United States Senate
WASHINGTON, DC 20510

December 13, 2019

The Honorable Jerome H. Powell
Chairman of the Board of Governors
Federal Reserve System
20th Street and Constitution Avenue NW
Washington, DC 20551

Dear Chairman Powell:

We write today to follow up on the steps the Federal Reserve Board (the Fed) is taking to incorporate climate-related financial and economic risks into its work. Ongoing climate-driven disasters across the country are demonstrating that the financial risks of climate change are relevant now, not just in the future. These disasters also underscore that what may once have been considered a temporary shock has the potential to inflict repeated and long-lasting economic harm.

We were encouraged to see the Federal Reserve Bank of San Francisco recently hold the Fed's first ever conference on the economic risks of climate change. To quote Governor Brainard, "[c]limate risks are projected to have profound effects on the U.S. economy and financial system," and to fulfill the Fed's "core responsibilities," it will be important for the Fed to "adapt [its] work accordingly."[1] Additionally, at a Senate Banking Committee oversight hearing on December 5, 2019, Vice Chair Quarles said the Fed is "closely engaged" with the Bank of England on "how they are looking at climate change in regulation and supervision," and added that the Fed "continues to do a lot of research on the effect of climate change on the financial sector… and as we [the Fed] continue to learn from that, we incorporate that into our supervisory practices." We are encouraged by your colleagues' constructive comments on this issue, and write now to ask if you agree that there is a need to adapt the Fed's work. Specifically, we would like to know whether you think the Fed should be taking proactive steps to incorporate the financial risks of climate change into its assessment of the economy, financial stability, and the safety and soundness of individual institutions.

This year alone, we have seen striking examples of climate-driven disasters that translate into near-term economic disruption. For example, western states are experiencing increasingly frequent, widespread, and damaging wildfires.[2] The fire season has increased by 75 days throughout the western United States,[3] and government agencies,[4] academia,[5] and the insurance

[1] https://www.federalreserve.gov/newsevents/speech/brainard20191108a.htm
[2] https://www.fire.ca.gov/media/5511/top20_destruction.pdf
[3] https://www.fire.ca.gov/incidents/
[4] https://www.nytimes.com/interactive/2018/11/27/climate/wildfire-global-warming.html
[5] https://www.pnas.org/content/113/42/11770.abstract

industry[6] are aligned in their consensus that human-caused climate change is a key driver of this trend. Meanwhile, increased precipitation and snowmelt are exacerbating flood risk in the Midwest and other regions,[7] as we saw in the destructive flooding this year that impacted 14 million people along the Missouri and Mississippi rivers.[8] Damages and losses from this spring's Midwest flooding reached an estimated $12.5 billion, while the damage from the wildfires in the West may reach $80 billion.[9]

On January 25, 2019, we wrote to ask you how the Fed is managing climate-related risks to the financial system. We were troubled by your response because you focused primarily on the risks from severe weather events—not climate change—and stated that severe weather events are "surprises" that are "inherently difficult to predict," and that have only a "short term" potential to inflict temporary economic damage.

Disastrous fire seasons in the West and flooding in the Midwest are no longer a "surprise" or "difficult to predict"—we now know to expect that these events will occur more frequently, impact more areas of the United States, and inflict more damage. And the resulting economic and financial impacts will not be short term. For example, the economic losses in the Midwest have put some farmers out of business entirely. Many of the impacted areas had never flooded before in recent memory, and so states hit hardest by flooding this year had National Flood Insurance Program (NFIP) insured rates of less than one percent.[10] Damage costs were mostly absorbed by residents, business owners, and state and local authorities. Uninsured crop losses in the Midwest left many farmers without sufficient income to continue farming,[11] and those able to continue face the grim reality that extreme flooding events will hit the region much more regularly.[12]

