconditional letters of credit. In fronting arrangements, which the Company conducts through its Specialty Admitted Insurance segment, the Company is subject to credit risk with regard to insurance companies who act as reinsurers for the Company in such arrangements. The Company customarily requires a collateral trust arrangement to secure the obligations of the insurance entity for whom it is fronting.

At December 31, 2022, the Company had reinsurance recoverables on unpaid losses of \$1,520.1 million and reinsurance recoverables on paid losses of \$114.2 million. All material reinsurance recoverables are from companies with A.M. Best Company ratings of "A-" (Excellent) or better, or are collateralized by the reinsurer for our benefit through letters of credit or trust agreements, or represent recoverables from a state residual market for automobile insurance.

At December 31, 2022, reinsurance recoverables on unpaid losses from the Company's three largest reinsurers were \$340.4 million, \$244.7 million, and \$132.0 million, representing 47.2% of the total balance.

At December 31, 2022, prepaid reinsurance premiums ceded to the three reinsurers with the largest amount of prepaid reinsurance premiums totaled \$66.1 million, \$36.7 million, and \$16.9 million, representing 43.7% of the total balance.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

8. Reinsurance (continued)

Premiums written, premiums earned, and losses and loss adjustment expenses incurred are summarized as follows:

	Year Ended December 31,			
	2022	2021	2020	
		(in thousands)		
Written premiums:				
Direct	\$1,408,524	\$1,322,034	\$1,103,994	
Assumed	88,056	185,265	153,006	
Ceded	(748,101)	(762,919)	(609,226)	
Net	\$ 748,479	\$ 744,380	\$ 647,774	
Earned premiums:				
Direct	\$1,378,619	\$1,255,875	\$1,005,138	
Assumed	169,494	154,243	145,867	
Ceded	(781,952)	(714,524)	(544,199)	
Net	\$ 766,161	\$ 695,594	\$ 606,806	
Losses and loss adjustment expenses:				
Direct	\$ 937,393	\$1,117,673	\$ 709,545	
Assumed	126,287	232,240	125,096	
Ceded	(518,866)	(557,561)	(356,096)	
Net	\$ 544,814	\$ 792,352	\$ 478,545	

9. Senior Debt

The Company has a \$315.0 million senior revolving credit facility (as amended or amended and restated, the "2013 Facility"). The 2013 Facility is comprised of the following at December 31, 2022:

- A \$102.5 million secured revolving facility utilized by JRG Re to issue letters of credit for the benefit
 of third-party reinsureds. This portion of our credit facility is secured by our investment securities.
 At December 31, 2022, the Company had \$44.5 million of letters of credit issued under the secured
 facility.
- A \$212.5 million unsecured revolving facility to meet the working capital needs of the Company. All unpaid principal on the revolver is due at maturity. Interest accrues quarterly and is payable in arrears at LIBOR plus a margin (1.50% at December 31, 2022), which is subject to change according to terms in the credit agreement. At December 31, 2022 and 2021, the Company had a drawn balance of \$185.8 million outstanding on the unsecured revolver. In 2020, we borrowed an additional \$52.5 million to support our growth and for general corporate purposes.

James River Group Holdings, Ltd. and JRG Re are borrowers on the 2013 Facility. The 2013 Facility has been amended from time to time since its inception in 2013. On November 8, 2019, the Company entered into a Second Amended and Restated Credit Agreement for the 2013 Facility which, among other things, extended the maturity date of the 2013 Facility until November 8, 2024, increased the amount available under the unsecured revolving credit facility to \$212.5 million, lowered the applicable interest rate and letter of credit fees, and modified certain negative covenants to be less restrictive.

A subsidiary of the Bank Holding Company is one of the lenders for the 2013 Facility, with a \$36.0 million commitment allocation on the total \$315.0 million 2013 Facility.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

9. Senior Debt (continued)

The 2013 Facility contains certain financial and other covenants (including minimum net worth, maximum ratio of total adjusted debt outstanding to total capitalization, and financial strength ratings) with which the Company was in compliance at December 31, 2022.

On August 2, 2017, the Company and its wholly-owned subsidiary, JRG Re, together as borrowers, entered into a credit agreement (the "2017 Facility") that provides the Company with a revolving line of credit of up to \$100.0 million, which may be used for loans and letters of credit made or issued, at the borrowers' option, on a secured or unsecured basis. The loans and letters of credit made or issued under the revolving line of credit may be used to finance the Borrowers' general corporate purposes. The 2017 Facility has been amended from time to time since its inception in 2017. On November 8, 2019, the Company entered into a First Amendment to Credit Agreement which, among other things, lowered the applicable interest rate and modified certain negative covenants to be less restrictive. Obligations under the 2017 Facility carry a variable rate of interest subject to terms in the credit agreement (LIBOR plus a margin of 1.50% at December 31, 2022) and will mature 30 days after notice of termination from the lender. Interest accrues quarterly and is payable in arrears at variable rates which are subject to change according to terms in the credit agreement. At December 31, 2022, unsecured loans of \$21.5 million and secured letters of credit totaling \$22.9 million were outstanding under the facility. During 2020, we borrowed an additional \$51.5 million in unsecured loans to support our growth and for general corporate purposes. The Company repaid \$40.0 million of loans in 2022.

In order to secure borrowings and letters of credit made or issued under the secured portion of the 2017 Facility, JRG Re entered into a pledge and security agreement on August 2, 2017 with the lender, pursuant to which JRG Re will pledge certain investment securities. In the event the Company elects to pledge investment securities as collateral for the secured portion of the revolving credit facility, the Company will enter into a similar pledge and security agreement.

The lender under the 2017 Facility and its affiliate is a joint bookrunner and joint lead arranger under the Company's 2013 Facility, and its affiliate was also an underwriter in the December 2014 initial public offering of the Company's common shares and a joint lead book-running manager in the Company's May 2021 public offering of the Company's common shares.

The 2017 Facility contains certain financial and other covenants with which the Company was in compliance at December 31, 2022.

On May 26, 2004, James River Group issued \$15.0 million of unsecured, floating rate senior debentures (the "Senior Debt"), due April 29, 2034 unless accelerated earlier, through an indenture. The Senior Debt is not redeemable by the holder and is not subject to sinking fund requirements. Interest accrues quarterly and is payable in arrears at a per annum rate of the three-month LIBOR on the Determination Date (as defined in the indenture) plus 3.85%. The Senior Debt is redeemable prior to its stated maturity in whole or in part, at the option of James River Group.

The terms of the indenture generally provide that so long as the Senior Debt is outstanding, neither James River Group nor any of its subsidiaries may:

- assume or permit to exist any indebtedness that is secured by any encumbrance on the capital stock
 of James River Group or any of its subsidiaries which is senior to the Senior Debt; or
- issue, sell, transfer or otherwise dispose of any shares of, securities convertible into, or warrants, rights or options to subscribe for or purchase shares of, capital stock of any subsidiary.

The terms of the Senior Debt contain certain covenants, with which the Company was in compliance at December 31, 2022, and which, among other things, restrict our ability to assume senior indebtedness

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

9. Senior Debt (continued)

secured by our U.S. holding company's common stock or its subsidiaries' capital stock or to issue shares of its subsidiaries' capital stock.

Interest payable is included in "accrued expenses" in the accompanying consolidated balance sheets.

10. Junior Subordinated Debt

The Company issued trust preferred securities ("Trust Preferred Securities") through James River Capital Trust I, James River Capital Trust II, James River Capital Trust IV, and Franklin Holdings II (Bermuda) Capital Trust I, (each, a "Trust"; collectively, the "Trusts"). These Delaware statutory trusts are sponsored and wholly-owned by the Company. Each Trust was created solely for the purpose of issuing the Trust Preferred Securities.

Each Trust used proceeds from the sale of its Trust Preferred Securities to purchase the Company's floating rate junior subordinated debentures (the "Junior Subordinated Debt") issued to the Trust under an indenture (each, an "Indenture"; collectively, the "Indentures"). The Junior Subordinated Debt is the sole asset of each Trust, and the Trust Preferred Securities are the sole liabilities of each Trust. The Company purchased all of the outstanding common stock of the Trusts, and the investment in the Trusts is included in "other assets" in the accompanying consolidated balance sheets.

The following table summarizes the nature and terms of the junior subordinated debt and trust preferred securities outstanding at December 31, 2022 (including the Company's repurchases of a portion of these trust preferred securities):

Franklin

	James River Capital Trust I	James River Capital Trust II	James River Capital Trust III	James River Capital Trust IV	Holdings II (Bermuda) Capital Trust I
			(\$ in thousands	5)	
Issue date	May 26, 2004	December 15, 2004	June 15, 2006	December 11, 2007	January 10, 2008
Principal amount of Trust Preferred Securities	\$7,000	\$15,000	\$20,000	\$54,000	\$30,000
Principal amount of Junior Subordinated Debt	\$7,217	\$15,464	\$20,619	\$55,670	\$30,928
Carrying amount of Junior Subordinated Debt net of repurchases	\$7,217	\$15,464	\$20,619	\$44,827	\$15,928
Maturity date of Junior Subordinated Debt, unless accelerated earlier	May 24 2034	December 15, 2034	June 15, 2036	December 15, 2037	March 15, 2038
Trust common stock	\$217	\$464	\$619	\$1,670	\$928
Interest rate, per annum		Three-Month LIBOR plus 3.4%	Three-Month LIBOR plus 3.0%	Three-Month LIBOR plus 3.1%	Three-Month LIBOR plus 4.0%

All of the Junior Subordinated Debt is currently redeemable at 100.0% of the unpaid principal amount at the Company's option. Interest on the Trust Preferred Securities and interest paid to the Trusts on the Junior Subordinated Debt is payable quarterly in arrears at a per annum rate as described in the table above. The Company has the right to defer interest payments on the Junior Subordinated Debt for up to five years without triggering an event of default.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

10. Junior Subordinated Debt (continued)

The Trust Preferred Securities are subject to mandatory redemption in a like amount (a) upon repayment of all of the Junior Subordinated Debt on the stated maturity date, (b) contemporaneously with the optional prepayment of all of the Junior Subordinated Debt in conjunction with a special event (as defined), and (c) five years or more after the issue date, contemporaneously with the optional prepayment, in whole or in part, of the Junior Subordinated Debt. The Indentures contain certain covenants which the Company is in compliance with as of December 31, 2022.

