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United States House of Representatives
Committee on Financial Services
2129 Rayburn House Office Building
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RANKING MEMBER

June 25, 2021

Memorandum

To: Members, Committee on Financial Services
From: FSC Majority Staff
Subject: June 30, 2021, Subcommittee on Consumer Protection and Financial Institutions entitled, "Addressing Climate as a Systemic Risk: The Need to Build Resilience within Our Banking and Financial System"

The Subcommittee on Consumer Protection and Financial Institutions will hold a hearing entitled, "Addressing Climate as a Systemic Risk: The Need to Build Resilience within Our Banking and Financial System" on Wednesday, June 30, 2021, at 2:00 p.m. in room 2128 Rayburn House Office Building and the virtual meeting platform Cisco Webex. This single-panel hearing will have the following witnesses:

- **Ms. Hilary Allen**, Associate Professor of Law, American University
- **Dr. Rachel Cleetus**, Policy Director, Union of Concerned Scientists
- **Ms. Mayra Rodriguez Valladares**, Managing Principal, MRV Associates
- **Mr. Steven Rothstein**, Managing Director, Ceres Accelerator for Sustainable Capital Markets
- **Dr. Clifford Rossi**, Executive-in-Residence and Professor of the Practice at the Robert H. Smith School of Business, University of Maryland

Overview

Climate change presents significant and complex risks to the global financial system. More frequent and severe extreme weather events, such as wildfires, floods, and hurricanes, will affect insurers; sea-level rise will impact coastal residents and commercial real estate investors, and changing weather patterns and droughts will create challenges for agricultural lenders.[1] Additionally, as more economies transition away from carbon either through investor and consumer preference or because of government policy, financial institutions may be exposed to significant changes in asset pricing or market structure.[2] In September 2020, the Commodity Futures Trading Commission (CFTC) released a report finding that "climate change poses a major risk to the stability of the U.S. financial system and to its ability to sustain the American economy." The November 2020 Financial Stability report from the Board of Governors of the Federal Reserve System (Federal Reserve) found that climate change "increases the likelihood of dislocations and disruptions in the economy, is likely to increase financial shocks and financial system vulnerabilities that could further amplify these shocks."[3] Over the last several months, the Biden Administration and financial regulators have taken initial steps to evaluate and mitigate climate risks in the financial system.[4] This hearing will explore these developments and legislative proposals to identify and mitigate climate risks that affect the U.S. financial system.

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[1] *See* Carbon Brief, Mapped: How climate change affects extreme weather around the world, (Updated Feb. 25, 2021); *See also* Financial Stability Board, The Implications of Climate Change for Financial Stability, (Nov. 23, 2020), p. 5.
[2] *See* CFTC, Managing Climate Risk in the U.S. Financial System, (Sept. 9, 2020), p. 19-22.
[3] CFTC, Managing Climate Risk in the U.S. Financial System, (Sept. 9, 2020) p. i ; FRB, Financial Stability Report, Nov. 2020.
[4] *See* CRS, Climate Change and U.S. Financial Regulators: Overview and Recent Actions, IN11666, (Mar. 11, 2021).

Background

The Intergovernmental Panel on Climate Change (IPCC) has found that human activity through greenhouse gas (GHG) emissions has already caused the global annual average temperature to rise 1 degree Celsius above pre-industrial levels, and current projections show "[g]lobal warming is likely to reach 1.5 [degrees] Celsius between 2030 and 2052," and the global annual average temperature will very likely continue to rise if GHG emissions are unconstrained.[5] In November 2016, the Paris Climate Agreement went into effect with the goal of restricting global warming below 2 degrees Celsius and preferably to 1.5 degrees Celsius by reducing GHG emissions. While climate-related risks and negative effects will be more severe at 1.5 degrees Celsius than are currently observed, an increase of 2 degrees Celsius is projected to carry significantly more negative effects, resulting in 2.6 times more extreme heat, twice as many vertebrate and plant species lost, a 2.3 times reduction in crop yields, among other serious environmental consequences.[6] According to a World Meteorological Organization (WMO) climate update issued in May 2021, there is now a 40 percent chance of the global annual temperature temporarily eclipsing the 1.5 degrees Celsius increase above pre-industrial levels in the next five years.[7]

Types of Climate Risk in the Financial System

Climate-related financial risks are often categorized into physical risks and transitions risks.[8] Physical risks represent the financial and economic costs associated with the increased frequency and intensity of extreme weather events and effects of overall changes in regional and global climate.[9] According the Financial Stability Board (FSB), "economic losses from natural catastrophes have increased in recent decades," and "the frequency and severity of extreme weather events might increase non-linearly and become increasingly correlated with each other over time." [10] Figures 1 and 2 in Appendix B illustrate the increasing costs and frequency of extreme weather events and the resulting economic losses.

