Conference Call Via WebEx

Climate Risk and Resilience (C) Working Group

Wednesday, October 30, 2020

Date: 9/25/20

WebEx Virtual Meeting

CLIMATE RISK AND RESILIENCE (C) WORKING GROUP

Wednesday, September 30, 2020

1:00 – 2:00 p.m. ET / 12:00 – 1:00 p.m. CT / 11:00 a.m. – 12:00 p.m. MT / 10:00 a.m. – 11:00 a.m. PT

ROLL CALL

Mike Kreidler, Chair	Washington	Troy Smith	Montana
Ricardo Lara, Vice Chair	California	Tom Green	Nebraska
Austin Childs/Alex Romero	Alaska	Barbara D. Richardson	Nevada
Peg Brown	Colorado	Anna Krylova	New Mexico
Andrew N. Mais/George Bradner	Connecticut	Marshal Bozzo/Nina Chen	New York
Colin M. Hayashida	Hawaii	Tracy Snow/Tom Botsko	Ohio
Judy Mottar	Illinois	Andrew R. Stolfi	Oregon
Travis Grassel	Iowa	David Buono	Pennsylvania
Robert Baron	Maryland	Rafael Cestero-Lopategui	Puerto Rico
Peter Brickwedde	Minnesota	Michael S. Pieciak	Vermont

NAIC Support Staff: Anne Obersteadt

AGENDA

1. Call to Order/Roll Call—*Commissioner Mike Kreidler (WA)*

2. Consider Adoption of its Summer National Meeting Minutes—*Commissioner Mike Kreidler (WA)* — Attachment A

3. Hear a Presentation on Cere's *Regulating Climate as a Financial Risk* Report —*Steven Rothstein (Ceres)* — Attachment B

4. Discuss Climate-Risk Related State Activities—*Commissioner Mike Kreidler (WA), Nina Chen (NY) and Any Other Member with Updates* — Attachments C-D

5. Discuss Any Other Matters Brought Before the Working Group—*Commissioner Mike Kreidler (WA)*

6. Adjournment

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Attachment A

Consider Adoption of Summer National Meeting Minutes

—Commissioner Mike Kreidler (WA)

Draft: 7/7/20

Climate Risk and Resilience (C) Working Group
Conference Call
June 18, 2020

The Climate Risk and Resilience Insurance (C) Working Group of the Property and Casualty Insurance (C) Committee met via conference call June 18, 2020. The following Working Group members participated: Mike Kreidler, Chair, and Jay Bruns; Ricardo Lara, Vice Chair, represented by Michael Peterson (CA); Austin Childs and Alex Romero (AK); Peg Brown (CO); George Bradner (CT); Colin M. Hayashida (HI); Judy Mottar (IL); Travis Grassel (IA); Robert Baron (MD); Peter Brickwedde (MN); Nina Chen (NY); and Tom Botsko (OH).

1. Received an Update on the Drafting of the *Insurance Regulatory Discussion Points on Catastrophic Events* Document

Mr. Peterson stated the Working Group decided on its Oct. 2, 2019, conference call to develop a product that can assist insurance departments in fielding frequently asked questions (FAQ) related to resilience and catastrophe events. The product was referred to as the *Insurance Regulatory Frequently Asked Questions* at the time. It was in part inspired by California's Wildfire Resilience Summit in April after the ferocious fires of the last couple of years in California. The document was designed to be a compilation of questions state insurance regulators find they are frequently being asked. Each insurance department could then voluntarily answer the questions as they relate to its specific state. The original intent was for the responses to be available for dissemination by each insurance department to inform the public and provide guidance to state and local efforts related to resilience and insurance. The Working Group also supported the compilation of each state's responses for sharing purposes, so states can learn from each other's efforts. It was decided questions should apply to all states, with the option to develop a more peril-specific version in the future. This makes sense considering the differences one can visualize almost immediately between states such as California and Connecticut.

Further development of the product occurred during informal drafting calls on May 22 and March 11. Summaries of those conference calls were provided in the materials (Attachment Three-A1 and Attachment Three-A2). The March 11 conference call expanded the questions in many of the existing sections and added new sections for adjuster licensure, department-stakeholder interactions and post-catastrophe regulatory response. During the May conference call, the product was converted from public to regulator-only and renamed *Insurance Regulatory Discussion Points on Catastrophic Events* (CAT Discussion Points). The change was to allow for more robust sharing among states, which is deemed to be the document's strongest value. However, states can still choose to leverage their response information for public use as they deem appropriate. The Purpose section was revised to specify the questions are meant to be a list of potential discussion points for states to consider in crafting their unique response. States are not expected to answer every question. The May 22 conference call also added sections for technology and the idea of overlapping or sequential crises that occur in the same time period.

The informal drafting group has progressed substantially in its drafting. The next conference call will focus on reviewing the draft to ensure it is not peril-specific and adding questions to the Overlapping Crises section. The informal drafting group will also review catastrophe-related material shared by Minnesota to see if anything additional should be added to the draft.

Jeff Klein (McIntyre & Lemon) stated the CAT Discussion Points document is interesting and recommended it should include the need for states with natural disaster statutes to revisit these to ensure they take pandemic issues into account. He stated his company encountered a similar issue in North Carolina, which has a natural disaster statute affecting premium finance companies. Even with a three- or four-day hurricane occurring with the onset of a pandemic, such as the current one, the time period is a lot more elongated, especially when states had to extend their orders and moratorium. He expressed his willingness to discuss the implications of a prolonged disaster (such as on cancellation nonrenewal moratoriums) further during an informal drafting call.

Commissioner Kreidler agreed with Mr. Klein's point. He stated the compounding implications of an event such as a pandemic does not necessarily fit the same mold of what state insurance regulators have historically dealt with and will irrevocably change our role as regulators. He also stated it is important to learn from our current circumstances so we can be better prepared for a second virus wave or future pandemic. The additional complications climate change brings to a pandemic are debated by some, but it is not unreasonable to assume climate change is bringing population mobility and thereby increasing transmission of the virus.

Dave Snyder (American Property Casualty Insurance Association—APCIA) asked if there would be an opportunity for interested parties to weigh in on the CAT Discussion Points. Commissioner Kreidler stated there would be an opportunity for anyone to provide comments on the document when it is exposed after the informal drafting group completes the draft.

2. Heard an Update on California's Development of a Sustainable Insurance Roadmap

Mr. Peterson stated the California Department of Insurance (DOI) announced in July 2019 that it had partnered with the United Nations Environment Program (UNEP) to develop a Sustainable Insurance Roadmap. The goal is to provide a comprehensive and cohesive set of policies related to climate change and insurance that can serve as a guide. The Roadmap will enable California to use risk reduction measures, insurance solutions and insurer investments to reduce the magnitude of future events and insurance losses, stabilize rates and increase insurance availability. For example, new insurance products could be developed to promote cooler streets and renewable energy. There could also be insurance solutions designed to protect California's natural infrastructure—such as wetlands and forests—to reduce climate and disaster risk. Mr. Peterson stated that as recommended by the Ceres report on the agenda today, California is currently developing a database and search tool to allow users to identify insurers offering insurance products that offer climate risk solutions.