Interest payable is included in "accrued expenses" on the accompanying consolidated balance sheets.

11. Series A Preferred Shares

On February 24, 2022, we entered into an Investment Agreement with GPC Partners Investments (Thames) LP ("GPC Partners"), an affiliate of Gallatin Point Capital LLC, relating to the issuance and sale of 150,000 7% Series A Perpetual Cumulative Convertible Preferred Shares, par value \$0.00125 per share (the "Series A Preferred Shares"), for an aggregate purchase price of \$150.0 million, or \$1,000 per share, in a private placement. The transaction closed on March 1, 2022 (the "Series A Closing Date").

The Series A Preferred Shares rank senior to our common shares with respect to dividend rights and rights on the distribution of assets on any liquidation, dissolution or winding up of the affairs of the Company, upon which the holders of Series A Preferred Shares would receive the greater of the \$1,000 liquidation preference per share (the "Liquidation Preference") plus accrued and unpaid dividends, or the amount they would have received if they had converted all of their Series A Preferred Shares to common shares immediately before such liquidation, dissolution or winding up.

Holders of the Series A Preferred Shares are entitled to a dividend at the initial rate of 7% of the Liquidation Preference per annum, paid in cash, in-kind in common shares or in Series A Preferred Shares, at the Company's election. On the five-year anniversary of the Series A Closing Date, and each five-year anniversary thereafter, the dividend rate will reset to a rate equal to the five-year U.S. treasury rate plus 5.2%. Dividends accrue and are payable quarterly. During 2022, cash dividends of \$8.8 million were declared, of which \$2.6 million was payable at December 31, 2022.

The Series A Preferred Shares are convertible at the option of the holders thereof at any time into common shares at an initial conversion price of \$26.5950, making the Series A Preferred Shares initially convertible into 5,640,158 common shares. The conversion price is subject to customary anti-dilution adjustments, including cash dividends on the common shares above specified levels, as well as certain adjustments in case of adverse reserve development. None of the triggers that would result in adjustments to the conversion price have been met at December 31, 2022.

The Certificate of Designations setting forth the terms of the Series A Preferred Shares limits our ability to pay dividends to our common shareholders. If we pay cash dividends of more than \$0.05 per common share per quarter, without the consent of at least the majority of the Series A Preferred Shares then outstanding, we will be required to reduce the conversion price of the Series A Preferred Shares. Additionally, the payment of cash dividends in excess of \$0.10 per common share per quarter is not permitted if the dividends on the Series A Preferred Shares for that quarter are not paid in cash, unless the Company's U.S.-based insurance subsidiaries and direct Bermuda-based insurance subsidiary satisfy certain capital requirements. Share dividends payable on the common shares to our shareholders also trigger a reduction of the conversion price applicable to the Series A Preferred Shares.

At any time on or after the two year anniversary of the Series A Closing Date, if the volume-weighted average price ("VWAP") per Common Share is greater than 130% of the then-applicable conversion price for at least twenty (20) consecutive trading days, the Company will be able to elect to convert (a "Mandatory Conversion") all of the outstanding Series A Preferred Shares into common shares. In the case of a

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

11. Series A Preferred Shares (continued)

Mandatory Conversion, each Series A Preferred Share then outstanding will be converted into (i) the number of common shares equal to the quotient of (A) the sum of the Liquidation Preference and the accrued and unpaid dividends with respect to such Series A Preferred Share to be converted divided by (B) the conversion price of such share in effect as of the date of the Mandatory Conversion plus (ii) cash in lieu of fractional shares.

Upon any Mandatory Conversion on or before the five-year anniversary of the Series A Closing Date, all dividends that would have accrued from the date of the Mandatory Conversion to the later of the five-year anniversary of the Series A Closing Date or the last day of the eighth quarter following the date of the Mandatory Conversion, the last eight quarters of which will be discounted to present value using a discount rate of 3.5% per annum, and will be immediately payable in common shares, valued at the average of the daily VWAP of the Company's common shares during the five (5) trading days immediately preceding the Mandatory Conversion.

The holders of the Series A Preferred Shares may require us to repurchase their shares upon the occurrence of certain change of control events. Upon the occurrence of a Fundamental Change (as defined in the Certificate of Designations designating the Series A Preferred Shares), each holder of outstanding Series A Preferred Shares will be permitted to, at its election, (i) effective as of immediately prior to the Fundamental Change, convert all or a portion of its Series A Preferred Shares into common shares, or (ii) require the Company to repurchase any or all of such holder's Series A Preferred Shares at a purchase price per Series A Preferred Share equal to the Liquidation Preference of such Series A Preferred Share plus accrued and unpaid dividends. The repurchase price will be payable in cash.

Because the Company may be required to repurchase all or a portion of the Series A Preferred Shares at the option of the holder upon the occurrence of certain change of control events, the Series A Preferred Shares have been classified as mezzanine equity in the Company's consolidated balance sheets and are recognized at fair value of \$150.0 million (the proceeds on the date of issuance) less issuance costs of \$5.1 million, resulting in a carrying value of \$144.9 million.

Under the terms of the Investment Agreement, GPC Partners has the right to designate one member of the Board (the "Series A Designee"). GPC Partners has designated Matthew Botein as the Series A Designee and, accordingly, the Board approved the appointment of Mr. Botein to serve as a Class I director with a term expiring at the 2024 annual meeting of the Company's shareholders.

12. Shareholders' Equity

The Company has 200,000,000 common shares authorized with \$0.0002 par value per share. The following table presents a rollforward of changes in common shares issued and outstanding.

	Year Ended December 31,	
	2022	2021
Issued and outstanding common shares, beginning of year	37,373,066	30,649,261
Issuance of common shares	_	6,497,500
Exercise of stock options	_	93,446
Vesting of RSU awards	97,171	132,859
Issued and outstanding common shares, end of year	37,470,237	37,373,066

On May 10, 2021, the Company closed the offering and public sale (the "Offering") of an aggregate of 6,497,500 of the Company's common shares at a public offering price of \$31.00 per share. The Company received net proceeds (before expenses) from the Offering of \$192.1 million, which were used for general

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

12. Shareholders' Equity (continued)

corporate purposes. The common shares were offered and sold pursuant to an underwriting agreement entered into by the Company, Barclays Capital, Inc., and Keefe, Bruyette & Woods, Inc., as representatives of the several underwriters named therein.

The Company has 5,132,650 common shares reserved for future issuance upon exercise or vesting of equity awards, as applicable, and 5,640,158 common shares reserved for issuance upon conversion of the Series A Preferred Shares.

The Board of Directors declared the following cash dividends on common shares in 2022, 2021, and 2020:

Date of Declaration	Dividend per Common Share	Payable to Shareholders of Record on	Payment Date	Total Amount (thousands)
2022				
February 16, 2022	\$0.05	March 14, 2022	March 31, 2022	\$ 1,908
April 28, 2022	\$0.05	June 13, 2022	June 30, 2022	\$ 1,908
July 26, 2022	\$0.05	September 12, 2022	September 30, 2022	\$ 1,908
October 25, 2022	\$0.05	December 12, 2022	December 30, 2022	\$ 1,908
Total	\$0.20			\$ 7,632
<u>2021</u>				
February 24, 2021	\$0.30	March 15, 2021	March 31, 2021	\$ 9,345
April 27, 2021	\$0.30	June 14, 2021	June 30, 2021	\$11,291
July 27, 2021	\$0.30	September 13, 2021	September 30, 2021	\$11,282
October 26, 2021	\$0.30	December 13, 2021	December 31, 2021	\$11,292
Total	\$1.20			\$43,210
<u>2020</u>				
February 19, 2020	\$0.30	March 16, 2020	March 31, 2020	\$ 9,269
April 28, 2020	\$0.30	June 15, 2020	June 30, 2020	\$ 9,271
July 28, 2020	\$0.30	September 14, 2020	September 30, 2020	\$ 9,292
October 27, 2020	\$0.30	December 14, 2020	December 31, 2020	\$ 9,305
Total	\$1.20			\$37,137

Included in the dividends are \$141,000, \$404,000 and \$449,000 of dividend equivalents on RSUs, of which \$335,000, \$518,000 and \$663,000 were payable as of December 31, 2022, 2021, and 2020, respectively.

13. Equity Awards

Equity Incentive Plans

The Company's shareholders have approved various equity incentive plans, including the Amended and Restated 2009 Equity Incentive Plan (the "Legacy Plan"), the 2014 Long Term Incentive Plan ("2014 LTIP"), and the 2014 Non-Employee Director Incentive Plan ("2014 Director Plan") (collectively, the "Plans"). All awards issued under the Plans are issued at the discretion of the Board of Directors. Under the Legacy Plan, employees received non-qualified stock options. There are no options outstanding under the Legacy Plan as of December 31, 2022 and no additional awards may be granted.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

13. Equity Awards (continued)

Employees are eligible to receive non-qualified stock options, incentive stock options, share appreciation rights, performance shares, restricted shares, RSUs, and other awards under the 2014 LTIP. The 2014 LTIP was amended on October 25, 2022, increasing the number of shares available for issuance under the 2014 LTIP by 811,500 shares. Following the amendment, the maximum number of shares available for issuance under the 2014 LTIP is 4,982,650, and at December 31, 2022, 1,629,298 shares are available for grant.

On July 26, 2022, the Board of Directors of the Company approved a new long-term incentive plan (the "LTI Plan") under the 2014 LTIP. The LTI Plan is designed to align compensation of designated senior officers of the Company with Company performance and shareholder interests over the long-term. Awards under the LTI Plan will be made in the form of performance restricted share units (a "PRSU") and service based restricted share units (RSUs), with initial awards intended to be made in February 2023.

