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

Reference

[1] Lindsey, R., Climate Change: Atmospheric Carbon Dioxide, Climate.gov, August 14, 2020.

[2] Lee, D., Worst US wildfires on record ravage the west coast, Financial Times, September 11, 2020.

[3] The National Oceanic and Atmospheric Administration, National Centers for Environmental Information, Billion-Dollar Weather and Climate Disasters: Summary Stats, retrieved September 11, 2020.

[4] Hsiang, S., et al., Estimating economic damage from climate change in the United States, Science, June 30, 2017, 356(6345), 1362-1369.

[5] Lanzi, E., et al., Economic interactions between climate change and outdoor air pollution, The Organisation for Economic Co-operation and Development, July 2, 2019.

[6] National Academies of Sciences, Engineering, and Medicine, Framing the Challenge of Urban Flooding in the United States, The National Academies Press, 2019; Hoffman, J., et al., The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas, Climate, January 13, 2020, 8(1), 12-26.

[7] Dixon, L., et al., The Cost and Affordability of Flood Insurance in New York City - Economic Impacts of Rising Premiums and Policy Options for One- to Four-Family Homes, RAND Corporation, 2017.

[8] Rahmstorf, S., Rising hazard of storm-surge flooding, Proceedings of the National Academy of Sciences of the United States of America, November 7, 2017, 114(45), 11806-11808.

[9] CoreLogic, The 2020 Storm Surge Report, May 28, 2020.

[10] Morgan Stanley, Rising Flood Risk: How Much and at What Cost?, 2019.

[11] World Bank, High and Dry: Climate Change, Water, and the Economy, 2016.

[12] Schellekens, G., et al., Value at risk? Sustainability risks and goals in the Dutch financial sector, De Nederlandsche Bank, 2019.

[13] Carbon Tracker Initiative, Stranded Assets, August 23, 2017.

[14] International Energy Agency, The Oil and Gas Industry in Energy Transitions: Insights from IEA Analysis, 2020.

[15] Autorité de Contrôle Prudentiel et de Résolution, Banque de France, French insurers facing climate change risk, 2019.

[16] Raval, A., BP to take up to $17.5bn hit on assets after cutting energy price outlook, Financial Times, June 15, 2020; Raval, A., Shell warns of up to $22bn hit on assets from oil and gas slump, Financial Times, June 30, 2020.