3. Heard a High-Level Summary of Ceres' Recently Released *Addressing Climate as a Systemic Risk: A Call to Action for U.S. Financial Regulators* Report

Steven Rothstein (Ceres) commended the six states that are administering the *NAIC Climate Risk Disclosure Survey* (Climate Survey) for supporting the option for insurers to submit a Task Force for Climate-Risk Financial Disclosure (TCFD) report in lieu of the Climate Survey. He stated Ceres recommends taking additional disclosure initiatives in its *Addressing Climate as a Systemic Risk: A Call to Action for U.S. Financial Regulators* report. The report outlines why and how key U.S. financial regulators can and should take action to protect the financial system and economy from potentially devastating climate-related shocks. The report makes a series of recommendations that build on the existing mandates of the relevant regulatory agencies. It also identifies similar actions being taken by global regulators that could serve as important models for U.S. agencies to consider.

The report's key recommendations for state and federal insurance regulators include:

- Acknowledging and coordinating action to address the material risks of climate change.
- Assessing the adequacy of current insurer actions for addressing climate risks.
- Joining the Sustainable Insurance Forum.
- Requiring insurers to conduct climate-risk stress tests and scenario analyses.
- Requiring insurers to integrate climate change into their Enterprise Risk Management (ERM) and Own Risk
- and Solvency Assessments (ORSA) processes.
- State regulators requiring insurers to assess and manage their climate-risk exposure through their investments, and examining how climate trends affect company holdings and long-term solvency.
- State regulators encouraging insurers to develop products for the new technologies, practices and business models that will emerge in response to climate-risk that are responsive to both risks and opportunities.
- State regulators mandating insurer climate-risk disclosure using the TCFD recommendations.
- Assessing the sector's vulnerabilities to climate change and reporting findings to the Financial Stability Oversight Council (FSOC).

4. Discussed its Work Plan for 2020

Mr. Bruns stated the proposed work plan for 2020 included finishing the drafting of the CAT Discussion Points document with adoption hopefully by the Spring National Meeting. It also included a proposal to review the *Financial Condition Examiners Handbook* for potential climate risk and resilience related revisions. Proposed revisions would then be referred to the Financial Examiners Handbook (E) Technical Group for consideration. The Working Group proposed similar revisions to the Technical Group in 2012 that were adopted into the 2013 Exam Handbook. The changes provided guidance, if needed, to examiners to ask questions about the impact of climate risk on solvency. There is also a proposal that came out of conversations with New York to gain a better understanding of how to effectively communicate climate-risk and the role of insurance, resilience and mitigation to elicit behavior change in consumers through presentations. This includes hearing from experts such as the Yale Program on Climate Change Communication, which performs research on how to identify and understand different audiences to more effectively educate and communicate on issues related to climate change. Presentations from insurers, modelers and climate research organizations on the use of products, incentives and technologies that support resilience in the insurance

industry is also proposed. Hearing from the American Academy of Actuaries (Academy) and Center for Insurance and Policy Research (CIPR) on research being done on the NAIC Climate Risk Disclosure Survey responses is also proposed. The final proposal is to better understand through presentations and dialogues how Moody's and others, including other jurisdictions and the NAIC, incorporate climate risk into analysis and governance practices.

Commissioner Kreidler asked Mr. Rothstein to share his thoughts on the draft work plan. Mr. Rothstein stated he thinks the draft work plan is thoughtful and comprehensive and focuses on gathering information from lots of people. He stated he supports the Working Group gaining more insight on transparency and welcomes the opportunity to support the Working Group going forward.

Commissioner Kreidler stated he thinks webinars on rating agency actions will be important. He stated he has concerns on the reticence of rating agencies to become more engaged on the vulnerabilities associated with climate change.

Mr. Brickwedde noted the NAIC member call on June 25 included discussing the NAIC Climate Risk and Resilience Key Initiative and asked how that may affect the work plan.

Anne Obersteadt (NAIC) stated she was not sure what the agenda item pertained to, but that it was her understanding it would not include Property and Casualty Insurance (C) Committee activities.

Mr. Peterson stated he thinks the draft work plan included good components but considered climate change communication to be particularly important. The connection insurance regulators have with consumers does not often get mentioned, making the proposal to better communicate climate risk to the client very important. Insurance regulators tend to view risk as specific to perils, such as risk by fire zone or flood zone. It makes sense that the Working Group should investigate the potential of communicating broader shifting risks beyond this binary perspective. Commissioner Kreidler agreed on the importance of communicating climate change risk to consumers.

Mr. Snyder asked if there was a way to focus on climate resilience in post-pandemic rebuilding. Mr. Bradner stated the Working Group has discussed the need to work with industry and states on more aggressively adopting building codes and standards. It would be beneficial to get more states to recognize the advantages of the Insurance Institute for Business & Home Safety (IBHS) FORTIFIED program that helps homeowners protect their properties against weather events. The FORTIFIED program is more developed towards hurricane-prone jurisdictions, such as those in the Southeast, but there are still standards in the program that would benefit other regions of the country. State insurance regulators need to become more involved in their sister agencies' meetings and advocate for industry to join these meetings as well. There is also a need to find data that illustrates the loss prevention savings of building-resilience measures, such as roof taping. This would be helpful in responding to pushback from builders on the additional costs they incur from such practices.

Commissioner Kreidler agreed building resilience should be added to the Working Group work plan. Mr. Bruns instructed NAIC staff to add "supporting insurance regulators resiliency efforts by holding dialogues with industry and other stakeholders on the importance of incorporating IBHS standards and adopting building codes" to the work plan.

Commissioner Kreidler stated Director Ramge recently discussed Nebraska's activities in this area with him. Several bills have been introduced related to flooding or climate mitigation in response to Nebraska's flood losses last year. Additionally, cities such as Lincoln, NE, are establishing Climate Resiliency Task Forces focused on mitigating flood and drought impact on agriculture and exploring renewable energy sources. There is also a bipartisan coalition of governors committed to upholding the provisions of the Paris Climate Agreement.

Commissioner Kreidler asked if any member had a concern on the draft work plan. Hearing none, he deemed a consensus on the work plan.

Having no further business, the Climate Risk and Resilience (C) Working Group adjourned.

