



Institute for  
Policy Integrity  
NEW YORK UNIVERSITY SCHOOL OF LAW



Union of  
Concerned  
Scientists



Western  
Environmental  
Law Center

May 14, 2020

**Attn:** David M. Gillers, Subcommittee Alternate Designated Federal Officer and Chief of Staff to Commissioner Rostin Behnam, CFTC  
**Re:** Climate-Related Market Risk Subcommittee Under the Market Risk Advisory Committee, 85 Fed. Reg. 20,678  
**Submitted by:** Institute for Policy Integrity at New York University School of Law, Montana Environmental Information Center, Union of Concerned Scientists, Western Environmental Law Center

The following comments to the Commodity Futures Trading Commission regard the Climate-Related Market Risk Subcommittee's report to the Market Risk Advisory Committee on climate change-related financial and market risks.

Climate change creates financial risks that are challenging to evaluate as the future increasingly diverges from past experience, and that generally require more granular data than is typically disclosed in financial reporting. Financial actors lack sufficient information and individual incentives to accurately price climate risks into financial assets, a deficit that could accumulate across portfolios and institutions into a systemic risk. While an array of interventions are needed to effectuate the accurate pricing of climate risk—including mandatory disclosure, stress-testing, and oversight of ratings agencies and accounting firms—a quickly-implemented economy-wide price on carbon emissions is the regulatory tool that will be the most effective in mitigating a climate-related financial crisis.

### **Climate Change Poses Significant Underassessed Financial Risks**

Climate risks facing the financial sector are typically broken down into two categories: transition risk and physical risk. Transition risk comes from a failure to adapt in time to a changing, less carbon-intensive economy as governments implement carbon regulations, and greener alternative energy becomes cheaper. "Stranded assets" in the fossil fuel industry are a classic example of transition risk. Physical risks are the threats faced by all industries that come from the changing climate itself. They include the impact of sea-level rise on the real estate sector, decreased labor productivity from hotter days, reductions in agricultural output due to droughts or floods, and many others.<sup>1</sup>

The current regulatory regime does not enable the effective evaluation and pricing of these risks. While securities risk reporting has improved since the Securities and Exchange Commission released its 2010 guidance on climate risk disclosure, disclosure remains "quite limited in scope."<sup>2</sup>

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<sup>1</sup> The Risky Business Project, co-chaired by Michael Bloomberg, Henry Paulson, and Tom Steyer attempts to quantify specific costs to business. See "The Risky Business Project," <https://riskybusiness.org/report/national/>.

<sup>2</sup> Joan DiSalvio & Nina Dorata, *SEC Guidance on Climate Change Risk Disclosures: An Assessment of Firm and Market Responses*, in ACCOUNTING FOR THE ENVIRONMENT: MORE TALK AND LITTLE PROGRESS 115-30, 116 (Martin Freedman & Bikki Jaggi, eds., 2014).

Moreover, even those firms which have voluntarily disclosed climate risks have frequently underestimated them.<sup>3</sup> The risks presented by climate change are distinct from other risks in several ways that cause them to be underappreciated and misreported by private actors.

Climate risks are likely to be poorly assessed because these risks are distinctive in ways that will produce information failures absent regulatory oversight.<sup>4</sup> First, many physical climate risks will occur within the relevant horizon for valuing securities but outside of conventional risk assessment horizons for firm decisionmakers with short-term incentives.<sup>5</sup> Second, future risks increasingly differ from risks in the past, meaning that past data cannot simply be projected forward, resulting in “model risk.”<sup>6</sup> Third, while it is challenging to predict any specific climate-related event, a systemic increase in the severity and occurrence of physical and transition risks is relatively certain.<sup>7</sup> Fourth, climate risks are far-reaching and are likely to affect every sector of the economy rather than narrowly targeting certain sectors and firms. While some sectors, such as energy and agriculture, will be more exposed than others, the physical risks of climate change are present for every firm.<sup>8</sup> While large, diversified investors may be insulated from the increased risk to any individual firm, they are not insulated from an increased level of systemic risk.

Finally, climate risks are difficult to accurately assess without disclosure of asset-level data.<sup>9</sup> Investors and lenders need information that is not typically disclosed in traditional financial statements, such as the precise location of facilities, or where companies obtain their water resources as a production input. This information is not obtainable without corporate cooperation, and investors need to be broadly aware of the risks before they can press for this information.

