July 15, 2024

Basel Committee on Banking Supervision
Bank for International Settlements
Centralbahnplatz 2
4051 Basel, Switzerland

Re: The Role of Climate Scenario Analysis in Strengthening the Management and Supervision of Climate-Related Financial Risks; ISBN 978-92-9259-754-2 (Apr. 16, 2024)

Dear Ladies and Gentlemen:

Better Markets[1] appreciates the opportunity to comment on the discussion paper ("Discussion")[2] cited above, issued by the Basel Committee on Banking Supervision ("Committee") of the Bank for International Settlements ("BIS"). The Discussion is intended to gather information about the usage of climate scenario analysis and its role in strengthening the management of banks' climate-related financial risks ("CRFR").

This Discussion follows the Committee's issuance of Principles for the Effective Management and Supervision of Climate-Related Financial Risks ("Principles") in 2022.[3] These Principles stated that ***all banks are potentially exposed to CRFR***, regardless of size, complexity, or business model.[4] The Principles also stated that ***CRFR can translate into traditional financial risks at banks***: credit risk, market risk, liquidity risk, operational risk, and reputational risk (see Table 1).[5] Through the Principles, the Committee encouraged banks—specifically large, internationally-active banks—to use climate scenario analysis to determine the potential impact of CRFR on their overall risk profile.[6]

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1 Better Markets is a non-profit, non-partisan, and independent organization founded in the wake of the 2008 financial crisis to promote the public interest in the financial markets, support the financial reform of Wall Street, and make our financial system work for all Americans again. Better Markets works with allies—including many in finance—to promote pro-market, pro-business, and pro-growth policies that help build a stronger, safer financial system that protects and promotes Americans' jobs, savings, retirements, and more.

2 Basel Committee on Banking Supervision, *The Role of Climate Scenario Analysis in Strengthening the Management and Supervision of Climate-Related Financial Risks* (Apr. 16, 2024), https://www.bis.org/bcbs/publ/d572.pdf.

3 Basel Committee on Banking Supervision, *Principles for the Effective Management and Supervision of Climate-Related Financial Risks* (June 2022), https://www.bis.org/bcbs/publ/d532.pdf.

4 *Id*. at 2 (emphasis added).

5 *Id*. (emphasis added); *see also* Basel Committee on Banking Supervision, *Climate-Related Risk Drivers and Their Transmission Channels* 1, 4 (Apr. 2021), https://www.bis.org/bcbs/publ/d517.pdf.

6 Basel Committee on Banking Supervision, *supra* note 3.

Better Markets strongly supported the Principles as an important tool in addressing CRFR and also suggested several enhancements, including more direction related to banks' use of scenario analysis.[7] For instance, we recommended that scenarios must be plausible, contain minimum levels of severity, and be supported by internationally-agreed upon scientific projections.[8]

Our comments in response to this Discussion are consistent with our 2022 feedback.[9] First, we fully support the significant and positive step that the Committee is taking to incorporate CRFR into banks' supervisory assessments through climate scenario analysis. However, the Committee must take the next step to ensure minimum levels of consistency and reasonableness for scenario analysis parameters. While some discretion is appropriate to allow banks to account for unique characteristics, the Committee must ensure that climate scenarios are structured in a way that yields useful and informative results in aggregate. Allowing too much discretion or variability for the design of scenarios or their data inputs will render the results of climate scenario analysis useless or counter-productive with inaccurate or misleadingly low levels of CRFR for individual banks or the financial system as a whole.