Transition risks describe possible losses that result from economic shifts and government policy frameworks that reduce GHGs and adjust to climate change.[11] Transitioning to a low-carbon economy represents a significant adjustment for most economies, and fossil fuel assets may see a substantial devaluation as markets adjust for the changes. The risk of sudden and substantial repricing poses significant challenges for financial stability.[12] The Financial Stability Board identifies a disorderly transition, in which unanticipated or rapid changes in technology or public policy, as a possible source of destabilization.[13] Physical risks and transition risks will likely interact; investing more resources or adopting policies to mitigate physical risks may accelerate transition risks as markets and economies conform to the changes.[14] Conversely, increased frequency and severity of physical risks may influence investor and consumer behavior or impact policy decisions.[15]

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[5] IPCC, Summary for Policymakers, Special Report: Global Warming of 1.5°C, (Oct. 6, 2018), A.1.
[6] World Resources Institute, Half a Degree and a World Apart: The Difference in Climate Impacts Between 1.5˚C and 2˚C of Warming, (Oct. 7, 2018).
[7] WMO, New climate predictions increase likelihood of temporarily reaching 1.5 °C in next 5 years, (May, 27, 2021).
[8] *See* FSB, The Implications of Climate Change for Financial Stability, (Nov. 23, 2020), p. 4; *See* also MIT Joint Program on the Science and Policy of Global Change, Global changes: Physical and transition risks, (Nov. 20, 2020).
[9] FSB, The Implications of Climate Change for Financial Stability, (Nov. 23, 2020).
[10] *Id.*
[11] *Id.*
[12] *See* FRB, Climate Change and Financial Stability, (Mar. 19, 2021); *See* also Center for American Progress, Addressing Climate-Related Risk Through Bank Capital Requirements, (May 2021).
[13] FSB, The Implications of Climate Change for Financial Stability, (Nov. 23, 2020).
[14] CFTC, Managing Climate Risk in the U.S. Financial System, (Sept. 9, 2020).
[15] *Id.*

Events in 2020 illustrated the potential impacts of both physical and transition risks. Underscoring the growing threat of physical risks, 2020 tied 2016 for the warmest year in recorded history, and the hurricane season was the most active on record.[16] In California, wildfire damage more than doubled the previous record, and new records for wildfires were also set in Oregon, Washington, and Colorado.[17] Meanwhile, the sudden drop in oil demand caused by the pandemic caused severe distress among fossil fuel companies, which had been the leading junk bond issuers for a decade prior to the COVID-19 crisis.[18] In January, S&P placed 13 major oil and gas companies on a negative credit watch, citing "growing risk to their businesses from the energy transition, price volatility, and future profitability."[19]

Recent Actions by the Biden-Harris Administration and Financial Regulators

On May 20, 2021, President Biden signed an executive order directing the Director of the National Economic Council, the Secretary of the Treasury, and Director of the Office of Management and Budget to develop a government-wide strategy evaluating and addressing climate-related financial risk.[20] Specifically, the order instructs the National Climate Advisor and the Director of the National Economic Council to develop a government-wide strategy on the disclosure of climate risk to Federal Government programs and evaluate the necessary financing to achieve net-zero emissions by 2050.[21] Additionally, the order calls for Treasury Secretary Janet Yellen to assess financial stability issues stemming from climate risk in her capacity as the chair of the Financial Stability Oversight Council (FSOC); directs the Secretary of Labor to reconsider rules from the previous administration restricting investment firms from offering products that take into consideration environmental, social and governance issues; mitigate climate risks to the federal budget; and update federal government underwriting and procurement.[22]