### **Regulation Is Needed to Mitigate Climate-Related Financial Risks**

Private actors themselves may be unaware of mounting climate exposures as they continue to rely on outdated methods of risk assessment. Financial models that are employed to make internal capital allocation decisions, for example, often employ backward-looking metrics of historical risk.<sup>10</sup> In addition, corporate managers may be accustomed to relying on third-party insurance products to assess and price their company’s risk exposure. But insurance premiums are typically re-assessed and paid on an annual basis.<sup>11</sup> In a world of non-linear climate responses, the price of insurance may dramatically skyrocket from one year to the next, and certain assets may become uninsurable altogether.<sup>12</sup> Relying on insurance to price risks of investments that are expected to reap returns

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<sup>3</sup> Allie Goldstein, Will Turner, Jillian Gladstone & David Hole, *The Private Sector’s Climate Change Risk and Adaptation Blind Spots*, 9 NATURE CLIMATE CHANGE 18, 20 (2019) (finding that the total value of aggregated climate-related financial risks reported through both voluntary and mandatory corporate disclosures amount to mere tens of billions of dollars of potential negative impact, an amount that diverges from top-down projections of climate costs to financial assets by at least two orders of magnitude, suggesting gross and systemic underreporting of risk).

<sup>4</sup> BANK OF ENGLAND PRUDENTIAL REGULATION AUTHORITY, *TRANSITION IN THINKING: THE IMPACT OF CLIMATE CHANGE ON THE UK BANKING SECTOR* 9 (2018).

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.* at 8.

<sup>9</sup> Ariel C. Pinchot & Giulia Christianson, *What Investors Actually Want From Sustainability Data*, GREENBIZ (Apr. 17, 2019), <https://www.greenbiz.com/article/what-investors-actually-want-sustainability-data>.

<sup>10</sup> See, e.g., Marcel Kahan, *Securities Laws and the Social Costs of Inaccurate Stock Prices*, 41 DUKE L. J. 977, 1040.

<sup>11</sup> Swiss Re, 2018 Financial Report, p. 177, excerpted in TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES STATUS REPORT (June 2019) [hereinafter TCFD Status Report].

<sup>12</sup> Jessica Shankleman, *Growing Climate Risks May Be ‘Impossible to Model’ – and Ultimately Uninsurable*, Insurance J. (Nov. 13, 2017), <https://www.insurancejournal.com/news/national/2017/11/13/470949.htm>.

decades into the future results in a “duration mismatch”<sup>13</sup> that may lead to unrecoverable losses in the event of a disaster. Further, the entire capital stock of corporate America was built using engineering specifications designed to endure certain temperature and weather extremes that may be exceeded under a climate-changed world.<sup>14</sup> A facility that was built to withstand a “100-year flood” may now have a much higher likelihood of failure. Financial regulation, including the requirement of line-item climate risk disclosures, can hasten the discovery of these latent risks.

If certain financial assets are misvalued due to the market’s failure to account for climate risk, the market may gradually adjust the mispricing as it incorporates new information. Or, the market may correct suddenly, resulting in chain-reaction effects throughout the economy. Around 44 percent of the average investment fund’s equity holdings are in fossil fuel or “climate-policy relevant” sectors, including utilities, mining, housing, and transport.<sup>15</sup> If each of these industries has failed to assess their exposure to climate risk, this amounts to a great deal of unaccounted risk that accumulates at the portfolio-level for networked financial institutions.<sup>16</sup> The heads of the central banks of England and France have warned that a “sudden collapse of asset prices” is possible.<sup>17</sup>

### A Price on Carbon Is Urgently Needed

While an array of interventions are needed to effectuate the accurate pricing of climate risk—including mandatory disclosure, stress-testing, and oversight of ratings agencies and accounting firms—quickly-implementing a schedule for an economy-wide price on carbon emissions will be particularly crucial for avoiding a climate-related financial crisis. The threat of physical risks will continue to mount if emissions continue unabated. And the nonlinear relationships and feedback loops between CO<sub>2</sub> accumulation, warming, and changes to Earth’s systems mean a tipping point could be passed with severely costly consequences.<sup>18</sup> Many climate impacts are irreversible on a human timescale, so the need for ex-ante avoidance of accumulating risks is more urgent than any financial threat previously experienced.<sup>19</sup>

The longer it takes for a price on carbon to be implemented, the more drastic the measures will need to be to limit warming, and the greater the likelihood of transition-related financial losses.<sup>20</sup> Comprehensive, economy-wide pricing of carbon is needed now to ensure the transition is smooth

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<sup>13</sup> MCKINSEY GLOBAL INSTITUTE, CLIMATE RISK AND RESPONSE: PHYSICAL HAZARDS AND SOCIOECONOMIC IMPACTS 46 (Jan. 2020).