BACKGROUND

CRFR affects banks through multiple channels, which have been broadly categorized as physical and transition risks:

- **Physical risks** include economic costs and financial losses that result from specific climate events such as storms or drought as well as indirect events such as loss of an ecosystem.[10]
- **Transition risks** include the effects of the adjustment to a low-carbon economy, such as shifts away from certain fossil-fuel industries as well as changes in government policies, technology, business prospects for entire sectors, or consumer and investor behavior.[11]

CRFR materializes through different risk channels and could negatively affect banks through credit risk, market risk, liquidity risk, operational risk, and reputational risk (see Table 1).[12] Therefore, it is critical to have robust and consistent measurement and disclosure of CRFR to fully understand how it is affecting individual banks as well as the banking system as a whole and financial stability broadly. If CRFR is not measured or managed appropriately, it will cause

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7 Better Markets Comment Letter, *Request for Comment on the Basel Committee on Banking Supervision's Consultative Document "Principles for the effective management and supervision of climate-related financial risks"* (Feb. 16, 2022), https://bettermarkets.org/wp-content/uploads/2022/02/Better_Markets_Comment_Letter_BCBS_Climate_Risks-1.pdf.

8 *Id*. at 5.

9 Better Markets Comment Letter, *supra* note 7.

10 Basel Committee on Banking Supervision, *Climate-Related Risk Drivers and Their Transmission Channels*, *supra* note 5 at v.

11 *Id*. at vi.

12 *Id*. at 1.

dangerous levels of risk within banks that could lead to bank failures or bailouts and damage the financial system, the economy, and the interests of citizens.

Table 1

Risk	Potential effects of climate risk drivers (physical and transition risks)
Credit risk	Credit risk increases if climate risk drivers reduce borrowers' ability to repay and service debt (income effect) or banks' ability to fully recover the value of a loan in the event of default (wealth effect).
Market risk	Reduction in financial asset values, including the potential to trigger large, sudden and negative price adjustments where climate risk is not yet incorporated into prices. Climate risk could also lead to a breakdown in correlations between assets or a change in market liquidity for particular assets, undermining risk management assumptions.
Liquidity risk	Banks' access to stable sources of funding could be reduced as market conditions change. Climate risk drivers may cause banks' counterparties to draw down deposits and credit lines.
Operational risk	Increasing legal and regulatory compliance risk associated with climate-sensitive investments and businesses.
Reputational risk	Increasing reputational risk to banks based on changing market or consumer sentiment.

Leaders of central banks, banking regulators, and international consortiums agree with the Committee about the severity of climate risk and the importance of measuring and managing CRFR within the banking system. Better Markets has also long supported this effort.[13] United States Treasury Secretary Janet Yellen recently summarized the severity of climate risk:

> The threat of climate change has been something that I've spoken about for decades, and it's something that we increasingly see in our daily lives. I believe it is imperative that we continue to take decisive action to fight climate change, for the sake of our planet and for the benefit of the global economy.[14]

SUMMARY OF THE DISCUSSION

As detailed earlier, the 2022 Principles provided foundational expectations for banks' management of CRFR. Specifically, the Principles promoted the use of climate scenario analysis to achieve four objectives:

- **Risk Identification:** detail banks' specific vulnerabilities to CRFR, including correlations among risks that could exacerbate negative outcomes for banks and the public;

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13 *See, e.g.*, Better Markets Comment Letter, *supra* note 7; Better Markets Comment Letter, *Principles for Climate-Related Financial Risk Management for Large Financial Institutions* (Feb. 6, 2023), https://bettermarkets.org/wp-content/uploads/2023/02/Better_Markets_Comment_Letter_Climate_Related_Financial_Risk_Management_For_Large_Financial_Institutions.pdf; Better Markets Comment Letter, *Principles for Climate-Related Financial Risk Management for Large Financial Institutions* (June 2, 2022), https://bettermarkets.org/wp-content/uploads/2022/06/Better_Markets_Comment_Letter_Principles_for_Climate_Related_Financial_Risk_Management_for_Large_Financial_Institutions.pdf.

14 Press Release, U.S. Department of the Treasury, *Treasury Announces New Climate Counselor* (July 27, 2023), https://home.treasury.gov/news/press-releases/jy1650.

- **Risk Management:** assess how risk exposure evolves over time, especially in relation to banks' stated risk tolerance;
- **Internal and Supervisory Capital and Liquidity Assessments:** inform an active dialogue between banks and supervisors about how CRFR affects capital and liquidity levels; and
- **Assessment of Business Model Resilience and Business Strategy Building:** incorporate the effects of CRFR in banks' business models and strategic planning decisions.[15]

This Discussion is intended to gather feedback about the practical application of climate scenario analysis.

