

**Minutes of the Climate-related Financial Risk Advisory Committee  
of the Financial Stability Oversight Council**

December 13, 2024

PRESENT:

Department of the Treasury (Treasury)

Sandra Lee, Deputy Assistant Secretary for the Financial Stability Oversight Council (Council)  
and Chairperson of the Climate-related Financial Risk Advisory Committee (CFRAC)

CFRAC Members

Bob Litterman, Founder of Kepos Capital and Presiding Member of the CFRAC  
Catherine Ansell, Executive Director of Climate Risk, JPMorgan Chase  
Cecilia Martinez, Chief of Environmental and Climate Justice, Bezos Earth Fund  
Ed Kearns, Chief Science Officer, First Street Foundation  
James Stock, Vice Provost for Climate and Sustainability, Harvard University  
Noah Kaufman, Research Scholar, Columbia University School of International and Public  
Affairs, Center on Global Energy Policy  
William Pizer, President and Chief Executive Officer, Resources for the Future  
Emily Grover-Kopec, Director, Climate Impacts, Rhodium Group  
Ilmi Granoff, Senior Fellow and Adjunct Research Scholar, Columbia Law School  
Ivan Frishberg, Senior Vice President and Chief Sustainability Officer, Amalgamated Bank  
Janine Guillot, Director, ReFED  
Julie Leonard, President and Chief Executive Officer, Lake Michigan Credit Union  
Karen Diver, Senior Advisor to the President for Native American Affairs, University of  
Minnesota  
Wendy Cromwell, Vice Chair and Head of Sustainable Investment, Wellington Management  
Tracey Lewis, Policy Counsel for the Climate Program, Public Citizen  
Julie Serakos, Managing Director, Model Product Management, Moody's  
Nancy Watkins, Principal and Consulting Actuary, Milliman

CFRAC Observer

Monica Grasso, Chief Economist, National Oceanic and Atmospheric Administration

GUESTS:

Department of the Treasury

Nellie Liang, Under Secretary for Domestic Finance  
Silab Mohanty, Deputy Director of Policy, Office of the Financial Stability Oversight Council  
Kaitlin Hildner, Senior Policy Advisor, Office of the Financial Stability Oversight Council  
Jack Immanuel, Research Analyst, Office of the Financial Stability Oversight Council  
Carol Rodrigues, Attorney-Adviser, Office of the General Counsel  
Catherine Berg, Deputy Director, Office of International Financial Markets

Board of Governors of the Federal Reserve System (Federal Reserve)

Morgan Lewis, Manager, Division of Supervision and Regulation

Kevin Stiroh, Senior Advisor, Supervision and Regulation

Federal Deposit Insurance Corporation (FDIC)

Amy Beck, Corporate Expert, Sustainable Finance, Division of Risk Management Supervision

Comptroller of the Currency (OCC)

Timothy Stumhofer, Director of Climate Risk

Naresh Raheja, Senior Climate Risk Specialist, Office of Climate Risk

Office of Financial Research (OFR)

Mariah Arraya, Management & Program Analyst

PRESENTERS:

*Presentation on Discussion of Cross-Cutting Themes and Key Learnings*

- Catherine Ansell, Executive Director of Climate Risk, JPMorgan Chase
- Wendy Cromwell, Vice Chair and Head of Sustainable Investment, Wellington Management
- Emily Grover-Kopec, Director, Climate Impacts, Rhodium Group

*Presentation on Discussion of Topics and Questions for Future Work*

- Catherine Ansell, Executive Director of Climate Risk, JPMorgan Chase
- Wendy Cromwell, Vice Chair and Head of Sustainable Investment, Wellington Management
- Emily Grover-Kopec, Director, Climate Impacts, Rhodium Group

1. Welcome

Sandra Lee, Chairperson of the CFRAC, called the meeting to order at approximately 10:00 A.M. The committee convened by videoconference.

The Chairperson introduced Nellie Liang, Under Secretary for Domestic Finance.