<sup>14</sup> See, e.g., *id.* at 32.

<sup>15</sup> Stefano Battison et al., *A Climate Stress-Test of the Financial System*, 7 NATURE CLIMATE CHANGE 283, 284 (Apr. 2017).

<sup>16</sup> Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 198 (2008) (explaining that systemic risk can derive from aggregate risk taking on the part of many individuals because “like a tragedy of the commons, no individual market participant has sufficient incentive, absent regulation, to limit its risk taking in order to reduce the systemic danger to other participants and third parties”).

<sup>17</sup> Mark Carney, Francois Villeroy, & Frank Elderson, *The Financial Sector Must Be at the Heart of Tackling Climate Change*, THE GUARDIAN (Apr. 17, 2019), <https://www.theguardian.com/commentisfree/2019/apr/17/the-financial-sector-must-be-at-the-heart-of-tackling-climate-change>.

<sup>18</sup> See, e.g., Interagency Working Group on Social Cost of Carbon, Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 at 31 (2010), <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf>.

<sup>19</sup> See PATRICK BOLTON, MORGAN DESPRES, LUIZ AWAZU PEREIRA DA SILVA, FRÉDÉRIC SAMAMA & ROMAIN SVARTZMAN, THE GREEN SWAN: CENTRAL BANKING AND FINANCIAL STABILITY IN THE AGE OF CLIMATE CHANGE 47 (Bank for Int’l Settlements, Jan. 2020) (a climate-driven financial crisis has a “key difference from an ordinary financial crisis, because the accumulation of atmospheric CO<sub>2</sub> beyond certain thresholds can lead to irreversible impacts, meaning that the biophysical causes of the crisis will be difficult if not impossible to undo at a later stage”).

<sup>20</sup> BANK OF ENGLAND, TRANSITION IN THINKING: THE IMPACT OF CLIMATE CHANGE ON THE U.K. BANKING SECTOR 26, Sept. 2018, (“Late, abrupt and significant policy action aimed at reducing greenhouse gas emissions would also significantly increase credit and market risks, particularly in carbon-intensive sectors.”); BANK OF ENGLAND PRUDENTIAL REGULATION AUTHORITY, THE 2021 BIENNIAL EXPLORATORY SCENARIO ON THE FINANCIAL RISKS FROM CLIMATE CHANGE 10-12 (2019).

and orderly rather than disruptive and costly.<sup>21</sup> One driver of uncertainty in modeling the economic impacts of climate change is the inability to predict when and how governments will limit emissions. Early adoption and commitment to a carbon pricing scheme will provide the regulatory certainty markets require for financial planning and investment.<sup>22</sup>

Sincerely,

Madison Condon, Attorney, Institute for Policy Integrity, NYU School of Law\*  
Rachel Cleetus, Ph.D., Policy Director, Climate and Energy Program, Union of Concerned Scientists  
Anne Hedges, Deputy Director, Montana Environmental Information Center  
Jason A. Schwartz, Legal Director, Institute for Policy Integrity, NYU School of Law\*  
Thomas Singer, PhD, Senior Policy Advisor, Western Environmental Law Center

For any questions regarding these comments, please contact:

Madison Condon, Institute for Policy Integrity  
139 MacDougal Street, 3<sup>rd</sup> Floor, New York, NY 10012  
[madison.condon@nyu.edu](mailto:madison.condon@nyu.edu)

\* No part of this document purports to present New York University School of Law's views, if any.

**Attached:** Institute for Policy Integrity, Comments on Proposed Securities and Exchange Commission Rule, Management's Discussion and Analysis, Selected Financial Data, and Supplementary Financial Information, 85 Fed. Reg. 12,068, (Apr. 28, 2020).

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<sup>21</sup> NETWORK FOR GREENING THE FINANCIAL SYSTEM, A CALL FOR ACTION: CLIMATE CHANGE AS A SOURCE OF FINANCIAL RISK (April 2019), [https://www.banque-france.fr/sites/default/files/media/2019/04/17/ngfs\\_first\\_comprehensive\\_report\\_-\\_17042019\\_0.pdf](https://www.banque-france.fr/sites/default/files/media/2019/04/17/ngfs_first_comprehensive_report_-_17042019_0.pdf).

<sup>22</sup> See, e.g., Victoria Mills, *Only Public Policy Can Deliver the Speed and Scale of Emissions Reductions Needed to Limit the Worst Impacts of Climate Change*, ENVIRONMENTAL DEFENSE FUND (Feb. 3, 2020), <https://business.edf.org/insights/a-new-decade-demands-new-leadership-in-climate-policy-advocacy/>.