Annual Report on the Insurance Industry

FEDERAL INSURANCE OFFICE, U.S. DEPARTMENT OF THE TREASURY Completed pursuant to Title V of the Dodd-Frank Wall Street Reform and Consumer Protection Act

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GLOSSARY

A&H Accident and Health **ABS Asset-Backed Securities CISA** Cybersecurity and Infrastructure Security Agency **CLO** Collateralized Loan Obligation **CMBS** Commercial Mortgage-Backed Securities Dodd-Frank Act Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 **FACI** Federal Advisory Committee on Insurance Federal Reserve Board of Governors of the Federal Reserve System Federal Emergency Management Agency **FEMA** **FIO** Federal Insurance Office **FSOC** Financial Stability Oversight Council GAO U.S. Government Accountability Office **GDP Gross Domestic Product** Health sector includes companies licensed solely as health Health sector insurers or as health maintenance organizations IAIS International Association of Insurance Supervisors **ICS Insurance Capital Standard** InsurTech The innovative use of technology in connection with

IPO Initial Public Offering

L&H Life and Health

M&A Mergers and Acquisitions

MitFLG Mitigation Framework Leadership Group

insurance

NAIC National Association of Insurance Commissioners

OECD Organisation for Economic Co-operation and Development

P&C Property and Casualty
RBC Risk-Based Capital

Report FIO, Annual Report on the Insurance Industry (2022)

S&P Global S&P Global Market Intelligence

Secretary Sife Secretary of the Treasury
Sife Sustainable Insurance Forum

TRIA Terrorism Risk Insurance Act of 2002, as amended

TRIP Terrorism Risk Insurance Program
Treasury U.S. Department of the Treasury

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EXECUTIVE SUMMARY

<u>Introduction</u>: This Report is submitted pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act. The introduction outlines the Report's structure, summarizes the authorities of the Federal Insurance Office (FIO), and describes certain FIO's activities since its last Annual Report.

<u>Insurance Industry Financial Overview and Outlook</u>: This section provides an overview of the financial performance and condition of the insurance industry in calendar year 2021.

Domestic Insurance Marketplace Overview: The U.S. insurance industry was able to maintain its financial health during this period, despite the continuing effects of the COVID-19 pandemic, higher inflation, and a changing interest rate environment. This section includes five subsections and a box, as follows:

Financial Performance and Condition Overview: The overview describes the financial performance and condition of the U.S. insurance industry, including the 667 life and health (L&H) insurers, the 2,651 property and casualty (P&C) insurers, and the 1,321 health insurers licensed in the United States during 2021. Insurers in the L&H sector offer products in two segments: (1) life insurance and annuities; and (2) accident and health products. Insurers in the P&C sector offer products that generally protect against the risk of financial loss associated with damage to property or exposure to liability for individuals, families or businesses. The Health sector includes companies licensed solely as health insurers or as health maintenance organizations. The overview includes information on the Health sector, but the subsequent detailed financial analyses are limited to the L&H and P&C sectors.

Direct premiums written in 2021 were approximately \$819 billion for the L&H sector, \$798 billion for the P&C sector, and \$908 billion for the Health sector. At the end of 2021, total assets held by the L&H sector were \$8.5 trillion, by the P&C sector were \$2.6 trillion, and by the Health sector were \$735 billion.

The aggregate market shares of the top 10 and top 25 L&H insurers declined slightly in 2021, while market share for the top 100 companies was little changed compared to 2020. On a combined basis, there was little year-over-year change in the composition of the top 10 P&C companies, nor in the aggregate market shares of the top 10, 25, and 100 P&C companies. For the Health market, there was little change among the top writers in 2021.

L&H Sector: This sub-section presents additional analysis of the financial performance of the L&H sector in 2021, and then assesses this sector's overall financial condition as of December 31, 2021.

Private Equity-Backed Insurers: Box 2 discusses how private equity-owned life insurers have continued to expand rapidly in the U.S. insurance industry and describes recent attention on private equity's participation in the sector, including regulatory and policy initiatives.

P&C Sector: This sub-section presents additional analysis of the financial performance of the P&C sector in 2021, and then assesses this sector's overall financial condition as of December 31, 2021.

Market Performance: This subsection describes the performance in 2021 of stock price indices for L&H and P&C insurers. Insurer indices underperformed as compared to the Standard & Poor's 500 (S&P 500) and potential concerns about inflationary pressures, the economic environment, natural catastrophe losses, and the interest rate environment weighed on both sectors..

Domestic Outlook: This sub-section provides some insights into near- to medium-term trends, reflecting observations from 2021 and the first three months of 2022.

Capital Markets Activity: The U.S. insurance industry continued to access the capital markets in 2021. During the year, 16 insurer-related public equity offerings were completed, with an aggregate value of \$4.4 billion. Insurers also continue to access public debt markets, and issued debt securities at higher interest rates as general market rates increased. There were 67 and acquisition transactions announced in 2021 involving U.S. insurers and reinsurers, with a total value of \$46.5 billion. The assets under management in the alternative risk transfer market at year-end 2021 were approximately \$97 billion, an approximately \$3 billion increase over 2020. Overall issuances of annual catastrophe bond and insurance linked securities in 2021 set a new annual record, at just under \$20.3 billion.

International Insurance Marketplace Overview and Outlook: The United States remained the world's largest single-country insurance market in 2021. When viewed as a single market, the combined share of the European Union (no longer inclusive of the United Kingdom) remained the next largest, followed by China.

<u>Conclusion</u>: In the coming year, FIO will continue to monitor macroeconomic developments and assess their financial implications for the insurance industry. FIO will also continue to assess the affordability and availability of insurance products for traditionally underserved communities and consumers (particularly with respect to personal auto insurance and homeowners' insurance), the role of the insurance industry in helping to improve our nation's cybersecurity, climate-related financial risks and other relevant developments affecting the insurance industry, policyholders, and consumers.

I. INTRODUCTION

This Report is submitted by the Federal Insurance Office (FIO) of the U.S. Department of the Treasury (Treasury) pursuant to Section 502(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), which requires the annual submission by FIO of a report to the President, the Committee on Financial Services of the House of Representatives, and the Committee on Banking, Housing, and Urban Affairs of the Senate "on the insurance industry and any other information as deemed relevant by the [FIO] Director or requested by such Committees."

A. The Structure of this Report

This Report begins with an overview of FIO's statutory responsibilities, then summarizes certain of FIO's key activities since those described in its 2021 *Annual Report on the Insurance Industry*.² Section II presents a discussion and analysis of the insurance industry's financial performance in calendar year 2021 and its financial condition as of December 31, 2021. This financial discussion also includes an outlook for the domestic and international insurance markets, as well as developments in emerging issues that have bearing on the financial performance and condition of the domestic insurance industry. Section III concludes with anticipated areas for FIO's focus in the coming year.

B. Federal Insurance Office

1. Insurance Regulation and the Federal Insurance Office

In the United States, the primary regulators of the business of insurance are the fifty states, the District of Columbia, and the five U.S. territories.

The federal government also plays an important role in the insurance industry, including through FIO.³ Title V of the Dodd-Frank Act established FIO within Treasury.⁴ In addition to advising the Secretary of the Treasury (Secretary) on major domestic and prudential international insurance policy issues and having its Director serve as a non-voting member of the Financial Stability Oversight Council (FSOC), FIO is authorized to:

¹ Federal Insurance Office Act of 2010 (FIO Act), 31 U.S.C. § 313(n)(2).

² FIO, Annual Report on the Insurance Industry (2021), https://home.treasury.gov/system/files/311/FIO-2021-Annual-Report-Insurance-Industry.pdf (2021 Annual Report).

³ The federal government also may have a significant impact on insurers through, among other things, the regulation of financial products or markets that include insurance (e.g., regulation of securities by the U.S. Securities and Exchange Commission (SEC)) and the taxation of insurers and their products.

⁴ FIO Act, 31 U.S.C. § 313(a). Title V also designates the Secretary as advisor to the President on "major domestic and international prudential policy issues in connection with all lines of insurance except health insurance." *Id.* at § 321(a)(9).

- monitor all aspects of the insurance industry, including identifying issues or gaps in the regulation of insurers that could contribute to a systemic crisis in the insurance industry or the U.S. financial system;
- monitor the extent to which traditionally underserved communities and consumers, minorities, and low- and moderate-income persons have access to affordable insurance products regarding all lines of insurance, except health insurance;
- recommend to FSOC that it designate an insurer, including the affiliates of such insurer, as an entity subject to regulation as a nonbank financial company supervised by the Board of Governors of the Federal Reserve System (Federal Reserve);
- assist the Secretary in the administration of the Terrorism Risk Insurance Program (TRIP), as established in Treasury under the Terrorism Risk Insurance Act of 2002, as amended (TRIA);
- coordinate federal efforts and develop federal policy on prudential aspects of international insurance matters, including representing the United States, as appropriate, in the International Association of Insurance Supervisors (IAIS) and assisting the Secretary in negotiating covered agreements;
- determine whether state insurance measures are preempted by covered agreements;
- consult with the states (including state insurance regulators) regarding insurance matters of national importance and prudential insurance matters of international importance; and
- perform such other related duties and authorities as may be assigned to FIO by the Secretary.⁵

In addition, before the Secretary may make a determination as to whether to seek the appointment of the Federal Deposit Insurance Corporation as receiver of an insurer under Title II of the Dodd-Frank Act, the Secretary must first receive a written recommendation from the FIO Director and the Federal Reserve.⁶ Also, FIO and the Federal Reserve coordinate on the performance of annual analyses of nonbank financial companies supervised by the Federal Reserve, particularly with respect to stress testing, to evaluate whether such companies have the capital, on a consolidated basis, necessary to absorb losses as a result of adverse economic conditions.⁷

⁵ FIO Act, 31 U.S.C. § 313(c)(1).

⁶ Dodd-Frank Act, 12 U.S.C. § 5383(a)(1)(C).

⁷ 12 U.S.C. § 5365(i)(1)(A).

FIO is authorized to collect data and information on and from the insurance sector, including through the use of subpoenas. FIO is also authorized to analyze and disseminate data and information and issue reports on all lines of insurance, except health insurance.

In addition to its statutory authorities, FIO has several statutorily imposed reporting obligations. Beyond the reporting requirements in the Dodd-Frank Act (including for this annual report), the Economic Growth, Regulatory Relief, and Consumer Protection Act directs the Secretary and the Federal Reserve Chairman (or their designees) to submit an annual report to Congress on their efforts with respect to global insurance regulatory or supervisory forums. ¹⁰ The Act also requires the Secretary and Federal Reserve Chairman (or their designees) to report to Congress on their efforts to increase transparency at IAIS meetings. ¹¹ In addition, the Act requires that, before supporting or consenting to the adoption of any final international insurance capital standard, the Secretary, the Federal Reserve Chairman, and the FIO Director—in consultation with the National Association of Insurance Commissioners (NAIC)—must complete a study and submit a report to Congress on the impact of any such standard on consumers and U.S. markets. ¹²

2. FIO Activities

FIO released its last Annual Report on September 30, 2021.¹³ Certain of FIO's key activities since the last Annual Report are summarized below.

On September 30, 2021, FIO released its 2021 Preemption Report noting that during the fiscal year ending September 30, 2021, FIO did not take any action regarding the preemption of any state insurance measures that were inconsistent with a covered agreement.¹⁴

On October 21, 2021, FSOC published its *Report on Climate-Related Financial Risk*, to which FIO staff contributed. ¹⁵ In addition, FIO staff continue to participate in various FSOC

State regulation of the insurance industry is coordinated through the NAIC, a voluntary organization whose membership consists of the chief insurance regulatory officials of the 50 states, the District of Columbia, and the five U.S. territories.

⁸ 31 U.S.C. § 313(e).

⁹ 31 U.S.C. § 313(e).

¹⁰ Economic Growth, Regulatory Relief, and Consumer Protection Act, Pub. L. No. 115-174, § 211(c)(1)(A), 132 Stat. 1296 (2018).

¹¹ Economic Growth, Regulatory Relief, and Consumer Protection Act, § 211(c)(4).

¹² Economic Growth, Regulatory Relief, and Consumer Protection Act, § 211(c)(3)(A).

¹³ FIO, 2021 Annual Report.

¹⁴ FIO, *2021 Preemption Report – Federal Insurance Office* (September 30, 2021), https://home.treasury.gov/system/files/311/2021-Preemption-Report-FIO.pdf.

¹⁵ See FSOC, Report on Climate-Related Financial Risk (2021), https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf. See also Treasury, "Financial Stability Oversight Council Identifies Climate Change as an Emerging and Increasing Threat to Financial Stability," news release, October 21, 2021, https://home.treasury.gov/news/press-releases/jy0426.

committees, including the Climate-related Financial Risk Committee, and the FIO Director attends all meetings of FSOC principals.

On October 28, 2021, FIO participated in the fourth meeting of the Joint Committee under the U.S.-EU Covered Agreement. ¹⁶

On November 2, 2021, the Sustainable Insurance Forum (SIF) published *SIF Scoping Study*: *Nature-Related Risks in the Global Insurance Sector*, to which FIO staff contributed.¹⁷ FIO staff continue to participate in various SIF workstreams.

November 15, 2021 was the deadline for comments in response to FIO's request for information on climate-related risks and the insurance sector, which FIO published on August 31, 2021. ¹⁸ On November 18, 2021, Treasury published for public comment proposed revisions to the annual TRIP data call that would require the production of more detailed information concerning the participation of captive insurance companies in TRIP, as well more detailed information concerning cyber insurance in order to improve Treasury's evaluation of cyber insurance within the scope of TRIP, including insurance and losses associated with ransomware. ¹⁹ After considering the responses, FIO adopted the revised data collection forms as originally proposed and added to the instructions a provision clarifying first-year reporting expectations.

On December 2, 2021, at a public meeting of the Federal Advisory Committee on Insurance (FACI), ²⁰ FIO staff presented their initial observations on the responses to FIO's request for information on climate-related risks and the insurance sector, published on August 31, 2021 (discussed above). ²¹ FIO reported that it had received over 50 unique responses to its request, with over 5,300 signatories including over 95 organizations, made on behalf of over 900,000

https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/federal-insurance-office/federal-advisory-committee-on-insurance-faci.

¹⁶ See Treasury, "United States and European Union Hold Fourth Joint Committee Meeting Under the Bilateral Agreement on Prudential Measures Regarding Insurance and Reinsurance," news release, October 28, 2021, https://home.treasury.gov/news/press-releases/jy0441.

¹⁷ SIF, SIF Scoping Study: Nature-Related Risks in the Global Insurance Sector (2021), https://www.sustainableinsuranceforum.org/view-pdf.php?pdf file=wp-content/uploads/2021/11/UN Nature-Related-Risks-in-the-Global-Insurance-Sector v9.pdf.

¹⁸ Federal Insurance Office Request for Information on the Insurance Sector and Climate-Related Financial Risks, 86 Fed. Reg. 48814 (August 31, 2021), https://www.federalregister.gov/documents/2021/08/31/2021-18713/federal-insurance-office-request-for-information-on-the-insurance-sector-and-climate-related.

¹⁹ Terrorism Risk Insurance Program 2022 Data Call, 86 Fed. Reg. 64600 (November 18, 2021), https://www.federalregister.gov/documents/2021/11/18/2021-25181/terrorism-risk-insurance-program-2022-data-call.

²⁰ FACI is a federal advisory committee tasked with making non-binding recommendations to FIO in performing its duties and authorities. FACI includes a cross-section of members representative of the views of state and non-government persons having an interest in the duties and authorities of FIO. More information on FACI—including its meeting agendas, minutes, and presentations—is available on FIO's website. *See* "Federal Advisory Committee on Insurance (FACI)," Treasury,

²¹ FIO, "Insurance Sector and Climate-Related Financial Risk: Federal Insurance Office Request for Information" (presentation, FACI, Washington, DC, December 2, 2021), https://home.treasury.gov/system/files/311/FIO_FACI_Climate-Related%20Financial%20Risk.pdf.

organizations, affiliates, members, supporters, and individuals. FIO is continuing to use these responses to inform its ongoing climate-related work.

FIO staff contributed to FSOC's annual report for 2021, published on December 17, 2021.²²

On December 23, 2021, Treasury issued a Federal Register notice advising that TRIP's insurance marketplace aggregate retention amount under TRIA for 2022 would be \$42,690,205,453.²³

FACI held a public meeting on February 17, 2022, at which FIO announced that it had joined the Network of Central Banks and Supervisors for Greening of the Financial System.²⁴ At the same time, FIO announced its intent to publish a climate report by year-end 2022, focusing on insurance supervision and regulation of climate-related financial risks.

On March 3, 2022, Treasury's Bureau of the Fiscal Service published a Notice of Proposed Rulemaking in respect of regulations concerning companies that serve as sureties for obligations to the United States. Among other aspects focused on modernization and reorganization of the surety regulations, the notice proposed allowing for the recognition of additional companies that can provide reinsurance to a Treasury-certified surety. In developing the proposed regulation, the Surety Bonds Branch coordinated with FIO.

On March 30, 2022, on FIO's behalf, Treasury published a request for comment from the insurance sector and other stakeholders on factors to be analyzed in the 2022 Report on the Effectiveness of the Terrorism Risk Insurance Program, as well as other issues relating to the effectiveness of TRIP.²⁶

In April and May 2022, FIO conducted its annual data call in connection with TRIP, as required under TRIA, including more detailed information concerning captive insurer participation and cyber insurance, as proposed by FIO in November.²⁷ All insurers participating in TRIP were required to submit information, subject to certain reporting exemptions.

²² FSOC, 2021 Annual Report (2022), https://home.treasury.gov/system/files/261/FSOC2021AnnualReport.pdf.

²³ IMARA Calculation for Calendar Year 2022 Under the Terrorism Risk Insurance Program, 86 Fed. Reg. 73100 (December 23, 2021), https://www.federalregister.gov/documents/2021/12/23/2021-27795/imara-calculation-for-calendar-year-2022-under-the-terrorism-risk-insurance-program.

²⁴ Treasury, "Treasury's Federal Insurance Office Continues Efforts on Climate-Related Financial Risks in the Insurance Sector, Joins NGFS," news release, February 17, 2022, https://home.treasury.gov/news/press-releases/jy0598.

²⁵ Proposed Rule, "Surety Companies Doing Business with the United States," 87 Fed. Reg. 12003 (March 3, 2022), https://www.federalregister.gov/documents/2022/03/03/2022-03937/surety-companies-doing-business-with-the-united-states.

²⁶ 2022 Report on the Effectiveness of the Terrorism Risk Insurance Program, 87 Fed. Reg. 18473 (March 30, 2022), https://www.federalregister.gov/documents/2022/03/30/2022-06681/2022-report-on-the-effectiveness-of-the-terrorism-risk-insurance-program.

²⁷ TRIA § 104(h); 2022 Terrorism Risk Insurance Program Data Call, 87 Fed. Reg. 22026 (April 13, 2022), https://www.federalregister.gov/documents/2022/04/13/2022-07861/2022-terrorism-risk-insurance-program-data-call.

On May 10, 2022, Treasury and FIO hosted the 2022 annual meeting of the International Forum of Terrorism Risk (Re)Insurance Pools. The event was livestreamed and featured panel discussions addressing public/private partnerships in the wake of the COVID-19 pandemic, the potential interrelationship between climate change and terrorism risk, and the role of insurers in promoting resilience and better risk practices. The event featured closing remarks by Treasury Deputy Secretary Wally Adeyemo addressing the role of insurers in promoting better cyber risk practices.

On June 2, 2022, FACI held a public meeting at which FIO provided updates on its work at the IAIS, on TRIP, and on climate-related financial risk and the insurance sector. ²⁸

On June 29, 2022, FIO responded to an inquiry from Senator Sherrod Brown, Chairman of the Senate Banking, Housing and Urban Affairs Committee, regarding the growing role of alternative asset managers, such as private equity firms, in the U.S. insurance sector.²⁹ In a subsequent press release, Senator Brown asked for continuing consideration of private equity's growing role in the insurance industry.³⁰

On June 30, 2022, FIO released its *Report on the Effectiveness of the Terrorism Risk Insurance Program*, informed by the feedback received from the March 30, 2022 request for comment together with the annual data calls.³¹

On July 14, 2022, the fifth U.S.-EU Joint Committee Meeting was held. 32

FIO continues to fulfill its statutory role representing the United States in the IAIS and elsewhere on prudential international insurance measures. Throughout 2021 and 2022, FIO continued its involvement in IAIS activities, including as a member of the IAIS Executive Committee. FIO's work at the IAIS includes matters relating to the implementation of the Holistic Framework, the monitoring period for the Insurance Capital Standard (ICS), the comparability work of the Aggregation Method to the ICS, and strategic planning for the IAIS. FIO also continued its engagement and leadership roles across a number of working groups and task forces at the IAIS on a variety of other issues, including matters relating to resolution of insurers, financial crimes, cybersecurity, climate risk, and diversity, equity, and inclusion.

²⁸ See "Federal Advisory Committee on Insurance (FACI)," Treasury.

²⁹ Letter from Jonathan C. Davidson, Treasury Assistant Secretary for Legislative Affairs, to the Hon. Sherrod Brown (June 29, 2022), https://www.banking.senate.gov/imo/media/doc/fio 85.pdf.