Several agencies and financial regulators have already begun work to develop and promote a greater understanding of climate risk in the financial system. In December 2020, the Federal Reserve joined the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), an organization comprised of more than 80 central banks and financial regulators with the purpose of "strengthening the global response required to meet the goals of the Paris agreement and to enhance the role of the financial system to manage risks and to mobilize capital for green and low-carbon investments."[23] The group shares and promotes best practices related to climate-related risk management and transition data.[24] In January 2021, the Federal Reserve announced the formation of the Supervision Climate Committee (SCC), an internal system-wide group aimed at improving the central bank's understanding of the impact of climate change on the financial system, and in March, the Federal Reserve announced the establishment of the Financial Stability Climate Committee (FSCC), a complimentary committee to the SCC "charged with developing and implementing a program to assess and address climate-related risks to financial stability".[25] On March 31, 2021, the FSOC convened for the first time with Secretary Yellen as Chair, and heard a presentation about "the channels through which climate change could pose risks to the financial system and work the Federal Reserve is undertaking to monitor

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[16] NOAA, 2020 Atlantic Hurricane Season takes infamous top spot for busiest on record, (Nov. 10, 2020).
[17] Yale University, *Reviewing the horrific 2020 wildfire season*, (Jan. 2021).
[18] New York Times, *American Oil Drillers Were Hanging on By a Thread. Then Came the Virus,* (Mar. 23, 2020).
[19] S&P Global, *Oil majors credit ratings under threat from growing credit risk,* (Jan. 26, 2021).
[20] Executive Office of the President, Climate-Related Financial Risk, Executive Order 14030, (May 20, 2021).
[21] *Id.*
[22] *Id.*
[23] NGFS, Origin and Purpose, (Updated Sept. 13, 2019); *See also* CRS, Climate Change and U.S. Financial Regulators: Overview and Recent Actions, IN11666, (May 11, 2021).
[24] *Id.*
[25] Federal Reserve Bank of New York, Kevin Stiroh to Step Down as Head of New York Fed Supervision to Assume New System Leadership Role at Board of Governors on Climate, (Jan. 25, 2021); Federal Reserve, Financial Stability Implications of Climate Change, (Mar. 23, 2021).

and better understand climate-related risks to financial stability."[26] The various prudential regulators and agency heads who serve on the FSOC then provided updates about what actions they are taking surrounding climate financial risk.

In testimony before the House Financial Services Committee on May 19, 2021, Office of the Comptroller of the Currency's (OCC) Acting Comptroller Michael Hsu listed acting on climate risks to the financial system as a priority for the agency.[27] Additionally, Mr. Hsu testified that the OCC is currently part of the Basel Committee on Banking Supervision's Task Force on Climate-Related Financial Risks, and he had requested OCC staff to consider the agency joining the Network for Greening the Financial System as the Federal Reserve has done.[28] In March 2021, the Securities and Exchange Commission (SEC) announced the formation of a Climate and ESG Task Force, which has an initial focus "to identify any material gaps or misstatements in issuers' disclosure of climate risks under existing rules."[29] Later that month, the SEC published a statement inviting public comment on climate change disclosures, citing increased investor demand for the information.[30] In testimony before the House Financial Services Committee, SEC Chair Gary Gensler indicated the agency would be moving forward with regulations on climate risk disclosure.[31]

International Developments in Addressing Climate Risk

Some foreign governments and central banks are further ahead than U.S regulators on proposals addressing climate risk. This month, the Bank of England announced it had begun its Climate Biennial Exploratory Scenario (CBES), a climate risk financial stress testing program for insurers and large banks under its supervision.[32] Under CBES, firms will be evaluated under three different 30 year scenarios projecting the effects of transition and physical risks associated with climate change to financial institutions.[33] The European Central Bank is also preparing its own "economy-wide climate stress test," which also looks at the impact of climate risk over a 30-year period.[34] The European Union and the United Kingdom (UK) have established guidelines on climate risk disclosure, and the UK will be mandating disclosures by 2025.[35] The Chinese central bank recently announced plans to adopt the "mandatory disclosure of climate-related information."[36] In addition, the Australian Prudential Regulation Authority published draft guidance to financial institutions regarding the disclosure and management of climate risk in April 2021.[37]

Private Sector Response to Climate Risk

Many corporations and businesses are increasingly adopting sustainability plans or taking other actions in response to climate risk. For example, in a 2020 letter to CEOs, BlackRock Chairman and Chief Executive Officer Larry Fink stated, "Climate change has become a defining factor in companies' long-term prospects," and called for improved disclosure "of how companies are managing sustainability-