Each PRSU will represent a contingent right to receive one Company common share based upon the level of achievement of certain performance metrics during the performance period, with payout for achievement of threshold, target and maximum performance levels to be set at 50%, 100% and 200% of the target number of PRSUs, respectively. The initial PRSU awards are intended to have a performance period of January 1, 2023 through December 31, 2025.

Non-employee directors of the Company are eligible to receive non-qualified stock options, share appreciation rights, performance shares, restricted shares, RSUs, and other awards under the 2014 Director Plan. The maximum number of shares available for issuance under the 2014 Director Plan is 150,000, and at December 31, 2022, 82,586 shares are available for grant.

Generally, awards issued under the 2014 LTIP and 2014 Director Plan vest immediately in the event that an award recipient is terminated without Cause (as defined), and in the case of the 2014 LTIP for Good Reason (as defined), at any time following a Change in Control (as defined in the applicable plans).

Options

The following table summarizes the option activity:

	Year Ended December 31,					
	20)22	202	2021		20
	Shares	Weighted- Average Exercise Price	Shares	Weighted- Average Exercise Price	Shares	Weighted- Average Exercise Price
Outstanding:						
Beginning of year	287,974	\$35.26	463,324	\$32.25	643,851	\$30.41
Granted	_	\$ —	_	\$ —	_	\$ —
Exercised	_	\$ —	(126,798)	\$22.26	(180,527)	\$25.70
Forfeited	_	\$ —	(48,552)	\$40.42	_	\$ —
End of year	287,974	\$35.26	287,974	\$35.26	463,324	\$32.25
Exercisable, end of year	287,974	\$35.26	287,974	\$35.26	463,324	\$32.25

All of the outstanding options are fully vested (vesting period of three years from date of grant) and have a contractual life of seven years from the original date of grant. All of the outstanding options have an exercise price equal to the fair value of the underlying shares at the date of grant.

The intrinsic value of each option is determined based on the difference between the fair value of the underlying share and the exercise price of the underlying option. The total intrinsic value of options exercised

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

13. Equity Awards (continued)

during 2022, 2021 and 2020 was \$0, \$1.3 million and \$3.8 million, respectively. The aggregate intrinsic value of options outstanding at December 31, 2022, 2021 and 2020 was \$0, \$0 and \$7.8 million, respectively. The aggregate intrinsic value of options exercisable at December 31, 2022, 2021 and 2020 was \$0, \$0 and \$7.8 million, respectively. The fair value used for calculating intrinsic values was \$20.91, \$28.81 and \$49.15 at December 31, 2022, 2021 and 2020, respectively.

The weighted-average remaining contractual life of the options outstanding and exercisable at December 31, 2022 is 0.4 years. There were no options granted in 2022, 2021, or 2020. The value of the options granted was estimated at the date of grant using the Black-Scholes-Merton option pricing model.

RSUs

The following table summarizes RSU activity:

	Year Ended December 31,					
	20	22	20	2021		20
	Shares	Weighted- Average Grant Date Fair Value	Shares	Weighted- Average Grant Date Fair Value	Shares	Weighted- Average Grant Date Fair Value
Unvested, beginning of year	292,135	\$45.89	399,856	\$43.59	340,368	\$41.50
Granted	560,680	\$20.61	161,971	\$47.82	272,608	\$45.11
Vested	(147,530)	\$45.16	(194,157)	\$42.74	(165,344)	\$41.49
Forfeited	(39,827)	\$25.41	(75,535)	\$45.98	(47,776)	\$44.57
Unvested, end of year	665,458	\$25.98	292,135	\$45.89	399,856	\$43.59

Outstanding RSUs granted to employees generally vest ratably over a three year vesting period. RSUs granted to non-employee directors have a one year vesting period. The total fair value of shares vested in 2022, 2021 and 2020 was \$3.8 million, \$9.1 million and \$7.2 million, respectively. The holders of RSUs are entitled to dividend equivalents. The dividend equivalents are settled in cash at the same time that the underlying RSUs vest and are subject to the same risk of forfeiture as the underlying shares. The fair value of the RSUs granted is based on the market price of the underlying shares at the date of grant.

Compensation Expense

Share based compensation expense is recognized on a straight-line basis over the vesting period. The amount of expense and related tax benefit is summarized below:

	Year E	nded Decem	ber 31,
	2022	2021	2020
	(in thousands)		
Share based compensation expense	\$8,122	\$6,658	\$7,625
U.S. tax benefit on share based compensation expense	\$1,526	\$1,206	\$1,001

At December 31, 2022, the Company had \$11.2 million of unrecognized share based compensation expense expected to be charged to earnings over a weighted-average period of 1.8 years.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

14. Income Taxes

Under current Bermuda law, James River Group Holdings, Ltd. and its Bermuda-based subsidiaries, JRG Re and Carolina Re, are not required to pay any Bermuda taxes on their income or capital gains. Those companies have received an undertaking from the Minister of Finance in Bermuda that, in the event of any taxes being imposed, the Company will be exempt from taxation in Bermuda until March 2035.

Distributions from the Company's U.S. subsidiaries to its U.K. intermediate holding company, James River UK, are generally subject to a 5% dividend withholding tax. No distributions occurred in 2022, 2021 or 2020.

The Company's U.S. subsidiaries are subject to federal, state and local corporate income taxes, and other taxes applicable to U.S. corporations. In addition, Carolina Re is subject to Federal income taxes as a result of its irrevocable election to be taxed as a U.S. domestic corporation under Section 953(d) of the Code. The Company's U.S.-domiciled subsidiaries and Carolina Re file a consolidated U.S. federal income tax return.

The Company's U.S.-based subsidiaries are generally no longer subject to income tax examination by U.S. income tax authorities for the tax years ending before January 1, 2019.

During 2018, the IRS published factors that allowed the Company to adjust its current and deferred tax liabilities based on the provisions of the Tax Act. The Tax Act has specific transition provisions associated with reserve discounting. The initial impact of the proposed regulations in 2018 was an increase to our deferred tax asset for the additional discount as of December 31, 2017 of \$8.8 million offset by an increase to our deferred tax liability of \$8.8 million representing the 8 year transition provision required by the Tax Act. During 2018, \$1.1 million of this transition provision was recognized in our current provision and adjusted out of our deferred tax liability. The regulations were finalized in 2019, and the remaining reserve adjustment at December 31, 2019 based on these final regulations was \$5.7 million to be recognized over the six years 2020 — 2025 at \$950,000 per year.

The expected income tax provision computed from pre-tax income at the weighted-average tax rate has been calculated as the sum of the pre-tax income in each jurisdiction multiplied by that jurisdiction's applicable Federal statutory tax rate. Federal statutory tax rates of 0% and 21% have been used in 2022, 2021 and 2020 for Bermuda and the U.S., respectively. The U.S. income (loss) before Federal income taxes was \$85.9 million, \$(89.3) million, and \$25.1 million for the years ending December 31, 2022, 2021, and 2020, respectively. The Tax Act base-erosion and anti-abuse tax ("BEAT") provisions impose a minimum tax on applicable taxpayers that make certain payments to related foreign persons. BEAT subjects the modified taxable income of an applicable taxpayer to a specified tax rate (10% in 2022). Modified taxable income is generally calculated by adding back certain payments to related foreign persons to regular taxable income. For the Company, reinsurance premiums paid by the Company's U.S. insurance subsidiaries to JRG Re, a Bermuda entity that is not a U.S. taxpayer, are added back to regular taxable income in applying the BEAT provisions. A reconciliation of the difference between the Company's Federal income tax provision on

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

14. Income Taxes (continued)

U.S. income and the expected Federal tax provision on U.S. income using the weighted-average tax rate as well as a reconciliation to total tax expense is as follows:

	Year Ended December 31,		
	2022	2021	2020
	(in thousands)	
Federal income tax expense (benefit) at applicable statutory rates	\$18,041	\$(18,750)	\$5,272
Tax-exempt investment income	(225)	(278)	(260)
Dividends received deduction	(315)	(298)	(283)
Excess tax expense (benefits) on share based compensation	530	(208)	(679)
Provision to return and amended tax returns	124	(3,945)	_
Base Erosion and Anti-Abuse Tax	_	_	2,843
Other	259	233	17
Federal income tax expense (benefit)	\$18,414	\$(23,246)	\$6,910
U.S. state income tax expense	_	11	203
Total income tax expense (benefit)	\$18,414	\$(23,235)	\$7,113

The significant components of net deferred tax assets at the corporate income tax rate of 21% for the years ended December 31, 2022 and 2021 are summarized as follows:

	December 31,	
	2022	2021
	(in tho	usands)
Deferred tax assets:		
Accrued compensation expenses	\$ 3,539	\$ 2,604
Reserve for losses and loss adjustment expenses	20,706	18,016
Unearned premiums	13,034	10,675
Share based compensation	1,842	1,541
Allowance for credit losses	2,549	2,516
Net unrealized losses	24,066	_
Net operating loss carryforward	_	15,221
Other	3,991	7,197
Total deferred tax assets	69,727	57,770
Deferred tax liabilities:		
Intangible assets	7,281	7,289
Net unrealized gains	_	6,626
Deferred policy acquisition costs	6,896	4,494
Equity method investments	3,327	10,257
Other	3,379	2,674
Total deferred tax liabilities	20,883	31,340
Net deferred tax assets	\$48,844	\$26,430

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

14. Income Taxes (continued)

Deferred income taxes have not been accrued with respect to certain undistributed earnings of foreign subsidiaries. If the earnings were to be distributed, as dividends or otherwise, such amounts may be subject to withholding taxation in the jurisdiction of the paying entity. The Company asserts that U.S. unremitted earnings as of December 31, 2022 will be permanently reinvested in the U.S. and, accordingly, no provision for withholding taxes arising in respect to U.S. unremitted earnings has been made.

The Company is considered a mixed company for net operating loss carryforward rules. A 20-year carryforward without an annual income limitation is applicable for insurance companies. The carryforward period for non-insurance companies is unlimited but limited to 80% of the current year taxable income. If all taxable income were classified as insurance income, the net operating loss would expire in 2041.