Climate-driven disasters also impact the price and availability of insurance. Reinsurers were caught off guard by the magnitude of recent wildfire losses in the West, and S&P Global Ratings estimates that the cost of reinsurance could increase by 70% in 2020.[13] As a result, insurers are less likely to write policies in high-risk areas, an outcome we are already seeing. After the 2018 fire season, an estimated 350,000 California residents were unable to obtain property and casualty insurance to cover fire risk. For those with coverage, premiums have increased in recent years by as much as 300% to 500%.[14] Homeowners are also losing their insurance

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[6] https://www.munichre.com/topics-online/en/climate-change-and-natural-disasters/climate-change/climate-change-has-increased-wildfire-risk.html
[7] https://nca2018.globalchange.gov/chapter/21/
[8] https://www.nytimes.com/interactive/2019/09/11/us/midwest-flooding.html
[9] https://www.wsj.com/articles/after-months-of-floods-and-tornadoes-midwest-officials-tally-billions-in-damage-11562232602; https://www.accuweather.com/en/weather-news/california-wildfires-will-cost-tens-of-billions-accuweather-estimates/612548
[10] https://www.insurancejournal.com/news/midwest/2019/04/09/523261.htm
[11] https://www.upi.com/Top_News/US/2019/03/29/Midwestern-farmers-devastated-by-uninsured-flood-losses/5521553620214/
[12] https://www.sciencedirect.com/science/article/pii/S0048969718334995
[13] https://www.wsj.com/articles/more-californians-could-lose-home-insurance-after-wildfires-11572613200
[14] https://www.hcn.org/articles/wildfire-in-california-more-than-340000-lose-wildfire-insurance

coverage in Washington, Montana, and Colorado.[15] To address this crisis, California recently temporarily banned insurers from dropping policies in wildfire areas.[16] Realtors have reported lost business as homebuyers cancel purchases, and rural communities describe the lack of available insurance as "an absolute barrier to attracting residents and economic development."[17]

These changes in the insurance market could trigger harmful feedback loops: if property prices undergo a sudden correction to reflect the declining availability of insurance coverage, then financial institutions that lend in those communities may face unexpected losses, which could in turn reduce their lending activities and trigger broader economic damage.[18] Homeowners will struggle to sell their homes and local tax bases will rapidly erode.[19]

There is no longer anything "atypical" about the timing, intensity, or frequency of climate-driven extreme weather events. Longer-term climate patterns will also leave our financial system unprepared for the economic impacts of more chronic phenomena like extreme heat and rising sea levels. The Fed's supervisory framework and analytical tools need to account for the fact that our financial system faces new risks from climate change.

You asserted in your response to our last letter that climate risks are ill-suited to the Fed's monitoring framework because they are "difficult to quantify" and "materialize over such a long horizon." However, your international peers have made clear that central banks have a legal mandate to account for climate risks by developing analytical frameworks with longer horizons. We understand that the Fed is taking steps to join the Network for Greening the Financial System and is already attending meetings to learn from the work of the group of over 40 central banks and financial regulators. We urge you to support these efforts, coordinate with your international counterparts, and make clear that the Fed is committed to incorporating climate risk—distinct from short-term severe weather shocks—into its monetary policy, financial stability, and supervisory responsibilities.

The complexity and unfamiliarity of climate risks does not absolve the Fed of its obligation to ensure a stable and efficient financial system. We respectfully request an update on the specific steps the Fed is taking to incorporate the financial risks of climate change into all facets of its work. Thank you for your consideration, and we look forward to your response.

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[15] https://www.nytimes.com/2019/08/20/climate/fire-insurance-renewal.html?auth=login-email&login=email&module=inline

[16] https://www.nytimes.com/2019/12/05/climate/california-fire-insurance-climate.html?smid=nytcore-ios-share

[17] https://www.sacbee.com/news/business/article233012587.html

[18] https://www.federalreserve.gov/newsevents/speech/brainard20191108a.htm

[19] https://www.nytimes.com/2019/08/20/climate/fire-insurance-renewal.html?auth=login-email&login=email&module=inline

Sincerely,

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