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[26] FSOC, *Readout of Financial Stability Oversight Council Meeting,* (Mar. 31, 2021).
[27] OCC, Statement of Michael J. His, Acting Comptroller of the Currency before the Committee on Financial Services, United States House of Representatives, (May 19, 2021), p.2.
[28] *Id* at p.11-13.
[29] SEC, SEC Announces Enforcement Task Force Focused on Climate and ESG Issues, (Mar. 4, 2021).
[30] SEC, Public Input Welcomed on Climate Change Disclosures, (Marc.15.2021).
[31] Reuters, U.S. SEC chair tells Congress he plans new rules on climate risk, trading. (May 6, 2021).
[32] Bank of England, Bank of England publishes the key elements of the 2021 Biennial Exploratory Scenario: Financial risks from climate change, (June 8, 2021).
[33] Bank of England, Key elements of the 2021 Biennial Exploratory Scenario: Financial risks from climate change, June 8, 2021.
[34] European Central Bank, Shining a light on climate risks: the ECB's economy-wide climate stress test, (Mar. 18, 2021).
[35] European Commission, Guidelines on reporting climate-related information, (June 17, 2021).
[36] *See* Financial Times, Chinese central bank governor backs push for climate risk disclosure, June 4, 2021.
[37] Australian Prudential Regulation Authority, APRA releases guidance on managing the financial risks of climate change, (Apr. 22, 2021).

related questions."[38] While BlackRock has decreased its exposure to the fossil fuel industry in recent years, as of September 2020, BlackRock still maintained investments of $90 billion in oil and gas and $12 billion in coal companies.[39] The largest U.S. banks have also committed to aligning their business models to facilitate the transition to a low-carbon economy by increasing sustainable financing and setting goals to achieve net zero emissions by 2050.[40] In some cases, publicly traded companies are facing increased pressure from investors and advocacy groups to embrace sustainability and carbon neutral goals.[41]

Policy Considerations

The CFTC's report, "Managing Climate Risk in the U.S. Financial System", contained twenty key recommendations in addressing climate risk. Among these recommendations, the CFTC called for all federal financial regulators and the FSOC to integrate climate risk in their oversight and regulatory work, and that regulators should require "financial firms to address climate-related financial risks through their existing risk management framework." [42] Additionally, the report recommended taking climate risk into the consideration of infrastructure investment and disaster relief, and called for material climate risks to be disclosed. Other policymakers have made similar recommendations. For example, the House Select Committee on the Climate Crisis issued an extensive staff report in 2020 that, among other things, encouraged the establishment of a comprehensive macroprudential framework, including enhanced capital, stress testing, margin, portfolio limits, and divesture, to address climate-related risks.[43] Last December, Chairwoman Maxine Waters wrote a letter to then President-elect Biden urging his incoming administration to prioritize climate risk through work by FSOC, the Office of Financial Research (OFR), and other financial regulatory agencies.[44] Recently, the House of Representatives passed H.R. 1187, the "Corporate Governance Improvement and Investor Protection Act" on June 16, 2021.[45] This legislation includes the "Climate Risk Disclosure Act" which requires public companies to disclose information on the financial risks associated with climate change and mandates the SEC to establish climate-related risk disclosures.

Climate risk scenario or stress testing is another tool under consideration by some regulators to ensure financial institutions can withstand physical and transition risks.[46] Additionally, incentivizing green financing or carbon-neutral projects could help facilitate an orderly economic transition and create economic opportunity.[47] Some observers are also calling for financial regulators to use bank capital requirements to mitigate risk and encourage sustainable practices in the banking sector by introducing a climate risk capital surcharge in order to make financial institutions more resilient and incentive firms to prioritize carbon neutral financing.[48]

