

Comments to the Climate-Related Market Risk Subcommittee under the Market Risk Advisory Committee (MRAC) of the Commodity Futures Trading Commission (CFTC)

Submitted by: Global Financial Markets Center at Duke Law
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Dear Climate-Related Market Risk Subcommittee:

Thank you for the opportunity to offer comments on this important and timely inquiry. We commend the Subcommittee members and the CFTC for taking initiative on one of the most critical issues of our time, climate change, and the associated risks for financial markets. We offer only high-level, consolidated comments on the provided topics. As the Subcommittee proceeds, we will be glad (through one of our members or collectively) to provide additional input.

I. Consistent definitions and comprehensive and comparable metrics are needed to evaluate and manage climate-related financial risks. Financial market regulators, participants, and stakeholders should partner on the development, standardization, implementation, and iterative validation of these metrics.

Evaluating and managing climate-related financial risks requires defining the risks and developing metrics to evaluate their consequences (ideally probabilistically) as well as the relative efficacy of potential risk management strategies. Climate-related financial risks should be differentiated by source (i.e., climate-driven chronic or acute hazards), economic transmission channel (i.e., physical or transition risk), and resulting type (e.g., market, credit, or operational risk). The manifestation and classification of financial risks will vary by subsector (e.g., banking, insurance, asset management) and firm characteristics (e.g., size, complexity, business model).

Comprehensive and comparable metrics for climate-related financial risks are insufficiently developed and standardized to support risk measurement and management. We cannot regulate that which we cannot reliably measure, nor can claims of progress be meaningfully evaluated unless we understand what progress entails. Moreover, measuring climate risks and opportunities is increasingly important for core financial functions ranging from assessing lending risk, to pricing derivatives, to constructing sustainable finance products. Balancing accuracy and tractability of metrics is a key challenge and should be informed by data availability, computational capacity, and the potential to meaningfully integrate metrics into decision processes.

Even more complex is the intra-commensurability of metrics. Comparative evaluation cannot be reliably undertaken without a commonly accepted toolkit of metrics. Given the critical importance of metrics to both climate-related financial regulation and risk management and the substantial challenges associated with developing a comprehensive and comparable metrics

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toolkit, financial regulators should convene key stakeholders and dedicate resources to the development, standardization, implementation, and iterative validation of such metrics.

II. The integration of climate-related scenario analysis, governance, and disclosures can support the measurement and management of climate-related financial risks, but coordination among myriad public and private stakeholders is needed to ensure such efforts are efficient and effective. Moreover, market regulators and prudential regulators should coordinate to facilitate the integration of firm-level assessments of climate-related financial risk into system-level assessments of the effects of climate change on financial stability.

Market participants can improve the integration of climate-related scenario analysis, governance, and disclosures into financial risk assessments and reporting. Coordinated regulatory action is needed, however, to ensure such efforts are both efficient and effective at measuring and managing climate-related risks to financial firms, markets, and systems.

Scenario analysis via stress testing can support the measurement and management of climate-related financial risks. Stress testing can also support climate-related financial disclosures and reporting by providing firms with the incentives and analytical frameworks to measure existing (and potential future) climate risks; better disclosures and reporting can in turn enable market participants to mitigate these risks and regulators to develop a more systematic understanding of climate exposures, thereby creating a virtuous cycle for climate risk management. Recognizing these benefits, numerous regulators and firms have adopted climate stress testing, although progress among U.S. institutions lags international counterparts. Voluntary initiatives (e.g., Task Force on Climate-related Financial Disclosures) and cross-national experiences (e.g., disseminated through the Network of Central Banks and Supervisors for Greening the Financial System) may inform best practices, but regulatory initiative is needed to ensure that rigorous and comparable stress testing methodologies are developed and that firms are adequately incentivized to use stress testing to measure and disclose climate exposures. A recent paper argues that U.S. prudential regulators have both the authority and capacity to incorporate climate change into stress tests and outlines how revisions to the scope, scenarios, metrics, and systems analysis of existing stress tests could improve climate-related financial risk measurement and management.⁵

Although financial market participants have committed to voluntary disclosure regimes, the quantification and publication of climate-related financial risks is in the early stages and is guided by a diverse and somewhat inconsistent set of analytical frameworks. Similarly, while firms may have developed innovative approaches to incorporate climate change into risk management practices, such practices are not sufficiently transparent to enable learning among market participants or to facilitate evaluation of their effectiveness vis-à-vis pre-defined metrics. The lack of consistency and transparency impedes the utility of disclosures and risk management practices, respectively, for analyzing the propagation of climate-driven financial risks across the firm-, market-, and system-level. Better coordination among myriad public and private stakeholders—including regulators, domestic and international standard-setters, and industry and advocacy organizations—can enable greater efficiency and effectiveness.