³⁰ Senator Sherrod Brown, "Brown Continues Push on Private Equity Firms' Involvement in the Insurance Industry," news release, August 5, 2022, https://www.brown.senate.gov/newsroom/press/release/sherrod-brown-continues-push-private-equity-firms-involvement-insurance-industry.

³¹ FIO, Report on the Effectiveness of the Terrorism Risk Insurance Program (June 2022), https://home.treasury.gov/system/files/311/2022%20Program%20Effectiveness%20Report%20%28FINAL%29.pdf (2022 TRIP Effectiveness Report).

³² Treasury, "United States and European Union Hold Fifth Joint Committee Meeting Under the Bilateral Agreement on Prudential Measures Regarding Insurance and Reinsurance," news release, July 14, 2022, https://home.treasury.gov/news/press-releases/jy0867.

Internationally, FIO has remained engaged in the Insurance and Private Pensions Committee at the Organisation for Economic Co-operation and Development (OECD). The OECD serves as a source of public policy advice and analyses for global and regional forums, including the G20, as well as the general public, and collects and publishes statistical data and analyses on assorted topics.³³ FIO also remains an active member of the EU-U.S. Insurance Dialogue Project. In addition, FIO participated in the U.S.-EU Joint Financial Regulatory Forums on September 29-30, 2021; March 1-2, 2022; and July 13-14, 2022, and in the U.S.-UK Financial Regulatory Working Group meeting on December 15, 2021.³⁴ FIO has also assisted with Treasury's work with the G7 Cyber Expert Group.

During 2021 and 2022, FIO continued to provide expertise to other federal agencies. For example, FIO provided technical assistance to the Federal Emergency Management Agency (FEMA) in connection with FEMA's transfer of \$1.064 billion of risk from the National Flood Insurance Program to the private reinsurance market in January 2022, and the related capital markets placement providing \$450 million in coverage over three years. In addition, as a member of the Mitigation Framework Leadership Group (MitFLG), FIO continued to participate in MitFLG's quarterly meetings and assist in the MitFLG's implementation of its National Mitigation Investment Strategy. FIO also participates as a member of the Flood Resilience Interagency Working Group.

Box 1: FIO Cyber Insurance Initiatives

Over the past year, FIO continued its ongoing efforts with regard to cyber insurance and insurer cybersecurity.³⁸ Cyber insurance is an increasingly significant risk-transfer mechanism, and the

³³ See, e.g., "Insurance," OECD, https://www.oecd.org/finance/insurance/.

³⁴ See, e.g., European Commission, "Joint Statement on the EU-U.S. Joint Financial Regulatory Forum," news release, October 4, 2021,

https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/211004-eu-us-joint-financial-regulatory-forum-joint-statement_en.pdf; Treasury, "Joint Statement on the U.S.-EU Joint Financial Regulatory Forum," news release, March 7, 2022, https://home.treasury.gov/news/press-releases/jy0636; Treasury, "Joint Statement on the EU-U.S. Joint Financial Regulatory Forum," news release, July 20, 2022, https://home.treasury.gov/news/press-releases/jy0882; Treasury, "Joint Statement on UK-U.S. Financial Regulatory Working Group," news release, December 17, 2021, https://home.treasury.gov/news/press-releases/jy0540.

³⁵ See FEMA, "FEMA Announces Reinsurance Program to Manage Future Flood Risk in 2022," news release, January 6, 2022, https://www.fema.gov/press-release/20220106/fema-announces-reinsurance-program-manage-future-flood-risk-2022; "National Flood Insurance Program's Reinsurance Program," FEMA, last updated March 23, 2022, https://www.fema.gov/flood-insurance/work-with-nfip/reinsurance/capital-market.

³⁶ See "Mitigation Framework Leadership Group (MitFLG)," FEMA, https://www.fema.gov/emergency-managers/national-preparedness/frameworks/mitigation/mitflg.

³⁷ See, e.g., White House, "Readout of the First White House Flood Resilience Interagency Working Group Meeting on Implementation of the Federal Flood Risk Management Standard," news release, August 27, 2021, https://www.whitehouse.gov/ceq/news-updates/2021/08/27/readout-of-the-first-white-house-flood-resilience-interagency-working-group-meeting-on-implementation-of-the-federal-flood-risk-management-standard/">https://www.whitehouse.gov/ceq/news-updates/2021/08/27/readout-of-the-first-white-house-flood-resilience-interagency-working-group-meeting-on-implementation-of-the-federal-flood-risk-management-standard/.

³⁸ For more on cyber insurance, see FIO, 2021 Annual Report, 74-77; FIO, 2022 TRIP Effectiveness Report, 59-74.

insurance industry has an important role to play in strengthening cyber hygiene and building resiliency, including combatting ransomware.

Beyond ongoing stakeholder engagement and outreach, FIO has contributed to the development of Treasury's counter-ransomware strategy. FIO also has advised other Treasury offices and federal agencies, including the White House Office of the National Cyber Director, about the role of cyber insurance.³⁹

In June 2022, the Government Accountability Office (GAO) published a report noting cyber threats to U.S. critical infrastructure and flagging concerns about the adequacy of cyber insurance for systemic cyber events. 40 The GAO report observed that FIO and the Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA) "both have taken steps to understand the financial implications of growing cybersecurity risks." The GAO report concluded with recommendations that FIO and CISA work together "to produce a joint assessment for Congress on the extent to which the risks to the nation's critical infrastructure from catastrophic cyberattacks, and the potential financial exposures resulting from these risks, warrant a federal insurance response." FIO and CISA both accepted this recommendation and have begun work on this joint project.

FIO's cyber-related initiatives also include its administration of TRIP, since cyber insurance may be written in TRIP-eligible lines of insurance and therefore subject to TRIP. To evaluate changes in the cyber insurance market that could impact FIO's administration of TRIP, in 2022 FIO expanded the annual TRIP data call to request more detailed information concerning cyber insurance. With respect to cyber insurance, Treasury requested information in the TRIP data call on: (1) premiums and limits of policies written in both TRIP-eligible and non-TRIP-eligible lines of insurance, (2) premium and policy count information broken out by size of policyholder, (3) cyber extortion coverages, and (4) loss information for ransomware exposures. FIO's 2022 Report on the Effectiveness of the Terrorism Risk Insurance Program discussed the results of the expanded TRIP data call on cyber risk insurance and the state of the cyber insurance market, including continued growth in the cyber insurance market, insurer exclusions for war and systemic risk in light of recent litigation and the Russia-Ukraine conflict, and the passage in March 2022 of legislation that will require mandatory reporting by critical infrastructure entities of covered cyber incidents to CISA. 43

³⁹ See, e.g., Treasury, "Treasury Takes Robust Actions to Counter Ransomware," news release, September 21, 2021, https://home.treasury.gov/news/press-

releases/jy0364#:~:text=Treasury%27s%20actions%20today%20advance%20the,close%20relationships%20with%20international%20partners; Treasury, "Treasury Continues Campaign to Combat Ransomware as Part of Whole-of-Government Effort," news release, October 15, 2021, https://home.treasury.gov/news/press-releases/jy0410.

⁴⁰ GAO, *Cyber Insurance: Action Needed to Assess Potential Federal Response to Catastrophic Attacks* (June 2022), https://www.gao.gov/assets/gao-22-104256.pdf.

⁴¹ GAO, Cyber Insurance: Action Needed, 25.

⁴² GAO, Cyber Insurance: Action Needed, 33.

⁴³ FIO, 2022 TRIP Effectiveness Report, 59-74.

II. INSURANCE INDUSTRY FINANCIAL OVERVIEW AND OUTLOOK

A. Domestic Insurance Marketplace Overview and Outlook

The financial analysis in this section, consistent with prior FIO annual reports, addresses the most recent calendar year, i.e., it focuses on the U.S. insurance industry's financial performance and condition through December 31, 2021, the latest date for which detailed, comprehensive, and definitive data is available.⁴⁴ As in previous reports, trends over the last 10 years have been analyzed as well.

In 2021, the United States was experiencing the ongoing effects of the COVID-19 pandemic. As COVID-19 restrictions were easing across the globe, companies struggled to balance supply chain constraints with changing demand, increasing inflationary pressures, and interest rate risk. The property and casualty (P&C) sector saw a weakening in its underwriting results as greater non-catastrophic losses were incurred compared to 2020, caused largely by increased severity in the personal auto business line from physical damage costs as more drivers returned to the roads. For the life and health (L&H) sector, surrender activity and benefit payments reached new heights, in part due to elevated COVID-19 mortality levels. Despite the challenging operating environment in 2021, the two sectors proved resilient and were supported by strong premium growth, stable current liquidity levels, and surplus expansion.

The financial health of the L&H and P&C sectors in 2021 is illustrated in Figure 1, showing direct premiums written. Direct premiums written are the amount paid for insurance by policyholders and are a measure of sales activity and growth. With the exception of 2013 when direct business remained relatively flat, the U.S. insurance industry has shown positive year-over-year growth in direct premiums written since 2012. In 2021, the combined total direct premiums written in the L&H and P&C sectors was \$1.6 trillion, which represented an eight percent annual increase and a 10-year high.

⁴⁴ Except as otherwise indicated, data cited in this section of the Report are as of December 31, 2021, as derived from S&P Global Market Intelligence (S&P Global) on June 24, 2022. These data are on a statutory accounting basis. S&P Global continuously updates its data for corrections in filings; 2021 data in this Report are based on updated data available as of June 24, 2022, and thus may be different in some respects from corresponding figures reported in FIO's 2021 Annual Report. Due to certain conventions used by S&P Global for aggregation of industry data, some columns in the accompanying tables may not sum to the totals that have been separately accumulated by S&P Global from individual legal entity data. Some figures may not add to 100 percent due to rounding.

⁴⁵ See, e.g., Fitch Ratings, "U.S. Auto Insurance Underwriting Results Take a Negative Turn," *FitchWire*, March 4, 2022, https://www.fitchratings.com/research/insurance/us-auto-insurer-underwriting-results-take-a-negative-turn-04-03-2022.

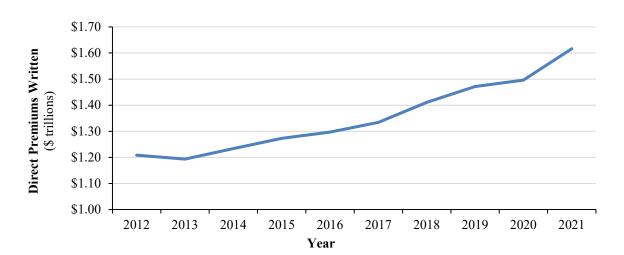


Figure 1: Total Direct Premiums Written in L&H and P&C Sectors

1. Financial Performance and Condition Overview

This section addresses the financial performance and condition of the U.S. insurance industry, including the 667 L&H insurers, the 2,651 P&C insurers, and the 1,321 health insurers licensed in the United States during 2021. Insurers in the L&H sector offer products in two segments: (1) life insurance and annuities, which generally protect against the risk of financial loss associated with an individual's death and provide income streams for retirement, respectively; and (2) accident and health (A&H) products, which cover expenses for health and long-term care or provide income in the event of disability. Insurers in the P&C sector offer products that generally protect against the risk of financial loss associated with damage to property or exposure to liability for individuals and families (personal lines) or for businesses (commercial lines). The Health sector includes companies licensed solely as health insurers or as health maintenance organizations. This overview includes information on the Health sector, but the subsequent detailed financial analyses are limited to the L&H and P&C sectors.

Direct premiums written for the L&H sector were approximately \$819 billion in 2021, constituting 32 percent of direct premiums written for the combined L&H, P&C, and Health sectors. ⁴⁶ For the P&C sector, direct premiums written were approximately \$798 billion, that is, 32 percent of direct premiums written of the combined total for the three sectors. The Health sector reported \$908 billion of direct premiums written for 2021, approximately 36 percent of the combined total for the three sectors.

⁴⁶ Although Figures 2 and 3 suggest total L&H sector direct premiums were higher, this is due to potential double-counting of some life insurance premiums and/or annuity considerations within the A&H lines, and some A&H premiums within the life insurance and annuities lines, as calculated by S&P Global. *See also* footnote 44.

Figure 2 and Figure 3 show the 10 largest L&H insurance groups measured by direct premiums written, with the market share for life insurance (including annuities and other deposit-type contracts) and for A&H lines of business, respectively. Premiums shown in Figure 2 and Figure 3 aggregate all L&H sector products and all geographies of the United States.

Figure 2: L&H Insurance Groups by 2021 U.S. Life Insurance Lines
Direct Premiums Written

				2020 Direct			2021 Direct	
2020	2021		Pren	niums Written	Share of		Premiums	Share of
Rank	Rank	Insurance Group		(\$000)	Total (%)	W	ritten (\$000)	Total (%)
1	1	MetLife	\$	103,335,055	13.04	9	97,860,893	11.32
2	2	Equitable Holdings		62,688,657	7.91		83,179,735	9.62
3	3	Prudential Financial Inc.		58,845,868	7.43		54,359,275	6.29
4	4	MassMutual		42,589,169	5.37		41,683,012	4.82
5	5	New York Life		40,211,642	5.07		38,855,736	4.49
12	6	Athene U.S. only		20,469,471	2.58		34,742,313	4.02
		Principal Financial Group						
6	7	Inc.		26,452,290	3.34		26,535,819	3.07
8	8	Western & Sthrn Finl Grp		22,920,717	2.89		26,469,977	3.06
15	9	Nationwide		18,338,262	2.31		25,745,724	2.98
10	10	AIG		22,620,803	2.85		25,205,415	2.91
		Combined Top 10	\$	427,924,760	54.00	\$	454,637,899	52.58
		Combined Top 25	\$	637,570,918	80.46	\$	689,055,086	79.69
		Combined Top 100	\$	782,340,264	98.73	\$	854,776,112	98.88
		Total U.S. Life						
		Insurance Lines	\$	792,410,804		\$	864,702,869	

Source: S&P Global (includes Life Insurance (No Annuity), Annuity Considerations, Deposit-type Contracts (State Page), Other Considerations (State Page)

Figure 3: L&H Insurance Groups by 2021 U.S. A&H Lines Direct Premiums Written

2020 Rank	2021 Rank	Insurance Group	2020 Direct Premiums Written (\$000)	Share of	2021 Direct Premiums Written (\$000)	Share of Total (%)
1	1	UnitedHealth Group	\$ 58,072,742	27.78	\$ 55,530,379	26.16
2	2	CVS Health Corp.	38,247,874	18.29	40,785,343	19.21
3	3	Cigna	21,422,657	10.25	22,765,888	10.72
4	4	MetLife	8,381,386	4.01	9,257,986	4.36
5	5	Unum Group	6,447,655	3.08	6,519,066	3.07
6	6	Aflac	5,450,426	2.61	5,218,020	2.46
7	7	Mutual of Omaha	4,936,066	2.36	5,160,383	2.43
8	8	Guardian	4,098,820	1.96	4,306,750	2.03
10	9	Sun Life Financial	3,132,441	1.50	3,430,684	1.62
11	10	The Hartford	2,999,988	1.43	3,283,555	1.55
		Combined Top 10	\$ 153,344,795	73.34	\$ 156,258,054	73.61
		Combined Top 25	\$ 184,938,793	88.45	\$ 188,841,337	88.93
		Combined Top 100	\$ 207,816,282	99.40	\$ 212,689,621	99.08
		Total U.S. A&H Lines	\$ 209,076,912		\$ 214,670,765	

Source: S&P Global

The data presented in Figure 2 and Figure 3 for life and annuity business, and in the comparable figures for other lines of business, are aggregated at a group level from filings made with state insurance regulators by individual legal entity insurers. For example, premiums shown for MetLife Inc. include premiums written and reported by all of its insurance subsidiaries in the United States but exclude business written by affiliated entities in non-U.S. jurisdictions.

Figure 2 shows that the aggregate market shares of the top 10 and top 25 life insurers declined slightly in 2021, while market share for the top 100 companies was little changed compared to 2020. The increased business for Athene (no. 6) and Nationwide (no. 9) placed them in the top 10 life insurers for 2021, while Lincoln Financial and Transamerica (which had been numbers 7 and 9, respectively, for 2020) fell out of the top 10.

Figure 3 shows A&H premiums written by insurers authorized to offer both life and health insurance; it excludes A&H premiums written by insurers authorized to offer only health insurance. Therefore, for example, the data presented in Figure 3 for UnitedHealth Group do not reflect that insurer's total health insurance premiums on a consolidated basis, but only premiums written by its subsidiaries licensed to offer both life and health insurance. There was little change among the top 10 writers of A&H lines of business in 2021 as compared to 2020.

As noted above, P&C insurers underwrite a variety of products, generally categorized as either personal lines or commercial lines. Figure 4 reports market share information on a combined P&C sector basis, while Figures 5 and 6 break the P&C sector into personal and commercial lines of business, respectively. On this combined basis, there was little year-over-year change in the composition of the top 10 companies, nor in the aggregate market shares of the top 10, 25, and 100 P&C companies. For personal lines of P&C business, Allstate dropped to fourth-largest, passed by both Progressive and Berkshire Hathaway, each of which moved up one spot in the rankings to second and third, respectively. Progressive also increased its standing in commercial lines, by moving into ninth place, while Tokio Marine fell out of the top 10.

Figure 4: P&C Insurance Groups by 2021 U.S. Combined Lines Direct Premiums Written

				2020 Direct			2021 Direct	
2020	2021		Prem	iums Written	Share of		Premiums	Share of
Rank	Rank	Insurance Group		(\$000)	Total (%)	W	ritten (\$000)	Total (%)
1	1	State Farm	\$	66,153,063	9.08		70,311,695	8.81
2	2	Berkshire Hathaway Inc.		46,358,896	6.36		51,603,818	6.47
3	3	Progressive		42,275,572	5.80		48,373,113	6.06
5	4	Liberty Mutual		38,389,381	5.27		41,473,558	5.20
4	5	Allstate Corp.		39,546,131	5.43		41,387,729	5.19
6	6	Travelers		28,786,741	3.95		30,920,023	3.88
8	7	Chubb		24,199,582	3.32		27,122,466	3.40
7	8	USAA		24,625,924	3.38		25,257,974	3.17
9	9	Farmers Insurance		23,691,794	3.25		25,009,069	3.14
10	10	Nationwide		18,499,967	2.54		19,435,641	2.44
		Combined Top 10	\$	352,527,051	48.36	\$	380,895,086	47.76
		Combined Top 25	\$	488,898,127	67.07	\$	533,431,064	66.87
		Combined Top 100	\$	640,713,211	87.89	\$	701,561,689	87.96
		Total U.S. P&C Sector	\$	728,958,745		\$	797,647,233	

Source: S&P Global (includes all lines of business)

Figure 5: P&C Insurance Groups by 2021 U.S. Personal Lines Direct Premiums Written

			2020 Direct					
2020	2021		Prem	iums Written	Share of		Premiums	Share of
Rank	Rank	Insurance Group		(\$000)	Total (%)	V	Vritten (\$000)	Total (%)
1	1	State Farm	\$	60,414,340	16.53		\$ 64,036,546	16.58
3	2	Progressive		35,069,166	9.60		38,070,109	9.85
4	3	Berkshire Hathaway Inc.		34,279,410	9.38		37,862,570	9.80
2	4	Allstate Corp		36,021,515	9.86		37,752,864	9.77
5	5	USAA		23,140,418	6.33		23,727,194	6.14
6	6	Liberty Mutual		20,206,470	5.53		21,897,935	5.67
7	7	Farmers Insurance		19,351,388	5.30		20,049,218	5.19
8	8	Travelers		9,971,116	2.73		11,103,681	2.87
9	9	American Family Insurance		9,754,535	2.67		10,648,819	2.76
10	10	Nationwide		9,676,114	2.65		9,654,422	2.50
		Combined Top 10	\$	257,884,472	70.58	\$	274,803,358	71.13
		Combined Top 25	\$	303,981,655	83.20	\$	322,260,314	83.40
		Combined Top 100	\$	348,550,028	95.39	\$	370,003,953	95.78
		Total U.S. P&C Sector	\$	365,382,996		\$	386,303,288	

Figure 6: P&C Insurance Groups by 2021 Commercial Lines Direct Premiums Written

			2020 Direct	Share of	2021 Direct	Share of
2020	2021		Premiums Written	Total	Premiums	Total
Rank	Rank	Insurance Group	(\$000)	(%)	Written (\$000)	(%)
1	1	Chubb	\$ 19,399,859	5.44	\$ 22,323,908	5.53
2	2	Travelers	18,815,626	5.28	19,816,342	4.91
3	3	Liberty Mutual	18,043,293	5.06	19,473,757	4.82
4	4	Zurich	13,358,067	3.75	14,676,588	3.63
5	5	AIG	11,887,670	3.33	13,221,381	3.27
6	6	Berkshire Hathaway Inc.	11,601,352	3.25	13,198,188	3.27
7	7	CNA	11,302,724	3.17	12,161,672	3.01
8	8	The Hartford	9,575,425	2.69	10,761,401	2.66
12	9	Progressive	7,185,173	2.02	10,282,191	2.55
9	10	Nationwide	8,812,305	2.47	9,763,153	2.42
		Combined Top 10	\$ 130,555,129	36.62	\$ 145,678,581	36.07
		Combined Top 25	\$ 215,660,269	60.49	\$ 245,063,395	60.68
		Combined Top 100	\$ 310,573,774	87.11	\$ 352,646,320	87.31
		Total U.S. P&C Sector	\$ 356,526,711		\$ 403,945,657	

Source: S&P Global

As shown in Figure 7 below, the aggregate market share of the top 10 writers in the Health sector continued to tighten somewhat at the top, with the aggregate market share of the top 10 writers increasing slightly by nearly one percentage points (to almost 62 percent) from the 2020 mark. There were only minor changes in the rankings of the top 10 writers of health insurance for 2021.