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Attachment B

Hear a Presentation on Cere's Regulating Climate as a Financial Risk Report

—Steven Rothstein (Ceres)

Addressing Climate as a Systemic Risk:
A call to action for U.S. financial regulators

A presentation to:

CLIMATE RISK AND RESILIENCE (C) WORKING GROUP

Steven Rothstein, Managing Director, Ceres Accelerator for Sustainable Capital Markets

September 30, 2020

The Ceres ACCELERATOR FOR SUSTAINABLE CAPITAL MARKETS

ACCELERATING EFFORTS TO TRANSFORM CAPITAL MARKETS AND DRIVE WHOLESALE ACTION ON THE CLIMATE CRISIS

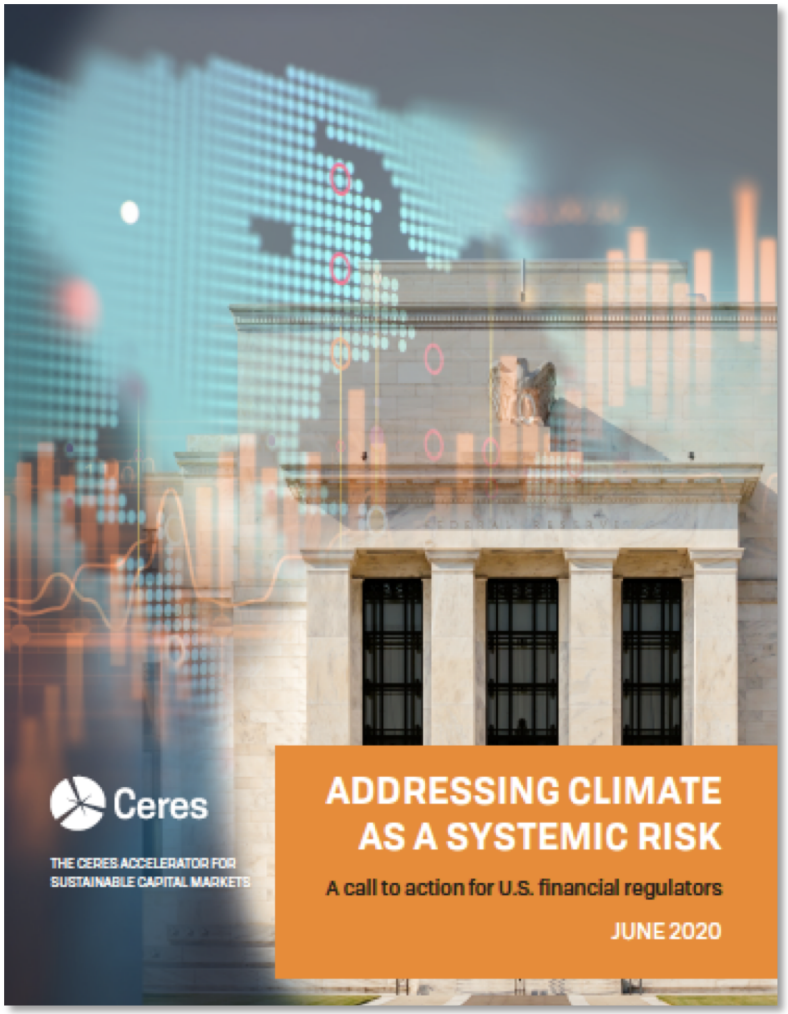
Ceres

The Ceres Accelerator will, in the short term, work towards:

- Achieving Paris-Aligned Portfolios
- Regulating Climate as a Financial Risk
- Financing a Net-Zero Economy
- Board governance for a sustainable future

Addressing climate as a systemic risk:
A call to action for U.S. financial regulators

- Goals of report:
  - ✓ Make the case that climate change is a systemic risk
  - ✓ Outline action steps that U.S. financial regulators can take based on *their existing mandate*
- Focused on federal and state regulators
- Built on detailed legal analysis and a comprehensive literature review; 3 dozen interviews with current and former regulators, academics, investors and NGOs, assessment of evolving practice globally



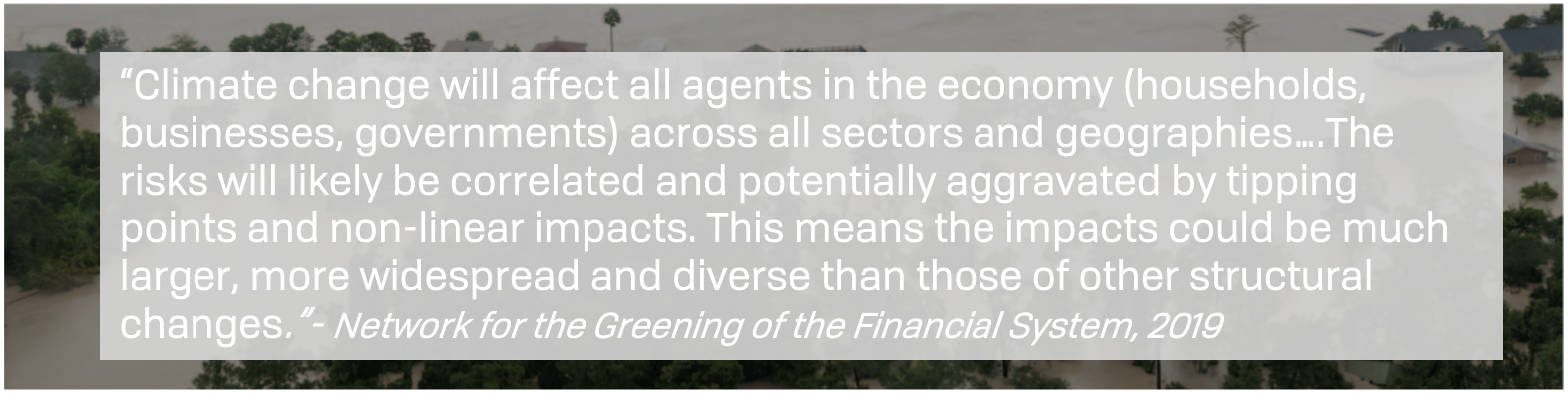
The Climate Crisis and Economic Stability

Systemic risks are risks that have the potential to destabilize the normal functioning of the capital markets and lead to serious negative consequences for financial institutions and the broader economy.

Where a risk is identified as systemic, it belongs on the mandate of financial regulators.

Evidence strongly indicates that climate change is a systemic risk:

- **Increasingly frequent extreme weather events** have led to mounting economic losses
- **Social and environmental factors** are exacerbating economic impacts: Health & productivity; Community impacts and Population Upheaval; Biodiversity Losses



"Climate change will affect all agents in the economy (households, businesses, governments) across all sectors and geographies….The risks will likely be correlated and potentially aggravated by tipping points and non-linear impacts. This means the impacts could be much larger, more widespread and diverse than those of other structural changes." - *Network for the Greening of the Financial System, 2019*

The Climate Crisis and Economic Stability

- Climate impacts are already manifesting themselves in the **largest state economies**: California, Florida
- An unplanned, though inevitable, **transition to a low-carbon economy** will likely cripple key industries
- **Insurance companies and banks** are on the frontlines of risk (Losses from extreme weather events; risks to investments; Exposure to climate risks across their portfolio)
- The **cumulative and unpredictable** nature of these impacts poses the real risk to financial market stability
- **The time for action is now**

Actions US Financial Regulators Can Take on Climate Change

US financial regulators should proactively address and act on climate change across their mandates to:

- ✓ **Affirm** that climate change is a systemic risk and **assess** climate impacts on financial market stability
- ✓ **Integrate** climate change into prudential supervision
- ✓ **Mandate** climate change disclosure
- ✓ **Coordinate** with each other and the global regulator community to develop a shared approach to addressing the global crisis

- Such actions fall within the **existing mandate** of the agencies in question.
- Similar actions are being taken by **financial regulators globally.**
- As **regulators of the largest economy** in the world, US regulators risk being left behind and have an especially important reason to act. Inaction affects US competitiveness
- While this blueprint focuses on a half-dozen key institutions, all federal and state regulators should **further examine their role** for climate change.