The Company had no reserve for future tax contingencies or liabilities ("unrecognized tax benefits") at December 31, 2022 or 2021.

The U.S. imposes a 1% excise tax on reinsurance premiums paid to non-U.S. reinsurers with respect to risks located in the U.S. The rates of tax are established based on the nature of the risk, unless reduced by an applicable U.S. tax treaty. For the years ended December 31, 2022, 2021, and 2020, the Company paid \$0, \$338,000, and \$468,000, respectively, of federal excise taxes on its intercompany reinsurance transactions. The Company also paid excise taxes of \$842,000, \$1.5 million, and \$1.2 million for the years ended December 31, 2022, 2021, and 2020, respectively, on written premiums assumed from third-party insurers with respect to risks located in the U.S. These excise taxes are reflected as "other operating expenses" in the Company's consolidated Statements of Income (Loss) and Comprehensive (Loss) Income.

15. Other Operating Expenses and Other Expenses

Other operating expenses consist of the following:

	Year Ended December 31,		
	2022	2021	2020
		(in thousands)	
Amortization of policy acquisition costs	\$ 88,571	\$ 69,663	\$ 75,578
Other underwriting expenses of the insurance segments	75,726	67,420	60,502
Other operating expenses of the Corporate and Other segment	31,260	27,609	29,418
Total	\$195,557	\$164,692	\$165,498

Other expenses of \$6.0 million, \$2.6 million, and \$2.1 million for the years ended December 31, 2022, 2021, and 2020, respectively, primarily consist of certain nonoperating expenses including legal fees related to a purported class action lawsuit, legal and other professional fees related to the Company's May 2021 common share offering, legal and other professional fees and other expenses related to various strategic initiatives including loss portfolio transfers accounted for as retroactive reinsurance, and employee severance costs.

16. Employee Benefits

The Company and its subsidiaries offer savings plans (the "Savings Plans") which qualify under Section 401(k) of the U.S. Internal Revenue Code. Participants may contribute certain percentages of their pre-tax salary to the Savings Plans subject to statutory limitations. The Company and its subsidiaries match employee contributions at various rates up to a maximum contribution of 6.0% of the participant's earnings subject to certain statutory limits. For the years ended December 31, 2022, 2021, and 2020, the expense associated with the Savings Plans totaled \$3.5 million, \$3.4 million, and \$3.5 million, respectively.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

17. Commitments and Contingent Liabilities

The Company is involved in various legal proceedings, including commercial matters and litigation regarding insurance claims arising in the ordinary course of business as well as an alleged class action lawsuit. In addition, the Company is involved from time to time in legal actions which seek extracontractual damages, punitive damages or penalties, including claims alleging bad faith in the handling of insurance claims. The Company believes that the outcome of such matters, individually and in the aggregate, is not reasonably likely to have a material adverse effect on its consolidated financial position, results of operations or cash flows.

On July 9, 2021 a purported class action lawsuit was filed in the U.S. District Court, Eastern District of Virginia (the "Court") by Employees' Retirement Fund of the City of Fort Worth against James River Group Holdings, Ltd. and certain of its present and former officers (together, "Defendants"). On September 22, 2021, the Court entered an order appointing Employees' Retirement Fund of the City of Fort Worth and the City of Miami General Employees' and Sanitation Employees' Retirement Trust as co-lead plaintiffs (together, "Plaintiffs"). Plaintiffs' consolidated amended complaint was filed on November 19, 2021 (the "First Amended Complaint"). The Defendants filed a motion to dismiss the First Amended Complaint on January 18, 2022, Plaintiffs' opposition thereto was filed on March 4, 2022, and the Defendants' reply to the Plaintiffs' opposition was filed on April 4, 2022. On August 25, 2022, Plaintiffs filed a motion for leave to file a second amended class action complaint (the "Second Amended Complaint"). On September 8, 2022, the Defendants consented to the Plaintiffs' motion to file the Second Amended Complaint, and filed a motion to dismiss the Second Amended Complaint on October 24, 2022 (the "Second MTD"). The Plaintiffs' opposition to the Second MTD was filed on November 7, 2022, and the Defendant's reply to the Plaintiffs' opposition was filed on November 14, 2022. The First Amended Complaint and Second Amended Complaint assert claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 on behalf of a putative class of persons and entities that purchased the Company's stock between February 22, 2019 and October 25, 2021, allege that Defendants failed to make appropriate disclosures concerning the adequacy of reserves for policies that covered Rasier LLC, a subsidiary of Uber Technologies, Inc., and seek unspecified damages, costs, attorneys' fees and such other relief as the court may deem proper. We believe that the Plaintiffs' claims are without merit, and we intend to vigorously defend this lawsuit.

For a description of the potential future impacts of COVID-19 on the Company, see the "The global coronavirus outbreak could harm business and results of operations of the Company" risk factor in Part I — Item IA in this Annual Report.

The Company's reinsurance subsidiary, JRG Re, entered into three letter of credit facilities with banks as security to third-party reinsureds on reinsurance assumed by JRG Re. JRG Re has established custodial accounts to secure these letters of credit. Under a \$30.0 million facility, \$4.8 million of letters of credit were issued through December 31, 2022 which were secured by deposits of \$5.6 million. Under the 2013 Facility, \$44.5 million of letters of credit were issued through December 31, 2022 which were secured by deposits of \$52.9 million. Under the 2017 Facility, \$22.9 million of letters of credit were issued through December 31, 2022 which were secured by deposits of \$33.1 million. JRG Re has also established trust accounts to secure its obligations to selected reinsureds. The total amount deposited in the trust accounts for the benefit of third-party reinsureds was \$427.2 million at December 31, 2022.

Amounts Recoverable from an Indemnifying Party and Reinsurer on Legacy Commercial Auto Book

James River previously issued a set of commercial auto insurance contracts to Rasier (the "Rasier Commercial Auto Policies") under which James River pays losses and loss adjustment expenses on the contracts. James River has indemnity agreements with Rasier (non-insurance entities) (collectively, the "Indemnity Agreements") and is contractually entitled to reimbursement for the portion of the losses and loss adjustment expenses paid on behalf of Rasier under the Rasier Commercial Auto Policies and other expenses incurred by James River. On September 27, 2021, James River entered into the Commercial Auto

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

17. Commitments and Contingent Liabilities (continued)

LPT with Aleka to reinsure substantially all of the Rasier Commercial Auto Policies for which James River is not otherwise indemnified by Rasier under the Indemnity Agreements. Under the terms of the Commercial Auto LPT, effective as of July 1, 2021, James River ceded to Aleka approximately \$345.1 million of commercial auto liabilities relating to Rasier Commercial Auto Policies written in the years 2013-2019, which amount constituted the reinsurance premium. For the year ended December 31, 2022, due to adverse paid loss trends on the legacy Rasier business, the Company recognized adverse prior year development of \$46.7 million on the reserves subject to the Commercial Auto LPT, bringing the cumulative amount ceded under the Commercial Auto LPT to \$391.8 million at December 31, 2022.

Each of Rasier and Aleka are required to post collateral under the Indemnity Agreements and the Commercial Auto LPT:

- Pursuant to the Indemnity Agreements, Rasier is required to post collateral equal to 102% of James River's estimate of the amounts that are recoverable or may be recoverable under the Indemnity Agreements, including, among other things, case loss and loss adjustment expense reserves, IBNR loss and loss adjustment expense reserves, extra contractual obligations and excess policy limits liabilities. The collateral is provided through a collateral trust arrangement (the "Indemnity Trust") in favor of James River by Aleka. In connection with the execution of the Commercial Auto LPT, James River returned \$691.3 million to the Indemnity Trust, representing the remaining balance of the amount withdrawn in October 2019, as was permitted under the indemnification agreements with Rasier and the associated trust agreement. At December 31, 2022, the balance in the Indemnity Trust was \$267.0 million, and, together with the balance of the Loss Fund Trust (as defined below) attributable to the Indemnity Agreements as described below, the total balance of collateral securing Rasier's obligations under the Indemnity Agreements was \$336.2 million.
- Pursuant to the Commercial Auto LPT, Aleka is required to post collateral equal to 102% of James River's estimate of Aleka's obligations under the Commercial Auto LPT, calculated in accordance with standard actuarial principles and based on reserves recorded in the Company's statutory financial statements. The collateral is provided through a collateral trust arrangement (the "LPT Trust") established in favor of James River by Aleka. At December 31, 2022, the balance in the LPT Trust was \$121.9 million, and, together with the balance of the Loss Fund Trust (as defined below) attributable to the Commercial Auto LPT as described below, the total balance of collateral securing Aleka's obligations under the Commercial Auto LPT was \$150.0 million. At December 31, 2022, the total reinsurance recoverables under the Commercial Auto LPT was \$145.2 million (including \$132.0 million of unpaid recoverables and \$13.2 million of paid recoverables).

In connection with the execution of the Commercial Auto LPT, James River and Aleka entered into an administrative services agreement (the "Administrative Services Agreement") with a third party claims administrator (the "Administrator") pursuant to which the Administrator handles the claims on the Rasier Commercial Auto Policies for the remaining life of those claims. The claims paid by the Administrator are reimbursable by James River, and pursuant to the Administrative Services Agreement, James River established a loss fund trust account for the benefit of the Administrator (the "Loss Fund Trust") to collateralize its claims payment reimbursement obligations. James River funds the Loss Fund Trust using funds withdrawn from the Indemnity Trust, funds withdrawn from the LPT Trust, and its own funds, in each case in an amount equal to the pro rata portion of the required Loss Fund Trust balance attributable to the Indemnity Agreements, the Commercial Auto LPT and James River's existing third party reinsurance agreements, respectively. At December 31, 2022, the balance in the Loss Fund Trust was \$103.2 million, including \$69.2 million representing collateral supporting Rasier's obligations under the Indemnity Agreements and \$28.2 million representing collateral supporting Aleka's obligations under the Commercial Auto LPT. Funds posted to the Loss Fund Trust are classified as restricted cash equivalents on the Company's balance sheet.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

17. Commitments and Contingent Liabilities (continued)

While the Commercial Auto LPT brings economic finality to substantially all of the Rasier Commercial Auto Policies, the Company has credit exposure to Rasier and Aleka under the Indemnity Agreements and the Commercial Auto LPT if the estimated losses and expenses of the Rasier Commercial Auto Policies grow at a faster pace than the growth in our collateral balances. In addition, the Company has credit exposure if its estimates of future losses and loss adjustment expenses and other amounts recoverable under the Indemnity Agreements and the Commercial Auto LPT, which are the basis for establishing the collateral balances, are lower than actual amounts paid or payable. The amount of credit exposure in any of these instances could be material. To mitigate these risks, the Company closely and frequently monitors exposure compared to collateral held, and requests additional collateral in accordance with the terms of the Commercial Auto LPT and Indemnity Agreements when its analysis indicates that the Company has uncollateralized exposure.