Figure 7: Health Insurance Groups by 2021 Direct Premiums Written

				2020 Direct			2021 Direct	_
2020	2021		Pren	niums Written	Share of		Premiums	Share of
Rank	Rank	Insurance Group		(\$000)	Total (%)	W	/ritten (\$000)	Total (%)
1	1	UnitedHealth Group	\$	119,755,932	14.35	\$	138,000,410	15.16
2	2	Elevance Health Inc.		83,901,223	10.05		92,253,208	10.13
4	3	Centene Corp.		73,580,110	8.82		81,401,118	8.94
3	4	Humana Inc.		74,178,364	8.89		79,042,258	8.68
5	5	HCSC		44,520,575	5.34		46,267,933	5.08
6	6	CVS Health Corp.		29,365,207	3.52		31,937,687	3.51
7	7	GuideWell		22,641,879	2.71		24,606,232	2.70
10	8	Molina Healthcare Inc.		19,106,224	2.29		24,098,384	2.65
9	9	Independence Health						
		Group Inc.		20,105,855	2.41		22,969,351	2.52
8	10	Kaiser Permanente		20,955,411	2.51		20,821,188	2.29
		Combined Top 10	\$	508,110,781	60.89	\$	561,397,768	61.66
		Combined Top 25	\$	656,658,616	78.69	\$	717,182,803	78.77
		Combined Top 100	\$	812,101,990	97.32	\$	885,268,566	97.23
		Total U.S. Health Sector	\$	834,462,221		\$	910,477,946	

Source: S&P Global

2. Life and Health Sector

a) Financial Performance

This section presents additional analysis of the financial performance of the L&H sector in 2021, and then assesses the L&H sector's overall financial condition as of December 31, 2021.

i. Net Premiums Written

Direct premiums written is a principal measure of the sales activity and growth of an insurer. Net premiums written, the sum of direct premiums written and net ceded reinsurance premiums, is a measure of the amount of risk retained by an insurer. Figure 8 shows net premiums written, considerations, and deposits over the past five years for the L&H sector, while Figure 9 shows the 2021 composition of net premiums and considerations. In 2021, the record \$819 billion of direct premiums written for the L&H sector constituted growth of nearly seven percent over 2020, marking the strongest increase over the past 10 years. This high growth in direct premiums written was partly caused by a resurging interest in life insurance resulting from increases in mortality and morbidity from the COVID-19 pandemic. Sales gains in ordinary life insurance (up 11 percent) and ordinary individual annuities (up 15 percent, aided by

⁴⁷ Michael Lynch, *U.S. Life/Annuity Insurers' Revenue Rebounded in 2021* (April 8, 2022), 1, https://news.ambest.com/research/DisplayBinary.aspx?TY=P&record_code=318961&URatingId=2562038&AltSrc=108&_ga=2.58575146.104803370.1661035661-235444461.1646407991.

continued demand for retirement savings solutions) were particularly strong. ⁴⁸ Product innovation by issuers of individual annuities also bolstered this strong top line performance. ⁴⁹ FIO's analysis shows that, when taking into account the amount of premiums ceded to reinsurers, L&H sector net premiums written were \$638 billion in 2021, marking a two percent increase from the \$626 billion reported in 2020. Net ceded reinsurance increased by 28 percent in 2021 to \$183 billion, the highest level in the last 10 years. Insurers also sought to lay off their exposure to interest rates through transfers of legacy books of interest-sensitive fixed rate annuities and variable annuity blocks. ⁵⁰ Much of the ceded business was assumed by private equity-linked reinsurers, the presence of which has been growing notably over the past few years (see Box 2: Increased Focus on Private Equity in the Life Insurance Sector). ⁵¹

Net premiums written have contributed on average 71 percent of total L&H sector revenues over the past 10 years but decreased to 67 percent of revenues in 2021, down from 72 percent in 2020. Strong gains in net investment income and a large positive swing in the reinsurance allowance boosted total sector revenue growth well in excess of the growth in net premiums written. Annuity premiums and deposits decreased by three percent, while life insurance premiums increased by 11 percent, and A&H premiums increased two percent as compared to 2020. For 2021, annuity premiums and deposits constituted 45 percent of total net premiums written, as shown in Figure 9. Sales of traditional life insurance products accounted for 25 percent of 2021 L&H sector net premiums written, while the remaining 30 percent was comprised almost entirely of A&H sector premiums.

=22& ga=2.234163742.104803370.1661035661-235444461.1646407991.

⁴⁸ Tim Zawacki, "Historic 2021 U.S. Individual Life, Annuity Premium Growth a Tough Act to Follow," *S&P Global Market Intelligence*, March 14, 2022, https://www.spglobal.com/marketintelligence/en/news-insights/research/historic-2021-us-individual-life-annuity-premium-growth-a-tough-act-to-follow.

⁴⁹ Lynch, U.S. Life/Annuity Insurers' Revenue Rebounded in 2021, 2.

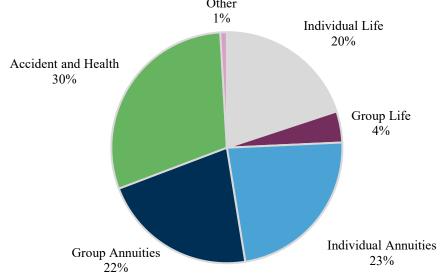
⁵⁰ Michael Porcelli, U.S. Life/Annuity: Record Capitalization, Strong Liquidity, and Improved Earnings in 2021 (March 10, 2022), 10, https://news.ambest.com/research/DisplayBinary.aspx?TY=P&record_code=318212&URatingId=2562038&AltSrc

⁵¹ Tim Zawacki, "Large Deals Elevate Private Equity-Linked Reinsurers in U.S. Life, Annuity Market," *S&P Global Market Intelligence*, April 26, 2022, 1, https://www.spglobal.com/marketintelligence/en/news-insights/research/large-deals-elevate-private-equity-linked-reinsurers-in-us-life-annuity-market.

■ Life Insurance Premiums ■ Annuity Premiums & Deposits Accident & Health Premiums \$400 \$350 Net Premiums Written \$300 (\$ billions) \$250 \$200 \$150 \$100 \$50 \$0 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 Year

Figure 8: L&H Sector Net Premiums, Considerations, and Deposits





Source: S&P Global

ii. Policyholder Contract Benefits, Surrenders, and Other Expenses

Policyholder contract benefits are claims or obligations of L&H insurers under life insurance, annuity, and other contracts and policies. Contract surrenders occur when a policyholder or

contract holder elects to cancel a policy or contract before the end of the contractual term and thus receives its accumulated cash value (if any). Contract benefit payments and contract surrenders comprise the majority of total expenses for L&H insurers in any given year. Non-benefit related expenses include general administrative and overhead expenses, expenses incurred in acquiring business (particularly producer commissions), and expenses related to payments made under contractual provisions of policies, including loss verification and adjustment expenses. Figure 10 shows aggregate L&H sector benefit payments, surrenders, reserve increases, and all other expenses for recent years.

Figure 10: L&H Sector Expenses (\$ thousands)

	2017	2018	2019	2020	2021
Total Benefits Payments	\$281,360,939	\$289,480,982	\$301,813,113	\$314,168,409	\$338,416,624
Total Surrenders	308,928,842	350,278,913	339,640,132	323,350,563	362,681,903
Total Reserve Increases Total Net Trsfrs. to Sep.	106,352,393	143,299,884	120,573,957	109,836,567	89,754,962
Accts	(65,770,433)	(89,648,289)	(71,995,355)	(69,212,368)	(75,602,806)
Commissions General & Admin	58,001,783	58,336,146	61,198,400	60,087,967	64,523,499
Expenses Insurance Taxes, Licenses	65,850,564	65,887,312	67,822,122	67,020,241	69,360,126
and Fees	8,814,167	10,746,370	9,298,006	11,509,597	10,059,613
Other Expenses	(4,129,166)	11,349,411	14,420,556	8,386,678	14,802,279
Total	\$759,409,089	\$839,730,729	\$842,770,930	\$825,147,654	\$873,996,200

Source: S&P Global

Total L&H sector expenses increased by six percent in 2021. Expenses attributable to total contract surrenders increased 12 percent and those attributable to total benefits payments grew by eight percent. An 18 percent decline in additions to reserves somewhat offset those increases. Surrenders of annuities and other variable return insurance products tend to increase when account values rise, as consumers seek to cash in on gains and to reduce market risk. The 2021 increase in benefits payments was largely due to increased mortality from the COVID-19 pandemic among the working age population. A nine percent increase in net transfers from separate accounts was also a significant favorable change in 2021 expenses.

iii. Investment Income

Net investment income of \$201 billion constituted about 21 percent of aggregate L&H sector revenues in 2021, representing a strong eight percent increase over 2020 that was bolstered by income from alternative investments. This was the first meaningful gain in net investment

⁵² Lynch, U.S. Life/Annuity Insurers' Revenue Rebounded in 2021, 3.

⁵³ A separate account is a segregated set of financial statements held by a life insurance company, maintained to report assets and liabilities for specific products that are separated from the insurer's general account. The product features of a separate account can vary but, generally, it allows an investor to choose an investment category according to risk tolerance and desire for performance. Separate account investments and related risks flow to the investor (i.e., the policyholder or annuitant) while the general account and its related risks are owned by the insurer.

income since 2018, and the first ever crossing of the \$200 billion mark. Figure 11 shows L&H sector net investment income from invested assets (excluding net realized gains and losses) and the net investment yield for recent years. The net yield on invested assets showed the first notable increase in over 10 years, rising to 4.21 percent from 4.13 percent in 2021 (see Figure 11). The increase in net yield was primarily the result of the eight percent increase in net investment income, coupled with a slower, five percent increase in cash and invested assets.

Net Investment Income (left axis) Net Yield on Invested Assets (right axis) 5.0% \$210 \$201 \$200 \$187 \$187 \$190 \$186 \$182 Net Investment Income 4.5% \$180 \$173 (\$ billions) \$172 \$171 \$167 \$170 \$167 \$160 4.0% \$150 \$140 \$130 3.5% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Figure 11: L&H Sector Annual Net Investment Income and Net Yield on Invested Assets

Source: S&P Global

Longer term interest rates rose significantly in the first quarter of 2021, largely attributable to inflation fears and supply chain issues, followed by a slight pullback in the second quarter of the year, and then remained relatively flat over the second half of 2021 (see Figure 12). Despite a significant increase from historically low levels as inflationary pressures began to emerge, the general interest rate environment remained at relatively low levels at the end of 2021.



Figure 12: Percentage Yield on 10-Year Treasury Bonds

In 2021, the L&H sector net realized capital losses decreased to \$8.3 billion (or 23 percent) from \$10.8 billion in 2020 (see Figure 13). This followed a 45 percent increase in realized capital losses experienced in 2020 compared to 2019. The improvement in 2021 appears to be due to higher realized gains on fixed income securities, preferred and common stocks, and other invested assets, and lower losses on affiliated investments, all of which were slightly offset by losses on derivatives (almost exclusively used for hedging transactions). Generally, net realized capital losses have been lower for the past several years than their historic levels. ⁵⁴

iv. Net Income and Return on Equity

Figure 13 presents a summary income statement for the L&H sector. Total revenues in the L&H sector were \$946 billion in 2021, an increase of seven percent from the \$881 billion reported in 2020. All revenue sources shown in Figure 13 contributed to the L&H sector's overall gain in revenue in 2021. Total expenses increased by only six percent to \$874 billion, leading to a 42 percent increase in pre-tax operating income. Net income rose by 69 percent to \$37 billion in 2021, largely because of the \$15 billion increase in the net gain from operations.

⁵⁴ Compare, for example, FIO, *Annual Report on the Insurance Industry* (2014), https://home.treasury.gov/system/files/311/2014_Annual_Report.pdf (showing historic data from 2013 and earlier years).

Figure 13: L&H Sector Net Income (\$ thousands)

	2017	2018	2019	2020	2021
Net Premiums, Consideration &					
Deposits	597,051,057	603,190,697	679,437,300	625,709,268	637,827,596
Net Investment Income	182,257,219	187,381,415	186,650,144	185,980,542	200,805,489
Reinsurance Allowance	(25,108,912)	32,044,503	(29,719,855)	(22,835,847)	8,507,447
Separate Accounts Revenue	36,551,982	37,271,230	36,754,163	37,351,807	40,977,971
Other Income	49,163,993	44,037,925	48,749,163	54,986,005	57,532,991
Total Revenue	839,915,339	903,925,771	921,870,915	881,191,774	945,651,494
Total Expenses	759,409,089	839,730,729	842,770,930	825,147,654	873,996,200
Policyholder Dividends	<u>17,498,496</u>	18,192,333	<u>18,111,045</u>	18,027,639	17,784,403
Net Gain from Operations before FIT	63,004,352	46,000,675	60,988,940	38,016,481	53,870,891
Federal Income Tax	12,360,768	3,397,276	<u>9,432,127</u>	5,135,473	8,156,443
Net Income before Cap Gains	50,645,915	42,604,906	51,556,814	32,881,008	45,714,448
Net Realized Capital Gains (Losses)	(8,554,343)	(4,742,717)	(6,860,853)	(10,746,368)	(8,283,318)
Net Income	42,094,584	37,865,073	44,695,961	22,134,640	37,431,129

Figure 14 shows key operating ratios for the L&H sector. The L&H sector's 2021 pre-tax operating margin increased to 5.7 percent from 4.3 percent in 2019. The strong increase in operating income, coupled with a slower increase in equity (discussed below), led to an increase in the sector's pre-tax operating return on average equity to 11.8 percent, compared to the 8.8 percent recorded in 2020. The return on average equity rose to 8.2 percent in 2021 from 5.1 percent in 2020. The return on average assets increased to 0.46 percent in 2021 from 0.29 percent in 2020. While the 2021 operating performance demonstrated by these metrics was not close to record levels, it was substantially improved over the pandemic-impacted 2020 results and shows a trending toward more normalized results for the sector.

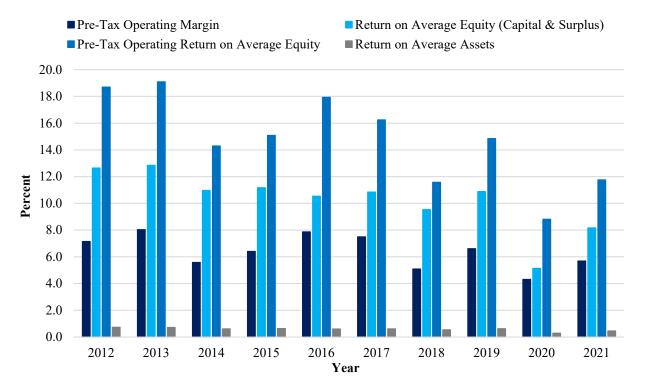


Figure 14: L&H Sector Operating Ratios

b) Financial Condition

This section presents information on the 2021 financial condition of the L&H sector, providing insight into the sector's financial safety and soundness by highlighting certain financial indicators and trends in recent years and over the past decade from 2012 through 2021.

i. Capital and Surplus

Though the effects of the pandemic were ongoing in 2021, the L&H sector grew its capital position by eight percent from 2020, attaining a new 10-year high. As illustrated in Figure 15, capital and surplus reached \$475.9 billion in 2021, with positive growth in each of the last five years. A nearly nine percent year-over-year increase in separate account assets, further supported by annual growth of nearly five percent in cash and invested assets, primarily boosted 2021 capital levels.

Figure 15: L&H Capital and Surplus Position (\$ thousands)

2017	2018	2019	2020	2021
\$ 395,024,290	\$ 399,896,318	\$ 421,671,764	\$ 440,488,741	\$ 475,874,180
3.8%	1.2%	5.4%	4.5%	8.0%
\$4,301,459,820	4,358,585,783	4,583,365,496	4,918,251,495	5,165,107,603
4.5%	1.3%	5.2%	7.3%	5.0%
9.2%	9.2%	9.2%	9.0%	9.2%
\$2,710,115,519	2,459,770,566	2,794,571,563	3,041,751,129	3,299,168,900
	\$ 395,024,290 3.8% \$4,301,459,820 4.5% 9.2%	\$ 395,024,290 \$ 399,896,318 3.8% 1.2% \$4,301,459,820 4,358,585,783 4.5% 1.3% 9.2% 9.2%	\$ 395,024,290 \$ 399,896,318 \$ 421,671,764 3.8% 1.2% 5.4% \$4,301,459,820 4,358,585,783 4,583,365,496 4.5% 1.3% 5.2% 9.2% 9.2% 9.2%	\$ 395,024,290 \$ 399,896,318 \$ 421,671,764 \$ 440,488,741 3.8% 1.2% 5.4% 4.5% \$4,301,459,820 4,358,585,783 4,583,365,496 4,918,251,495 4.5% 1.3% 5.2% 7.3% 9.2% 9.2% 9.2% 9.0%

Source: S&P Global

Averaging 3.9 percent since 2012, annual growth in general account assets has remained positive over the last decade for the L&H sector. The stability in the ratio of capital and surplus to general account assets over the last 10 years, which ranged from 9.0 percent to 9.4 percent, suggests that the L&H sector has been consistently managing its general account excess capital to meet policyholder commitments and other financial obligations.

The L&H sector issued surplus notes of \$47.8 billion in 2021, increasing by 11.7 percent from the prior year and marking a ten-year peak. The significant issuance can likely be attributed in part to the credit relief measures that were provided during the pandemic, allowing market participants to secure more favorable long-term financing rates. The last five years have seen positive annual growth in surplus notes or debt capital, growing by 10.5 percent on average since 2017. By contrast, growth of organic or non-debt capital has only averaged 4.0 percent over the same five-year period. Surplus notes accounted for 10 percent of aggregate capital and surplus at year-end 2021, the highest share in the last decade and up from 9.7 percent at year-end 2020. Because of their relative share of capital and surplus, surplus notes do not substantially change the pro forma growth of capital and surplus with their removal, suggesting that the L&H sector in the aggregate is able to generate capital from its core operations without reliance on external capital.

Year-over-year positive earnings—i.e., consistent gains generated from the sector's underwriting operations before factoring in capital gains and losses—have steadily driven capital accumulation for the L&H sector over the last decade. Annual revenue growth of more than seven percent largely resulted in the sector's strong underwriting performance in 2021, with net income (before capital gains) contributing 10.4 percent to the growth of capital and surplus from the previous year end. As market volatility and pandemic uncertainty subsided in 2021, the L&H sector reported an increase in net unrealized capital gains of \$22.2 billion, largely attributable to gains from alternative investments, and a decrease in net realized capital losses of \$8.3 billion. Both components combined to further enhance the sector's capital position by 3.2 percent.

As would be expected, stockholder dividends have partially offset the growth in capital and surplus. In 2021, stockholder dividends were \$33.6 billion compared to \$26.6 billion in 2020

⁵⁵ Though treated as equity under state insurance regulations, surplus notes are debt-like instruments that are subordinated to policyholder obligations and other current and future borrowings.

and a 10-year high of \$38 billion in 2018. To ensure that insurers' assets adequately protect policyholders, all stockholder dividends are subject to review by state insurance regulators and, in the case of extraordinary dividends, insurers must seek regulatory approval prior to distribution. Overall, stockholder dividends have reduced capital and surplus by 7.6 percent on average annually since 2012. By contrast, net income before capital gains and losses have increased capital and surplus by 12.6 percent on average over the same period. Figure 16 presents the key determining factors of capital and surplus for the L&H sector in the last 10 years through 2021.

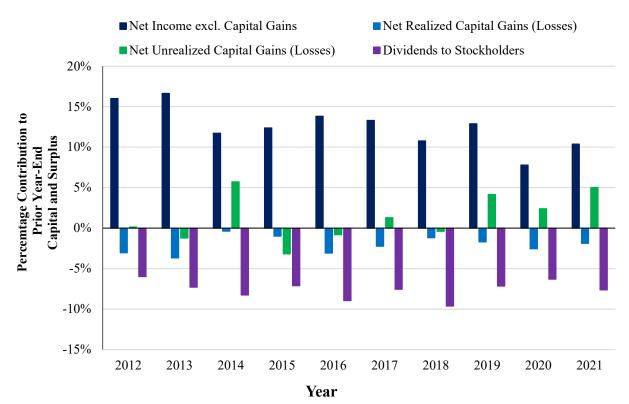


Figure 16: Leading Determinants of Capital and Surplus for the L&H Sector

Source: S&P Global

Figure 17 shows that the average risk-based capital (RBC) ratio for the L&H sector improved in 2021. Specifically, statutory capital and surplus in 2021 for the L&H sector was 4.42 times the level of minimum required regulatory capital on average, compared to 4.26 times the required level in 2020.

