

Risk Management & Regulatory Compliance
BFSI (Banking, Financial Services, and Insurance) practice
TCS - USA

June 3, 2022

RE: Submission in Response to FDIC Request for Comment – “Principles for Climate-Related Financial Risk Management for Large Financial Institutions” (RIN 3064– ZA32)

Tata Consultancy Services (TCS) is a global IT services and consulting organization headquartered in Mumbai, India and operating in the United States among many countries worldwide. As representatives of TCS’s BFSI Practice specializing in climate risk management and regulatory compliance, we hereby respond to the FDIC’s Request for Comment on “Principles for Climate Related Financial Risk Management for Large Financial Institutions” published on April 4, 2022.

We welcome FDIC’s renewed focus on climate risk management and concur with the FDIC’s view that sound management of climate risk exposure by large financial institutions is critical for microprudential security and macroprudential stability, would protect investors, and will promote efficiency and competition within the financial system. We likewise share the conviction that climate risk management principles can meaningfully serve “to promote a consistent understanding of the effective management of climate-related financial risks,” a worthy objective.

Given our expertise and experience in the climate risk management domain, in this response we would like to share our perspectives on the draft principles, practical challenges faced by banks to comply with the proposed disclosures, and recommendations for improvement.

Question 1: What additional factors, for example asset size, location, and business model, should inform financial institutions’ adoption of these principles?

Our Viewpoint: Considering the broader impact of climate-related events in adopting these principles, asset size, location and business model are all important structural drivers of climate-related financial and non-financial risk exposure. Additionally, financial institutions should consider the predominant sectors and sub-sectors represented by their investing and lending activities, the tenor of financial instruments offered to customers and clients, the degree and nature of their exposure to a wide range of financial counterparties, and the transmission channels through which climate-related financial risks manifest and propagate in traditional financial risk management. Financial institutions should also consider the breadth and complexity of their organizational structure and financial activities, as climate-related risk exposure is liable to increase while becoming more opaque in larger institutions.

Question 2: How could future guidance assist a financial institution in developing its climate-related financial risk management practices commensurate to its size, complexity, risk profile, and scope of operations?

Our Viewpoint: As climate risk is a new risk type for most financial institutions that is cross-cutting in nature across numerous traditional risk categories, regulatory guidance will help financial institutions to clearly understand capabilities expected by regulators to manage climate risks and put their best foot forward in planning and developing those capabilities.

Question 3: What challenges do financial institutions face in incorporating these draft principles into their risk management systems? How should the FDIC further engage with financial institutions to understand those challenges?

Our Viewpoint: Climate-related risks typically fit fat-tailed distributions: both physical and transition risks are characterized by deep uncertainty and nonlinearity, their chances of occurrence are not reflected in past data, and the possibility of extreme outcomes cannot be ruled out. In this context, traditional approaches to risk management relying on extrapolation of historical data and on assumptions of normal distributions are inadequate to assess future climate related risks. These particular characteristics of climate risk factors pose a significant challenge to financial institutions in developing new types of assessment frameworks and new analytical models for modeling impacts due to climate change. We recommend FDIC to share industry-level best practices and practical challenges in scenario analysis and climate risk assessment exercises.

Question 4: Would regulations or guidelines prescribing particular risk management practices be helpful to financial institutions as they adjust to doing business in a changing climate?

Our Viewpoint: Regulations and guidelines must strike a difficult balance between assuring effectiveness, comparability, and consistency of practices among regulated institutions while promoting open-mindedness to new views and practices and flexibility to accommodate approaches tailored to particular circumstances and institutions. In this nascent and dynamic space of climate risk management, moderately prescriptive guidelines paired with lightly prescriptive regulations is likely the best approach, to be refined over time based upon feedback from industry practitioners.

Question 5: What specific tools or strategies have financial institutions used to successfully incorporate climate-related financial risks into their risk management frameworks?

Our Viewpoint: From our practical experience with major banks and financial institutions, tools and approaches used for measuring and monitoring exposure to climate related risks include, among others, exposure analysis and materiality assessment, heat maps, climate risk dashboards, stress tests, and scenario analysis. These approaches can be undertaken in a top-down fashion from the institutional or portfolio perspective as well as bottom-up from the asset or enterprise perspective, and are best pursued in combination. The use of sophisticated data and modeling is essential for large institutions to rapidly and at scale identify, assess, quantify, and manage risks across large portfolios, though data quality and granularity and integration of climate modeling and analytics into enterprise risk management systems requires painstaking and case-specific inspection. Firms should make sure that outputs from these tools should inform the risk identification process and the management of short- and long-term climate-related financial risks to an institution's business model. Financial institutions should also take care to assess the limitations of data and analytical tools, of the predictive capability of models, recognize inevitable limits in the ability to rigorously and accurately quantify risk exposure, and consider these limitations in assessing and managing risk exposure.

Question 6: How do financial institutions determine when climate-related financial risks are material and warrant greater than routine attention by the board and management?

Our Viewpoint: Financial institutions typically conduct a materiality assessment exercise which aims to identify which climate risk factors & channels are material to their nature and size of business. FDIC could consider including guidance around materiality assessment, such as what are the key factors to be considered in such assessment and how effectively outputs should inform institution's risk appetite planning, policies, and controls.

Question 7: What time horizon do financial institutions consider relevant when identifying and assessing the materiality of climate-related financial risks?

Our Viewpoint: Many financial institutions consider three different time horizons in climate risk assessment: Short-term, i.e., up to one-year; medium-term, i.e., 1 to 5 years; and long-term, i.e., greater than 5 years. FDIC might consider issuing non-prescriptive guidelines on appropriate time horizons for climate risk assessment targeted to particular types of financial institutions, portfolio composition, and risk exposures.