⁵ Mercy B. DeMenno, “Environmental Sustainability and Financial Stability: Can Macroprudential Stress Testing Measure and Mitigate Systemic Risks Resulting from Climate Change?” (2020) (*available upon request*).

For example, the CFTC in coordination with the International Swaps and Derivatives Association and relevant standard-setters (e.g., Sustainability Accounting Standards Board) and industry organizations (e.g., Partnership for Carbon Accounting Financials) could coordinate on the development of climate risk disclosure procedures for exchange-traded and over-the-counter instruments. Climate risk data could be included in swap data repository and exchange reporting requirements, which regulators could in turn aggregate, analyze, and publish. Such a process should also entail coordination with other market regulators—e.g., to ensure consistency and comparability in climate-related disclosures across securities and derivatives—and prudential regulators—e.g., to ensure climate-related disclosures for particular financial instruments and subsectors inform macroprudential analyses and regulation of climate-related systemic risks.

III. Various types of policy actions may create climate-related transition risks and opportunities for financial markets. Prospective analysis of climate-related financial risks should reflect these diverse policy scenarios and the resulting interactions among physical and transition risks.

The discussion of transition risks often focuses on how climate change adaptation or mitigation policies may create financial risks, but there are a variety of policy actions that could give rise to transition risks and opportunities for financial market participants. Transition risks are most often associated with policies targeting the causes of climate change by facilitating the transition to a lower-carbon economy (e.g., by pricing carbon externalities). There is a growing consensus that should the transition to a lower-carbon economy be “orderly” (i.e., immediate and incremental) the financial sector will have time to adjust and indeed may capitalize on opportunities to accelerate the transition. In contrast, a “disorderly” (i.e., delayed and sudden) transition could result in rapid asset devaluations which could have cascading impacts throughout emissions-intensive industries and financial sector. For example, a sudden correction in the price of carbon would affect the value of fossil fuel resources (i.e., stranded assets) and the corresponding value of firms that own them. Such losses would trigger extreme volatility in securities and commodity derivatives markets and result in the propagation of substantial credit risk for banks and bondholders.

Other policy responses focused on the consequences, rather than the causes, of climate change may create transition risks. For example, policies or incentives related to coastal developments may mitigate physical risks to collateral (e.g., inundation during extreme weather events)—and, by implication, structured securities and derivatives—but may also create transition risks for lenders and insurers who have not accurately priced such risks. Some financial institutions are leading in this area, and their expertise should assist in establishing best practices that financial regulators could consider wherever appropriate.

Recent events have provided an alternative transition risk scenario driven not by climate policy, but rather by an exogenous shock and economic policy responses. The collapse in oil prices driven by the COVID-19 pandemic coupled with a price war has put unprecedented stress on an industry that was already overleveraged. Government support of oil and gas companies may mitigate financial risks associated the illiquidity of these firms in the short-term, but in so doing may exacerbate the volatility associated with the inevitable transition to a more sustainable fuel

mix. Moreover, delaying such a transition increases the probability of physical risks—which become more likely and more catastrophic as global warming increases— and in turn create a range of financial risks. Thus, prospective analyses of climate-related financial risk should reflect these diverse policy scenarios as well as the potential for exogenous shocks and interactions among resulting physical and transition risks.

IV. Financial markets affect, and are affected by, climate change. Financial regulators should seek to better align incentives to mitigate both the causes and (financial) consequences of climate change.

Consistent with the Subcommittee’s charge, our comments have primarily focused on measuring and managing the consequences of climate change for financial markets. However, we close by suggesting that financial regulators should consider incentives for those financial market participants that take (or fail to take) meaningful action to mitigate climate change. While fully pricing climate risk will likely require policy action that goes beyond the jurisdiction of financial regulators, existing tools and authorities can be used to better align incentives to mitigate both the causes and financial consequences of climate change. For example, lending related to carbon-intensive activities might be subjected to additional risk weighting and lending concentrations in such areas might be subjected to additional regulatory scrutiny. This is not to say that such forms of finance should be prohibited nor to suggest that regulators should encourage reliance on a particular technology or approach. Rather, financial regulation and risk management should better reflect the negative (or positive) externalities associated with activities accelerating (or mitigating) climate change, thereby better aligning incentives to support the transition to a more sustainable economy, and in so doing, minimizing climate-related financial risk and enhancing economic and environmental resilience.