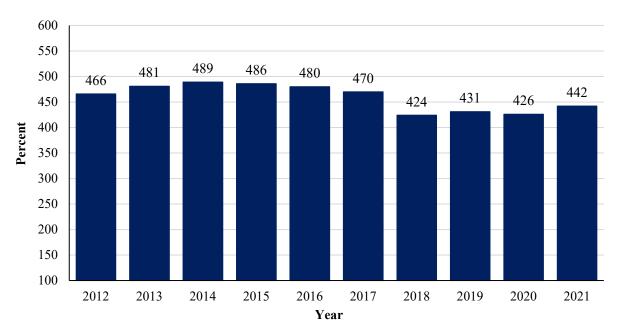


Figure 17: Average Risk-Based Capital Ratios for the L&H Sector

Note: RBC ratios for 2019 and 2020 calculated from S&P Global data.

Source: ACLI Fact Book, S&P Global

In 2021, the NAIC and state regulators adjusted the RBC formulas for the life/fraternal, property/casualty, and the health insurance business models, implementing the approved changes for 2021 year-end reporting.⁵⁶ The NAIC also developed new bond factors for all the RBC formulas. For the life insurance RBC formula, the NAIC adopted changes that help determine how much capital a life insurer must hold against its bond portfolios. By broadening the number of bond designation categories from 6 to 20, the NAIC introduced more granular risk charges for bonds in the life insurance RBC formula.⁵⁷ The NAIC bond designations are based on nationally recognized statistical ratings organization ratings as well as those assigned by the NAIC's Securities Valuation Office. Under the former methodology, an A-rated bond would be categorized as NAIC 1 and receive the same capital treatment as a AAA-rated bond. Under the new methodology, investment grade bonds are largely subject to more punitive RBC charges, particularly at the lower end of the credit quality spectrum within each ratings category. On the other hand, in a few select ratings categories, capital efficiency has improved—specifically, at the upper end of each ratings category, i.e., AAA, AA+, BB+, B+, etc.—better reflecting the lower risk of these bond holdings. Additionally, the differences in the RBC factors between investment-grade and below investment grade have narrowed noticeably under the new

⁵⁶ See "Capital Adequacy (E) Task Force-Adopted Risk-Based Capital Formulas," NAIC, https://content.naic.org//capital adequacy task force.htm.

⁵⁷ Early in 2020, the NAIC expanded the number of bond designation categories to 20, replacing the previous six categories, with the same format adopted for each of the RBC formulas. Although the reporting format changed, there were no new factors for 2020. Anurag John & Raghu Ramachandran, *Potential Impacts of Risk-Based Capital Factors* (July 2021), https://www.spglobal.com/spdji/en/documents/commentary/market-commentary-potential-impacts-of-proposed-risk-based-capital-factors.pdf.

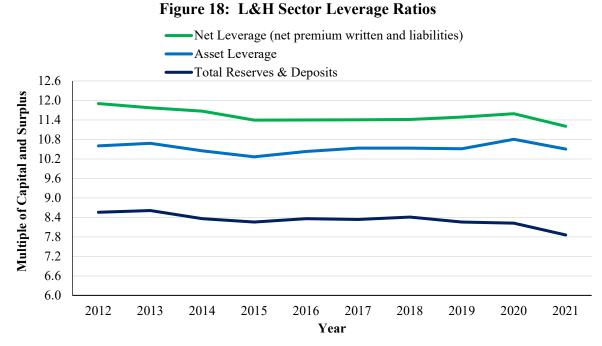
methodology. These changes do help bring increased granularity to the NAIC's RBC formulas; however, the new RBC methodology is based on corporate default term structures, so it is unclear whether the increased granularity fully captures the risks of life insurers' bond portfolios. As discussed later in this Report (see Section II.A.2b on "Changing Investment Allocations"), the composition of insurers' bond holdings increasingly includes greater percentages of asset-backed securities that have different risk profiles from that of corporate bonds, yet still receive the same RBC treatment.

In addition to new bond factors, other key changes in the life RBC formula included revised real estate factors and new longevity risk factors.⁵⁹

Leverage represents the degree to which an insurer's surplus is exposed to risks from underwriting and investment activities and presents another indicator of surplus strength. The trends observed in certain leverage ratios can be indicative of an insurer's ability to successfully navigate through market pressures. The greater financial flexibility illustrated by steady (or declining) leverage ratios, for example, can better enable insurers to fulfill policyholder obligations by: (1) returning a profit by investing the premiums received from underwriting activities; and (2) limiting the risk exposure from the policies underwritten. Insurers also employ reinsurance to move some of the risks off their own balance sheets and on to those of reinsurers (thereby improving, i.e., decreasing leverage). Figure 18 provides a view of the L&H sector's general account leverage for the last 10 years.

⁵⁸ FIO encouraged continued improvement of the NAIC's Securities Valuation Office in an analysis of private-equity issues. *See* Letter from Jonathan C. Davidson, U.S. Department of the Treasury Assistant Secretary for Legislative Affairs, to Senator Sherrod Brown (June 29, 2022), 4, 7, https://www.banking.senate.gov/imo/media/doc/fio-85.pdf. For more on private equity, see https://www.banking.senate.gov/imo/media/doc/fio-85.pdf. For more on private

⁵⁹ See NAIC Capital Adequacy Task Force, "RBC Proposal Form," https://content.naic.org/sites/default/files/inline-files/2021-13-L.pdf.



All three leverage metrics decreased slightly in 2021. The growth in capital and surplus in 2021 largely offset the pace of growth in the other components captured in the ratios, improving the L&H sector's financial capacity.

The net leverage ratio was 11.2 in 2021, down from 11.59 in 2020, suggesting that the L&H sector's ability to absorb losses from claims and estimated future liabilities remains sound. After a substantial decrease in 2020 in net premiums, annuities, and considerations (collectively referred to as net premiums in the net leverage ratio), the L&H sector returned to positive premium growth in 2021 as economic conditions gradually improved from the effects of the COVID-19 pandemic. Net premiums were \$637.8 billion in 2021 compared to \$625.7 billion in 2020.

Reflected in the net leverage ratio is the historical expansion of direct premiums and considerations in 2021, exhibiting an annual growth rate of approximately seven percent. Healthy balance sheets and pent-up consumer demand in 2021 largely underpinned year-over-year growth in the ordinary life insurance business, reaching 10.7 percent and the highest rate in 25 years. Likewise, annual growth of 14.9 percent in ordinary individual annuity direct premiums and considerations in 2021 was the highest rate in 19 years. Rising interest rates may further enhance growth in annuity business. Along with premium growth, increased general

⁶⁰ Net leverage ratio is an indicator of the sector's exposure to pricing and estimation errors, determined by calculating total liabilities and net premiums, annuities, and considerations as a multiple of capital and surplus.

⁶¹ Tim Zawacki, "Historic 2021 U.S. Individual Life, Annuity Premium Growth a Tough Act to Follow," *S&P Global Market Intelligence*, March 22, 2022, <u>www.spglobal.com/marketintelligence/en/news-insights/research/historic-2021-us-individual-life-annuity-premium-growth-a-tough-act-to-follow</u>.

account liabilities further raised the numerator of the net leverage ratio, but the combined impact was offset by growth in capital and surplus in 2021.

The net leverage ratio also considers the sector's reinsurance activity. The share of gross premiums ceded to reinsurers rose in 2021, resulting in a reduced net retention rate of 63.2 percent from 67.9 percent in 2020. Cessions accounted for nearly 37 percent of gross premiums at year-end 2021, rising from 32.1 percent at year-end 2020. Additionally, life premiums that were ceded to Bermuda grew to \$109.5 billion in 2021 (up from \$84.4 billion in 2020). These amounts accounted for over 72 percent of all life cessions to non-U.S. reinsurers in each of those two years. Surplus relief levels have steadily risen over the last decade, as the average annual growth rate of reinsurance cessions has sharply exceeded that of net premiums in nearly every year over the last decade. Surplus relief during this period more than doubled, increasing from \$12.9 billion in 2012 to \$26.8 billion in 2021, making up 4.8 percent of capital and surplus on average each year. In the last five years, in particular, the surplus relief ratio averaged more than 5.4 percent annually.⁶²

Turning to total policy reserves and deposit-type contract reserves, year-over-year growth has averaged almost three percent since 2012. The impact of interest rates and high COVID-19 mortality levels in 2021 did not appear to noticeably affect total policy reserves and deposit-type contract reserves, which totaled \$3.7 trillion and \$3.6 trillion for the years ending 2021 and 2020, respectively. The multiple of policy reserves and deposits to capital and surplus was 7.9 at year-end 2021, the lowest figure in a decade. For most of the last 10 years, the ratio has ranged between 8.2 and 8.4, suggesting that the financial resources set aside by the sector have largely been in line with expected claims commitments.

The asset leverage ratio aims to measure the potential impact on the balance sheet arising from the volatility and credit quality of the sector's investment portfolio, reinsurance recoverables, and agents' balances. The ratio is calculated as the sum of cash and invested assets plus reinsurance recoverables and agents' balances to capital and surplus. In the past decade, the L&H sector's asset leverage ratio has ranged between a low of 10.26 at year-end 2015 and a high of 10.80 at year-end 2020. While the asset leverage ratio decreased slightly to 10.50 in 2021, life insurers have increasingly sought greater yield during the prolonged low interest environment, which indicates that the sector's surplus may be increasingly supported by riskier assets. In addition to their significant presence in the corporate bond market, life insurers have also increased their participation in the private markets, in large part due to sustained low interest rates. As a result, portions of their investment portfolios have shifted away from traditional holdings in favor of higher yielding but less liquid investments, thereby potentially increasing insurers' exposure to risks stemming from sharp drops in asset prices, elevated issuer leverage, rising defaults, and funding risks. As Figure 19 below shows, alternative investment holdings have doubled since

⁶² The use of reinsurance for surplus relief is most common when an insurer begins to rapidly expand its volume of premiums written. "Surplus relief" refers to the amount of surplus not yet reported as income from commissions and expense allowances on reinsurance ceded during the current year. It captures the amounts related to A&H business as well as life and annuity business for general and separate accounts.

2012 and comprise an increasing share of L&H insurers' investment portfolios, totaling \$285.5 billion at year-end 2021. (See also <u>Box 2</u>.)

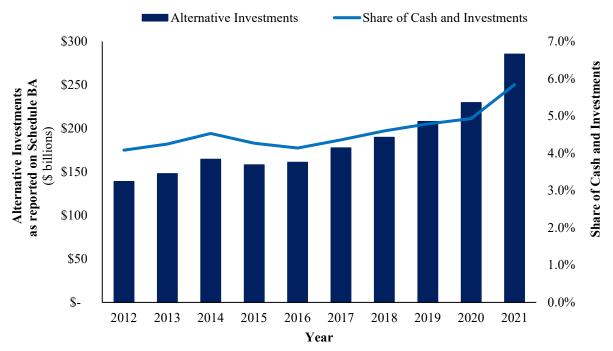


Figure 19: Growth of Alternative Investments Held by L&H Sector

Source: S&P Global

i. Assets

Year-over-year expansion of capital and surplus can be attributable to consistent growth in the L&H sector's investment portfolio and strong growth in separate accounts. General account assets rose to \$5.2 trillion in 2021 from \$4.9 trillion in 2020, resulting in an average annual growth rate of 3.9 percent over the last decade. Except for 2018, annual growth of separate account assets has generally been healthy, averaging over 10 percent in each of the last three years alone. Total L&H sector assets, including separate accounts, were \$8.5 trillion and \$8.0 trillion for the years ending 2021 and 2020, respectively.

Figure 20 shows the composition of the L&H sector's asset portfolio and distribution of cash and investments in the last five years. Of total asset holdings, general account assets have averaged over 62 percent of the portfolio on a yearly basis since 2017, while separate account assets have averaged 38 percent.

Figure 20: Composition of L&H Sector General Account Assets and Investment Portfolio

	2017	2018	2019	2020	2021
General Account Assets / Total Assets	61.3%	63.9%	62.1%	61.8%	61.0%
Separate Account Assets / Total Assets	38.7%	36.1%	37.9%	38.2%	39.0%
Bonds (long-term)	73.0%	72.5%	71.1%	70.2%	69.9%
Preferred Stocks	0.3%	0.3%	0.3%	0.3%	0.4%
Common Stocks	2.3%	2.0%	2.1%	2.2%	2.3%
Mortgage Loans	11.7%	12.6%	13.0%	12.6%	12.8%
Real Estate	0.6%	0.5%	0.5%	0.5%	0.5%
Contract Loans	3.2%	3.1%	3.0%	2.8%	2.6%
Derivatives	1.4%	1.4%	1.8%	2.6%	2.0%
Cash & Short-Term Investments	2.6%	2.5%	2.7%	3.2%	2.9%
Other Investments	5.0%	5.1%	5.3%	5.5%	6.6%
Total Cash & Investments	100.0%	100.0%	100.0%	100.0%	100.0%
Share of General Account Assets	94.7%	94.6%	94.7%	94.7%	94.6%

As detailed in Figure 20, the structure of the sector's investment portfolio has remained generally constant over the last five years, though some recent shifts can be observed. Cash and invested assets of \$4.9 trillion continued to make up nearly 95 percent of the general account asset portfolio at year-end 2021, which is in line with the investment composition during the first half of the past ten-year period. Bond holdings have consistently made up the bulk of the L&H sector's investment portfolio, reflective of the significant role that life insurers play in the corporate bond market for their asset-liability matching strategy. The predictability of cash flows from bond investments enhances insurers' ability to meet future policyholder obligations, making such investments a key feature of the sector's business model. Of total bonds held by life insurers, close to 97 percent have consistently been long-term in nature—in line with the long-term nature of obligations assumed under life policies and contracts. This concentration of long-term assets with predictable (nominal) returns is indicative of insurer risk management practices that match asset and liability durations, aimed at mitigating the impact of interest rate fluctuations on capital and surplus and providing insurers with the ability to estimate cash flows to meet both debt and policyholder obligations as they become due.

An ongoing trend for the L&H sector, however, has been the gradual migration away from long-term bond holdings to mortgage loans, driven by the sector's desire for higher yields and risk diversification. The L&H sector has progressively reduced its long-term bond exposure, while expanding its mortgage loan investments. Long-term bond holdings have declined by nearly five percentage points, falling from a high of 74.7 percent of the L&H investment portfolio in 2012, while mortgage loans have increased by three percentage points over that same period. Housing-related mortgage loan acquisitions by life insurers rose by 92 percent in 2021, surpassing growth in other property types. ⁶³ Mortgage loans have remained the second largest investment class

⁶³ Tim Zawacki, "Less-Liquid Assets Play Bigger Role in US Life Insurers' Search for Yield," *S&P Global Market Intelligence*, May 10, 2022, https://www.spglobal.com/marketintelligence/en/news-insights/research/less-liquid-assets-play-bigger-role-in-us-life-insurers-search-for-yield.

held by the L&H sector, averaging over 11.5 percent of cash and invested assets annually during the past decade. Unwavering year-over-year growth has led to total mortgage loans of \$625.9 billion in 2021, rising from \$587.2 billion in 2020 and achieving a peak for the decade.

Commercial mortgage loans have made up the bulk of the sector's exposure to mortgage loans. Life insurers increased mortgage loan purchases in retail and lodging property types in 2021, after mortgage activity had been depressed during the height of the COVID-19 pandemic in 2020. The L&H sector's activity in the office property market has not yet recovered to the same levels as retail and hotel property investments. As businesses have adapted to the COVID-19 pandemic by employing greater flexibility in work arrangements, the valuations of such commercial properties have declined, raising loan-to-value ratios and reducing debt service coverage.

Finally, other investments in Figure 20, which include alternative investments reported on Schedule BA of statutory financial statements have shown a steady year-over-year increase, illustrating in part the impact of the protracted low interest rate environment on life insurers' investment portfolios and the reach for yield.

ii. Liquidity

Uncertainty related to ongoing pandemic effects may have caused some of the developments in the L&H sector's liquidity position in 2021. Certain metrics are indicative of stable liquidity positions. Positive net cash flows from operations continued and the current liquidity ratio remained constant.⁶⁴ At the same time, adverse trends could be seen in surrender activity and benefit payments, as well as in changes in investment behavior that accepted potential increased liquidity risk to obtain higher yields. Figure 21 illustrates the cash flows from L&H sector operations, showing surrenders and benefit payments, each as a share of net premiums collected.

⁶⁴ This liquidity analysis is based on cash inflows and outflows from operations, as reflected in the cash flow statement, and specifically refers to premiums that were collected and benefit and loss-related payments actually made during the year. By contrast, the income statement shows profitability for the year, reflecting the revenues and gains as well as the expenses and losses *incurred* during the reporting period. Timing differences differentiate the cash flow and income statements.

Cash Flow

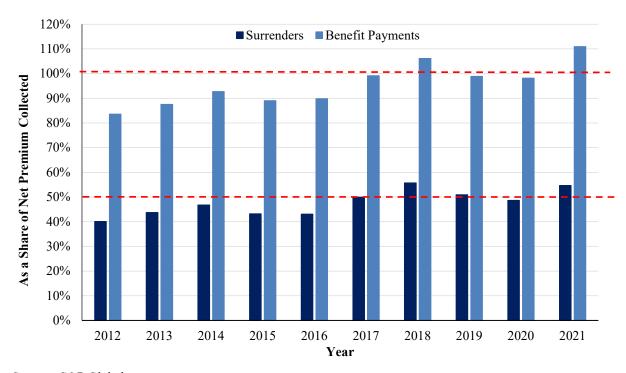


Figure 21: Cash Flows from Operations for the L&H Sector

Source: S&P Global

While premiums collected net of reinsurance remained relatively flat in 2021, benefit payments and surrender activity each exhibited material changes. Specifically, benefit payments totaled \$736.4 billion, an almost 13 percent year-over-year increase from 2020, and reached a decade high in 2021 in terms of both volume and share of premium receipts, as the impact of COVID-19 pushed mortality above the elevated levels witnessed in 2020. While the Omicron variant became dominant during the fourth quarter of 2021 and generally caused less severe cases of COVID-19, many U.S. life insurers reported considerably higher mortality levels than those experienced in 2020. Similar to benefit payments, surrender activity (in terms of volume) escalated and reached a decade high point in 2021. After surrender levels declined in 2020 and 2019, surrenders rose by 12.2 percent to \$362.7 billion in 2021. As Figure 21 demonstrates, there is a noticeable difference in surrender activity in the first half of the past ten-year period compared to the second half. Surrenders comprised 43.4 percent of net premium receipts on average each year from 2012 through 2016 compared to 52.0 percent annually from 2017 through 2021. Year-over-year growth in surrenders has been averaging 4.6 percent, while the annual growth rate for net

⁶⁵ Premiums collected net of reinsurance is the largest component of cash inflows from operations. Other cash receipts stem from net investment income and miscellaneous income.

⁶⁶ Hailey Ross & Jason Woleben, "US Death-Benefit Payouts Hit Record High in 2021," *S&P Global Market Intelligence*, March 15, 2022, https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/us-death-benefit-payouts-hit-record-high-in-2021-69102708.

premium receipts has been averaging 0.9 percent over the same ten-year period. Net premium receipts were \$663.9 billion and \$664.6 billion in 2021 and 2020, respectively.

With regard to the individual annuity category, surrender benefits and withdrawals for variable annuities with guarantees increased the sharpest in 2021, escalating by 23 percent to \$122.6 billion in 2021. Surrenders for fixed deferred annuities and indexed annuities rose to \$31.1 billion and \$30.9 billion, respectively, with each exhibiting a more than 13 percent increase from 2020. Variable annuities without guarantees had an almost 17 percent increase in surrenders.⁶⁷

One likely potential cause of the heightened surrender activity observed in 2021 is related to expectations of higher interest rates. As the COVID-19 pandemic environment improved and more businesses were able to reopen in 2021, the pace in the demand for goods and services in the economy began to overtake available supply, causing inflation concerns. For some insurance products like variable annuities, inflationary risk and equity market valuations tend to have considerable influence on policyholder behavior. Additionally, surrender activity may reflect the effects of reinsurance transactions, recaptures, and strategic decisions relative to in-force blocks of business, resulting in differing impacts across individual firms.

Positive cash flows from operations have been constant over the past decade, contributing to steady growth in cash and invested assets and bolstering liquidity for the L&H sector. At year-end 2021, cash and total invested assets were \$4.9 trillion, increasing by nearly 5 percent from the prior year-end and tracking the 4.8 percent year-over-year growth in general account liabilities that totaled \$4.7 trillion in 2021. Furthermore, the ratio of cash and invested assets to general account liabilities has remained stable over the past decade, averaging slightly above a multiple of one annually.