Key features of climate scenario analysis include:

- **Motivation:** contain clearly articulated and formally adopted objectives;
- **Comprehensiveness:** capture all material risks identified within the objectives;
- **Plausibility:** reflect future states of the world and potential real-world events, including extreme events that may currently seem unlikely but are nevertheless considered reasonably possible using the most recently available information from credible experts, particularly for scientific and technological assumptions, and should be supported by rigorous analytics;
- **Coherence:** demonstrate consistency in assumptions about technological change, demographics, climate impacts, and macroeconomic factors both within and across scenarios and models;
- **Transparency:** have clear and understandable assumptions and modeling approaches that are available to all stakeholders;
- **Tractability:** be flexible to adapt to changes in the environment or economy and financial system; and
- **Proportionality:** be adjustable to scale and adjust based on banks' size, business line, or other attributes.[16]

Usage-specific considerations of climate scenario analysis include:

- **Degree of Standardization:** recognition that while using a common set of scenario inputs or modeling techniques increases comparability of results, it may miss idiosyncratic risks;
- **Time Horizons:** usage of longer time frames is required to appropriately evaluate banks' resiliency to CRFR;

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15 Basel Committee on Banking Supervision, *supra* note 2 at 2-4.

16 *Id*. at 5-6.

- **Severity of Scenarios:** attention to a range of severity levels—including tail risks to recognize outcomes of unlikely but possible negative outcomes and compound risks to recognize how the interaction of multiple risks result in an outcome that is worse than their individual impacts—should be given to meet climate scenario analysis objectives;
- **Baseline Selection:** usage of a baseline with no physical or transition effects is not realistic or appropriate;
- **Granularity:** attention to the level and nature of data inputs is required to appropriately assess scenario analysis results;
- **Balance Sheet Assumptions:** attention to decisions made within a model—such as whether and how banks react to changing CRFR factors—will materially affect the results and must be made with care and intention; and
- **Analytical Frameworks:** recognition that existing models—such as those that rely on historical data—or existing technology may be inappropriate to use for climate scenario analysis, thus requiring an openness to new data or analytical techniques.[17]

SUMMARY OF COMMENTS

As stated earlier, we have strongly supported the Committee's work to manage and supervise CRFR[18] and continue that support with feedback on this Discussion. This work is necessary because CRFR has been recognized by bank supervisors and international bodies around the world as a threat to safety and soundness of banks and broader financial stability. Climate scenario analysis is a useful tool for both banks and supervisors to appropriately and nimbly assess CRFR as it continues to evolve.

We have the following recommendations to the Committee in response to the Discussion:

- The data and models used in climate scenario analysis must be strengthened to meet the Committee's stated supervisory objectives. Data inputs to scenario analysis and model structures must be thoroughly assessed for appropriateness within the context of CRFR before the scenario output can be trusted and used for decision-making.

- Recent experience with climate scenario analysis in the United States demonstrates the urgent need to further develop methodologies and capabilities. The results from the Federal Reserve's pilot climate scenario analysis revealed dangerous risks related to CRFR as well as grossly deficient regulation, management, and preparation.

[17] *Id*. at 7-12.

[18] Better Markets Comment Letter, *supra* note 7.

COMMENTS

I. THE DATA AND MODELS USED IN CLIMATE SCENARIO ANALYSIS MUST BE STRENGTHENED TO MEET THE COMMITTEE'S STATED SUPERVISORY OBJECTIVES.

While the Principles are valuable to guide the overall management of CRFR, climate scenario analysis data inputs and models that measure the impact of CRFR on individual banks and the banking system are critically important for eventual success in meeting the Committee's objectives.

The Committee's recent work related to banks' disclosure of CRFR, on which Better Markets also commented, highlighted similar challenges.[19] The accuracy, consistency, and quality of data related to CRFR are rapidly evolving. Just as we said that this ongoing evolution does not justify a delay in requiring appropriate disclosures, it also does not justify settling for less rigor or precision for scenario analysis data inputs or modeling techniques.