Vision for Key Financial Regulators

- **Federal Reserve System:** Financial Stability, Supervision, Prudential Regulation, Monetary Policy, Community investment, International Cooperation
- **Office of Comptroller of the Currency & Federal Deposit Insurance Corporation:** Supervision, Stress Tests, Deposit Insurance Fund impacts
- **Securities and Exchange Commission**: Research on impacts on securities market; Fiduciary Duty, Disclosure, Accountants and auditors, Credit Raters
- **Commodity Futures Trading Commission:** Climate Change Sub-committee (Ceres CEO, Mindy Lubber is a key member)
- **Insurance Regulators:** Risk Management, Investments, Disclosure, Products
- **Federal Housing Finance Agency:** Climate impacts of mortgage backed assets
- **Financial Stability Oversight Council:** Prioritize and coordinate between federal agencies on climate

"In the crowded regulatory and supervisory space, there is limited scope for focusing attention on new issues but climate risks need immediate action in order to limit or reverse the impact of some of the negative trends under way. It is incumbent on supervisors to put in place the necessary measures for insurers to address any significant risks that could adversely affect policyholders and financial stability. In previous financial crises, events once deemed implausible have materialized. Climate change poses the same threat."

— Bank of International Settlements "Turning up the heat: Climate risk assessments in the insurance sector," 2019

Insurance Regulators

Why should insurance regulators address climate risk?

- The insurance sector is already facing significant risks and losses from climate change, both through their coverage as well as through their investments
- A global survey of 232 insurance actuaries identified climate change as the top "current and emerging risk" in 2019, ranking higher than both cyber-security and terrorism
- Insurance regulators have a mandate to oversee the insurance industry, as well as monitor all aspects of the sector

Recommendations for insurance regulators in addressing climate risk

1. Prioritization
   - ❑ Acknowledge the risks climate change poses to the insurance sector and pledge coordinated action to address them
   - ❑ Assess the adequacy of current insurer actions for addressing climate risks
   - ✔ Join the Sustainable Insurance Forum

2. Risk management
   - ❑ Require insurance companies to conduct climate risk stress tests and scenario analyses to evaluate potential financial exposure to climate change risks
   - ❑ Require insurers to integrate climate change into their ERM and ORSA processes

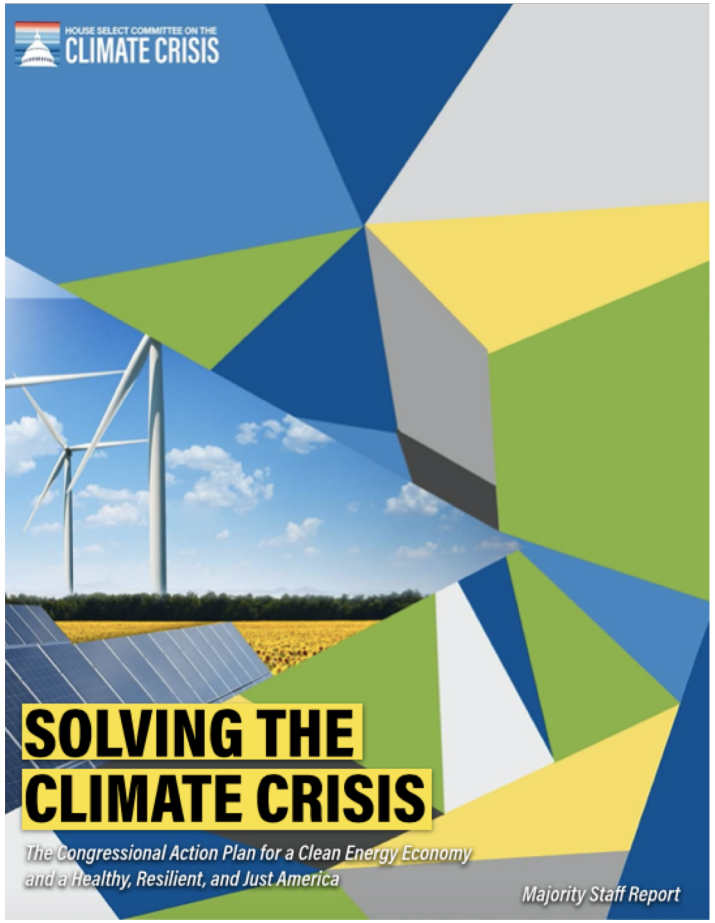
3. Investments
   - ❑ Require insurance companies to assess and manage their climate risk exposure through their investments
   - ❑ Examine how climate trends affect insurance company investment holdings and long-term solvency

Recommendations for insurance regulators in addressing climate risk

4. Products
   - ❑ Encourage insurers to develop products for the new technologies, practices and business models that will emerge in response to climate risk that are responsive to climate risks and opportunities

5. Disclosure
   - ❑ Mandate insurer climate risk disclosure using the TCFD recommendations
   - ❑ Assess the insurance sector's vulnerabilities to climate change, and report findings to the Financial Stability Oversight Council

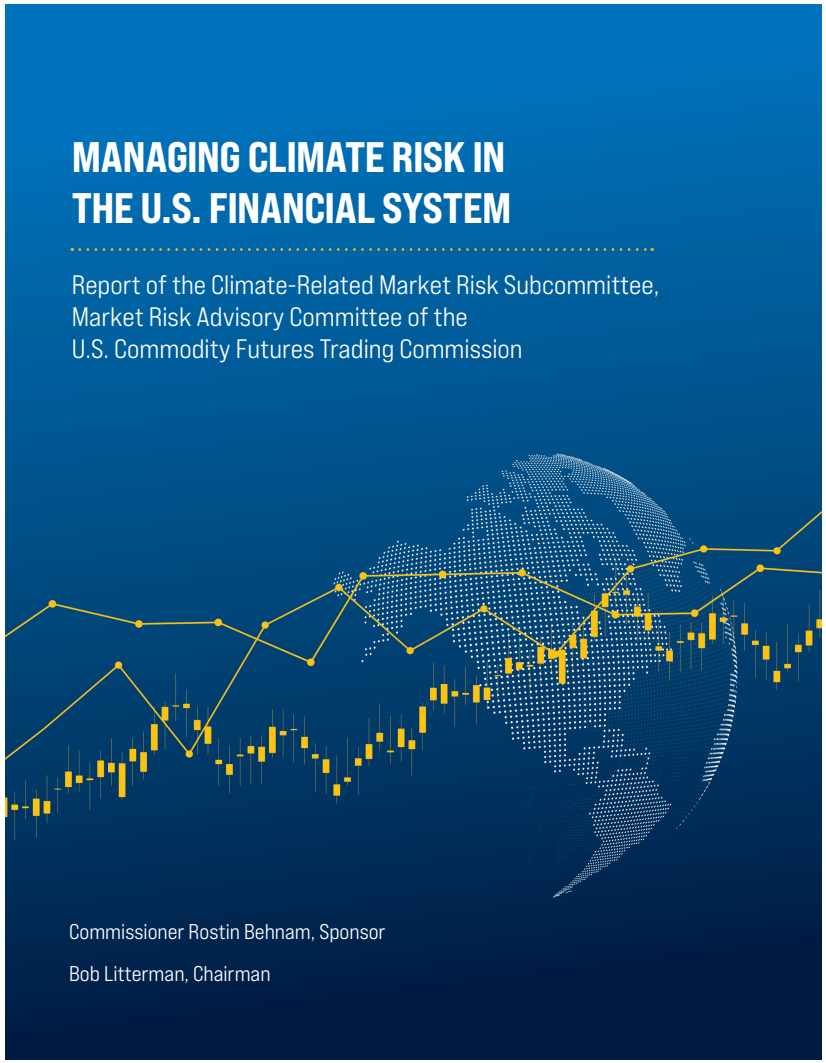
Recent climate change reports from Congress