Due to their longer duration liabilities, life insurers' portfolios are often heavily weighted with fixed-income securities because they provide greater certainty in asset cash flows. As expected of the L&H sector, bonds have consistently made up the bulk of cash and investments, totaling \$3.5 trillion at year-end 2021, up by 3.9 percent from the previous year end. More than 40 percent (or \$1.4 trillion) of the bond portfolio had maturities of 10 years or greater at year-end 2021, which was slightly higher than prior years. Of that amount, nearly 55 percent had maturities greater than 20 years, mirroring the previous two years, but falling from almost 59 percent at the start of the ten-year period. As of year-end 2021, more than 27 percent of the bond portfolio consisted of holdings with maturities between 5 and 10 years as of year-end 2021, compared to 28 percent as of the prior year-end and the yearly average of 29.6 percent since 2012. In summary, close to two-thirds of the sector's entire bond portfolio has steadily been allocated to medium- to long-duration investments in each of the last 10 years, supporting the longer time horizon of a life insurer's obligations. Moreover, the L&H sector has held, on average, more than 94 percent of its total bonds in investment-grade debt each year since 2012, mitigating the sector's credit risk exposure while reinforcing its liquidity.

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⁶⁷ Tim Zawacki, "Annuity Structures to Limit Impact of Higher Surrenders as Rates Rise," *S&P Capital IQ*, April 7, 2022, https://www.capitaliq.spglobal.com/web/client?auth=inherit#news/article?id=69580844.

Changing Investment Allocations

Increased risk tolerances may be influencing the characteristics of the L&H sector's investment portfolio, which can be observed in Figure 22. The shifts in investment allocations indicate that life insurers are accepting some increase in liquidity risk as the cost for potential higher yields. Notably, the share of the bond portfolio allocated to public bonds continues to follow a downward trend, decreasing by nearly 14 percentage points over the last 10 years. Moreover, sustained pressures on interest margins have motivated life insurers to continue seeking out investments that offer higher returns, but which tend to be less liquid. Additionally, non-investment grade bonds continue to account for more than 40 percent of capital and surplus, as they generally have throughout the past 10 years. Finally, affiliated investments have been steadily on the rise since 2018, accounting for a greater proportion of capital and surplus, and because such investments are typically illiquid, these holdings can impact the overall quality of available capital.

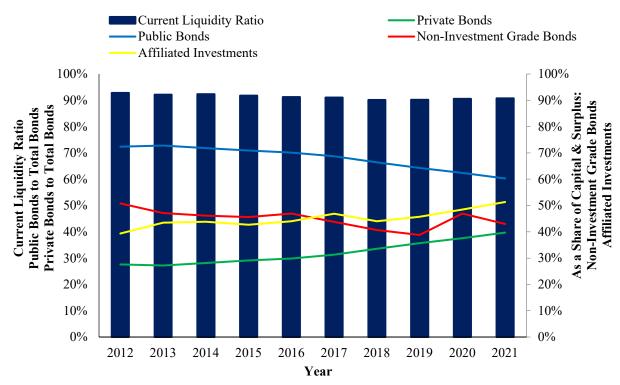


Figure 22: A View of L&H Sector Liquidity

Source: S&P Global

In the search for yield, insurers have increasingly turned to private credit markets. Privately placed bonds have accounted for a growing share of total bond holdings over the past 10 years, reaching a decade high of 39.7 percent at year-end 2021 for the L&H sector. The degree of information and due diligence on private-placements and private-label securities available to

⁶⁸ At year-end 2011, public bonds of \$1.9 trillion made up 74 percent of the L&H sector's bond portfolio.

investors is limited as compared to that for public issuers. Private placements are not required to be registered with the U.S. Securities & Exchange Commission, and therefore are not subject to disclosure and reporting requirements comparable to those for public issuers. Additionally, private placements are not typically assigned credit-agency ratings, making it challenging for investors and regulators to determine their risk. Issuers must therefore be prepared to pay investors a premium in exchange for taking on the potential added risk. Private placements have gradually climbed from a 2.2 multiple of capital and surplus at year-end 2012 to 2.9 at year-end 2021.

As insurers are shifting away from traditional investments towards alternative and other non-traditional investments, their investment portfolios reflect increased allocations to illiquid investments that are underlying policyholder reserves. The lower degree of credit and pricing transparency associated with these illiquid types of investments, however, can result in greater volatility. In support of their product mix, insurers have heightened the risk exposure of their portfolios to enhance yield by progressively including more examples of alternative and other non-traditional asset classes such as bank loans, private-label securities, and other structured securities like collateralized loan obligations (CLOs) and asset-backed securities (ABS). As illustrated in Figure 19, the L&H sector's exposure to alternative assets, as reported on Schedule BA, rose sharply by 24.3 percent from prior year-end 2020 and comprised 58.2 percent of the entire insurance industry's Schedule BA exposure at year-end 2021. Private equity, hedge funds, and real estate holdings were reported to account for the bulk of Schedule BA exposures for life insurers in the last two years. Private equity investments, in particular, represented the largest Schedule BA investment allocation by the L&H sector in 2021, increasing by over 32 percent to \$134.1 billion from year-end 2020.

ABS and bank loans also highlight the growth of non-traditional bond holdings for life insurers. These asset classes may be more susceptible to credit pressures and interest rate movements, especially in times of stress. As indicated in Figure 23, total ABS holdings of \$783.0 billion comprised 16 percent of the L&H sector's investment portfolio as of year-end 2021 and have been steadily rising in volume each year since 2015. While the L&H sector has been reducing its exposure to residential mortgage-backed securities year-over-year in the last decade, this has not been done for commercial mortgage-backed securities (CMBS), which totaled \$198.3 billion in 2021, greater than the \$193.7 billion total in 2020 and an increase of nearly 32 percent from 2012 levels. Though reaching a decade high in volume, the CMBS share of capital and surplus was lower at year-end 2021 (41.7 percent) as compared to year-end 2020 (44 percent). Other loan-backed securities (largely CLO holdings) have shown substantial growth in the last three years, making up nearly one-half of total ABS at year-end 2021. Other loan-backed securities were \$387.2 billion in 2021, up from \$352.1 billion and \$318.3 billion in 2020 and 2019,

⁶⁹ NAIC, Capital Markets Special Report: U.S. Insurance Industry Exposure to Schedule BA Assets Exceeds \$500 Billion in 2021(2022), https://content.naic.org/sites/default/files/capital-markets-special-reports-Sch-BA-YE2021.pdf.

⁷⁰ The degree and scope of the risks associated with these types of securities differ, depending on their structure. The securities are structured to meet investors' risk appetites and can range from pass-throughs to complex tranching arrangements. Bank loans, for example, can benefit from rising rates and are somewhat insulated from declining credit by their position in the capital structure.

respectively. By comparison, other loan-backed securities totaled \$197.2 billion and comprised 30 percent of the ABS portfolio in 2012.

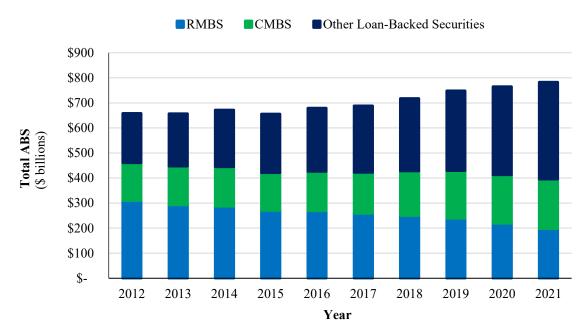


Figure 23: L&H Sector Portfolio of Asset-Backed Securities

Source: S&P Global

In the prolonged low interest rate environment, bank loans have also represented an attractive investment alternative to traditional bond investments. Life insurers held 76.5 percent (or \$74.4 billion) of the insurance industry's total bank loan investments at year-end 2021. Overall, the U.S. insurance industry's total bank loan holdings have remained on an upward trajectory over the last four years, with about 60 percent of total bank loan holdings in 2021 consisting of leveraged bank loans. Notably, 10 life insurers own about 54 percent of the insurance industry's total bank loan investment exposure.⁷¹

Affiliated Exposures

Due to the more illiquid nature of affiliated holdings, significant growth in affiliated investments may have the potential to adversely affect an insurer's capital base. With the exception of 2018, the L&H sector has expanded its holdings of affiliated cash and investments each year in the last 10 years. Annual growth of affiliated holdings has averaged 7.7 percent since 2012. Affiliated investments were \$244.3 billion and \$213.5 billion for the years ending 2021 and 2020, respectively, amounting to a 14.5 percent year-over-year increase. Affiliated cash and invested assets made up 51.3 percent of capital and surplus as of year-end 2021, up from 48.5 percent at year-end 2020, and 45.7 percent at year-end 2019. The composition of the L&H sector's

⁷¹ NAIC, Capital Markets Special Report: Significant Increase in U.S. Insurers' Bank Loan Exposure as of Year-End 2021 (2022), https://content.naic.org/sites/default/files/capital-markets-special-reports-bank-loans-2021.pdf.

affiliated investment portfolio has not materially deviated in the last five years. Affiliated common stock accounted for 29 percent of total affiliated holdings at year-end 2021, while affiliated alternative investments comprised 48 percent. Alternatives have consistently made up the bulk of the L&H sector's affiliated exposures in each of the last 10 years. At year-end 2021, affiliated alternatives represented over 40 percent of total Schedule BA investments reported by the L&H sector. With a share of 17 percent, affiliated bonds made up the third largest concentration of affiliated investments for the sector. 72

Mitigants

Any potential liquidity concerns may be mitigated to an extent by the L&H sector's overall positive financial profile as reflected in four factors. First, annual growth in cash and invested assets has been healthy over the last decade, averaging close to four percent, tending to enhance the sector's liquidity profile and contributing to a current liquidity ratio that has remained above 90 percent in each of the last 10 years. This suggests that the L&H sector consistently has been able to anticipate and fulfill its policyholder and operational needs on an ongoing basis.

Second, investment-grade bonds have averaged over 94 percent of the aggregate bond portfolio annually since 2012.⁷³ Furthermore, growth of bonds that were at or near default has trended sharply downward over the last three years.

Third, while ABS holdings have increased year-over-year since 2016, the share of ABS underlying L&H capital and surplus has trended downward since 2018. They amounted to a 1.65 multiple of capital and surplus at year-end 2021, down from 1.74 at year-end 2020 and 1.79 at year-end 2018. While CMBS was one of the asset classes that suffered significantly during the COVID-19 pandemic, it has recently seen reductions in defaults and delinquencies. Total bank holdings for the entire insurance industry (L&H and P&C sectors) comprised only 1.4 percent of the investment portfolio at year-end 2021, thus limiting the potential impacts from market stress on these assets. Moreover, 94 percent of these bank loan instruments had maturities of 10 years or less and unaffiliated bank loans accounted for close to 95 percent of total insurer bank loan investments, helping to mitigate both interest rate risk and liquidity concerns. Furthermore, the L&H sector's Schedule BA exposures comprised only 5.8 percent of total cash and investments at year-end 2021 as compared to 4.9 percent at year-end 2020. Finally, mortgage loans in good standing have consistently accounted for over 99 percent of the sector's entire mortgage portfolio since 2012.

⁷² Cash, short-term investments, and mortgage loans combined to make up the remainder of affiliated holdings, representing five percent of affiliated exposures at year-end 2021.

⁷³ Both publicly traded bonds and private placements can be assigned NAIC designations. Investment securities rated by one or more nationally recognized statistical rating organizations are mapped by insurers to equivalent NAIC designations. Such securities are exempt from filing with the NAIC's Securities Valuation Office, which is responsible for the day-to-day credit quality assessment of securities owned by state regulated insurance companies and may produce and assign NAIC designations for investment securities that are not rated by a nationally recognized statistical rating organization.

⁷⁴ NAIC, Capital Markets Special Report: Significant Increase in U.S. Insurers' Bank Loan Exposure as of Year-End 2021 (2022), https://content.naic.org/sites/default/files/capital-markets-special-reports-bank-loans-2021.pdf.

Fourth, despite the continued growth in the L&H sector's holdings of affiliated cash and investments, on average such assets have comprised only 4.4 percent of total cash and invested assets annually since 2012. Moreover, the bulk of unaffiliated investments is aligned with the L&H sector's fundamental asset/liability matching philosophy, with bonds accounting for more than three-quarters of unaffiliated holdings on average each year since 2012. Unaffiliated cash and invested assets were \$4.7 trillion at year-end 2021, up by 4.5 percent from \$4.5 trillion at year-end 2020 and growing at an annual pace of 3.7 percent on average over the last decade. Unaffiliated cash and invested assets have covered general account liabilities by a multiple of one in each of the last 10 years, while the contribution of unaffiliated investments to capital and surplus has remained unwavering and substantial at a yearly multiple of 10. All these factors reinforce the L&H sector's continued ability to support its policyholder and funding commitments as they come due.

Box 2: Increased Focus on Private Equity in the Life Insurance Sector

The influence of private equity firms and other alternative asset managers in the life insurance sector continued in 2021. At year-end 2021, private-equity-owned U.S. insurers controlled in excess of \$1 trillion of cash and invested assets, a sharp increase from \$471 billion at year-end 2020. This growth greatly outpaced the overall asset growth rate of U.S.-domiciled life insurers during the same period. A substantial amount of assets is also held by private equity-owned or affiliated offshore life reinsurance entities that mostly reinsure U.S. business. Private-equity-owned reinsurers are significant sources of reinsurance for U.S. domiciled affiliates and for unaffiliated U.S. insurers. Additionally, the increased interconnectivity of the U.S. and Bermuda insurance markets through the growth of private equity-owned insurers may have implications for U.S. policyholders.

In March 2022, Senator Sherrod Brown, Chairman of the U.S. Senate Committee on Banking, Housing, and Urban Affairs wrote to FIO and to the NAIC, raising several concerns regarding the role of "[i]nvestment firms like asset managers and private equity funds" in the insurance industry, including but not limited to annuitization of private pension fund obligation. ⁷⁸ Both FIO and the NAIC provided responses to Senator Brown. ⁷⁹ For its part, FIO described both

⁷⁵ See FIO, 2021 Annual Report, 50; Kerry Pechter, "Private Equity in the Life/Annuity Biz," Retirement Income Journal, April 28, 2022, https://retirementincomejournal.com/article/private-equity-in-life-annuity-biz-conference-notes/. See also Tim Zawacki, "Large Deals Elevate Private Equity-Linked Reinsurers in US Life, Annuity Market," S&P Global Market Intelligence, May 3, 2022, https://www.spglobal.com/marketintelligence/en/news-insights/research/large-deals-elevate-private-equity-linked-reinsurers-in-us-life-annuity-market.

⁷⁶ See, e.g., Kerry Pechter, "Bermuda's Role in a Changing Annuity Industry," *Retirement Income Journal*, September 10, 2021, https://retirementincomejournal.com/article/bermudas-role-in-a-changing-annuity-industry/.

⁷⁷ See also Tim Zawacki, "Large Deals Elevate Private Equity-Linked Reinsurers in US Life, Annuity Market."

⁷⁸ Letter from Senator Sherrod Brown to Steven Seitz, FIO Director, and Dean Cameron, NAIC President (March 16, 2022), https://www.banking.senate.gov/imo/media/doc/brown letter on insurance 031622.pdf.

⁷⁹ Letter from Jonathan C. Davidson, U.S. Department of the Treasury Assistant Secretary for Legislative Affairs, to Senator Sherrod Brown (June 29, 2022), https://www.banking.senate.gov/download/fio-85; Letter from Dean Cameron, NAIC President, et al. to Senator Sherrod Brown (May 31, 2022), https://www.banking.senate.gov/download/naic-may.

potential risks and potential benefits of the expanding roles of private investment management firms as owners of insurers and as third-party asset managers for insurers, including specific attributes of these activities that may necessitate additional supervisory attention. As noted in its response to Senator Brown, FIO has been engaging with the NAIC and state regulators to consider the potential impact of these trends and relevant market developments, including whether the current regulatory framework should be modified so that it continues to enable regulators to safeguard policyholder interests and address potential macroprudential risks in this area. As detailed in its letter, FIO has identified four areas of priority for its continued analysis and engagement:

Liquidity: Liquidity and the appropriate regulatory responses in view of the transition from traditional asset classes such as bonds to more non-traditional classes that are higher yielding but less liquid, including real estate, CLOs and other privately structured securities.

Credit Risk/Capital Adequacy: Credit risk and loss-absorbing capacity and the appropriate regulatory response in view of activities that link affiliated origination platforms, securitization strategies, and asset allocation approaches.

Offshore Reinsurance Implications: Monitoring the growth of offshore reinsurance and assessing why segments of the market are increasing their reliance on affiliated and unaffiliated offshore reinsurance entities.

Conflicts of Interest: Issues regarding potential conflicts of interests arising from management and investment fee structures and sourcing from affiliated origination platforms.

FIO will continue to monitor developments in this space and to consider implications for policyholders and the financial system, and will provide an update in future annual reports.

3. Property and Casualty Sector

This section presents additional analysis of the financial performance of the P&C sector in 2021 and then assesses the P&C sector's overall financial condition as of December 31, 2021, including a trend analysis of the last 10 years.

a) Financial Performance

i. Direct and Net Premiums Written

Figure 24 shows the 2021 composition of P&C sector direct premiums written by lines of business, while Figure 25 shows a longer-term view of the amount and composition of direct premiums written by major lines of business. For 2021, total P&C sector direct premiums written reached a record level at \$798 billion, marking a nine percent increase over 2020 levels and the highest annual growth in the past decade. Direct premiums written for personal lines of business increased by six percent compared to 2020, while direct premiums written for commercial lines of business increased by 14 percent. The absence of additional pandemic-related premium reductions, as had been instituted in 2020 in personal auto insurance, coupled

with approved rate increases, drove top line growth in this line of business. In addition, miles driven returned to pre-pandemic levels and premiums increased for usage-based insurance. Overall, personal auto insurance direct premiums written increased by five percent in 2021. Homeowners insurance also saw rate increases, contributing to premium growth of eight percent for this line. Rate increases and a return to more normal miles driven boosted commercial auto insurance direct premiums written by 17 percent. Pricing discipline and a harder market for commercial property and multi-peril lines led premiums to gains of 10 percent and 7 percent, respectively, in those lines. Net reinsurance premiums ceded increased by 11 percent, consistent with the overall gain in business. Net premiums written were also a record in 2021 at \$716 billion, an increase of nine percent over 2020.

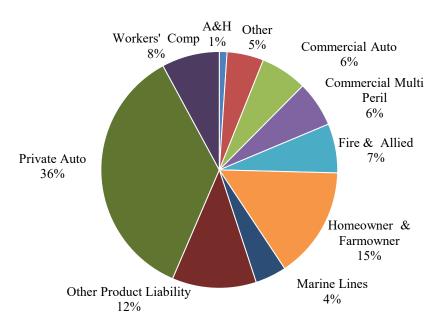


Figure 24: P&C Sector Composite of Direct Premiums Written

Source: S&P Global

⁸⁰ David Blades, *P/C Snapshot: Insurers Navigate Pandemic and Elevated Secondary Perils* (June 13, 2022), 3, https://news.ambest.com/research/DisplayBinary.aspx?TY=P&record_code=320760&URatingId=2562038&AltSrc=108&ga=2.255739400.104803370.1661035661-235444461.1646407991.

⁸¹ Blades, P/C Snapshot, 7-8.

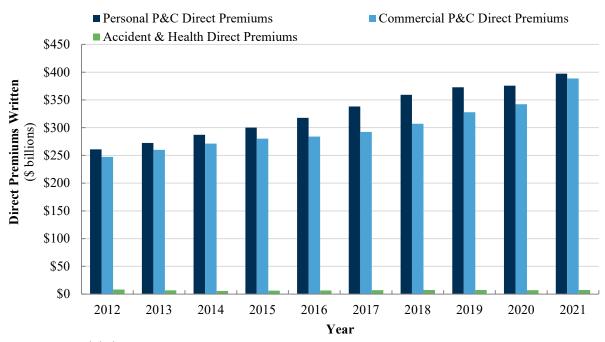


Figure 25: P&C Sector Direct Premiums Written

Source: S&P Global

Box 3: Cyber Insurance Market

U.S. insurers continued to report growth in the cyber insurance market (package and stand-alone policies) in 2021, with approximately \$5.1 billion in direct premiums written, a 68 percent increase over 2020's approximately \$3 billion. However, this still is significantly under one percent of the total P&C market. 82 The growth appears linked to significant increases in premiums—a 96 percent increase in cyber insurance pricing on average, by one estimate. 83 Roughly the same number of insurers provided cyber insurance in 2020 and 2021—that is, 780

⁸² Cyber insurance market figures are based on data from S&P Global (which are derived from data reported to state insurance regulators) in order to facilitate comparability with other market data figures in Section II. See also Tom Jacobs and Hassan Javed, "Insurers Revisit Cyber Coverage As Demand, Premiums Spike," S&P Global Market Intelligence, July 7, 2022, <a href="https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/insurers-revisit-cyber-coverage-as-demand-premiums-spike-70880071#:~:text=Premiums%20skyrocketing,S%26P%20Global%20Market%20Intelligence%20analysis. For more information on cyber insurance, see Box 1 and also see FIO, 2021 Annual Report, 74-77; FIO, 2022 TRIP Effectiveness Report, 59-74.

Since 2018, Treasury has collected data on cyber premiums in TRIP-eligible lines of insurance and reported on its most recent TRIP data call, including new cyber elements, in its 2022 TRIP Effectiveness Report. The TRIP data call figures differ from those reported to the states for various reasons related to the different scopes of the respective calls.