18. Other Comprehensive (Loss) Income

The following table summarizes the components of other comprehensive (loss) income:

	Year Ended December 31,		
	2022	2021	2020
	(in thousands)		
Unrealized (losses) gains arising during the period, before U.S. income			
taxes	\$(219,788)	\$(54,132)	\$58,704
U.S. income taxes	26,780	6,189	(6,967)
Unrealized (losses) gains arising during the period, net of U.S. income			
taxes	(193,008)	(47,943)	51,737
Less reclassification adjustment:			
Net realized investment gains	275	4,924	1,045
U.S. income taxes	(261)	(946)	(93)
Reclassification adjustment for investment gains realized in net income	14	3,978	952
Other comprehensive (loss) income	\$(193,022)	\$(51,921)	\$50,785

In addition to the net realized investment gains of \$275,000, \$4.9 million, and \$1.0 million on available-for-sale fixed maturity securities for the years ended December 31, 2022, 2021, and 2020, the Company recognized net realized and unrealized investment (losses) gains in the respective years of \$(17.0) million, \$5.8 million, and \$(15.4) million on its investments in bank loan participations and \$(11.4) million, \$4.8 million, and \$(1.7) million on its investments in equity securities.

19. Segment Information

The Company has four reportable segments, three of which are separately managed business units and the fourth ("Corporate and Other") includes the Company's remaining operations. The Excess and Surplus Lines segment primarily offers commercial excess and surplus lines liability and excess property insurance products. The Specialty Admitted Insurance segment offers specialty admitted fronting and program business and workers' compensation insurance coverage. The Casualty Reinsurance segment offers commercial liability and non-catastrophe property reinsurance to U.S. insurance companies and to the Company's U.S.-based insurance subsidiaries. The Corporate and Other segment consists of certain management and treasury activities of James River Group, James River UK, and JRG Holdings as well as interest expense associated with senior debt and Junior Subordinated Debt, and investment income. The accounting policies of the reportable segments are the same as those described in the summary of significant accounting policies.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

19. Segment Information (continued)

Segment revenues for each reportable segment consist of net earned premiums, net investment income, and realized and unrealized (losses) gains on investments. Segment profit (loss) is measured by underwriting profit (loss), which is generally defined as net earned premiums and gross fee income (in specific instances when the Company is not retaining insurance risk) in "other income" in the condensed consolidated statements of income (loss) and comprehensive (loss) income less loss and loss adjustment expenses on business not subject to retroactive reinsurance accounting for loss portfolio transfers (see Loss Portfolio Transfers in Note 7 — Reserve for Losses and Loss Adjustment Expenses) and other operating expenses of the operating segments. Gross fee income of the Excess and Surplus Lines segment and Specialty Admitted Insurance segment is included in the respective segment's underwriting profit (loss). Gross fee income of \$3.8 million and \$4.5 million from the Specialty Admitted Insurance segment for the years ended December 31, 2022 and 2021, respectively, and \$3.4 million (\$1.6 million from the Excess and Surplus Lines segment and \$1.8 million from the Specialty Admitted Insurance segment) for the year ended December 31, 2020, was included in other income and in underwriting profit (loss). Segment results are reported prior to the effects of the intercompany reinsurance agreements between the Company's insurance and reinsurance subsidiaries. All gross written premiums and net earned premiums for all periods presented were generated from policies issued to U.S. based insureds.

	Excess and Surplus Lines	Specialty Admitted Insurance	Casualty Reinsurance	Corporate and Other	Total
		(in thousands)		
As of and for the Year Ended December 31, 2022					
Gross written premiums	\$ 921,164	\$ 490,208	\$ 85,208	\$ —	\$1,496,580
Net earned premiums	555,597	74,137	136,427	_	766,161
Segment revenues	570,087	81,593	161,554	462	813,696
Net investment income	28,664	5,068	37,334	45	71,111
Interest expense	_	_	3,706	13,872	17,578
Underwriting profit (loss) of operating					
segments	83,051	4,234	(6,383)	_	80,902
Segment goodwill	181,831	_	_	_	181,831
Segment assets	2,627,956	1,277,988	1,137,778	93,353	5,137,075
As of and for the Year Ended December 31, 2021					
Gross written premiums	\$ 833,657	\$ 491,561	\$ 182,081	\$ —	\$1,507,299
Net earned premiums	486,000	75,371	134,223	_	695,594
Segment revenues	508,829	83,855	179,354	842	772,880
Net investment income	13,811	3,044	39,445	565	56,865
Interest expense	_	_	_	8,922	8,922
Underwriting (loss) profit of operating					
segments	(121,478)	9,667	(117,526)	_	(229,337)
Segment goodwill	181,831	_	_	_	181,831
Segment assets	1,997,192	1,062,125	1,857,462	31,771	4,948,550
As of and for the Year Ended December 31, 2020					
Gross written premiums	\$ 699,143	\$ 408,691	\$ 149,166	\$ —	\$1,257,000
Net earned premiums	415,168	57,505	134,133	_	606,806

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

19. Segment Information (continued)

	Excess and Surplus Lines	Specialty Admitted Insurance	Casualty Reinsurance	Corporate and Other	Total
			in thousands)		
Segment revenues	429,918	62,790	166,837	9,144	668,689
Net investment income	18,664	3,392	42,554	8,758	73,368
Interest expense	_	_	_	10,033	10,033
Underwriting profit (loss) of operating					
segments	9,752	4,185	(18, 364)	_	(4,427)
Segment goodwill	181,831	_	_	_	181,831
Segment assets	2,208,344	907,604	1,899,328	47,796	5,063,072

The following table reconciles the underwriting profit (loss) of operating segments by individual segment to consolidated income (loss) before income taxes:

	Year Ended December 31,		
	2022	2021	2020
		(in thousands)	
Underwriting profit (loss) of the operating segments:			
Excess and Surplus Lines	\$ 83,051	\$(121,478)	\$ 9,752
Specialty Admitted Insurance	4,234	9,667	4,185
Casualty Reinsurance	(6,383)	(117,526)	(18,364)
Total underwriting profit (loss) of operating segments	80,902	(229,337)	(4,427)
Other operating expenses of the Corporate and Other segment	(31,260)	(27,609)	(29,418)
Underwriting profit (loss)	49,642	(256,946)	(33,845)
Losses and loss adjustment expenses – retroactive reinsurance	(20,091)	_	_
Net investment income	71,111	56,865	73,368
Net realized and unrealized (losses) gains on investments	(28,318)	15,564	(16,030)
Other income	981	353	1,153
Other expenses	(5,997)	(2,585)	(2,138)
Interest expense	(17,578)	(8,922)	(10,033)
Amortization of intangible assets	(363)	(363)	(538)
Income (loss) before income taxes	\$ 49,387	\$(196,034)	\$ 11,937

The Company currently has 15 underwriting divisions, including 13 in the Excess and Surplus Lines segment, one in the Specialty Admitted Insurance segment, and one in the Casualty Reinsurance segment. Each underwriting division focuses on a specific industry group or coverage.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

19. Segment Information (continued)

Gross written premiums by segment and underwriting division are presented below:

	Year Ended December 31,			
	2022	2021	2020	
		(in thousands)		
Excess Casualty	\$ 310,383	\$ 285,082	\$ 213,037	
General Casualty	173,574	140,608	125,433	
Manufacturers and Contractors	156,645	139,720	122,880	
Excess Property	52,104	47,241	37,332	
Energy	42,290	46,216	51,109	
Commercial Auto	37,974	34,630	30,029	
Small Business	36,930	32,593	24,790	
Allied Health	34,156	35,192	26,918	
Life Sciences	32,277	35,935	35,163	
Environmental	20,676	17,050	17,753	
Sports and Entertainment	13,934	9,442	6,118	
Professional Liability	8,936	8,104	6,881	
Medical Professionals	1,285	1,844	1,700	
Total Excess and Surplus Lines segment	921,164	833,657	699,143	
Specialty Admitted Insurance segment	490,208	491,561	408,691	
Casualty Reinsurance segment	85,208	182,081	149,166	
Total	\$1,496,580	\$1,507,299	\$1,257,000	

The Company does business with three brokers that generated \$289.7 million, \$214.2 million and \$139.4 million of gross written premiums for the Excess and Surplus Lines segment for the year ended December 31, 2022, representing 19.4%, 14.3% and 9.3% of consolidated gross written premiums and 31.4%, 23.3% and 15.1% of the Excess and Surplus Lines segment's gross written premiums, respectively. The Company has agency contracts with various branches within the aforementioned brokers. No other broker generated 10.0% or more of the gross written premiums for the Excess and Surplus Lines segment for the year ended December 31, 2022. No individual insured generated 10.0% or more of the gross written premiums for the Excess and Surplus Lines segment for the year ended December 31, 2022.

The Specialty Admitted Insurance segment accepts applications for insurance from a variety of sources, including independent retail agents, program administrators and managing general agents ("MGAs"). The Company does business with two agencies that generated \$120.9 million and \$110.9 million of gross written premiums for the Specialty Admitted Insurance segment for the year ended December 31, 2022, representing 8.1% and 7.4% of consolidated gross written premiums and 24.7% and 22.6% of the Specialty Admitted Insurance segment's gross written premiums, respectively. No other agency generated 10.0% or more of the gross written premiums for the Specialty Admitted Insurance segment for the year ended December 31, 2022.