House Committee on the Climate Crisis

Senate Committee on the Climate Crisis

Climate change report from CFTC



[Managing Climate Risk in the U.S. Financial System]

Media Hits So Far

The New York Times
CNBC
responsible investor
grist
CQ ROLL CALL
AXIOS
MarketWatch
Harvard Law School Forum
GLOBAL PROXY WATCH
WASHINGTON Examiner
Bloomberg Law
FT FINANCIAL TIMES
new climate capitalism
NACD NATIONAL ASSOCIATION OF CORPORATE DIRECTORS
BARRON'S
S&P Global
CHINAWATER RISK
The Washington Post
Forbes
E&E NEWS
POLITICO
INSIDEEPA.COM an online news service from the publishers of Inside EPA
AUGUSTA FREE PRESS
Pensions&Investments
InsuranceERM The online resource for enterprise risk management
CORNERSTONE CAPITAL
Ceres

Thank You

For further information, please contact:

Steven M Rothstein,
Managing Director, Accelerator
srothstein@ceres.org

Attachments C-D

Climate-Risk Related State Activities

—Commissioner Mike Kreidler (WA), Nina Chen (NY) and Any Other Member with Updates

Climate Summit 2020

Date Oct, 7, 2020

Time 9 a.m. - 1 p.m. Pacific Time / 12 p.m. - 4 p.m. Eastern Time

Location Online | Register here

Join Washington state Insurance Commissioner Mike Kreidler and his guests for the virtual Climate Summit 2020. Climate Summit 2020 is free, open to the public and will highlight the latest climate science, private sector best practices and regulatory environments related to climate change. We are bringing together a national audience of climate, government and insurance professionals to understand and explore how climate change affects our communities, regulatory efforts and businesses.

Summit agenda

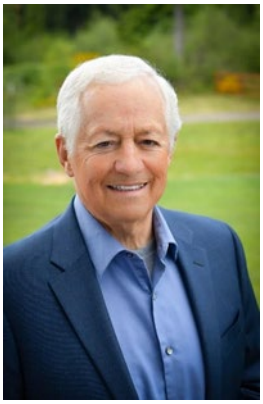
Time	Session	Presenter
Pre-summit session	**Climate change in the American mind**	**Dr. Anthony Leiserowitz** *Director, Yale Program on Climate Change Communication*
Pre-summit session	**Managing climate change in investment portfolios**	**Shivani Patel** *Associate Director, Responsible Investing, RBC Global Asset Management*
9:00 – 9:10 a.m.	**Opening remarks**	**Mike Kreidler** *Washington state Insurance Commissioner*
9:10 – 9:40 a.m.	**Keynote address**	**Fawn Sharp** *President, Quinault Indian Nation and the National Congress of American Indians*

Time	Session	Presenter
9:40 – 10:30 a.m.	**Climate change science and effect**	**Dr. Amy Snover** *Director, Climate Impacts Group and Northwest Climate Adaptation Science Center, University of Washington* **Pacific Northwest climate change science: Impacts, risks & vulnerabilities**
		Dr. Gary Geernaert *Division Director, Earth and Environmental System Sciences Division, U.S. Department of Energy* **National climate change science: Latest information on climate predictions**
		Honorable Sherri Goodman *Senior Fellow, Environmental Change and Security Program, & Senior Fellow, Polar Institute* **Climate and security in the age of global disruption**
10:30 – 11:50 a.m.	**Climate change and the private sector**	**Kara Hurst** *Vice President, Head of Worldwide Sustainability, Amazon*
		Michelle Lancaster *Director of Sustainability, Microsoft* **Scaling Ambition into Action: The case for investment, innovation and inclusion**
		Francis Bouchard *Group Head of Public Affairs and Sustainability, Zurich Insurance Co.*
		Christoph Krumm *CEO & co-founder, Sironix Renewables* **Changing the way the world cleans: Solving laundry's climate problem**

Time	Session	Presenter
11:50 a.m. – 12:50 p.m.	**Regulatory & policy development**	**Hana V. Vizcarra** *Staff attorney, Harvard Environmental & Energy Law Program* **Regulating climate: Developments in financial and environmental regulation**
		Sen. Christine Rolfes *Washington state Senator, 23rd Legislative District*
		Rep. Derek Kilmer *U.S. Congressman, Washington's 6th Congressional District* **Congressional Update**
12:50 – 1:00 p.m.	**Closing remarks**	**Mike Kreidler** *Washington state Insurance Commissioner*

Our presenters

Mike Kreidler, Washington state Insurance Commissioner



Mike Kreidler is Washington state's eighth insurance commissioner, first elected in 2000 and re-elected to his fifth term in 2016. He is the longest-serving insurance commissioner in the country.

A doctor of optometry, Commissioner Kreidler practiced at the former Group Health Cooperative in Olympia for 20 years and holds a master's degree in public health. He retired as a lieutenant colonel in the U.S. Army Reserve and served in both the Washington state Legislature and in the U.S. Congress.

As insurance commissioner, Commissioner Kreidler has earned a reputation both as a staunch advocate for consumer protection and as a fair and balanced regulator. He is a national leader on issues as diverse as health care reform, consumer protection and climate change.

Fawn R. Sharp, President, Quinault Indian Nation and the National Congress of American Indians

Fawn Sharp, J.D., a member of the Quinault Indian Nation, received her Juris Doctorate from the University of Washington School of Law. She also holds an advanced certificate in International Human Rights Law from Oxford University. President Sharp attended Gonzaga University in Spokane, where she received a Bachelor of Arts degree in Criminal Justice.

President Sharp is serving her fifth term as president of the Quinault Indian Nation (2006-present), in addition to serving as president of the Affiliated Tribes of Northwest Indians, president for the National Congress of American Indians and a member of We are Still In Leaders Circle since 2018. She is also a member of the Board of Trustees for Grays Harbor College in Aberdeen, Wash.

Washington state Gov. Jay Inslee appointed President Sharp to the Carbon Emissions Reduction Taskforce in 2014 to consider measures to offset costs to consumers and businesses and to design strategies to help energy-intensive industries transition away from carbon-based energy sources.