⁸³ See "Cyber Insurance Market Overview: Fourth Quarter 2021," Marsh, https://www.marsh.com/us/services/cyber-risk/insights/cyber-insurance-market-overview-q4-2021.html. See also FIO, 2021 TRIP Effectiveness Report, 66.

insurers—based upon those who reported any non-zero amount of premiums written.⁸⁴ Overall, however, as shown in Figure 26, the cyber insurance market remains concentrated, with the top 10 cyber writers holding a combined market share of 55.3 percent, down from 63 percent in 2020. The top 25 cyber writers combined hold nearly 85 percent of the cyber insurance market.

Figure 26: P&C Insurance Groups by U.S. Cyber Direct Premiums Written

2020 Rank	2021 Rank	Insurance Group	2020 Direct Premiums itten (\$000)	Share of Total (%)	2021 Direct Premiums (tten (\$000)	Share of Total (%)
1	1	Chubb	\$ 404,197	13.4	\$ 473,129	9.3
8	2	Fairfax Financial	108,530	3.6	436,448	8.6
2	3	AXA SA	293,025	9.7	421,014	8.3
4	4	Travelers	230,629	7.7	257,370	5.1
11	5	Tokio Marine	86,334	2.9	249,785	4.9
3	6	AIG	233,642	7.8	246,011	4.9
5	7	Beazley plc	177,746	5.9	200,878	4.0
7	8	CNA	119,612	4.0	181,383	3.6
31	9	Arch Capital	16,043	0.5	171,226	3.4
6	10	AXIS	133,550	4.4	159,059	3.1
		Combined Top 10	\$ 1,890,381	62.9	\$ 2,796,302	55.3
		Combined Top 25	\$ 2,529,743	84.1	\$ 4,265,999	84.3
		Combined Top 100	\$ 2,962,072	98.5	\$ 5,005,473	98.9
1		Total U.S. Cyber Premiums	\$ 3,007,759	100.0	\$ 5,060,714	100.0

Source: S&P Global

ii. Underwriting Results

Figure 27 shows the P&C sector combined operating ratio and its composition for the past five years. 85

⁸⁴ When looking only at those who provided more than *de minimis* coverage, however, the number of insurers drops to about 600—which is still a substantial increase over the roughly 300 insurers in this market in 2015.

⁸⁵ S&P Global ratios include the policyholder dividend ratio for transparency to the public and investors because dividends represent a cash outlay.

Figure 27: P&C Sector Combined Operating Ratios

	2017	2018	2019	2020	2021
Loss Ratio	64.14	60.71	60.05	59.34	62.38
Loss Adjustment Expense Ratio	<u>11.76</u>	<u>10.70</u>	10.98	<u>10.80</u>	10.15
Loss and Loss Adjustment Expense Ratio	75.91	71.42	71.03	70.13	72.53
Net Commission Ratio	10.29	11.26	11.00	11.27	11.05
Salaries & Benefits Ratio	7.91	7.38	7.40	7.43	7.16
Tax, License & Fees Ratio	2.47	2.39	2.34	2.31	2.29
Administrative & Other Expense Ratio	6.67	6.25	6.45	6.46	6.02
Expense Ratio	27.34	27.28	27.20	27.47	26.52
Policyholder Dividend Ratio	0.61	0.62	0.78	1.19	0.67
Combined Ratio	103.85	99.32	99.01	98.80	99.72

Source: S&P Global

The combined ratio for the P&C sector increased to approximately 99.7 percent in 2021 from 98.8 percent in 2020, reflecting a decline in underwriting profit. Reserve losses of nearly \$100 billion in 2021 were notably more severe than in 2020, with 20 separate billion dollar catastrophic events in the United States in 2021. Adding to the increase in losses was higher claims severity in personal auto insurance as miles driven returned to pre-pandemic levels and medical and repair costs rose significantly. Reserve development was again favorable in 2021, adding to underwriting profits. Figure 28 shows losses from catastrophic events in the United States since 2017, and Figure 29 shows reserve development over the same period. Additionally, the expense ratio decreased one percent from 2020 to 2021.

⁸⁶ A combined ratio of greater than 100 percent would indicate that premiums did not cover losses and expenses in a given period (i.e., underwriting operations made a negative contribution to net income) and, therefore, that a company did not generate an underwriting profit. Investment income, realized capital gains/losses, and income taxes are not considered in the combined ratio.

⁸⁷ David Blades, *Publicly-Traded P/C Insurers Post Strong Gains Despite Catastrophes* (April 11, 2022), https://news.ambest.com/research/DisplayBinary.aspx?TY=P&record_code=319008&URatingId=2562038&AltSrc=108&ga=2.59244717.104803370.1661035661-235444461.1646407991.

⁸⁸ Favorable reserve development occurs when the current year actuarial estimates of losses arising from business written in previous years are less than the previous estimates for that year, thereby freeing reserves to contribute to the insurer's bottom line.

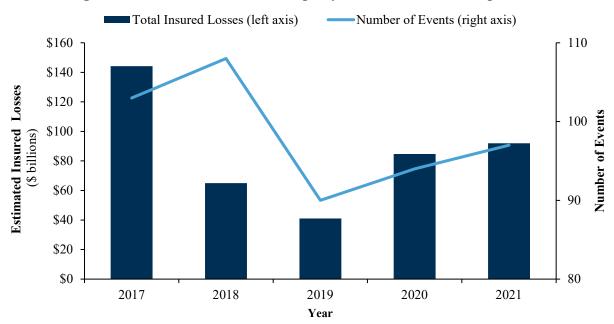


Figure 28: Estimated Insured Property Losses, U.S. Catastrophic Events

Note: Losses are adjusted for inflation through 2020 by the Insurance Information Institute using the Gross Domestic Product (GDP) implicit price deflator.

Sources: Insurance Information Institute; Property Claim Services, a unit of ISO, a Verisk Analytics Company; U.S. Bureau of Economic Analysis.

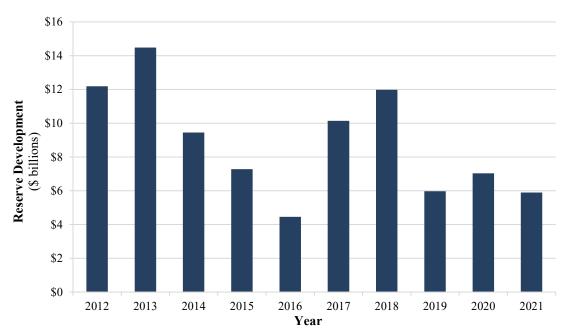


Figure 29: Total One Year Reserve Development for the P&C Sector

Note: Reflects total incurred net loss development for all accident years.

Source: S&P Global

iii. Investment Income

Net investment income for the P&C sector increased by five percent to \$56 billion in 2021, while cash and invested assets balances increased by 11 percent to \$2.2 trillion. As a result, the net yield on invested assets declined to 2.64 percent in 2021 from 2.75 percent in 2020. Figure 30 depicts a longer-term view of the trends in net investment income and net yield on invested assets for the P&C sector. Realized capital gains and losses are reported separately and are not a component of net investment income. P&C insurers are less dependent than L&H insurers on net investment income to fund losses and expenses, given the shorter contract terms and shorter-tailed losses, and net investment income accounted for approximately seven percent of total P&C sector revenues in 2021, a measure lower than the ten-year historical average of nine percent. Strong gains in income from other invested assets as reported in Schedule BA, preferred stocks, and common stocks more than offset slightly lower income from fixed income securities.

Net Investment Income (left axis) Net Yield on Invested Assets (right axis) 4.0% \$60 \$57.0 \$56.3 \$56.0 3.8% \$54.9 \$53.4 \$50.3 \$49.7 \$49.3 \$48.8 3.6% \$47.5 \$50 3.4% \$40 3.2% \$ billions 3.0% \$30 2.8% \$20 2.6% 2.4% \$10 2.2% \$0 2.0% 2015 2016 2017 2018 2019 2012 2013 2014 2020 2021 Year

Figure 30: P&C Sector Annual Net Investment Income and Net Yield on Invested Assets

Source: S&P Global

Realized capital gains on investments increased significantly, rising by 72 percent, as the sector took advantage of strong equity market performance. The P&C sector recorded net realized capital gains of \$17.9 billion, up from \$10.4 billion in 2020. Significantly higher gains on equity securities and derivative instruments that more than offset lower gains in other invested assets and fixed income securities caused the increase in net realized capital gains.

iv. Net Income

The P&C sector's net income increased by four percent in 2021 to \$63.4 billion from the \$60.7 billion reported in 2020, as shown in Figure 31. Despite strong growth in net premiums earned (up seven percent) in 2021, the sector concluded with a slight underwriting loss as compared to a gain of \$11.9 billion in 2020. The decline in underwriting profit was more than offset, however, by the increase in net investment income and a significant increase in realized capital gains. Pre-tax operating income therefore increased by four percent to \$72 billion in 2021 from \$69.4 billion in 2020. A similar four percent increase in federal income taxes maintained the increase in net income of four percent.

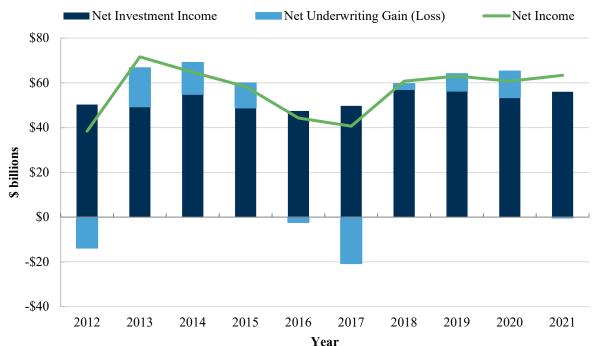


Figure 31: P&C Sector Net Income

Source: S&P Global

Figure 32 displays key measures of returns for the P&C sector. The 2021 pre-tax operating margin decreased to 7.3 percent from 8.5 percent in 2020; this decline was due to the strong growth in revenues that was not matched by the increase in pre-tax operating income. Additionally, strong results in personal auto lines in 2020 due to pandemic-related lockdowns diminished as conditions normalized, decreasing operating results in 2021. The 2021 return on average equity of 6.4 percent was below the 6.8 percent mark for 2020, and below the average of nearly eight percent for the past 10 years. This decline was due to the strong growth in policyholders' surplus (up 12 percent) in 2021 that outpaced the increase in net income.

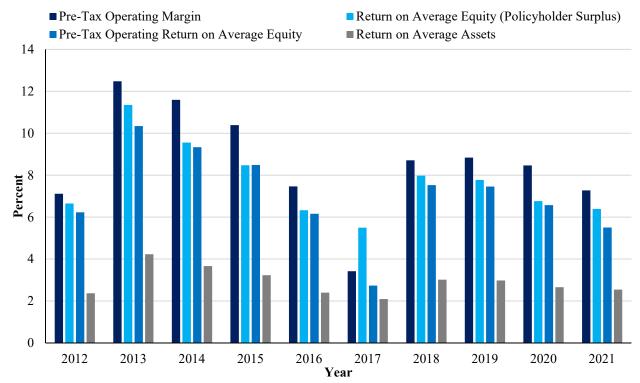


Figure 32: P&C Sector Operating Ratios

Source: S&P Global

b) Financial Condition

This section analyzes the financial condition of the P&C sector at the end of 2021 and examines trends over the last 10 years from 2012 through 2021, focusing on surplus, assets, and liquidity.

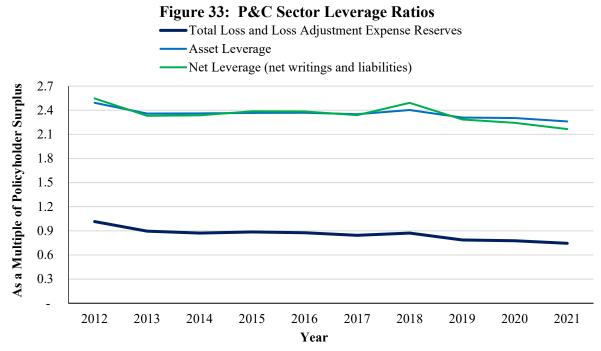
i. Surplus as Regards Policyholders

Like the L&H sector, the P&C sector weathered the lingering effects of the COVID-19 pandemic in 2021, growing policyholder surplus to record highs. Net income of \$63.4 billion and an increase in net unrealized capital gains of \$90.3 billion were key to raising the sector's surplus to a 10-year high of \$1.1 trillion in 2021. Policyholder surplus levels exhibited a 13.3 percent year-over-year increase from 2020, contributing to a yearly average growth rate of 6.6 percent over the last 10 years. The pro-forma removal of capital contributions in the form of surplus notes results in an even higher annual growth rate over the same period, averaging 6.8 percent.

The P&C sector was able to expand policyholder surplus organically in 2021 through growth in net premium earned of \$47.5 billion combined with investment income of \$73.9 billion that resulted in positive earnings. Surplus was further enhanced by a considerable increase in net unrealized capital gains. Stockholder dividends partially eroded surplus growth in 2021, though less so than in the prior year. The P&C sector paid stockholder dividends of \$34.4 billion in 2021, down from a 10-year high of \$46.1 billion in 2020 when P&C insurers provided premium

refunds and rebates to policyholders during the COVID-19 pandemic. ⁸⁹ Stockholder dividends have reduced policyholder surplus by 4.7 percent on average in each of the last 10 years, which is less than the L&H sector average due to the P&C sector's larger surplus base. Net realized capital gains have consistently contributed to generating capital for the P&C sector, adding 1.8 percent on average annually to prior year-end policyholder surplus over the last 10 years, and unrealized capital gains have enhanced surplus by 3.7 percent.

As shown in Figure 33, the P&C sector has been able to continue managing its leverage. In 2021, the leverage ratios declined between three and eight basis points, reflecting a positive contribution to the P&C sector's financial flexibility. As in the previous two years, this leverage enhancement can largely be attributed to the annual pace at which policyholder surplus expanded in 2021 relative to the year-over-year growth rates of the variables that constitute the numerators of the leverage ratios under examination. All three leverage ratios—total loss and loss adjustment expenses reserves, asset leverage, and net leverage—achieved 10-year lows in 2021.



Source: S&P Global

Though they measure different exposures, the asset and net leverage ratios presented in Figure 33 had been closely aligned for most of the past decade. In 2018, the ratios began to diverge to some degree. In addition to maintaining underwriting discipline and addressing exposure accumulations, balance sheet strength can be affected by the volatility and credit quality of the

⁸⁹ For more on the pandemic's impact on the insurance industry, see FIO, 2021 Annual Report, 56-64.

investment portfolio, reinsurance recoverables, and agents' balances. ⁹⁰ The steady pace of the asset leverage ratio in the last three years, in particular, indicates that the P&C sector has been growing surplus by effectively managing its vulnerabilities to market risks including credit and interest rate risks. Over the past 10 years, the asset leverage ratio has ranged between a high of 2.49 in 2012 and a low of 2.26 in 2021, with an annual average of 2.36.

The net leverage ratio indicates the degree of exposure stemming from pricing errors in the book of business and from reserving errors. Apart from 2018, the net leverage ratio has generally declined over the past 10-year period. By successfully evaluating its underwriting risk and maintaining reserve adequacy, the P&C sector has improved its financial capacity to support its business. In particular, liabilities (the larger component in the ratio's numerator) of \$1.6 trillion were 1.49 times policyholder surplus at year-end 2021, improving from 1.54 at year-end 2020 and 1.77 at year-end 2012. Net premiums written were \$716.1 billion in 2021, up from \$655.5 billion in 2020, making up 68 percent and 71 percent of policyholder surplus for the same two years, respectively.

Growth in both direct writings and net reinsurance premiums affected the net premiums written component of the net leverage ratio in 2021. Direct writings were \$797.7 billion and \$729.0 billion in 2021 and 2020, respectively, amounting to a year-over-year increase of 9.4 percent. Net reinsurance premiums (ceded premium less assumed premium) resulted in cessions of \$81.5 billion in 2021, 11 percent higher than cessions of \$73.5 billion in 2020.

At year-end 2021, the ratio of loss and loss adjustment reserves to policyholder surplus was 0.75, declining from 0.78 at year-end 2020. Loss and loss adjustment expense reserves were \$784.8 billion and \$721.8 billion in 2021 and 2020, respectively. This ratio has progressively decreased in the last 10 years, demonstrating that the P&C sector in the aggregate has remained consistent, in its management and estimation of reserves to cover potential losses and adjustment costs arising from claims made on policies underwritten.

ii. Assets

The health of the P&C sector's capital position over the last 10 years is further reinforced by consistent year-over-year growth and alignment of asset holdings. Total assets grew by 11 percent to \$2.6 trillion at year-end 2021—this was the highest yearly increase in more than a decade. Exhibiting an annual expansion of 5.2 percent on average over the last decade, asset growth has helped to sustain the P&C sector's financial health. In each of the last 10 years, more than 84 percent of the asset portfolio has consistently been comprised of cash and invested assets, reflecting the strength of the sector's balance sheet to pay claims.

⁹⁰ Agents' balances refer to net admitted uncollected premiums and agents' balances in the course of collection, including direct and group billed uncollected premiums; amounts collected but not yet remitted to home office; accident and health premiums due and unpaid; life insurance premiums and annuity considerations uncollected on in-force business (less premiums on reinsurance ceded and less loading); and title insurance premiums and fees receivable. Reinsurance balances payable are not deducted.

⁹¹ All the ratios experienced an uptick in 2018 due to a decline in surplus combined with heightened exposures.

The configuration of the P&C sector's asset portfolio has remained nearly constant for the last 10 years as well. Figure 34 illustrates the composition of the P&C sector's assets at year-end 2021, which largely mirrors that of prior years.

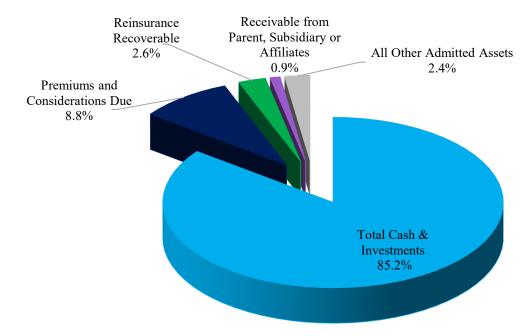


Figure 34: Composition of Asset Portfolio for P&C Sector

Source: S&P Global

Cash and invested assets have consistently been the largest component of total assets for the P&C sector, followed by premiums and considerations due.

As Figure 35 details, in 2021 the P&C sector raised its investment exposure to common stock holdings by almost 3 percentage points and reduced its allocation to bond investments by over 2 percentage points from the previous year. Asset growth rates reflect this movement, with common stock investments rising by over 23 percent in 2021, while bonds grew by 6.6 percent. Although bonds made up about 63 percent of the P&C sector's investment portfolio on average in each year during the first half of the last 10 years, that allocation has averaged just under 57 percent in the latter half of the decade. Common stock investments have remained the second largest holding, averaging over 23 percent of the P&C sector's investment portfolio since 2012, with a significant uptick in 2021.

Figure 35: Composition of P&C Sector's Investment Portfolio

	2017	2018	2019	2020	2021
Bonds	57.9%	60.3%	57.0%	55.4%	53.1%
Preferred Stocks	0.3%	0.3%	0.8%	0.8%	0.8%
Common Stocks	24.2%	22.9%	25.9%	25.8%	28.6%
Mortgage Loans	1.0%	1.2%	1.2%	1.2%	1.2%
Real Estate	0.8%	0.8%	0.7%	0.7%	0.6%
Contract Loans	0.0%	0.0%	0.0%	0.0%	0.0%
Derivatives	0.0%	0.0%	0.0%	0.0%	0.0%
Cash & Short-Term Investments	6.9%	6.0%	6.2%	7.0%	7.1%
Other Investments	8.9%	8.5%	8.2%	9.1%	8.6%
Total Cash & Invested Assets	100%	100%	100%	100%	100%

Source: S&P Global

The composition of investment holdings shown in Figure 35 aligns with the risk management practices employed by the sector to address both the shorter-term obligations of some P&C lines (such as auto liability) as well as longer-tailed liabilities (such as medical malpractice and workers' compensation). Annual growth in total bond holdings has accelerated in recent years, averaging 4.9 percent since 2018, up from an average annual growth rate of 1.4 percent from 2012 to 2017. Year-over-year growth in common stocks has fluctuated over the past 10 years, achieving an 11.4 percent annual growth rate on average. Total bonds, both short-term and long-term combined, were \$1.3 trillion at year-end 2021, up by 7.4 percent from the previous year-end. Of the entire bond portfolio, close to 93 percent has consistently been comprised of long-term bonds every year since 2012. Almost 55 percent had maturities of less than five years on average each year, while bonds with durations ranging between 5 and 10 years averaged 32 percent of the bond portfolio in the last 10 years. P&C insurers allocated significantly less to longer duration bonds, with just over 13 percent on average consisting of bonds with maturities greater than 10 years; this shift may be the result of higher inflation.