Therefore, we urge the Committee to be more detailed and prescriptive for certain components of climate scenario analysis, including:

- Data inputs: A scenario analysis model of any kind is only as strong as the data inputs that it uses. In the case of climate scenario analysis, the data inputs must be based on internationally agreed-upon information from scientific experts. It is unreasonable to expect that banks or banking supervisors will have the same level of knowledge and expertise as climate scientists so relying on scientists' expertise for key data inputs that frame the model scenarios is essential. Climate scientists should also be relied upon for appropriate forward-looking data to incorporate a reasonably severe future state. This approach will ensure reasonable levels of plausibility and severity for climate projections. It will also allow comparability of the results of scenario analysis from different banks. Experts from Finance Watch underscore the importance of robust model data:

  > Apprehending the specific nature of climate change-related risks and their differences from traditional economic and financial risks is a prerequisite to conducting meaningful analysis or policy action.[20]

- Model Structures: Several design elements of scenario analysis models must also

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19 *See, e.g.*, Basel Committee on Banking Supervision, *Disclosure of Climate-Related Financial Risks* (Nov. 23, 2023), https://www.bis.org/bcbs/publ/d560.pdf; Better Markets Comment Letter, *Disclosure of Climate-Related Financial Risks, Basel Committee on Banking Supervision Consultative Document* (Mar. 14, 2024), https://bettermarkets.org/wp-content/uploads/2024/03/Better-Markets-Comment-Letter-BCBS-Climate-Risk-Disclosure.pdf.

20 Thierry Philipponnat, *Finance in a Hot House World* 12, FINANCE WATCH (Oct. 2023), https://www.finance-watch.org/wp-content/uploads/2023/10/report-finance-in-a-hot-house-world.pdf.

be specified and coordinated, rather than left up to banks' individual discretion, to ensure appropriately rigorous and useful results. For example, selection of a common and realistic baseline scenario, appropriate amounts of interconnectedness between CRFR and other components of the model, and rational amounts irreversibility of climate effects must be used. Experts from Finance Watch also emphasize the importance of these decisions:

> The risks borne by the financial system because of climate change are inherently different from the risks financial institutions are used to dealing with and they make for a pattern that economists and financial supervisors are not used, nor traditionally well equipped, to deal with. . . .
>
> Climate change is irreversible whilst other sources of financial risk, whether unexpected random events such as market crashes or cyclical crises such as real-estate crises, are reversible. Reversing climate change once it has happened is beyond human possibility, in contrast with financial crises triggered by economic problems that can be tackled by policy action, if at an enormous cost to society. In contrast, climate change follows a one-way only pattern.
>
> Climate change will accelerate around what climate scientists call tipping points and its consequences on the world (damages) will not only also accelerate but they will do so at an increasing rate. No other financial risk displays this characteristic combined with irreversibility and the fact that it is beyond human control. . . .
>
> Climate change will lead to a disruption of human societies for a duration impossible to anticipate but certainly counting in centuries or more. In contrast, traditional economic troubles have never impacted human societies for more than a relatively limited number of years, even when they have been extremely severe and caused enormous damage.[21]

- Time Horizons: The Committee rightly focuses on the differences between time horizons that have historically been used in financial modeling—typically 3-5 year time periods for credit risk factors or a few months for market risk factors—and the much longer time horizons that are required for CRFR.[22] While the necessity to lengthen time horizons for the assessment of CRFR is not widely disputed, we encourage the Committee to establish standards for a sufficiently long time horizon. Along with other data standards discussed above, this detail would allow for more accurate results and increased comparability among banks.

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21 *Id*. at 11-12.