The Company does business with three brokers that generated \$25.4 million, \$20.0 million, and \$17.2 million of gross written premiums for the Casualty Reinsurance segment for the year ended December 31, 2022, representing 1.7%, 1.3%, and 1.1% of consolidated gross written premiums and 29.8%, 23.5%, and 20.1% of the Casualty Reinsurance segment's gross written premiums, respectively. No other broker generated 10.0% or more of the gross written premiums for the Casualty Reinsurance segment for the

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

19. Segment Information (continued)

year ended December 31, 2022. The Casualty Reinsurance segment assumed business from three unaffiliated ceding companies that generated \$26.9 million, \$24.5 million, and \$16.5 million of gross written premiums for the year ended December 31, 2022, representing 1.8%, 1.6%, and 1.1% of consolidated gross written premiums and 31.6%, 28.7%, and 19.4% of the Casualty Reinsurance segment's gross written premiums, respectively.

20. Fair Value Measurements

Three levels of inputs are used to measure fair value of financial instruments: (1) Level 1: quoted price (unadjusted) in active markets for identical assets, (2) Level 2: inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the instrument, and (3) Level 3: inputs to the valuation methodology are unobservable for the asset or liability.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date.

The fair values of fixed maturity securities, equity securities, and bank loan participations have been determined using fair value prices provided by the Company's investment accounting services provider or investment managers, who utilize internationally recognized independent pricing services. The prices provided by the independent pricing services are generally based on observable market data in active markets (*e.g.* broker quotes and prices observed for comparable securities). Values for U.S. Treasury and publicly-traded equity securities are generally based on Level 1 inputs which use the market approach valuation technique. The values for all other fixed maturity securities (including state and municipal securities and obligations of U.S. government corporations and agencies) and bank loan participations generally incorporate significant Level 2 inputs, and in some cases, Level 3 inputs, using the market approach and income approach valuation techniques. There have been no changes in the Company's use of valuation techniques since December 31, 2020.

The Company reviews fair value prices provided by its outside investment accounting service provider or investment managers for reasonableness by comparing the fair values provided by the managers to those provided by its investment custodian. The Company also reviews and monitors changes in unrealized gains and losses. The Company has not historically adjusted security prices. The Company obtains an understanding of the methods, models and inputs used by the investment managers and independent pricing services, and controls are in place to validate that prices provided represent fair values. The Company's control process includes, but is not limited to, initial and ongoing evaluation of the methodologies used, a review of specific securities and an assessment for proper classification within the fair value hierarchy, and obtaining and reviewing internal control reports for the investment manager that obtains fair values from independent pricing services.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

20. Fair Value Measurements (continued)

Assets measured at fair value on a recurring basis as of December 31, 2022 are summarized below:

	Fair Value Measurements Using				
	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3	Total	
		(in thous	sands)		
Fixed maturity securities, available-for-sale:					
State and municipal	\$ —	\$ 330,852	\$	\$ 330,852	
Residential mortgage-backed	_	401,249		401,249	
Corporate	_	670,212		670,212	
Commercial mortgage and asset-backed		309,015		309,015	
U.S. Treasury securities and obligations					
guaranteed by the U.S. government	71,770	319	_	72,089	
Total fixed maturity securities, available-for-sale	\$71,770	\$1,711,647	\$ —	\$1,783,417	
Equity securities:					
Preferred stock	\$ —	\$ 70,831	\$ —	\$ 70,831	
Common stock	45,232	2,547	17	47,796	
Total equity securities	\$45,232	\$ 73,378	\$17	\$ 118,627	
Bank loan participations	\$ —	\$ 154,991	<u>\$</u> —	\$ 154,991	
Short-term investments	\$	\$ 107,812	<u>\$</u>	\$ 107,812	

Assets measured at fair value on a recurring basis as of December 31, 2021 are summarized below:

	Fair Value Measurements Using				
	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3	Total	
		(in thous	sands)		
Fixed maturity securities, available-for-sale:					
State and municipal	\$ —	\$ 333,717	\$ —	\$ 333,717	
Residential mortgage-backed		246,631		246,631	
Corporate	_	732,335	_	732,335	
Commercial mortgage and asset-backed	_	304,488		304,488	
U.S. Treasury securities and obligations					
guaranteed by the U.S. government	59,988	402		60,390	
Total fixed maturity securities, available-for-sale	\$59,988	\$1,617,573	\$ —	\$1,677,561	
Equity securities:					
Preferred stock	\$ —	\$ 63,612	\$ —	\$ 63,612	
Common stock	41,244	3,452	102	44,798	
Total equity securities	\$41,244	\$ 67,064	\$102	\$ 108,410	
Bank loan participations	\$	\$ 156,043	<u>\$ —</u>	\$ 156,043	
Short-term investments	\$	\$ 136,563	<u>\$ —</u>	\$ 136,563	

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

20. Fair Value Measurements (continued)

A reconciliation of the beginning and ending balances of available-for-sale fixed maturity securities, equity securities, and bank loan participations measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is shown below:

	Year Ended Decemb		mber 31,
	2022	2021	2020
		in thousand	ds)
Beginning balance	\$102	\$ 980	\$ 43
Transfers in to Level 3	_	8	358
Transfers out of Level 3	_	(6)	(767)
Purchases	_	_	1,417
Sales	(92)	(426)	_
Maturities, calls and paydowns	_	(379)	(17)
Amortization of discount	_		2
Total gains or losses (realized/unrealized):			
Included in earnings	7	(75)	(56)
Included in other comprehensive income			
Ending balance	\$ 17	\$ 102	\$ 980

The Company held one equity security at December 31, 2022 for which the fair value was determined using significant unobservable inputs (Level 3). The fair value of \$17,000 for the equity security was obtained from our asset manager and was derived from an internal model.

The Company held one equity security at December 31, 2021 for which the fair value was determined using significant unobservable inputs (Level 3). The fair value of \$102,000 for the equity security was based on expected proceeds from its sale. During 2021, one equity security was transferred from Level 2 to Level 3 as the security was no longer actively traded. This security was exchanged for an equity security that is publicly traded and it was transferred from Level 3 to Level 1.

The Company held one bank loan participation and two equity securities at December 31, 2020 for which the fair value was determined using significant unobservable inputs (Level 3). A market approach using prices in trades of comparable securities was utilized to determine a fair value of \$980,000 at December 31, 2020. During 2020, the Company was able to obtain a quoted price from a vendor for two bank loan participations and one equity security and transferred them to Level 2.

Transfers out of Level 3 occur when the Company is able to obtain reliable prices from pricing vendors for which the Company was previously unable to obtain reliable prices. Transfers in to Level 3 occur when the Company is unable to obtain reliable prices for securities from pricing vendors and instead must use broker price quotes.

There were no transfers between Level 1 and Level 2 during 2022, 2021 or 2020. The Company recognizes transfers between levels at the beginning of the reporting period.

In the determination of the fair value for bank loan participations and certain high yield bonds, the Company's investment manager endeavors to obtain data from multiple external pricing sources. External pricing sources may include brokers, dealers and price data vendors that provide a composite price based on prices from multiple dealers. Such external pricing sources typically provide valuations for normal institutional size trading units of such securities using methods based on market transactions for comparable

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

20. Fair Value Measurements (continued)

securities, and various relationships between securities, as generally recognized by institutional dealers. For investments in which the investment manager determines that only one external pricing source is appropriate or if only one external price is available, the relevant investment is generally recorded at fair value based on such price.

Investments for which external sources are not available or are determined by the investment manager not to be representative of fair value are recorded at fair value as determined by the Company, with input from its investment managers and valuation specialists as considered necessary. In determining the fair value of such investments, the Company considers one or more of the following factors: type of security held, convertibility or exchangeability of the security, redeemability of the security (including the timing of redemptions), application of industry accepted valuation models, recent trading activity, liquidity, estimates of liquidation value, purchase cost, and prices received for securities with similar terms of the same issuer or similar issuers. There were no investments for which external sources were unavailable to determine fair value as of December 31, 2022 and 2021.

The carrying values and fair values of financial instruments are summarized below:

	December 31,				
	20	22	2021		
	Carrying Value	Fair Value	Carrying Value	Fair Value	
		(in tho	usands)		
Assets					
Fixed maturity securities, available-for-sale	\$1,783,417	\$1,783,417	\$1,677,561	\$1,677,561	
Equity securities	118,627	118,627	108,410	108,410	
Bank loan participations	154,991	154,991	156,043	156,043	
Cash and cash equivalents	173,164	173,164	190,123	190,123	
Restricted cash equivalents	103,215	103,215	102,005	102,005	
Short-term investments	107,812	107,812	136,563	136,563	
Other invested assets – notes receivable	7,205	7,703	9,740	11,921	
Liabilities					
Senior debt	222,300	226,063	262,300	252,213	
Junior subordinated debt	104,055	127,149	104,055	106,635	

The fair values of fixed maturity securities, equity securities, and bank loan participations have been determined using quoted market prices for securities traded in the public market or prices using bid or closing prices for securities not traded in the public marketplace. The fair values of cash and cash equivalents and short-term investments approximate their carrying values due to their short-term maturity.

The fair values of other invested assets-notes receivable, senior debt, and junior subordinated debt at December 31, 2022 and 2021 were determined by calculating the present value of expected future cash flows under the terms of the note agreements or debt agreements, as applicable, discounted at an estimated market rate of interest at December 31, 2022 and 2021, respectively.

The fair values of senior debt and junior subordinated debt at December 31, 2022 and 2021 were determined using inputs to the valuation methodology that are unobservable (Level 3).

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

21. Statutory Matters

U.S.