While publicly traded bonds continue to make up the majority of the sector's investment portfolio, a shift from publicly held bonds to private placements has become increasingly evident. Private placements comprised 19.9 percent or \$254.6 billion of the \$1.2 trillion aggregate bond portfolio at year-end 2021, climbing from 17.8 percent at year-end 2020 and rising by nearly 3 times (from \$87.1 billion) at year-end 2012. The share of the sector's investment portfolio allocated to equities reached a 10-year high in 2021, growing by a multiple of 2.8 over that period. Common stock investments were \$638.4 billion in 2021, up from \$518.6 billion at year-end 2020 and \$227.3 billion at the beginning of 2012. Bonds as a share of cash and investments have declined by more than 14 percentage points since the start of the decade in 2012, while common stock holdings have increased by nearly 12 percentage points over the same period. Also, while still a small percentage of total cash and invested assets, mortgage loans have shown significant year-over-year growth in P&C insurers' portfolios since 2012. Total mortgage loans were \$27.0 billion at year-end 2021, accounting for 1.2 percent of cash and invested assets but 5.4 times the value of mortgage loan holdings of \$5.0 billion at the start of the 10-year time period under review.

In short, as with the L&H sector, the P&C sector has been gradually repositioning its investment holdings, which can be attributed to both market performance and the reach for yield. The effects of a prolonged low interest rate environment have been driving insurers to move away from more traditional bond holdings and increasingly toward alternative and non-traditional investments that not only are less correlated with their fixed-income portfolios but can also provide the potential for increased returns. As interest rates continue to climb and interest margins loosen, investment allocations may also evolve differently in the near term.

iii. Liquidity

The P&C sector enhanced its liquidity levels overall in 2021, likely in part in response to emerging inflationary pressures. Figure 36 illustrates a noticeable increase in liquidity metrics, all of which reached 10-year highs in 2021. With benefits and loss-related payments eroding considerably less of the sector's premium receipts, P&C insurers have had positive net cash flows from operations in each of the last 10 years. Recent net cash flows from operations were \$127.4 billion and \$100.9 billion in 2021 and 2020, respectively. On a cash basis, the annual growth rate of net premium receipts has averaged 5 percent compared to only 2.9 percent for benefits and losses paid, and has resulted in a coverage ratio of at least 1.64 in each of the last 10 years. As Figure 36 demonstrates, premiums collected, net of reinsurance, exceeded benefit and loss-related payments by 88 percent and 87 percent for the years ending 2021 and 2020, respectively. 92

⁹² The liquidity analysis here is based on cash inflows and outflows—premiums that were collected as well as benefit and loss-related payments made during the year. This contrasts with the income statement analysis that refers to premiums earned and written, and captures dividends and incurred loss and loss adjustment expenses, among other items.

Cash Flows

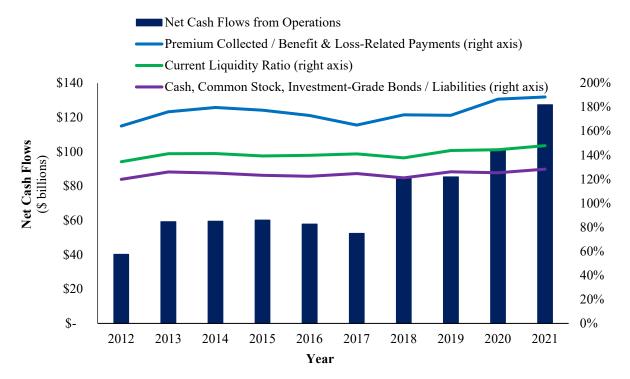


Figure 36: A View of P&C Sector Liquidity

Source: S&P Global

Positive year-over-year net cash flows from operations have contributed to an average annual growth rate of 8.6 percent in cash and short-term investments over the last 10 years, expanding the P&C sector's financial flexibility. Liquid assets (the numerator of the current liquidity ratio) have been at least 2.1 times the level of aggregate policyholder surplus each year since 2012, contributing to a steady current liquidity ratio over the recent 10-year period.⁹³

Changing Investment Allocations

Although the P&C sector improved its liquidity position overall in 2021, investment allocations have continued to shift as the sector has been searching for more attractive yields because of the sustained low interest rate environment. The P&C sector's net yield on invested assets continued its descent to a 10-year low of 2.64 percent as of year-end 2021 compared to 2.75 percent as of year-end 2020, and 3.83 percent at the beginning of the last decade. Within the bond portfolio, private-placement bonds have been making up a progressively greater share of policyholder

⁹³ Current liquidity is used to determine the amount of liabilities that can be covered with liquid assets. It is calculated as follows: the numerator equals net admitted cash and investments less the sum of net admitted first lien real estate loans, net admitted real estate loans less first liens, net admitted occupied properties, net admitted income generating properties, net admitted properties held for sale, affiliated long-term bonds, and affiliated preferred stock; the denominator equals total liabilities less ceded reinsurance premiums payable.

surplus since 2012. Private placements supported 24.2 percent of the P&C sector's surplus at year-end 2021, up from 22.9 percent at year-end 2020 and up from 13 percent at year-end 2011. Notably, annual growth in private placements averaged 13.4 percent over the past 10 years, while yearly growth in publicly traded bonds averaged only 1.5 percent.

Similar to the L&H sector, the P&C sector has also experienced growth in alternative assets, as illustrated in Figure 37, with the P&C sector having a greater allocation to alternative assets than the L&H sector. As of year-end 2021, alternatives comprised over nine percent of P&C insurers' aggregate investment portfolio versus 5.8 percent held by L&H insurers. However, the significant differences in surplus levels between the two sectors illustrate their relative risk exposures from these investments. Alternatives only made up 19.5 percent of policyholder surplus for the P&C sector as compared to 60 percent for the L&H sector.



Figure 37: Growth of Alternative Investments Held by P&C Sector

Source: S&P Global

The P&C sector's exposure to alternative assets, as reported on Schedule BA, was \$204.9 billion at year-end 2021, a 4.3 percent increase from year-end 2020, and comprised 41.8 percent of the entire insurance industry's Schedule BA exposure. Similar to the L&H sector, private equity, hedge funds, and real estate holdings accounted for the bulk of Schedule BA exposures for P&C insurers in the last two years. Unlike the L&H sector, however, the P&C sector's Schedule BA has been primarily concentrated in hedge funds, not private equity. Hedge funds represented more than 47 percent of the P&C sector's Schedule BA exposure at year-end 2021, up from 44.2 percent at the previous year-end. Private equity and real estate together accounted for 27 percent and 21 percent of the sector's Schedule BA exposure for the same two years, respectively. 94

⁹⁴ NAIC, Capital Markets Special Report: U.S. Insurance Industry Exposure to Schedule BA Assets.

Until 2021, the P&C sector's growth in holdings of securities issued by U.S. federal, state, and local governments had generally been less than that of revenue bond investments. In 2021, however, government bond holdings jumped by close to 15 percent from the previous year, while revenue bond exposure grew by less than four percent, raising the 10-year average annual growth rate of government bonds to 2.2 percent for 2012 through 2021, compared to less than 0.4 percent for 2011 through 2020. The composition of the two bond classes within the aggregate bond portfolio has remained relatively stable over the last decade. About 68 percent of all bond holdings on average have consisted of some form of revenue bond investments, including special revenue and industrial revenue bonds, while U.S. government bonds have accounted for another 28 percent. While revenue bonds can often be issued by local or municipal governments, the debt service is tied to the specific revenues generated from a project and is not backed by the full faith and credit of the municipality. Thus, the credit risk exposure for these types of bond holdings is heightened for the bondholder, i.e., repayment becomes a risk exposure to the insurer if the entity responsible for repayment becomes financially distressed. As of year-end 2021, revenue bond holdings totaled \$866.1 billion, rising from \$833.4 billion as of year-end 2020. Government bonds totaled \$355.6 billion and \$309.5 billion for the same periods, respectively.

While investment-grade bond holdings have expanded consistently each year since 2012, that growth generally has been less than the growth in non-investment grade bond holdings. Specifically, annual growth in non-investment grade bonds averaged 17 percent in the last three years alone, while growth in investment-grade bonds averaged 5.1 percent annually. In terms of value, investment-grade bonds were \$1.2 trillion in 2021 compared to \$1.1 trillion in the previous two years. Non-investment grade bonds totaled \$68.5 billion as of year-end 2021, rising from \$61.3 billion and \$49.8 billion for the years ending 2020 and 2019, respectively.

Averaging an annual growth rate of over 4.5 percent in the last 10-year period, ABS constituted a significant share of policyholder surplus at close to 27 percent at year-end 2021. As noted in Section II.A.2.b.iii, ABS can be relatively more susceptible to market pressures as compared to bond holdings due to their greater opacity and illiquidity. Total ABS held by the P&C sector were \$281.4 billion in 2021 compared to \$264.3 billion and \$266.4 billion in 2020 and 2019, respectively. Figure 38 shows the composition of the P&C sector's ABS portfolio since 2012. While holdings of residential mortgage-backed securities dropped by nearly 3.5 percent at year-end 2021, they still comprised over 37 percent of the P&C sector's ABS portfolio. By contrast, CMBS investments continue to show year-over-year growth, averaging 9.7 percent since 2012. CMBS holdings of \$76.6 billion in 2021, a 7.1 percent annual increase, were 2.3 times 2012 levels and constituted 27.2 percent of all ABS held. Other loan backed securities (largely, CLO) made up the fastest growing category of ABS, expanding at an annual rate of 11 percent on average in the past 10 years and by nearly 15 percent since 2018. They totaled \$99.4 billion as of year-end 2021, representing a 19 percent upsurge from year-end 2020 and a 2.5 multiple of 2012 levels.

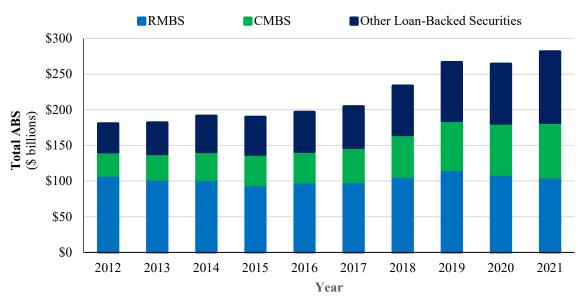


Figure 38: P&C Sector's Asset-Backed Securities

Source: S&P Global

Affiliated Exposures

Affiliated holdings are a potential source of liquidity risk for the P&C sector. In addition to the potential liquidity risk for these types of investments, their interconnectedness may have adverse implications for the holder. Figure 39 shows the growth and shift in the composition of affiliated investments in the P&C sector over the past 10 years. After two consecutive years of material growth in affiliated holdings, the sector reduced its affiliated exposure at year-end 2021. Total affiliated holdings were \$237.2 billion at year end 2021, declining from \$242.8 billion at the previous year end. Apart from 2018 and 2021, the P&C sector has shown positive year-overyear growth in affiliated holdings during the last 10 years. Affiliated cash and investments constituted 10.6 percent of the P&C sector's total cash and investments at year-end 2021, down from 12.1 percent and 11.4 percent for the years ending 2020 and 2019, respectively. Affiliated alternatives in Figure 39 include surplus notes, limited partnerships, joint ventures, hedge funds, private equity funds, and direct investments, which totaled \$127.4 billion and \$131.3 billion in 2021 and 2020, respectively. Like the L&H sector, affiliated alternative investments have come to dominate P&C affiliated holdings. Alternatives have nearly doubled in value since 2012, growing by 7.5 percent on average year-over-year, and made up almost 54 percent of total affiliated exposures at year-end 2021.

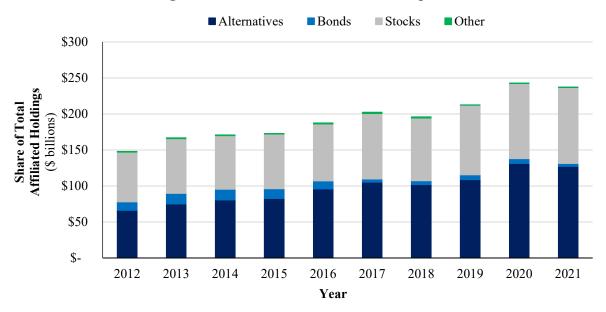


Figure 39: P&C Sector's Affiliated Exposures

Notes: "Other" refers to affiliated cash and short-term investments as well as affiliated mortgage loans. "Stocks" encompass both affiliated preferred and common stock.

Source: S&P Global

Mitigants

Several factors help to support the continued ability of the P&C sector to withstand market stress and manage its liquidity needs. First, high quality bonds still make up the overwhelming bulk of the sector's portfolio of fixed-income securities. Investment-grade bonds have comprised at least 95 percent of the P&C sector's bond portfolio in each of the last 10 years and averaged close to 61 percent of aggregate cash and invested assets. The ratio of investment-grade bonds to policyholder surplus has averaged at a 1.4 multiple each year, illustrating the sector's quality of capital. Second, while non-investment grade bonds grew to \$68.5 billion at year-end 2021, they still accounted for just 6.5 percent of policyholder surplus (compared to 6.6 percent at year-end 2020). Third, ABS have taken up a decreasing share of both policyholder surplus and the sector's bond portfolio over the last three years, while Schedule BA holdings made up 9.2 percent of cash and investments at year-end 2021 compared to nearly 10 percent at the year-end 2020. Fourth, unaffiliated cash and invested assets have been twice the level of policyholder surplus each year since 2012, mitigating to some degree concerns of elevated affiliated investment exposures. Finally, unaffiliated bond holdings have accounted for close to two-thirds of the P&C sector's unaffiliated investment portfolio on average in each of the last 10 years, providing stable cash flows against underwriting results. Another 21 percent on average has been allocated to unaffiliated common stock investments, establishing a marketable source of funding to cover obligations.

4. Market Performance

Stock price movements are indicators of investors' perceptions about the recent financial results and future financial prospects of a firm, an industry sector, or in a broader context, the general economy. The discussion that follows considers the price performance of stock indices for the L&H and P&C sectors, as compared to the performance of the S&P 500.

For the ten-year period ending December 31, 2021, both the L&H and P&C sector stock price indices significantly underperformed the S&P 500, as shown in Figure 40. In that period, the L&H index appreciated 115 percent, the P&C index gained 195 percent, and the S&P 500 increased by 279 percent. Over most of the last 10 years, except for September 2015 to December 2016, the L&H index has consistently underperformed the broader market. The P&C sector has only fared slightly better, underperforming the broad market longer-term with two, two-year long periods of outperformance. In the short-term, for 2021, both the L&H and the P&C stock indices also underperformed the S&P 500, gaining 21 percent and 16 percent, respectively, compared to appreciation of 28 percent for the S&P 500. Potential concerns about inflationary pressures, the economic environment, natural catastrophe losses, and the interest rate environment weighed on both sectors.

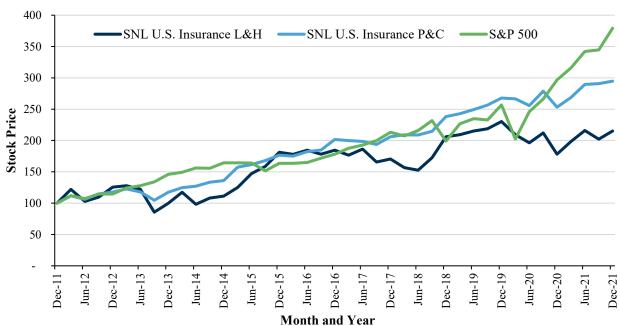


Figure 40: Insurance Industry Stock Price vs. S&P 500

Source: S&P Global

The price-to-book value multiple, which compares on a per share basis the market value of a firm to its book value (i.e., reported stockholders' equity on its balance sheet), is a popular metric by which to measure valuation. If a share of an insurer's stock is selling for less than its book value per share, the market is valuing the firm at less than its assets minus its liabilities (net worth); the opposite is true if the stock is trading at a premium to its book value. Figure 41

compares L&H and P&C sector price-to-book value ratios from year-end 2011 through year-end 2021. At the end of 2021, the index of stocks of L&H insurers slipped to a discount at 0.92 times its book value from 1.01 times at the end of 2020, while the index of stocks of P&C insurers retained its historical premium at 1.49 times book value, slightly higher than in 2020.

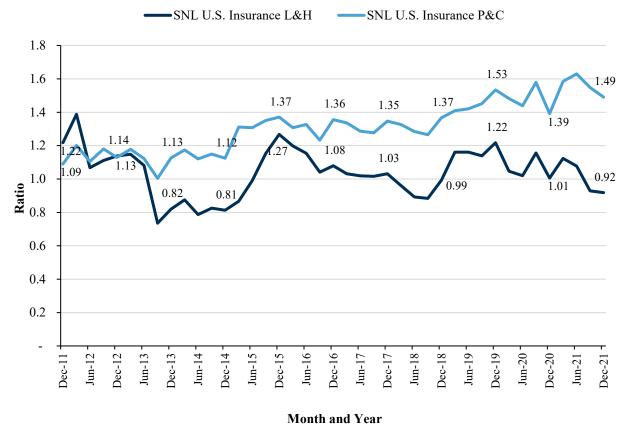


Figure 41: Insurer Price/Book Value Ratios

Source: S&P Global

5. Domestic Outlook

Full year 2022 insurance industry results will be reviewed by FIO in next year's *Annual Report* on the *Insurance Industry*. In the meantime, while financial results reported by insurers through the first half of 2022 (the most recently available data) do not determine the outcome for the rest of 2022, they do suggest that the outlook for the U.S. insurance industry may continue to be hampered to an extent in the near- and medium-term by market pressures brought on by economic uncertainty and ongoing pandemic-related impacts. After operating in an environment of historically low interest rates during the last 10 years, the insurance industry is now faced with managing risk exposures arising from mounting inflationary pressures, monetary tightening, and

economic uncertainty—all of which carry potentially challenging implications for insurers' product lines and investment portfolios.⁹⁵

In the first half of the year, the L&H sector reported a near 30 percent reduction in pre-tax operating income, due in part to reserve strengthening and declining premiums. Potential balance sheet strains also began to emerge as capital and surplus remained relatively flat from year-end 2021. Moreover, growth in affiliated holdings and alternative investments at the end of the second quarter continued to increasingly support L&H capital and surplus. For the P&C sector, underwriting performance deteriorated with a \$4.8 billion net loss through the first half of 2022 compared to a net underwriting gain of \$7 billion through the same period of 2021. Furthermore, a substantial increase in net unrealized capital losses was primarily responsible for an 8.4 percent decline in P&C policyholder surplus, leading to some potential leverage stresses when viewing the pace of premium growth relative to that of surplus. Finally, a considerable reduction in cash and short-term investments resulted in a ratio of cash and short-term investments to liabilities of 7.1 percent at the end of the second quarter, down from 10.7 percent at year-end 2021.

While the P&C sector reported improved premium growth of over nine percent for the first half of 2022 compared to the prior year-to-date, net premiums and considerations declined for the L&H sector. For the L&H sector, the pandemic had highlighted the need for individuals to address end-of-life financial planning, an area that was a boon to life insurers in 2021 but may become less relevant as pandemic concerns recede further. Though some positive trends are expected in the near-term for the industry—lower COVID mortality and morbidity rates, positive pricing momentum for some business lines, and higher returns with rising yields—it remains to be seen whether premium growth will be sustained over the medium term.

Rising interest rates have implications for both the L&H sector—particularly with respect to annuities—and for the P&C sector's financial performance. Rising rates could make fixed and variable annuity products more appealing, boosting their sales in the near-term. ⁹⁶ Continued product innovation and demographic shifts that increase the share of the population that is aging and seeking less market volatility may further contribute to the growth of annuity products. In the P&C sector, despite a measure of relief for insurers as likely premium rate increases hit their balance sheets, inflationary pressures will continue to adversely affect the performance of the private auto business line as repair and replacement claim costs continue to increase. Similarly, worsening climate-related events, when combined with inflationary pressures, suggest that homes may require more dwelling coverage to pay for rebuilding expenses. Therefore, homeowner insurance rates may increase in order to be aligned with potential increased future

⁹⁵ Monetary tightening in the United States is a course of action undertaken by the Federal Reserve to slow down excessive economic growth or curb inflation when prices are rising too fast. The three key tools employed by the Federal Reserve to achieve monetary tightening are raising the discount rate, increasing bank reserve requirements, and engaging in open market bond purchases.

⁹⁶ Fixed annuities, which are insurance contracts that pay out specific, guaranteed rates, are most directly affected by interest rate changes. As rates rise, investors can seek out products offering a better payout for the same premium. Finally, variable and fixed-indexed annuities are more closely linked to equity markets. If equity markets decrease with rising rates, their performances will suffer, reducing sales and possibly increasing surrenders.

costs. If inflationary pressures persists, profitability and reserve strength will also likely weaken in longer-tail P&C lines, such as workers' compensation and medical professional liability. The increased length of payouts and uncertainty over future claims in longer tail liabilities expose P&C insurers to greater risk of underestimating the cost of such claims and, in a potential inflationary environment, these impacts can be exacerbated.

Even as yields on traditional investments rise, both L&H and P&C insurers are likely to continue restructuring their investment portfolios away from traditional holdings in exchange for better returns, escalating the growth of alternative and non-traditional asset holdings that was triggered by the prolonged low interest environment. Rising interest rates will generate higher reinvestment rates and wider interest margins, benefiting the industry and easing pressures to deploy funds into higher-yielding (and riskier) investments. To benefit from the illiquidity premium, however, insurers are likely to continue to increase investment allocations to asset classes that have a growth component—such as equities, real estate, and private equity—and floating-rate securities such as CLOs. These asset classes typically perform better than fixed-income investments in a rising rate environment and can be viewed as appropriate inflation hedges.