Dr. Anthony Leiserowitz, Director, Yale Program on Climate Change Communication

Anthony Leiserowitz, Ph.D., is the Director of the Yale Program on Climate Change Communication and a Senior Research Scientist at the Yale School of the Environment. He is an expert on public climate change beliefs, attitudes, policy preferences and behavior, and the psychological, cultural and political factors that shape them.

Climate change in the American mind | Dr. Leiserowitz will explain recent trends in Americans' climate change knowledge, attitudes, policy support and behavior and how these insights can guide climate communication strategies. Climate change is one of the most daunting challenges of our time. Americans have diverse and sometimes opposing views about global warming, fundamentally shaping the political climate of climate change.

Dr. Amy Snover, Director, Climate Impacts Group and Northwest Climate Adaptation Science Center, University of Washington

Dr. Amy Snover is an innovator in linking climate science with on-the-ground needs of resource managers, planners and policymakers to ensure that Pacific Northwest people, communities and ecosystems thrive in a changing climate. She directs scientific efforts to to provide the fundamental understanding, data, tools and technical support necessary for managing the climate risks. She works with a broad range of decision makers to develop science-based climate risk management strategies, identify research priorities and build climate resilience. She directs the University of Washington Climate Impacts Group and Northwest Climate Adaptation Science Center.

Pacific Northwest climate change science: Impacts, risks & vulnerabilities

Dr. Gary Geernaert, Earth and Environmental System Sciences Division Director, U.S. Department of Energy

Dr. Gerald (Gary) Geernaert is the director of the Earth and Environmental System Sciences Division in the U.S. Department of Energy (DOE). Dr. Geernaert directs theoretical, experimental and predictive modeling research at DOE national laboratories and universities. Dr. Geernaert also serves on numerous White House science committees.

National climate change science: Latest information on climate predictions | Dr. Geernaert will provide a brief overview of the basics of climate prediction, including the most recent developments in predictive models that are relevant to the insurance regulation community. In addition,

he will highlight anticipated developments in the next few years that will be incorporated into prediction systems, including machine-learning technologies.

Honorable Sherri Goodman, Senior Fellow, Woodrow Wilson International Center; Senior Strategist, Center for Climate & Security

Sherri Goodman is an experienced leader and senior executive in the fields of national security and the environment. She is a senior fellow at the Woodrow Wilson Center and senior strategist at the Center for Climate & Security. From 1993 to 2001, she served as the first Deputy Undersecretary of Defense of Environmental Security.

Climate and security in the age of global disruption | Ms. Goodman will discuss climate and security in the age of global disruption. What are the national security threats of climate change and how are the military and intelligence communities responding to these threats and risks, both at home and abroad? How can the military and security organizations lead by example in building a low-carbon future and become more resilient to climate risks? What role can states, private sector, nongovernmental organizations and citizens play in reducing our risks from climate threat multipliers?

Shivani Patel, Associate Director, Responsible Investing, RBC Global Asset Management

Shivani Patel engages with clients and prospects as an ambassador of, and expert in, responsible investing, including Environmental, Social and Governance and impact investing, leveraging a decade of experience developing strategy. Ms. Patel partners to build the firm's responsible investing strategy and value proposition, and cultivates thought leadership and research to advance RBC GAM's responsible investing franchise in the U.S. marketplace. Ms. Patel will discuss **managing climate change in investment portfolios.**

Kara Hurst, Vice President, Head of Worldwide Sustainability, Amazon

Kara Hurst leads Worldwide Sustainability at Amazon. Utilizing Amazon's scale, speed and innovation, the Sustainability organization includes teams executing the work of The Climate Pledge; Sustainable Operations (renewable energy and energy efficiency, buildings); Sustainability Science and Innovation; Social Responsibility and responsible supply chain management; Circular Economy; Sustainable Products, packaging and shopping; Sustainability Technology; Sustainable Transportation; and social and environmental external engagement and policy setting. Prior to joining Amazon, Kara was CEO of The Sustainability Consortium (TSC), a multi-sector group across academia, the retail industry and the public sector. TSC was named one of Scientific American's "Top Ten World Changing Ideas" of 2012. For eleven years before that, Hurst worked as Vice President of BSR, where she built several global industry practices and lead BSR's NY and DC offices, as well as the global partnership practice with governments, multi-laterals and foundations. Hurst also co- founded of the Electronic Industry Citizenship Coalition (EICC, now the Responsible Business Alliance) and worked in Silicon Valley as Executive Director of the public-private venture OpenVoice, building out early teen channel content for AOL and others. In her early career, she held roles at the Children's Health Council, leading interdisciplinary educational and development programs, at the Urban Institute as a Research lead in the public finance and housing division, and worked in the offices of two elected officials – Mayor Willie Brown of San Francisco and in New York for the late Senator Daniel Patrick Moynihan (D-NY). Kara holds a BA from Barnard College of Columbia University and an MPP from the University of California, Berkeley. Kara will present on **Amazon's road to net zero.**

Michelle Lancaster, Director, Sustainability, Microsoft Corporation

Michelle Lancaster is Director of Sustainability Stakeholder Engagement at Microsoft, where she leads the company's sustainability-focused work with external stakeholders, as well as go-to-market strategy with customers and product development. For the past seven years prior, she led Microsoft's sustainability and corporate responsibility communications and prior to that, led public affairs campaigns for Fortune 500 companies in Washington, D.C.

Francis Bouchard, Group Head of Public Affairs & Sustainability, Zurich Insurance Group

Francis Bouchard is the Group Head of Public Affairs & Sustainability for Zurich Insurance Group, where he focuses on aligning Zurich's government affairs, sustainability and foundation activities around impactful public affairs and social impact campaigns. Mr. Bouchard's career within the insurance industry has centered on aligning thought leadership, citizenship and stakeholder management to deepen the impact of insurance on economic, societal and individual risks.

Christoph Krumm, CEO & Co-founder, Sironix Renewables

Christoph Krumm is the co-founder and CEO of Sironix Renewables, where he works to develop new, greener, safer and more effective ingredients for cleaning products like laundry detergents. He earned his Ph.D. from the University of Minnesota and bachelor's degree from the University of Washington, both in chemical engineering.

Changing the way the world cleans: Solving laundry's climate problem | Dr. Krumm will highlight the main factors and challenges contributing to the climate impact of detergents as well as the approach Sironix Renewables is taking to solve the industry's climate problem. Americans use over 600 million bottles of laundry detergent every year, which translates to 11 million metric tons of detergent that is produced, used and sent down the drain. Despite best efforts to make cleaning products more eco-friendly, many challenges exist which contribute to climate impacts of detergents, including how we source ingredients and how we wash.

Hana V. Vizcarra, Staff Attorney, Harvard Environmental & Energy Law Program

Hana Vizcarra, J.D., is a staff attorney at the Harvard Law Environmental & Energy Law Program (EELP) where she leads its portfolio on private sector approaches to climate and environmental issues. Dr. Vizcarra previously practiced environmental law with two national law firms. She received her Juris Doctorate from Georgetown University and bachelor's degree from Pomona College.

