



SUBMITTED STATEMENT FOR THE RECORD OF  
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BEFORE THE

UNITED STATES SENATE COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS  
**UNITED STATES SENATE**

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Chairman Brown and Ranking Member Toomey:

Thank you for the opportunity to offer testimony on climate change, resilience and reinsurance. These issues impact multiple public policy areas. They need to be understood to inform the development of prudent responses to protect our economy from great harm today and in the future. I am the director of Finance, Insurance & Trade for the R Street Institute. R Street is a nonprofit, nonpartisan public policy research organization whose mission is to engage in policy research and outreach to promote free markets and limited, effective government. The issues covered in today's hearing are of interest to R Street because, since its founding R Street has analyzed the role of reinsurance, and climate change and resilience are among the most consequential issues of the day.

The three topics of climate change, resilience and reinsurance are interrelated. The effects of climate change can be seen in the form of higher temperatures, melting ice caps, rising sea levels, and more frequent and severe catastrophic weather events, including tropical storms, hurricanes and convective storms.<sup>1</sup> These trends are a clarion call for resilience, which is the ability to bounce back and to absorb shocks. Reinsurance is a financial shock absorber. It allows insurance companies and the people and communities they serve to bounce back and to recover. For example, a small insurance company in the northern panhandle of West Virginia—Municipal Mutual Insurance Company of West Virginia—paid \$3.8 million in 334 claims, equivalent to 12 percent of its equity, after a severe windstorm in March 2020. Reinsurance allowed it to recover \$3 million of the \$3.8 million, so the net loss was a more bearable \$800,000.<sup>2</sup> Reinsurance protected the company and the policyholders. Without reinsurance hundreds of insurers across the country and millions of policyholders would be exposed to crippling financial loss on top of catastrophic physical loss.

My comments will focus on the response of the insurance and reinsurance market to risks from climate change. The climate catastrophe event of the day is the complex of wildfires in a dozen western states. Wildfire is fire, which is the main peril covered by personal insurance and commercial insurance. In fact, the oldest continuously operating insurance company in the United States, the Philadelphia Contributionship, was founded in 1752 by Benjamin Franklin and his fellow firefighters to allow policyholders to share risk related to fire damage and loss.<sup>3</sup> Since Franklin's day the insurance industry has expanded its product offerings to cover the needs and the risks of a changing economy with automobile insurance, workers compensation insurance, liability insurance, and cyber insurance.

The risks associated with climate change—fire, flood, hail, drought and wind—are covered by existing insurance products. This is what the insurance industry does. It matches its capital to risk. The one exception is flood insurance because flood risk is primarily covered by the Federal

Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP). Unlike the insurance industry, which is well capitalized and financially sound, the NFIP operates uneconomically, having incurred \$36 billion of debt since its founding.<sup>4</sup> The NFIP is undertaking reforms to be introduced this fall, but it will be many years before the NFIP can approach financial health. In other countries with elevated flood risk, such as Australia and Japan flood coverage is available in their insurance policies.<sup>5</sup> However, the market for private flood insurance in the United States is small because it is challenging for insurers to compete with artificially low and subsidized NFIP rates.

Collectively, the U.S. insurance industry and the global reinsurance industry are adequately capitalized to withstand the financial impact of today's climate-related catastrophe risk. In 2005—the year with the most insured U.S. losses—there was \$110 billion of insured losses.<sup>6</sup> The U.S. property and casualty insurance industry has \$2.4 trillion of total assets; the global reinsurance industry an additional \$600 billion.<sup>7</sup> This means that it would take a year with three times the losses of 2005 to dent the industry's capital by 10 percent.

Reinsurance is critical for the insurance industry to play its role, as demonstrated in the previously mentioned example in West Virginia. The reinsurance industry is global, allowing insurers that buy reinsurance to spread their risk to multiple counterparties, each protecting its own balance sheet by taking a sliver of risk. Only three of the top 25 reinsurers in the world are U.S.-based. The remaining 22 are domiciled in reinsurance hubs in continental Europe, London, Bermuda, and increasingly, Asia.