Question 8: What, if any, specific products, practices, and strategies—for example, insurance or derivatives contracts or other capital market instruments—do financial institutions use to hedge, transfer, or mitigate climate-related financial risks?

Our Viewpoint: Considering that climate-related financial risks are transmitted through traditional risk channels such as credit risk, liquidity risk, market risk, underwriting risk, and counterparty risk, the risk management and mitigation mechanisms for managing climate-related risks are typically familiar, such as commodity and currency hedges; futures contracts, options, and swaps; insurance and guarantees; capital and margin reserves; divestment; etc. Those climate-related risks perhaps most unique to climate change are related to regulation that could potentially lead to asset stranding or the creation of new liabilities related to carbon pricing, regulatory penalties, and other forms of legal liability.

Question 9: What, if any, climate-related financial products or services—for example, “green bonds,” derivatives, dedicated investment funds, or other instruments that take climate-related considerations into account—do financial institutions offer to clients and customers? What risks, if any, do these products or services pose?

Our Viewpoint: Climate-related financial products offered by financial institutions are quite numerous and growing in number and variety. Inasmuch as these products’ environmental integrity, legal terms, and composition are not always well understood, they may pose risks similar to those posed by other opaque and complex financial instruments and assets. Inasmuch as these new products represent novel asset classes, their value may be subject to greater volatility, particularly if their inherent value is less easily assessed or validated than established assets.

Question 10: How do financial institutions currently consider the impacts of climate-related financial risk mitigation strategies and financial products on households and communities, specifically LMI and other disadvantaged communities? Should the agencies modify existing regulations and guidance, such as those associated with the Community Reinvestment Act, to address the impact climate-related financial risks may have on LMI and other disadvantaged communities?

Our Viewpoint: We suggest that FDIC should carefully review scenario analysis outputs from various financial institutions and wider systemic impacts including impacts on disadvantaged communities both in terms of potential heightened risk exposure as well as capital flight from/capital scarcity in vulnerable and exposed communities. Stakeholder engagement in disadvantaged and LMI communities will also be an important input to such analysis. These concerns may require amendments to existing rules and statutes and adding special provisions so that impacts to LMI communities are addressed at the policy level.

Question 11: What, if any, specific climate-related data, metrics, tools and models from borrowers and other counterparties do financial institutions need to identify, measure, monitor, and control their own climate-related financial risks? How do financial institutions currently obtain this information? What gaps and other concerns are there with respect to these data, metrics, tools, or models?

Our Viewpoint: Please see the response to Question 5 above. Sourcing the right data is an important and difficult challenge in climate risk management; for some core data requirements adequate data may simply be absent. Data gaps and data quality are pervasive challenges in the climate risk space. Consequently, financial institutions have a duty to conduct proactive data analysis and identify potential data quality (DQ) issues and employ for climate risk management the DQ remediation framework used in managing other risks.

Question 12: How could existing regulatory reporting requirements be augmented to better capture financial institutions’ exposure to climate-related financial risks?

Our Viewpoint: We suggest that regulators conduct systemic stress testing to better understand systemic financial risks due to climate risk factors. Macroprudential stress testing has been undertaken by the U.S. Fed, working with partners such as the Network for Greening the Financial System (NGFS), as a starting point to improve overall understanding of impacts of climate risk to the financial system and helps in strengthening existing regulatory

requirements like incorporating capital requirements for climate risk and assessing the need for new regulatory regimes. Likewise, microprudential stress testing at the financial institution level is also called for, as has been instituted as a regulatory requirement by financial regulators in the UK. In general, the SEC's proposed approach to mandatory climate risk disclosure by issuers provides valuable guidance for the banking sector.

Question 13: Scenario analysis is an important component of climate risk management that requires assumptions about plausible future states of the world. How do financial institutions use climate scenario models, analysis, or tools and what challenges do they face?

Our Viewpoint: Many financial institutions utilize references climate scenarios suggested by the IPCC, IEA, and NGFS and use them as such in their stress testing exercises or make minor modifications to incorporate firm-specific adjustments to those industry reference scenarios. Challenges in climate scenario analysis are multidimensional, incorporating the following among other difficulties:

1. Sourcing, integrating, and ensuring quality of required data from various sources
2. Selecting a suitable reference period for climate scenario analysis
3. Setting input parameters and assumptions that are aligned with reference scenarios but suitably granular and disaggregated for application at the financial institution level
4. Conducting sensitivity analysis to changes in input parameters and assumptions
5. Incorporating the impact of potential sudden and acute risk events, reflecting cascading crises and shocks, above and beyond the 'smooth' onset of potential world conditions envisioned in future scenarios
6. Selecting representative potential macroeconomic and physical shocks for scenario analysis and stress testing to instill confidence in the results of the assessment
7. Complexity in aggregating scenario analysis metrics across different geographic regions and industry segments

Question 14: What factors are most salient for the FDIC to consider when designing and executing scenario analysis exercises?

Our Viewpoint: Among the factors for the FDIC to consider in scenario analysis are the following:

- 1) To what degree are the foregoing challenges (mentioned in the response to question 13 above) addressed?
- 2) What is the right balance of microprudential vs. macroprudential orientation in demanding scenario analysis from regulated entities and assessing submitted information?
- 3) To what degree should scenarios be standardized across financial institutions, particularly given variety in sectoral exposure, geography, financial instruments, institutional complexity, and balance sheet size?
- 4) What are the resource implications for the regulated entities and is the value of the scenario analysis results commensurate with the required outlay?
- 5) To what degree can the FDIC learn, and promote learning within industry among practitioners, from the study and propagation of methodologies used by the regulated institutions in designing and executing scenario analysis?
- 6) To what degree should financial institutions be required to disclose details of such methodologies?

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