U.S. state insurance laws and regulations prescribe accounting practices for determining statutory net income and capital and surplus for insurance companies. In addition, state regulators may permit statutory accounting practices that differ from prescribed practices. Statutory accounting practices prescribed or permitted by regulatory authorities for the Company's insurance subsidiaries differ from U.S. GAAP. The principal differences between SAP and GAAP as they relate to the financial statements of the Company's insurance subsidiaries are (a) policy acquisition costs are expensed as incurred under SAP, whereas they are deferred and amortized under GAAP, (b) certain assets are not admitted for purposes of determining surplus under SAP, (c) the classification and carrying amounts of investments in certain securities are different under SAP and GAAP, and (d) the criteria for providing asset valuation allowances and the methodologies used to determine the amount thereof are different under SAP and GAAP.

Combined net income, statutory capital and surplus and minimum required statutory capital and surplus, as determined in accordance with statutory accounting practices, for the U.S. insurance subsidiaries as of December 31, 2022, 2021, and 2020 and for the years then ended are summarized as follows:

	2022	2021	2020	
		(in thousands)		
Statutory net income (loss)	\$ 42,565	\$ (3,847)	\$ (710)	
Statutory capital and surplus	493,303	325,368	286,449	
Minimum required statutory capital and surplus	165,809	111,031	100,170	

Risk-Based Capital ("RBC") requirements promulgated by the National Association of Insurance Commissioners require property-casualty insurers to maintain minimum capitalization levels determined based on formulas incorporating various business risks of the insurance subsidiaries. As of December 31, 2022, the insurance subsidiaries' adjusted capital and surplus exceeds their authorized control level RBC.

Bermuda

The Company has two Bermuda-based subsidiaries: JRG Re, a Class 3B insurer and Carolina Re, a Class 3A insurer until its deregistration effective November 16, 2022. Under the Bermuda Insurance Act 1978 and related regulations, an insurer must maintain minimum statutory capital and surplus at the greater of a minimum solvency margin ("MSM") and the Enhanced Capital Requirement ("ECR"), which is the higher of the MSM and capital calculated by the Bermuda Solvency Capital Requirement ("BSCR") model or an approved internal model. The estimated Bermuda insurers minimum statutory solvency margin required at December 31, 2022 was approximately \$38.6 million (2021: \$167.1 million). Actual statutory capital and surplus at December 31, 2022 was \$375.4 million (2021: \$518.7 million). The statutory net (loss) income was \$(17.7) million, \$(141.5) million, and \$20.8 million for the years ended December 31, 2022, 2021, and 2020, respectively. The combined ECR for the year ended December 31, 2021 was \$450.4 million. The BSCR models for the year ended December 31, 2022 will not be filed with the Bermuda Monetary Authority until April 30, 2023. The Company believes that the minimum statutory capital and surplus requirements will be met. The foregoing financial information includes Carolina Re for the years ended December 31, 2021 and 2020.

Under the Bermuda Insurance Act 1978, an insurer must maintain a minimum liquidity ratio in which the value of its relevant assets is not less than 75.0% of the amount of its relevant liabilities for general business. Relevant assets include cash and cash equivalents, fixed maturities, quoted alternative investments, accrued interest income, premiums receivable, losses recoverable from reinsurers, and funds withheld. The relevant liabilities include total insurance provisions and other liabilities less deferred income taxes and letters

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

21. Statutory Matters (continued)

of credit, guarantees and other instruments. As of December 31, 2022, the minimum liquidity ratio requirements were met.

22. Dividend Restrictions

U.S.

The insurance statutes of the U.S.-based insurance subsidiaries' states of domicile limit the amount of dividends that they may pay annually without first obtaining regulatory approval. Generally, the limitations are based on the greater of statutory net income for the preceding year or 10.0% of statutory surplus at the end of the preceding year. The maximum amount of dividends available to James River Group from its U.S. insurance subsidiaries during 2023 without regulatory approval is \$53.7 million. However, U.S. insurance regulators have broad powers to prevent the reduction of statutory surplus to inadequate levels and could refuse to permit the payment of dividends.

Distributions from the Company's U.S.-based subsidiaries to its U.K. intermediate holding company, James River UK, are generally subject to a 5% dividend withholding tax. The payment of any dividends by the Company's U.S.-based subsidiaries directly to a Bermuda-based entity is subject to U.S. taxes at a 30.0% tax rate. JRG Holdings has determined that earnings of its U.S. subsidiaries have been and will be indefinitely reinvested in U.S. operations.

Bermuda

The Bermuda Insurance Act of 1978 prohibits an insurer from declaring or paying a dividend if it is in breach of its minimum solvency margin, its enhanced capital requirement, or its minimum liquidity ratio, or if the declaration or payment of such dividend would cause such a breach. An insurer can declare or pay dividends without prior regulatory approval up to 25% of the total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet). The maximum combined amount of dividends and return of capital that can be paid without prior regulatory approval from our Bermuda insurers at December 31, 2022 is calculated to be approximately \$93.9 million. However, this dividend amount is subject to annual enhanced solvency requirement calculations.

23. Other Related Party Transactions

The Company leases a commercial office building which houses the Company's Richmond, Virginia operations under the terms of a non-cancelable lease from an entity with which it is affiliated. The term of the lease, which has been amended from time to time, runs through 2026. Operating costs under the lease were \$2.1 million, \$2.1 million, and \$1.9 million for the years ended December 31, 2022, 2021, and 2020, respectively.

Upon retiring effective July 31, 2021, the Company's former President and Chief Operating Officer entered into a consulting agreement with the Company to provide consulting services as requested by the Company's Chief Executive Officer during the period August 1, 2021 through December 31, 2021. The Company incurred expenses of \$146,000 in 2021 as compensation for rendering these consulting services.

24. Subsequent Events

On January 27, 2023, the 2013 Facility and 2017 Facility were amended to provide for the transition from LIBOR to the secured overnight financing rate (SOFR).

On February 16, 2023, the Board of Directors declared a cash dividend of \$0.05 per common share. The dividend is payable on March 31, 2023 to shareholders of record on March 13, 2023.

Notes to Consolidated Financial Statements Years ended December 31, 2022, 2021, and 2020

24. Subsequent Events (continued)

On February 16, 2023, the Board of Directors declared a quarterly dividend on the Series A Preferred Shares. The dividend of \$2.6 million will be payable in cash on March 31, 2023 to shareholders of record on March 15, 2023.

On February 16, 2023, the Board of Directors approved awards under the 2014 LTIP and the 2014 Director Plan to the Company's employees and directors with an aggregate fair value of \$9.0 million and a grant date of March 1, 2023.

In keeping with previously announced plans to significantly shrink top-line writings of the Casualty Reinsurance segment, the Company has decided to suspend writing business in the Casualty Reinsurance segment, as it continues to focus on growing the higher returning U.S. insurance and fronting businesses. The Company expects the Casualty Reinsurance segment to continue earning premium due to the nature of the earnings patterns in the reinsurance business, which can extend over multiple years. Aside from the suspension of underwriting activities, the Company plans for the Casualty Reinsurance segment to maintain its normal day-to-day operations, with a staff to continue servicing the business on its books and to facilitate compliance with its regulatory requirements.

JAMES RIVER GROUP HOLDINGS, LTD.

Summary of Investments — Other than Investments in Related Parties

Type of Investment	Cost or Amortized Cost	Fair Value	Amount at which shown on Balance Sheet ⁽¹⁾
	(in thousands)		
Fixed maturity securities, available-for-sale:			
State and municipal	\$ 386,456	\$ 330,852	\$ 330,852
Residential mortgage-backed	437,702	401,249	401,249
Corporate	734,976	670,212	670,212
Commercial mortgage and asset-backed	335,066	309,015	309,015
U.S. Treasury securities and obligations guaranteed by the U.S.			
government	75,583	72,089	72,089
Total fixed maturity securities, available-for-sale	1,969,783	1,783,417	1,783,417
Equity securities:			
Preferred Stock	68,738	70,831	70,831
Common Stock	48,431	47,796	47,796
Total equity securities	117,169	118,627	118,627
Bank loan participations	171,320	154,991	154,991
Short-term investments	107,812	107,812	107,812
Other invested assets			11,083
Total invested assets			\$2,175,930

⁽¹⁾ Differences between the amounts in this column and the amounts in the consolidated balance sheet are due to this schedule excluding investments in related parties.

Condensed Financial Information of Registrant

Balance Sheets (Parent Company)

	December 31,	
	2022	2021
	(in thou	usands)
Assets		
Cash and cash equivalents	\$ 277	\$ 157
Investment in subsidiaries	1,007,874	1,003,762
Due from subsidiaries	41	3,356
Other assets	5,255	3,197
Total assets	\$1,013,447	\$1,010,472
Liabilities and shareholders' equity		
Liabilities:		
Accrued expenses	\$ 1,538	\$ 1,419
Senior debt	207,300	247,300
Junior subordinated debt	15,928	15,928
Due to subsidiaries	87,061	19,847
Other liabilities	2,956	616
Total liabilities	314,783	285,110
Commitments and contingent liabilities		
Series A redeemable preferred shares	144,898	_
Shareholders' equity:		
Class A common shares	7	7
Additional paid-in capital	868,858	862,040
Retained deficit	(152,055)	(166,663)
Accumulated other comprehensive (loss) income	(163,044)	29,978
Total shareholders' equity	553,766	725,362
Total liabilities, Series A redeemable preferred shares, and shareholders' equity	\$1,013,447	\$1,010,472

Condensed Financial Information of Registrant

Statements of Income (Loss) and Comprehensive (Loss) Income (Parent Company)

	Year Ended December 31,			
	2022	2021	2020	
		(in thousands)	· · · · · · · · · · · · · · · · · · ·	
Revenues:				
Other income	\$ 55	\$ 39	\$ 45	
Total revenues	55	39	45	
Expenses:				
Other operating expenses	12,890	11,632	14,960	
Other expenses	747	469	_	
Interest expense	8,579	5,532	6,234	
Total expenses	22,216	17,633	21,194	
Loss before equity in net income of subsidiaries	(22,161)	(17,594)	(21,149)	
Equity in net income (loss) of subsidiaries	53,134	(155,205)	25,973	
Net income (loss)	\$ 30,973	\$(172,799)	\$ 4,824	
Other comprehensive (loss) income:				
Equity in other comprehensive (losses) earnings of subsidiaries	(193,022)	(51,921)	50,785	
Total comprehensive (loss) income	\$(162,049)	\$(224,720)	\$ 55,609	