In addition to the capital base of the insurance and reinsurance industry providing coverage for climate-related risks, there is also alternative capital taking on insurance climate risk.<sup>8</sup> This alternative capital comes from pension funds, hedge funds, sovereign wealth funds, university endowments, foundations and family offices that seek to take on catastrophe risk because it is uncorrelated with equity and debt market risk. This is a relatively new phenomenon, and it is growing. The volume of alternative capital in the reinsurance industry has grown from \$17 billion in 2006, when it accounted for 4.4 percent of global reinsurer capital, to \$94 billion in 2020, when it accounted for \$14.5 percent of global reinsurer capital.<sup>9</sup>

U.S. pension funds have over \$32 trillion in assets.<sup>10</sup> To give an example of pension funds taking on catastrophe risk, the Arkansas Teacher Retirement System, a \$20 billion fund, invests \$330 million, equivalent to 1.7 percent of its total assets, in catastrophe bonds.<sup>11</sup> To the extent the large pool of private capital gets more comfortable with insurance catastrophe risk as a diversifying asset class, there would be less need for taxpayer-funded disaster recovery expenditure.

Transferring climate risk onto the balance sheets of insurers and reinsurers and into the investment portfolios of third-party investors may be a source of comfort, but it is not enough because it kicks the can of climate risk down the road. Claims from losses will be paid, but premiums will rise as the risk increases. The traditional reinsurance industry, supplemented by alternative capital, plays and will continue to play an important role in providing resilience

through its role as a shock absorber, taking on climate risk, but it is only part of the long-term response. Public policy must also encourage and incentivize risk mitigation—incentives for sound construction, restrictions on building in catastrophe-prone areas, defenses and barriers, and working with authorities to establish and enforce codes and standards.

In closing, thank you for the privilege of testifying today, and for your interest in exploring how the reinsurance market and private capital solutions provide resilience to our economy in the face of growing climate risk taking a toll on our homes, businesses and health.

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<sup>1</sup> S&P Global and Intelligent Insurer, *Global Reinsurance Highlights 2020*, Newton Media Limited, 2020.

<https://www.spglobal.com/assets/documents/ratings/research/global-reinsurance-highlights-2020.pdf>.

<sup>2</sup> “2020 Management Discussion and Analysis,” S&P Global, 2020.

<https://platform.marketintelligence.spglobal.com/web/client?auth=inherit#company/documents?id=13229>.

<sup>3</sup> “History,” The Philadelphia Contributionship, last accessed June 17, 2021. <https://1752.com/blog/about-us/history>.

<sup>4</sup> Diane P. Horn, *National Flood Insurance Program Borrowing Authority*, Congressional Research Service, Oct. 2, 2020. <https://fas.org/sgp/crs/homesec/IN10784.pdf>.

<sup>5</sup> Nicole Pederson-McKinnon, “How to tell if your insurer covers you for flood damage,” *The Sydney Morning Herald*, March 27, 2021. <https://www.smh.com.au/money/insurance/how-to-tell-if-your-insurer-covers-you-for-flood-damage-20210326-p57ee4.html>; Jiji, “Japan nonlife insurers to raise premiums 6-8% in wake of disasters,” *The Japan Times*, July 8, 2020. <https://www.japantimes.co.jp/news/2020/07/08/business/japan-nonlife-insurers-raise-premiums-6-8-percent-wake-disasters>.

<sup>6</sup> “Facts + Statistics: U.S. Catastrophes,” Insurance Information Institute, last accessed July 17, 2021.

<https://www.iii.org/fact-statistic/facts-statistics-us-catastrophes#Loss%20Events%20in%20the%20U.S.,%201980-2018>.

<sup>7</sup> S&P Global and Intelligent Insurer. <https://www.spglobal.com/assets/documents/ratings/research/global-reinsurance-highlights-2020.pdf>.

<sup>8</sup> Steve Evans, “World Bank climate plan highlights cat bonds & risk transfer,” *Artemis*, June 24, 2021.

<https://www.artemis.bm/news/world-bank-climate-change-plan-highlights-cat-bonds-risk-transfer>.

<sup>9</sup> “Aon’s Reinsurance Aggregate: Results for the Year to December 31, 2020,” Aon Empower Results, 2021.

[http://thoughtleadership.aon.com/Documents/ARA\\_FY\\_20210415.pdf](http://thoughtleadership.aon.com/Documents/ARA_FY_20210415.pdf).

<sup>10</sup> F. Norrestad, “Total assets of pension funds in the United States from 2009 to 2019,” Statista, Dec. 7, 2020.

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<sup>11</sup> Steve Evans, “Pension funds investing in insurance-linked securities (ILS),” *Artemis*, last accessed July 17, 2021.

<https://www.artemis.bm/pension-funds-investing-in-insurance-linked-securities-ils>; Michael R. Wickline, “Teacher fund ends quarter \$783M higher,” *Northwest Arkansas Democrat Gazette*, June 8, 2021.

<https://www.nwaonline.com/news/2021/jun/08/teacher-fund-ends-quarter-783m-higher>.