Regulating climate: Developments in financial and environmental regulation | Dr. Vizcarra will discuss current climate-related regulatory trends and what could change under a new administration. Climate change impacts are increasingly apparent in our communities and acknowledged by the public, private sector and local governments. Climate change is also impacting our financial and environmental regulatory regime. Shifting investor expectations for corporate disclosures of climate change risks and opportunities have led to increased calls for

regulatory action, yet changing investor expectations may modify legal requirements even without new regulatory guidance.

Financial regulators are also actively considering the impact of climate change on the financial system, possibly resulting in new approaches to financial oversight. The last four years have marked a dramatic shift in environmental and energy policy at the federal level. The current administration has pursued an aggressive deregulatory agenda that includes reinterpreting environmental laws to limiting the federal government's ability to address climate change. Harvard Law's Environmental & Energy Law Program tracks and analyses these trends.

Rep. Derek Kilmer, U.S. Congressman, Washington state's 6th Congressional District

With over a decade of experience working in economic development in the Puget Sound region, Congressman Derek Kilmer has a strong record as a problem-solver for Washington families and he's been recognized by veterans organizations for his support of our troops, their families and those who've served. Congressman Kilmer is working to make sure all children receive a quality education and is committed to honoring our promises to seniors by protecting Social Security and Medicare. Congressman Kilmer grew up on the Olympic Peninsula and has worked to promote local economic development and to be a responsible steward of our natural resources. He received his bachelor's degree from Princeton University's School of Public and International Affairs and earned a doctoral degree from the University of Oxford in England.

Congressman Kilmer was re-elected to a fourth term in the U.S. House of Representatives in 2018 and chosen by his Democratic colleagues to serve on the House Appropriations Committee, one of only four "exclusive" committees in the House. Congressman Kilmer serves on the Interior and Environment, Defense and Energy and Water Development subcommittees.

Sen. Christine Rolfes, Washington state Senator, 23rd Legislative District

Sen. Christine Rolfes represents Washington state's 23rd Legislative District, which includes the Kitsap County communities of Hansville, Kingston, Poulsbo, Bainbridge Island, Keyport, Silverdale and East Bremerton. Sen. Rolfes is the chair of the Senate Ways and Means Committee and a member of Senate Agriculture and Natural Resources Committee. Since her election to the Washington state House of Representatives in 2006, Sen. Rolfes has become a leading voice on education funding and reform, small businesses, ferries, military families and veterans and the environment. Her efforts have yielded tangible results for the 23rd District and Washington state as a whole.

In addition to her current work as a budget leader, Sen. Rolfes has long been an environmental champion, sponsoring legislation related to reducing toxic pollution, protecting orca whales and other endangered species, cleaning up Puget Sound and preventing oil spills. She was a key partner in the preservation of thousands of acres of working forests and recreational lands near Port Gamble. Sen. Rolfes serves on the Governor's Council of Economic Advisors, the Advisory Board of the William D. Ruckelhaus Center and the Puget Sound Partnership's Ecosystem Coordination Board.

Insurance Circular Letter No. 15 (2020)

September 22, 2020

TO:	**All New York Domestic and Foreign Insurance Companies**
RE:	**Climate Change and Financial Risks**

Since taking the helm of the New York State Department of Financial Services ("DFS") last year, I have spoken frequently about climate change as a major threat to the safety and soundness of the financial services industry.

With the federal government's decision to withdraw the U.S. from the 2015 Paris Agreement and other actions that undermine its intent, it is more important than ever for states to take the lead in ensuring the financial stability of the institutions they regulate in the face of climate change. As a signal of the importance of this issue, DFS hired its first Director of Sustainability and Climate Initiatives, Dr. Yue (Nina) Chen, to engage with the industry and develop expert guidance in this critical area.

As the global public health pandemic of COVID-19 has made clear, preparation is key to addressing systemic risks. By the time a crisis occurs, it is simply too late.

This circular letter is intended to outline DFS's expectations for the industry and begin a dialogue as to how DFS can best support your institutions' efforts to manage the financial risks from climate change.

The Severe and Increasing Cost of Climate Change

Climate change is accelerating, and the cost of climate-related natural disasters is increasing. The ten hottest years ever recorded have all occurred since 1998, with 2020 likely to be among the hottest. In May 2020, the concentration of carbon dioxide in the atmosphere increased to the highest level ever recorded in human history.[1] This year's record-breaking wildfire season on the West Coast is yet another reminder of the devastating consequences of climate change.[2] The aggregate cost of billion-dollar natural disasters in the U.S. more than quadrupled from the 1980s to the 2010s.[3] For every one degree Celsius increase, the combined value of market and nonmarket damages across the U.S. economy is about 1.2% of gross domestic product.[4] Globally, "the damages from climate change [will] amount to almost 3% of GDP by 2060."[5]

Although no one is spared from the impact of climate change, it disproportionally affects disadvantaged communities, including low-income communities and communities of color, and feeds into the vicious circle of social inequality. For example, decades of historical redlining and discrimination have resulted in people of color living in neighborhoods that are more susceptible to flooding and heat waves.[6] A New York City study showed that "[t]he cost of flood insurance is currently burdensome for about one-quarter of households in owner-occupied one- to four-family residences in the study area and is much more burdensome for lower-income residents."[7] At the same time, disadvantaged communities tend to have less insurance coverage and fewer resources to recover from natural disasters that are more frequent and severe due to climate change.

Impact of Climate Change on the Financial System and Insurers

Climate change poses wide-ranging and material risks to the financial system, especially for the insurance industry, as physical and transition risks resulting from climate change affect both sides of insurers' balance sheets—assets and liabilities—as well as their business models.

Physical risks arise from the increasing frequency, severity, and volatility of acute events, such as hurricanes, floods, and wildfires, as well as chronic shifts in weather patterns, such as droughts disrupting agriculture production. These risks directly affect property/casualty insurers' liabilities and the long-term viability of certain business lines. Climate-related natural disasters can also cause business disruption, destruction of capital, increase in costs to recover from disasters, reduction in revenue, and migration. In turn, these can lead to lower residential and commercial property values, lower household wealth, and lower corporate profitability, translating into financial and credit market losses that affect insurers' assets.

For example, climate change has been shown to increase the severity and frequency of storm surges and hurricanes.[8] It is estimated that single- and multi-family residential homes in New York City with $334 billion of reconstruction value are at high risk of storm surges.[9] Two thousand commercial mortgage-backed securities ("CMBS"), worth more than $56 billion, were identified as exposed to flooding along the East and West Coasts, with more than half estimated to lie outside Federal Emergency Management Agency ("FEMA") flood zones.[10] Properties outside FEMA flood zones are more likely to be underinsured, which would reduce the value of the related CMBS. Climate change also worsens water stress.[11] The Dutch Central Bank concluded that water stress globally poses a significant risk to the Dutch financial sector, as roughly 20% of its exposure is located in extremely water stressed regions around the world.[12] New York insurers with global investments could be similarly affected.