Condensed Financial Information of Registrant

Statements of Cash Flows (Parent Company)

	Year Ended December 31,		
	2022	2021	2020
		(in thousands)	
Operating activities			
Net income (loss)	\$ 30,973	\$(172,799)	\$ 4,824
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Provision for depreciation and amortization	216	216	216
Share based compensation expense	8,122	6,658	7,625
Equity in undistributed earnings of subsidiaries	(53,134)	218,204	(25,973)
Changes in operating assets and liabilities	68,272	(2,364)	6,433
Net cash provided by (used in) operating activities	54,449	49,915	(6,875)
Investing activities			
Net cash provided by investing activities	_	_	_
Financing activities			
Senior debt issuance	_	_	164,000
Senior debt repayments	(40,000)	_	(60,000)
Subsidiary note issuance	_	_	30,000
Subsidiary note repayments	_	(70,000)	_
Contribution to subsidiary	(144,000)	(128,000)	(90,000)
Issuance of Series A preferred shares	144,898	_	_
Issuances of common shares – public offering	_	192,107	_
Issuances of common shares under equity incentive plans	_	1,877	2,580
Common share repurchases	(1,304)	(3,077)	(3,604)
Dividends on Series A preferred shares	(6,125)	_	_
Dividends on common shares	(7,798)	(43,236)	(37,051)
Net cash (used in) provided by financing activities	(54,329)	(50,329)	5,925
Change in cash and cash equivalents	120	(414)	(950)
Cash and cash equivalents at beginning of period	157	571	1,521
Cash and cash equivalents at end of period	\$ 277	\$ 157	\$ 571
Supplemental information			
Interest paid	\$ 9,342	\$ 5,954	\$ 6,530

Condensed Financial Information of Registrant

Notes to Condensed Financial Statements

1. Accounting Policies

Organization

James River Group Holdings, Ltd. (the "Company") is an exempted holding company registered in Bermuda, organized for the purpose of acquiring and managing insurance and reinsurance entities.

Basis of Presentation

The accompanying condensed financial statements have been prepared using the equity method. Under the equity method, the investment in consolidated subsidiaries is stated at cost plus equity in undistributed earnings of consolidated subsidiaries since the date of acquisition. These condensed financial statements should be read in conjunction with the Company's consolidated financial statements.

Estimates and Assumptions

Preparation of the financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying disclosures. Those estimates are inherently subject to change, and actual results may ultimately differ from those estimates.

Adopted Accounting Standards

In August 2020, the FASB issued ASU 2020-06, Debt — Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40), Accounting for Convertible Instruments and Contracts in an Entity's Own Equity. ASU 2020-06 simplifies the accounting for convertible debt instruments and convertible preferred stock and became effective for interim and annual periods beginning after December 15, 2021. The Company adopted the new standard concurrent with the issuance of our 7% Series A Perpetual Cumulative Convertible Preferred Shares, par value \$0.00125 per share, on March 1, 2022. Under ASU 2020-06, embedded conversion features are no longer separated from the host contract for convertible instruments with conversion features that are not required to be accounted for as derivatives under Topic 815, or that do not result in substantial premiums accounted for as paid-in capital. Adoption of the new standard did not materially impact our financial position or results of operations for the year ended December 31, 2022.

Supplementary Insurance Information

(in thousands)

	Deferred Policy Acquisition Costs	Reserve for Losses and Loss Adjustment Expenses	Unearned Premiums	Net Earned Premiums	Net Investment Income	Losses and Loss Adjustment Expenses	Amortization of Policy Acquisition Costs	Other Operating Expenses	Net Written Premiums
December 31, 2022									
Excess and Surplus Lines	\$36,917	\$1,585,860	\$405,139	\$555,597	\$28,664	\$382,094	\$59,465	\$106,194	\$589,056
Specialty Admitted	(4,080)	755,102	173,057	74,137	5,068	58,548	(9,648)	15,116	76,390
Casualty Reinsurance	26,766	428,033	97,820	136,427	37,334	104,172	38,754	42,987	83,033
Corporate and Other	_	_	_	_	45	_	_	31,260	_
Total	\$59,603	\$2,768,995	\$676,016	\$766,161	\$71,111	\$544,814	\$88,571	\$195,557	\$748,479
December 31, 2021									
Excess and Surplus Lines	\$26,297	\$1,623,635	\$382,479	\$486,000	\$13,811	\$516,299	\$50,283	\$ 91,179	\$501,250
Specialty Admitted	(4,889)	686,643	165,998	75,371	3,044	55,875	(8,395)	14,333	83,935
Casualty Reinsurance	47,118	438,195	179,075	134,223	39,445	220,178	27,775	31,571	159,195
Corporate and Other	_	_	_	_	565	_	_	27,609	_
Total	\$68,526	\$2,748,473	\$727,552	\$695,594	\$56,865	\$792,352	\$69,663	\$164,692	\$744,380
December 31, 2020									
Excess and Surplus Lines	\$25,875	\$1,276,054	\$345,976	\$415,168	\$18,664	\$318,467	\$49,387	\$ 88,520	\$450,346
Specialty Admitted	(3,073)	600,309	136,355	57,505	3,392	41,928	(4,525)	13,213	59,884
Casualty Reinsurance	40,151	315,717	148,040	134,133	42,554	118,150	30,716	34,347	137,544
Corporate and Other	_	_	_	_	8,758	_		29,418	_
Total	\$62,953	\$2,192,080	\$630,371	\$606,806	\$73,368	\$478,545	\$75,578	\$165,498	\$647,774

SCHEDULE IV

JAMES RIVER GROUP HOLDINGS, LTD. AND SUBSIDIARIES

Reinsurance

	Direct Amount	Ceded to Other Companies	Assumed from Other Companies	Net Amount	Percentage of Amount Assumed to Net
		(in thousands)		
Year Ended December 31, 2022					
Excess and Surplus Lines Written Premiums	\$ 921,164	\$332,108	\$ —	\$589,056	_
Specialty Admitted Written Premiums	487,360	413,818	2,848	76,390	3.7%
Casualty Reinsurance Written Premiums	_	2,175	85,208	83,033	102.6%
Total Written Premiums	\$1,408,524	\$748,101	\$ 88,056	\$748,479	11.8%
Year Ended December 31, 2021					
Excess and Surplus Lines Written Premiums	\$ 833,657	\$332,407	\$ —	\$501,250	_
Specialty Admitted Written Premiums	488,377	407,626	3,184	83,935	3.8%
Casualty Reinsurance Written Premiums	_	22,886	182,081	159,195	114.4%
Total Written Premiums	\$1,322,034	\$762,919	\$185,265	\$744,380	24.9%
Year Ended December 31, 2020					
Excess and Surplus Lines Written Premiums	\$ 699,143	\$248,797	\$ —	\$450,346	_
Specialty Admitted Written Premiums	404,851	348,807	3,840	59,884	6.4%
Casualty Reinsurance Written Premiums	_	11,622	149,166	137,544	108.4%
Total Written Premiums	\$1,103,994	\$609,226	\$153,006	\$647,774	23.6%

Valuation and Qualifying Accounts

	Balance at Beginning of Period	Additions Amounts Charged to Expense	Deductions Amounts Written Off or Disposals	Balance at End of Period
		(in thou	sands)	
Year Ended December 31, 2022				
Allowance for Credit Losses on Premiums Receivable and Agents' Balances	\$16,680	\$1,051	\$(1,483)	\$16,248
Allowance for Credit Losses on Reinsurance Balances	631	(19)	Φ(1, +03)	612
	031	(19)		012
Allowance for Credit Losses on Bank Loans				
Total	\$17,311	\$1,032	\$(1,483)	\$16,860
Year Ended December 31, 2021				
Allowance for Credit Losses on Premiums Receivable and Agents' Balances	\$ 8,317	\$9,426	\$(1,063)	\$16,680
Allowance for Credit Losses on Reinsurance Balances	335	296	_	631
Allowance for Credit Losses on Bank Loans	_	_	_	_
Total	\$ 8,652	\$9,722	\$(1,063)	\$17,311
Year Ended December 31, 2020				
Allowance for Credit Losses on Premiums Receivable and				
Agents' Balances	\$ 5,659	\$3,318	\$ (660)	\$ 8,317
Allowance for Credit Losses on Reinsurance Balances	335	_	_	335
Allowance for Credit Losses on Bank Loans	7,181	_	(7,181)	_
Total	\$13,175	\$3,318	\$(7,841)	\$ 8,652

In connection with the adoption of ASU 2016-13, the Company elected the fair value option in accounting for bank loan participations effective January 1, 2020. Under the fair value option, bank loan participations are measured at fair value, and changes in unrealized gains and losses in bank loan participations are reported in our income statement as net realized and unrealized gains (losses) on investments. Also upon adoption of ASU 2016-13, the Company established an allowance for credit losses on reinsurance balances.

SCHEDULE VI

JAMES RIVER GROUP HOLDINGS, LTD. AND SUBSIDIARIES

Supplementary Information Concerning Property Casualty Insurance Operations

	Year Ended December 31,		
	2022	2021	2020
		(in thousands)	
Deferred policy acquisition costs	\$ 59,603	\$ 68,526	\$ 62,953
Reserve for losses and loss adjustment expenses	2,768,995	2,748,473	2,192,080
Unearned premiums	676,016	727,552	630,371
Net earned premiums	766,161	695,594	606,806
Net investment income	71,111	56,865	73,368
Losses and loss adjustment expenses incurred:			
Current year	515,653	466,574	386,341
Prior years – retroactive reinsurance	20,091	_	_
Prior years – excluding retroactive reinsurance	9,070	325,778	92,204
Total losses and loss adjustment expenses incurred	544,814	792,352	478,545
Amortization of policy acquisition costs	88,571	69,663	75,578
Paid losses and loss adjustment expenses, net of reinsurance	392,468	522,747	469,945
Net written premiums	748,479	744,380	647,774