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[38] BlackRock. Larry Fink's 2020 Letter to CEOs: A Fundamental Reshaping of Finance, (2020).
[39] *See* S&P Global, BlackRock heading to net-zero but holds large fossil fuel investments for now, (Feb. 12. 2021).
[40] Scientific American, America's Biggest Banks Promise to Fight Climate Change, (Mar. 9, 2021).
[41] *See* GreenBiz, Climate change and the rise of the 'advocacy investor', (May 14, 2021); *See* also Harvard Business Review, Shareholders Are Pressing for Climate Risk Disclosures. That's Good for Everyone., (Apr. 22, 2021).
[42] CFTC, Managing Climate Risk in the U.S. Financial System, (Sept. 9, 2020), p. vi – ix.
[43] House Select Committee on the Climate Crisis, *Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America* (June 30, 2020). Subsequently, also see Gregg Gelzinis, *Addressing Climate-Related Financial Risk Through Bank Capital Requirements* (May 11, 2021).
[44] Press Release, *Waters Provides Recommendations to President-Elect Biden on Trump Actions to Reverse* (Dec. 4, 2020). Also see Graham Steele, *A Regulatory Green Light: How Dodd-Frank Can Address Wall Street's Role in the Climate Crisis* (Jan 2020).
[45] Corporate Governance Improvement and Investor Protection Act, H.R. 1187.
[46] *See* Bank of England, Key elements of the 2021 Biennial Exploratory Scenario: Financial risks from climate change, (June 8, 2021).
[47] Ceres, Addressing Climate as a Systemic Risk: A call to action for U.S. financial regulators, Executive Summary, (May 2020), p. 6.
[48] Center for American Progress, Addressing Climate-Related Financial Risk Through Bank Capital Requirements, (May 11, 2021).