In general, the pace at which interest rates rise and the duration of the potential inflationary period will be significant considerations in the outlook for the insurance industry. Steep rate increases may cause market volatility, while slow and persistent increases could allow insurers more time for balance sheet adjustments. A measured rise in interest rates would tend to benefit life insurers by easing spread compression in spread-dependent business and by giving them time to adjust their crediting rates (reserving and pricing assumptions) with market movements, which would enable better asset and liability matching. On the other hand, a spike in interest rates could cause certain policyholders to surrender their policies in exchange for new policies with higher crediting rates or for other financial products. At the same time, life insurers' investment portfolios likely would report unrealized losses. For P&C insurers, it is uncertain whether current pricing and reserving would be able to keep pace in an extended inflationary period. Unexpected claims trends and increased medical care, litigation, and construction and repair costs, could result in higher incurred loss ratios and weakened profitability. P&C insurers that hold a relatively higher proportion of longer tail casualty reserves are more exposed to reserve volatility in a period of higher inflationary pressures. FIO will continue to monitor these market developments and their effects on the U.S. insurance sector.

B. Capital Markets Activity

1. Financings

The U.S. insurance industry continued to access the capital markets throughout 2021. During the year, 16 insurer-related public equity offerings were completed, with an aggregate value of \$4.4

⁹⁷ See Section II.A.2.b and Section II.A.3.b.

⁹⁸ In higher inflation scenarios, returns for most fixed income assets decrease and can turn negative, resulting in unrealized losses.

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Unlike 2020, few InsurTech companies in the United States engaged in raising public equity capital in 2021. ¹⁰⁰ No U.S. InsurTech companies had IPOs in 2021, and only one InsurTech company sold a follow-on offering.

Debt markets continued to be the preferred source of additional capital for insurers in 2021. During the year, U.S. insurers raised an aggregate \$79.3 billion in 145 separate debt offerings. ¹⁰¹ The value of debt issuance decreased by 14 percent from the \$92.7 billion raised in 164 offerings in 2020. The largest single debt offering was a \$2.2 billion issue sold by Centene Corp. However, New York Life Insurance Company was the largest issuer of debt, selling \$8.3 billion in 17 separate offerings across 2021. UnitedHealth Group, Inc., which sold \$7.0 billion in five separate offerings, was the second-largest issuer of debt in 2021. In the aggregate, the funds raised by the top five issuers of debt accounted for 39 percent of the 2021 industry total, down from 52 percent for the top five debt issuers in 2020, as more individual companies took advantage that year of what were still low interest rates.

2. Mergers & Acquisitions of U.S. Insurers

In 2021, there were 67 merger and acquisition (M&A) transactions announced involving U.S. insurance underwriters, with a total value of \$46.5 billion. The number of deals was slightly more than the 65 transactions in 2020, but the aggregate value of the 2021 deals was much greater than the \$17.6 billion aggregate value total in 2020. The L&H sector saw 24 deals in 2021, with continued interest from private equity firms, and an aggregate value of \$24.5 billion. Notable transactions included Blackstone Group's \$2.8 billion acquisition of Allstate Corp.'s life insurance unit, and its acquisition of a 9.9 percent equity stake in American International

⁹⁹ All data in this section with respect to financings is sourced from S&P Global, as collected and calculated by FIO. The data include Bermuda-based holding companies for which primary insurance underwriting subsidiaries are domiciled in the United States.

¹⁰⁰ Compare FIO, 2021 Annual Report, 46 (noting 2020 IPOs were primarily by InsurTech companies and included \$724 million raised by Root, Inc., and \$367 million raised by Lemonade, Inc.). FIO defines "InsurTech" as the innovative use of technology in connection with insurance. For more on the rise of InsurTech, see, e.g., FIO, Annual Report on the Insurance Industry (2019), 75-98, https://home.treasury.gov/system/files/311/2019 FIO Annual Report.pdf.

¹⁰¹ Foreign currency-denominated transactions converted to U.S. dollars by S&P Global.

¹⁰² Mark Purowitz, et. al., 2022 Insurance M&A Outlook: Riding the Wave (December 13, 2021), https://www2.deloitte.com/us/en/pages/financial-services/articles/insurance-m-and-a-outlook.html. All data in this section with respect to merger and acquisition transactions is sourced from Deloitte. Transactions were announced between January 1, 2021 and December 31, 2021, and were either completed during the year or remained pending at the end of 2021. Transactions include acquisitions of whole companies, assets, or minority interests in instances where a U.S-domiciled insurer was either the buyer or seller.

Group's life and retirement business for \$2.2 billion. The P&C sector had 43 deals with an aggregate value of \$22 billion in 2021, compared to 52 deals with an aggregate value of \$10.3 billion in 2020. The largest P&C transaction in 2021 was Liberty Mutual's acquisition of State Auto Group valued at \$1 billion.

3. Alternative Risk Transfer Insurance Products

Alternative risk transfer markets increase the capacity for reinsurance and retrocession, and thereby increase the U.S. insurance industry's ability to supply insurance by using the capital and derivatives markets to attract investors from outside the insurance industry. Alternative risk transfer instruments include catastrophe bonds ("cat bonds"), collateralized reinsurance, industry loss warranties, reinsurance sidecars, longevity swaps, catastrophe futures, and other insurance-linked securities (ILS). ¹⁰³ The assets under management in the alternative risk transfer market at year-end 2021 were approximately \$97 billion, an approximately \$3 billion increase over 2020. ¹⁰⁴ Overall annual cat bond and ILS issuances in 2021 set a new annual record, at just under \$20.3 billion. ¹⁰⁵

C. International Insurance Marketplace Overview and Outlook

At year-end 2021, the United States remains the world's largest single-country insurance market, with a 40 percent market share of global direct premiums written (see Figure 42). This market share decreased by approximately 0.4 percent compared to 2020 and is nearly identical to that of 2019. When viewed as a single market, the combined share of the European Union (no longer inclusive of the United Kingdom) of global direct premiums written (19 percent) is the next largest. China remained the second-largest single-country insurance market, with 10 percent of global direct premiums written for 2021. Globally, direct premiums written increased by nine percent (in nominal terms, unadjusted for inflation) in 2021, led by strong growth—up nearly 10 percent nominally—in life insurance premiums. Nominal growth in global non-life premiums

¹⁰³ Although often called ILS, these financial instruments are not all securities within the meaning of the Securities Act of 1933. For more detailed descriptions of ILS and other ART instruments, see FIO, *2018 Annual Report*.

¹⁰⁴ See, e.g., Aon, *ILS Annual Report 2021* (2021), 34, https://www.aon.com/reinsurance/thoughtleadership/default/ils-annual-report-2021.

¹⁰⁵ Artemis, *Q4 2021 Catastrophe Bond & ILS Market Report* (2022), 3, https://www.artemis.bm/wp-content/uploads/2022/01/catastrophe-bond-ils-market-report-q4-2021.pdf?utm source=ReportsPage&utm medium=Link&utm content=O42021Report&utm campaign=Report.

¹⁰⁶ Fernando Casanova Aizpun, *et al.*, *sigma 4/2022: World Insurance: Inflation Risks Front and Centre* (July 13, 2021), https://www.swissre.com/institute/research/sigma-research/sigma-2022-04.html. Swiss Re sigma examines insurance and macroeconomic data from 147 countries sourced through Swiss Re Institute. Swiss Re sigma separates the insurance industry into "life" and "non-life" sectors according to standard European Union and OECD conventions; under these conventions, the "non-life" sector includes health insurance. Beginning with 2019, data retrospectively include A&H business written by health insurers in the United States to align with practice in other regions. In 2019, premiums from this line of business were \$912 billion. Because of this change in methodology, market shares from prior years are not comparable. Figures shown for 2019-2021 have been adjusted for this change.

¹⁰⁷ See Aizpun, sigma 4/2022, 14.

was somewhat less, at just over eight percent, while global GDP expanded by an estimated 10.7 percent (in nominal terms) in 2021. 108

Figure 42: World Market Share 2019–2021 for Top Twenty Markets

2021 Rank Premium Volume (\$ Rank Premium (%) olume (\$ Share Rank Premium Volume (\$ Share millions) Market Molume (\$ Share millions) Premium (%) olume (\$ Share millions) Wolume (\$ Share Millions) Premium (%) olume (\$ Share millions) Wolume (\$ Share millions) Woll Millions) Oliminal Ol		- 0						•	
2021 Rank Volume (\$ Rank Country millions) Share (%) millions) Volume (\$ millions) Share (%) millions) Volume (\$ millions) Share (%) millions) Volume (\$ Change				World		World		World	2021/2020
Rank Country millions (%) millions (%) millions (%) Change (1 United States 2,485,326 39.5% 2,515,358 40.0% 2,718,699 39.6% 8.1 2 PR China 617,399 9.8% 655,865 10.4% 696,128 10.1% 6.1 3 Japan 427,580 6.8% 414,475 6.6% 403,592 5.9% (2.6 United 4 Kingdom 364,352 5.8% 341,950 5.4% 399,142 5.8% 16.7 5 France 260,457 4.1% 238,998 3.8% 296,380 4.3% 24.0 6 Germany 249,207 4.0% 260,322 4.1% 275,779 4.0% 5.5 7 South Korea 179,018 2.8% 190,085 3.0% 193,008 2.8% 11.5 8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Premium</td>									Premium
1 United States 2,485,326 39.5% 2,515,358 40.0% 2,718,699 39.6% 8.1 2 PR China 617,399 9.8% 655,865 10.4% 696,128 10.1% 6.1 3 Japan 427,580 6.8% 414,475 6.6% 403,592 5.9% (2.6 United 4 Kingdom 364,352 5.8% 341,950 5.4% 399,142 5.8% 16.5 5 France 260,457 4.1% 238,998 3.8% 296,380 4.3% 24.0 6 Germany 249,207 4.0% 260,322 4.1% 275,779 4.0% 5.5 7 South Korea 179,018 2.8% 190,085 3.0% 193,008 2.8% 1.3 8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% 11.3 9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.8 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.3 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.3 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.11% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.11% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9					\		· ·		Volume
2 PR China 617,399 9.8% 655,865 10.4% 696,128 10.1% 6.1 3 Japan United 427,580 6.8% 414,475 6.6% 403,592 5.9% (2.6 4 Kingdom 364,352 5.8% 341,950 5.4% 399,142 5.8% 16.7 5 France 260,457 4.1% 238,998 3.8% 296,380 4.3% 24.0 6 Germany 249,207 4.0% 260,322 4.1% 275,779 4.0% 5.9 7 South Korea 179,018 2.8% 190,085 3.0% 193,008 2.8% 11.5 8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% 11.5 9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.3 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.2 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 <td>Rank</td> <td>Country</td> <td>millions)</td> <td>(%)</td> <td>millions)</td> <td>(%)</td> <td>millions)</td> <td>(%)</td> <td>Change (%)</td>	Rank	Country	millions)	(%)	millions)	(%)	millions)	(%)	Change (%)
3 Japan 427,580 6.8% 414,475 6.6% 403,592 5.9% (2.6 United United 4 Kingdom 364,352 5.8% 341,950 5.4% 399,142 5.8% 16.7 5 France 260,457 4.1% 238,998 3.8% 296,380 4.3% 24.6 6 Germany 249,207 4.0% 260,322 4.1% 275,779 4.0% 5.9 7 South Korea 179,018 2.8% 190,085 3.0% 193,008 2.8% 1.5 8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% 11.5 9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.8 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.5 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 4 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.5 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	1	United States	2,485,326	39.5%	2,515,358	40.0%	2,718,699	39.6%	8.1%
United 4 Kingdom 364,352 5.8% 341,950 5.4% 399,142 5.8% 16.7 5 France 260,457 4.1% 238,998 3.8% 296,380 4.3% 24.0 6 Germany 249,207 4.0% 260,322 4.1% 275,779 4.0% 5.9 7 South Korea 179,018 2.8% 190,085 3.0% 193,008 2.8% 1.5 8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% 11.5 9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.8 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.5 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	2	PR China	617,399	9.8%	655,865	10.4%	696,128	10.1%	6.1%
5 France 260,457 4.1% 238,998 3.8% 296,380 4.3% 24.0% 6 Germany 249,207 4.0% 260,322 4.1% 275,779 4.0% 5.9 7 South Korea 179,018 2.8% 190,085 3.0% 193,008 2.8% 1.5 8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% 11.5 9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.8 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.5 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.3 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,276 1.1	3		427,580	6.8%	414,475	6.6%	403,592	5.9%	(2.6%)
6 Germany 249,207 4.0% 260,322 4.1% 275,779 4.0% 5.9 7 South Korea 179,018 2.8% 190,085 3.0% 193,008 2.8% 1.5 8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% 11.5 9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.8 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.5 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.	4	Kingdom	364,352	5.8%	341,950	5.4%	399,142	5.8%	16.7%
7 South Korea 179,018 2.8% 190,085 3.0% 193,008 2.8% 1.5 8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% 11.5 9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.8 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.5 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0	5	France	260,457	4.1%	238,998	3.8%	296,380	4.3%	24.0%
8 Italy 167,881 2.7% 172,704 2.7% 192,481 2.8% 11.5 9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.8 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.5 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% </td <td>6</td> <td>Germany</td> <td>249,207</td> <td>4.0%</td> <td>260,322</td> <td>4.1%</td> <td>275,779</td> <td>4.0%</td> <td>5.9%</td>	6	Germany	249,207	4.0%	260,322	4.1%	275,779	4.0%	5.9%
9 Canada 134,339 2.1% 139,243 2.2% 161,289 2.4% 15.8 10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.5 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	7	South Korea	179,018	2.8%	190,085	3.0%	193,008	2.8%	1.5%
10 India 107,893 1.7% 111,911 1.8% 126,974 1.9% 13.3 11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.3 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902	8	Italy	167,881	2.7%	172,704	2.7%	192,481	2.8%	11.5%
11 Taiwan 117,823 1.9% 113,304 1.8% 113,423 1.7% 0.1 12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	9	Canada	134,339	2.1%	139,243	2.2%	161,289	2.4%	15.8%
12 Netherlands 84,179 1.3% 88,004 1.4% 92,986 1.4% 5.7 13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	10	India	107,893	1.7%	111,911	1.8%	126,974	1.9%	13.5%
13 Spain 70,982 1.1% 67,220 1.1% 73,571 1.1% 9.4 14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	11	Taiwan	117,823	1.9%	113,304	1.8%	113,423	1.7%	0.1%
14 Australia 68,688 1.1% 62,825 1.0% 72,576 1.1% 15.5 15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	12	Netherlands	84,179	1.3%	88,004	1.4%	92,986	1.4%	5.7%
15 Hong Kong 70,696 1.1% 72,940 1.2% 72,227 1.1% (1.0 16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	13	Spain	70,982	1.1%	67,220	1.1%	73,571	1.1%	9.4%
16 Ireland 58,645 0.9% 49,282 0.8% 64,696 0.9% 31.3 17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	14	Australia	68,688	1.1%	62,825	1.0%	72,576	1.1%	15.5%
17 Brazil 73,388 1.2% 57,900 0.9% 62,082 0.9% 7.2 18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	15	Hong Kong	70,696	1.1%	72,940	1.2%	72,227	1.1%	(1.0%)
18 Switzerland 58,868 0.9% 57,081 0.9% 57,793 0.8% 1.2 19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	16	Ireland	58,645	0.9%	49,282	0.8%	64,696	0.9%	31.3%
19 South Africa 46,421 0.7% 41,110 0.7% 51,215 0.7% 24.6 20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.9	17	Brazil	73,388	1.2%	57,900	0.9%	62,082	0.9%	7.2%
20 Luxembourg 41,237 0.7% 36,902 0.6% 48,287 0.7% 30.5	18	Switzerland	58,868	0.9%	57,081	0.9%	57,793	0.8%	1.2%
	19	South Africa	46,421	0.7%	41,110	0.7%	51,215	0.7%	24.6%
W11 (204.20) (201.924 (900.509	20	Luxembourg	41,237	0.7%	36,902	0.6%	48,287	0.7%	30.9%
world 6,284,360 6,291,834 6,860,398 9.0		World	6,284,360		6,291,834		6,860,598		9.0%

Source: Swiss Re sigma, World Insurance.

Unlike the past several years, premium growth in advanced markets outpaced growth in emerging markets across the board, which was largely caused by stronger rebounds from the economic effects of the COVID-19 pandemic in advanced markets. World life premiums, in real terms, grew by 4.5 percent, mainly due to a 5.4 percent increase for this business in advanced

¹⁰⁸ Aizpun, *sigma 4/2022*, 6; IMF, *World Economic Outlook* (July 2022), https://www.imf.org/en/Publications/WEO/Issues/2022/07/26/world-economic-outlook-update-july-2022#Overview. The International Monetary Fund reported a world consumer price increase of 4.7 percent in 2021, which when added to the 6.0 percent real growth in world premiums produces an estimated 10.7 percent nominal growth rate.

economies, while emerging markets managed a 1.5 percent increase in life premiums. ¹⁰⁹ On the non-life side, world premium growth of 2.6 percent in real terms was likewise stronger in advanced markets (up 2.9 percent in real terms) than in emerging markets (up 1.5 percent in real terms). China experienced a slight decline in life premiums due to weakness in the life savings business and declines in critical illness business; China's non-life premiums also declined by a slight one percent due to strong competition and rate reductions in auto insurance. ¹¹⁰

Most insurance indices in major insurance markets recorded positive results in 2021 and, except for the Dow Jones U.S. Life Insurance Index, underperformed their respective broader benchmarks—in most instances by a wide range. Among the indices FIO tracked (see Figure 43), the Dow Jones U.S. Life Insurance Index was the best performing, increasing by roughly 33 percent in 2021 (compared to a 27 percent gain for the S&P 500). According to one analyst, this outperformance by U.S. L&H equities likely reflects the contributions of strong investment portfolio returns and risk-shifting through private equity-backed reinsurers. ¹¹¹ The SNL U.S. Insurance Life & Health Index did not perform as well as the Dow Jones U.S. Life Insurance Index, as it is a broader-based index with a greater population of smaller companies (see Section II.A.4). The S&P Europe BMI Insurance Index eked out a two percent gain as inflationary pressures and fears rose, suggesting higher claims costs and reduced savings by life insurance policyholders. ¹¹² Chinese insurer equities, which declined 34 percent as measured by the S&P China BMI Insurance Index, were held back by weak financial results as noted above.

¹⁰⁹ Aizpun, sigma 4/2022, 24.

¹¹⁰ Aizpun, sigma 4/2022, 14.

¹¹¹ Telis Demos, "There May Be Life Left in Life-Insurance Stocks," *The Wall Street Journal*, January 5, 2022, https://www.wsj.com/articles/there-may-be-life-left-in-life-insurance-stocks-11641385802.

¹¹² Insurance Europe, *European Insurance: Preliminary Figures 2021* (July 2022), 5, https://www.insuranceeurope.eu/publications/2674/european-insurance-preliminary-figures%202021.pdf.

■S&P 500 Dow Jones Life Insurance Index S&P China BMI Insurance Index S&P Europe BMI Insurance Index 150 140 130 120 110 100 90 80 70 60 50 12/31/2020 2/16/2021 3/30/2021 5/12/2021 6/24/2021 8/6/2021 9/20/2021 11/1/2021 12/14/2021

Figure 43: Performance of Global Insurance Indices as Compared to Broader Market Average (S&P 500)

Source: S&P Global

For the near future, slowing of global economic growth and inflation risks are the primary concerns for the world insurance marketplace. Slowing economic activity generally leads to lower demand for insurance products, while the impact of inflation is generally reflected in rising claims costs. Nonetheless, observers expect that total world premiums growth (in nominal terms) is likely to continue in 2022, although at a reduced rate, and with much or all of any real gains eroded by inflation. Similarly, non-life insurance profits will likely be pressured by inflationary claims costs, somewhat offset by improving investment yields. Risks from climate change and natural catastrophes will also weigh on non-life insurers' profitability. Life insurers may benefit from increased demand for protection products in the wake of the COVID-19 pandemic, but growth in the much larger savings product premiums may be held back by market volatility and decreased demand. Insurers in both sectors will likely be impacted by costs of necessary technology investments to update core systems and further implement technologies deployed on an emergency basis to address pandemic-related issues, among other concerns.

¹¹³ Aizpun, *sigma 4/2022*, 2.

¹¹⁴ Aizpun, sigma 4/2022, 2.

¹¹⁵ Gary Shaw, *2022 Insurance Industry Outlook* (December 2021), 11, https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/financial-services/deloitte-cn-fs-insurance-outlook-en-220214.pdf.

¹¹⁶ Aizpun, *sigma 4/2022*, 2.

¹¹⁷ Shaw, 2022 Insurance Industry Outlook, 17.

III. CONCLUSION

In the coming year, FIO will continue to monitor macroeconomic developments and assess their financial implications for the U.S. insurance industry, including the affordability and availability of insurance products for traditionally underserved communities and consumers (particularly with respect to personal auto insurance and homeowners' insurance). Among other things, FIO will also continue to monitor the role of the insurance industry in helping to improve our nation's cybersecurity, climate-related financial risks, and other relevant domestic and international developments affecting the U.S. insurance industry, policyholders, and consumers.