2. Opening Remarks

Under Secretary Liang began her remarks by expressing appreciation for the continued work of the CFRAC members to consolidate their charge presentations and identify cross-cutting themes through their work. She said that climate-related financial risk was a priority for the Council and across Treasury. She said that identifying climate risk drivers and how they could compound each other and amplify shocks was an important project for the Council.

Under Secretary Liang said that the insurance industry was a critical sector to focus on for managing climate-related financial risks in a rapidly changing environment. She said that it was

important to identify who bears the risk from extreme weather and climate change and focus on metrics that could be used for regularly measuring and monitoring the impacts of climate-related financial risk. She said that the Treasury had been working with the Financial Stability Board on climate-related financial risk. Internationally, she said that even countries that had worked on climate-related financial risk for longer and had better data still struggled with data gaps and metric development.

The Chairperson then introduced Kaitlin Hildner, Senior Policy Advisor in the Office of the Financial Stability Oversight Council at Treasury, to outline the agenda and goals for the meeting.

### 3. Introduction to CFRAC Summary Document

Ms. Hildner said that the goal of the meeting was to provide input on a document to be made public that would include a summary of key cross-cutting themes from past CFRAC meetings, a list of topics and questions for future work, and a set of summaries of the charge presentations. She noted that the document would be a CFRAC-branded document and not represent the views of individual CFRAC members, the Council, or the Chairperson.

### 4. Discussion of Cross-Cutting Themes and Key Learnings

Catherine Ansell, Executive Director of Climate Risk at JPMorgan Chase, said that one potential theme was how climate-related financial risk and traditional financial risk types can compound and interact. She said that climate-related financial risks drive potential loss of value through traditional types of financial risk, including credit risk, operational risk, and market risk. Attendees discussed climate risk being integrated into existing risk management systems; financial stability being impacted by a cluster of climate-related financial risks that flow through a common mechanism; the identification of single risks as causes of systemic shocks; and the distinction between correlated and uncorrelated clusters of risk that were missing from this proposed theme.

Emily Grover-Kopec, Director of Climate Impacts at Rhodium Group, said another potential theme was how climate-driven changes to the insurance market could affect the financial system through multiple economic transmission channels and consequently elevate financial risks. She noted key questions related to who bears the cost of these risks and what changes were required to the insurance market to adapt to these developments. Attendees discussed who bears the costs from insurance price changes due to climate risks; what changes to the insurance market might be required to adapt to the rise in frequency and severity of climate events associated with climate change; the effects of state regulations on insurance; increasing costs from state and federal insurance backstops and disaster assistance; balancing the affordability and sustainability of insurance for consumers and insurers; who bears the risk of extreme weather events; and the costs and benefits of quickly incorporating climate risk into repricing of insurance premiums.

Wendy Cromwell, Vice Chair and Head of Sustainable Investment at Wellington Management, said another potential theme was the potential for climate-related financial risk in the housing sector to be passed on to consumers. Attendees discussed climate-related financial risk's effect on housing choices and consequently property values; the role of open access to data to help consumers and small financial institutions make risk-informed decisions; quantifying consumer risk from climate change; identifying how the risk to consumers was borne and disseminated through taxes and other costs; mitigating perils at the community level; emphasizing other specific types of impacts of perils besides fires and storm flooding, including power outages, forced evacuation, smoke, and tidal or sunny day flooding; enhancing the sense of urgency for consumers; highlighting the exposure of low-income communities; and noting the effect of climate-related financial risk on renters as well as homeowners.

Ms. Ansell said that another potential theme was bank stability. Attendees discussed the difference between shocks and material risks; the likelihood of a single climate risk driver affecting either large, geographically diverse financial institutions or systemwide financial stability; the ways that scenario analyses did not always capture systemic risk and material instability; and the benefit of diversification in bank portfolios to mitigate risk concentrations.