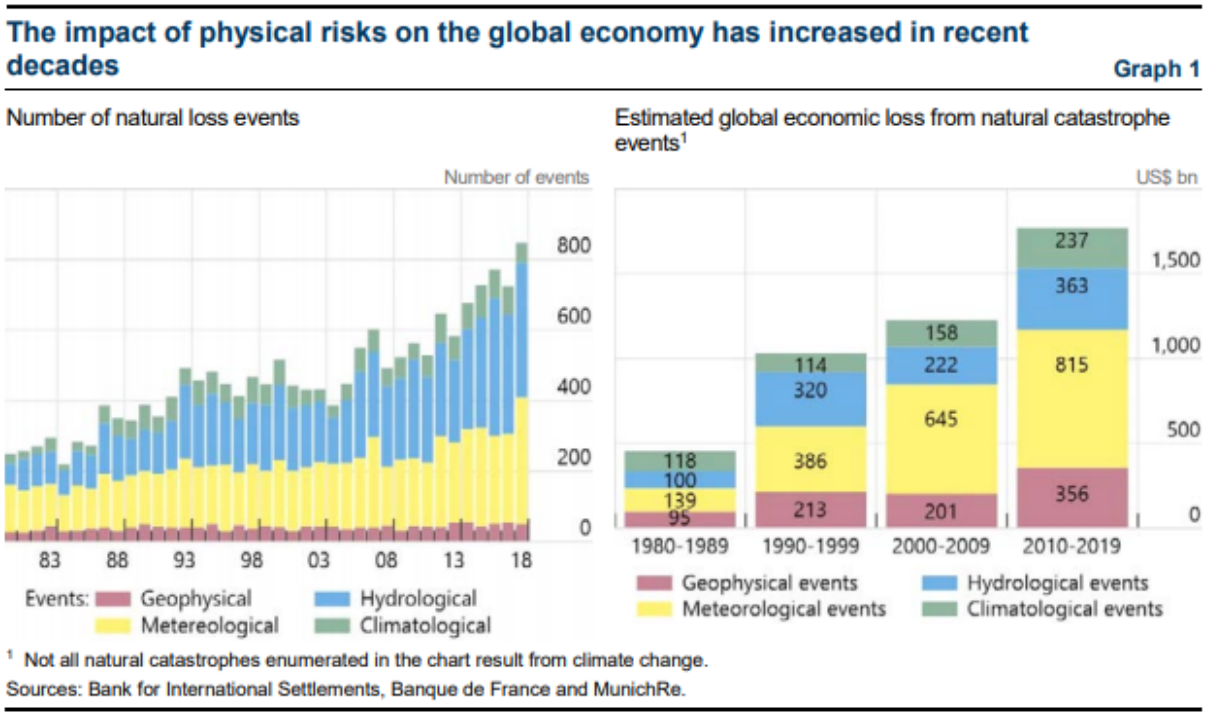
Appendix A: Legislation

- **H.R. 1549, Addressing Climate Financial Risk Act (Casten),** would establish the Climate Risk Advisory Committee to consult with the Financial Stability Oversight Council (FSOC) regarding a report on the impact of climate risk on U.S. financial stability. The bill would also require federal banking regulators to include climate risk in their supervisory guidance, require FSOC to consider climate risk when designating nonbank financial companies for enhanced oversight by the Federal Reserve, require a Federal Insurance Office (FIO) report on insurance regulation and climate risk, and encourage international coordination.[49]
- **H.R. 3571, Climate Change Financial Risk Act (Casten),** would require the Federal Reserve to conduct stress tests on large financial institutions to measure their resilience to climate-related financial risks.[50]
- **H.R. ____, The Climate Crisis Financial Stability Act,** would direct the federal banking agencies to integrate the physical and transition risks of climate change into risk weighted capital requirements and to apply a capital surcharge on banks with over $100 billion in assets based on the bank's financed GHG emissions. The bill also requires the FSOC to consider a nonbank financial institution's contribution to climate-related risks during the SIFI designation process and establishes a permanent advisory committee on climate risk to inform the FSOC's work.

[49] Press Release, *Feinstein, Casten Introduce Bill to Reduce Climate Change Risk in Financial System* (Mar. 4, 2021).
[50] Press Release, *Schatz, Casten Reintroduce Legislation To Ensure U.S. Financial System Is Prepared For Climate Change* (May 27, 2021).

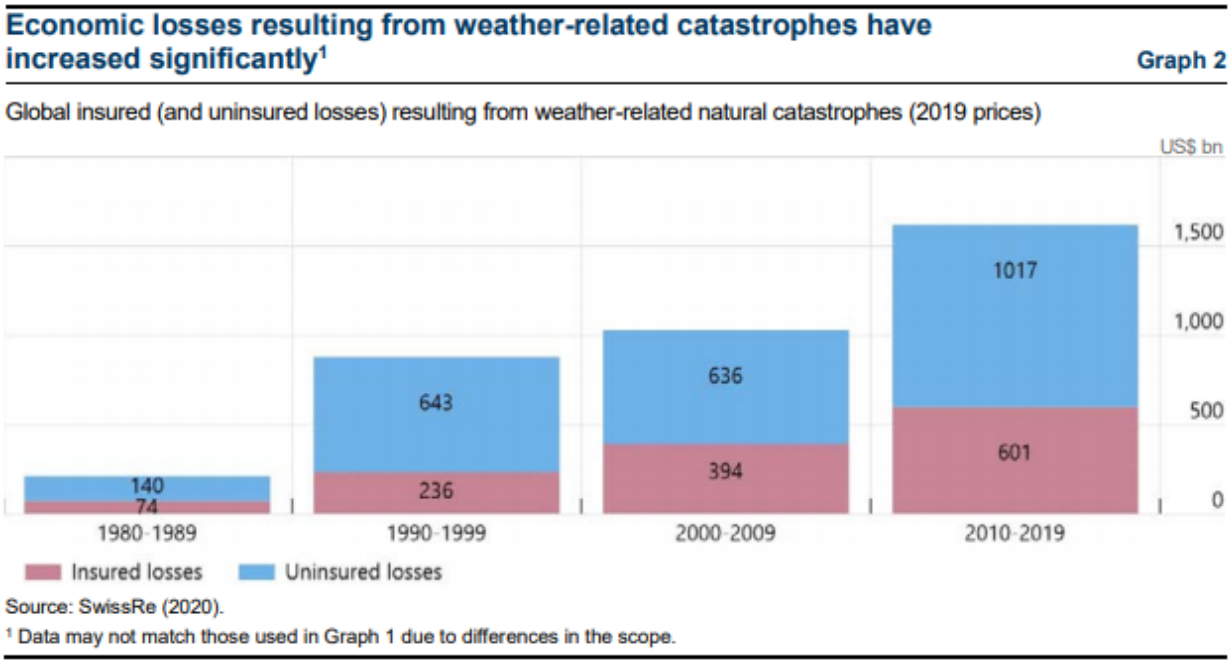
Apendix B: Economic Data on Physical Risks and Weather-Related Events

Figure 1



Source: Financial Stability Board, The Implications of Climate Change for Financial Stability, (Nov. 23, 2020), p. 6.

Figure 2



Source: Financial Stability Board, The Implications of Climate Change for Financial Stability, (Nov. 23, 2020), p. 11.