Transition risks arise from society's transition towards a low-carbon economy, driven by policy and regulations, low-carbon technology advancement, and shifting sentiment and societal preferences. This transition can lead to stranded assets—assets that "turn out to be worth less than expected as a result of changes associated with the energy transition"[13]—in the fossil-fuel industry and carbon-intensive infrastructure, real estate and vehicles. It can also result in costs to reinvest in and replace infrastructure and

increased litigation against fossil-fuel companies. Transition risks can lead to corporate asset devaluation, lower corporate profitability, lower property values, and lower household wealth. In turn, related financial and credit market losses will affect insurers' assets, while increased litigation will impact insurers' liabilities and the long-term viability of certain business lines. Depending on how fossil-fuel companies respond to global emissions reductions, the value of these companies' stranded assets currently ranges between $250 billion and $1.2 trillion.[14] The French banking and insurance regulator Autorité de Contrôle Prudentiel et de Résolution estimated that 10% of French insurers' portfolios (representing EUR 250 billion) would be subject to transition risks related to the fossil fuel, electricity, gas and water producing sectors, as well as energy consumers.[15] These risks could affect New York insurers' investments in a similar way.

Insurers can experience shocks from physical and transition risks simultaneously. For example, property/casualty insurers are adversely affected by this year's strong hurricane season. In addition, they could suffer from the multibillion-dollar write-offs by oil companies due to the hastened move away from fossil fuels driven by the pandemic, and a resulting reduction in longer-term oil price expectations.[16] Furthermore, as insurers' underwriting and investments are exposed to global markets, even if existing federal government policy is impeding the low-carbon transition in the U.S., the transition is still happening globally and therefore can impact insurers' balance sheets.

Climate change is one of the most critical risk-management issues of our generation. To continue to thrive in the face of global competition, it is essential that New York insurers manage the financial risks from climate change. Financial risks from climate change are unprecedented. Unlike other financial risks, they are global in scale and scope and cannot be contained regionally or diversified away. Many large insurance companies throughout the world are looking to integrate climate considerations into their governance, risk management, business strategies, and operations, and are setting related metrics and goals. Whether they are considering environmental, social, and governance investing or providing climate-related financial disclosures, these companies recognize the importance of sustainability to their bottom lines.

Global Climate-Related Supervision

International regulators have been incorporating climate considerations into macro- and micro-prudential supervision for years. For example, the Network of Central Banks and Supervisors for Greening the Financial System ("NGFS") has issued a "Guide for Supervisors Integrating climate-related and environmental risks into prudential supervision." The International Association of Insurance Supervisors and the Sustainable Insurance Forum ("SIF") have jointly issued a paper on "Climate Change Risks to the Insurance Sector." DFS is the only American financial regulator, state or federal, that is a member of NGFS. DFS is also a member of SIF.

Three years ago, DFS issued Insurance Circular Letter No. 9 (2017) (Climate Change and Sustainability), which urged insurers to manage resources prudently in their operations and to provide incentives to their policyholders to adopt environmentally friendly practices. In addition, DFS has been administering the National Association of Insurance Commissioners ("NAIC") Climate Risk Disclosure Survey to large life, property/casualty, health, and title insurers since 2011. The NAIC included climate-related questions in the NAIC Financial Condition Examiners Handbook in 2013.

While the U.S. is behind our European counterparts in terms of climate-related supervision, we have learned from their experience, can take advantage of the supervisory tools that they have developed, and will continue collaborating with them in this area going forward.

DFS Expectations for New York Insurers

DFS supervises and regulates the activities of approximately 1,500 banking and other financial institutions with assets totaling more than $2.6 trillion, and nearly 1,800 insurance companies with assets of more than $4.7 trillion, ranging from global publicly traded companies to family-owned small businesses.

Certain insurers have already taken important steps to address climate risks, such as reducing greenhouse gas emissions from their operations, developing insurance products for renewable energy generation, and enhancing community resilience in the face of natural disasters. Some insurers have considered how natural disasters might affect their operations, while others have analyzed how climate change affects their

investments. Many insurers have expressly recognized the impact of climate change on their loss costs. While DFS commends these initiatives, the industry needs to do more to manage the financial risks from climate change. DFS intends to help.

DFS will publish detailed guidance consistent with international best practices on climate-related financial supervision and welcomes input from industry in that process. As a first step to support the industry, DFS will organize a series of global knowledge exchange webinars to allow industry participants to share their goals, experiences, and lessons learned to date in their efforts to manage the financial risks from climate change.

At a high level, DFS expects all New York insurers to start integrating the consideration of the financial risks from climate change into their governance frameworks, risk management processes, and business strategies. For example, insurers should designate a board member or a committee of the board, as well as a senior management function, as accountable for the company's assessment and management of the financial risks from climate change. An enterprise risk management function and the Own Risk and Solvency Assessment process should address climate change as a reasonably foreseeable and relevant material risk and should consider how it impacts risk factors such as investment risk, liquidity risk, operational risk, reputational risk, strategy risk, and underwriting risk. In addition, insurers should start developing their approach to climate-related financial disclosure and consider engaging with the Task Force for Climate-related Financial Disclosures framework and other established initiatives when doing so. Questions pertaining to an insurer's approach and activities related to the financial risks from climate change will be integrated into DFS's examination process starting in 2021.

In this process, each insurer should take a proportionate approach that reflects its exposure to the financial risks from climate change and the nature, scale, and complexity of its business. DFS understands that climate change affects each insurer in different ways and to different degrees depending on the insurer's size, complexity, geographic distribution, business lines, investment strategies, and other factors. DFS appreciates that insurers do not have the same level of resources to manage these risks and are at different points in the process of incorporating these risks into their governance, strategy, and risk management.

There are many publicly available resources on climate-related financial risks. For example:

- The Climate Financial Risk Forum ("CFRF") convened by the Bank of England Prudential Regulation Authority and Financial Conduct Authority published a CFRF guide written by industry for industry to help firms approach and address climate-related financial risks.
- The United Nations Environment Programme Finance Initiative ("UNEP FI") Principles for Sustainable Insurance ("PSI") Initiative published "Managing environmental, social and governance risks in non-life insurance business," which was developed by global insurance companies and research institutions.
- The United Nations Principles for Responsible Investment, which includes international insurers as a meaningful percentage of its signatories, has published resources such as An introduction to responsible investment: climate change for asset owners.

Conclusion

We commend those who have already made significant progress and we will support others as they embark on this journey. The challenge ahead is great, but we know from experience that together we can meet it. Adjusting to climate change makes for more resilient companies and here we have an opportunity to build back better for the future.

Mitigating the financial risks from climate change is a critical component of creating a stronger industry and a healthier and safer world for ourselves, our families, and future generations. There is no more time to wait. Let's get to work.

Please direct any questions or suggestions regarding this circular letter to Dr. Yue (Nina) Chen, Director of Sustainability and Climate Initiatives, at climate@dfs.ny.gov.

Sincerely,

Linda A. Lacewell

Superintendent of Financial Services

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Any Other Matters

— Commissioner Mike Kreidler (WA)