Ms. Ansell said that another potential theme was data and metrics and the difficulty of identifying singular metrics that are standalone indicators of climate-related financial risk. Attendees discussed the usefulness of analyzing a combination of existing financial metrics alongside metrics of climate risk drivers; using data to measure and identify who bears the financial risk; whether higher volumes of mortgage lending within special flood hazard areas are indicative of increased financial risk; using the data on higher risk exposures to inform risk mitigation strategies; the benefits and costs of providing data for risk-based repricing and integrating this information in the market; understanding the cause and effect of disruptions in the insurance market on the financial system; explaining the complexity of increasing risk flowing through the financial system by improving modeling of potential shocks; the need for more granular and relevant climate-related data to develop metrics that comprehensively assess systemic shocks; highlighting cross-sector technical dialogues to improve modeling and risk mitigation; phasing in more information on climate-related financial risk into public knowledge in ways that could change consumer behavior; and supporting models that focus on the tail distribution of climate-related financial risk impacts as well as the average.

Ms. Cromwell said that another potential theme was transition risk. Attendees discussed the potential for transition risk to be a driver of credit risk; sources of transition risk that could be geopolitical, business-driven, policy-driven, or unknown due to a disorderly transition; the need for more research on transition risk; the extensive amount of analysis on transition risk performed on the insurance industry; clarifying the definition of business-driven transition risks more in this theme; highlighting that transmission channels of transition risk could manifest on both sides of the balance sheet; the importance of addressing transition risk through a cooperative effort across key stakeholders, including insurers, banks, model vendors, consumers, and regulators; highlighting adaptation and risk mitigation as a core line of defense; the

uncertainty over whether transition risks rise to the level of systemic shocks; redefining business-driven transition risks as market or technology-driven transition risks; and identifying inflation driven by energy supply/demand mismatches as another potential example of transition risk.

Ms. Grover-Kopec said that another potential theme was the disproportionate impact of climate-related financial risks on low- and middle-income communities. She said that this theme cut across almost every charge that was presented at the CFRAC meetings. Attendees discussed the loss of adequate and affordable insurance due to climate-related financial risk potentially posing a greater risk to low- and middle-income communities because these communities had less financial cushion to manage shocks; low- and middle-income communities' higher risk of displacement from climate-related weather events; heightened risk for regional banks that predominantly serve low- and middle-income communities; and the amplifying effects of redlining and bluelining on climate-related financial risks to low- and middle-income communities.

## 5. Discussion of Topics/Questions for Future Work

Wendy Cromwell, Vice Chair and Head of Sustainable Investment at Wellington Management, introduced the potential topics and questions for future work and highlighted initial topic proposals, including how financial supervision should change to account for emerging climate-related financial risks; how state-based insurance market regulation affects the insurance industry's response to growing risks from extreme weather and the changes that could allow for better monitoring and management of those risks; ways that transition risks could contribute to supply and demand imbalances and how these imbalances could translate to financial stability risks; and metrics that could be used to monitor exposure to chronic climate risks on financial institutions and on the macroeconomy within certain regions and lead to financial instability.

As potential topics and questions for future work, attendees discussed the ways climate-related financial risks manifest on state and federal balance sheets; the impacts of climate-related financial risks on government-sponsored enterprises and the mortgage-backed securities market; options for government assistance in a scenario where a major insurer failed; the need for more research and data on transition risk and how transition risk manifests in different markets and sectors; the cross-sector decarbonization efforts being developed; the exploration of volatility as a source of risk among multiple sectoral pathways; the identification of geopolitical pathways and trade balances that affect cross-border climate risk; the opportunities to make open data sources more available to smaller financial institutions; the impact of shifts in domestic and international climate policy on climate-related financial risks; the benefit of community-level collective action on risk mitigation; and the importance of financial institutions preparing for climate-related financial risks in the long term.

## 6. Closing Remarks

The Chairperson commended the commitment and expertise of the CFRAC members. She closed by outlining next steps for finalizing the summary document of the CFRAC charges and key themes.

The meeting adjourned at approximately 12:00 P.M.