22 Basel Committee on Banking Supervision, *supra* note 2 at 8-9.

Importantly, the standards that we are recommending the Committee develop should not prevent banks' ability to customize climate scenario analysis. Differences in bank size, geographic footprint, lending profile, or business line specialization clearly affect the amount and nature of vulnerability to CRFR at a given bank. However, a minimum level of standardization is necessary. Not only will such standardization benefit the banks, but it will also benefit bank supervisors and the public. Coordination on certain data elements will clearly set minimum expectations for banks, promote reasonable standards throughout the international banking community, and allow for accurate comparisons of risk level among banks. Perhaps most importantly, employing a consistent set of standards will allow for the aggregation of CRFR to enable the ability to gauge its effects on global financial stability.

II. RECENT EXPERIENCE WITH CLIMATE SCENARIO ANALYSIS IN THE UNITED STATES DEMONSTRATES THE URGENT NEED TO FURTHER DEVELOP METHODOLOGIES AND CAPABILITIES.

In 2020, the Federal Reserve's Financial Stability Report included the implications of climate change for financial stability for the first time.[23] The report stated:

> Climate change adds a layer of economic uncertainty and risk that we have only begun to incorporate into our analysis of financial stability. Different sectors of the economy and geographic regions face different risks that will diverge from historical patterns. . . .
>
> [F]ederal Reserve supervisors expect banks to have systems in place that appropriately identify, measure, control, and monitor all of their material risks, which for many banks are likely to extend to climate risks.[24]

In 2021, the Financial Stability Oversight Council recognized climate change as an emerging threat to financial stability and recommended prompt action to increase data and measurement tools and improve assessments of CRFR and related vulnerabilities.[25]

In 2022, the Federal Reserve announced that six of the United States' largest banks would participate in a pilot climate scenario analysis exercise.[26] The results of the test revealed deep and broad deficiencies in basic risk analysis and management at six of the largest too-big-to-fail banks

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23 BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, FINANCIAL STABILITY REPORT 58-59 (Nov. 2020), https://www.federalreserve.gov/publications/files/financial-stability-report-20201109.pdf.

24 *Id*.

25 FINANCIAL STABILITY OVERSIGHT COUNCIL, ANNUAL REPORT 157 (2021), https://home.treasury.gov/system/files/261/FSOC2021AnnualReport.pdf.

26 Press Release, Board of Governors of the Federal Reserve System, *Federal Reserve Board Announces that Six of the Nation's Largest Banks Will Participate in a Pilot Climate Scenario Analysis Exercise Designed to Enhance the Ability of Supervisors and Firms to Measure and Manage Climate-Related Financial Risks* (Sept. 29, 2022), https://www.federalreserve.gov/newsevents/pressreleases/other20220929a.htm.

in the United States.[27] The participating banks had significant data and modeling challenges when attempting to simply estimate their climate risk. Furthermore, most of the banks had to rely on third parties because they had serious gaps in information needed for the scenario analysis. These deficiencies are shocking and inexcusable because banks are already required to measure and monitor all relevant risks, no matter the source, and the Federal Reserve is supposed to make sure that they do.

Given the increasing severity and frequency of climate risk drivers[28] and the fact that all banks are exposed to CRFR,[29] development of robust climate scenario analysis is imperative.

CONCLUSION

We hope these comments are helpful for the continued development of climate scenario analysis.

Sincerely,

Dennis Kelleher
Co-founder, President and CEO
dkelleher@bettermarkets.org

Shayna M. Olesiuk
Director of Banking Policy
solesiuk@bettermarkets.org

Better Markets, Inc.
2000 Pennsylvania Avenue, NW
Suite 4008
Washington, DC 20006
(202) 618-6464
http://www.bettermarkets.org

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27 BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, PILOT CLIMATE SCENARIO ANALYSIS EXERCISE: SUMMARY OF PARTICIPANTS' RISK-MANAGEMENT PRACTICES AND ESTIMATES (May 2024), https://www.federalreserve.gov/publications/files/csa-exercise-summary-20240509.pdf.

28 *See, e.g.*, Basel Committee on Banking Supervision, *Climate-Related Risk Drivers and Their Transmission Channels*, *supra* note 5 at 5-9.

29 *See, e.g.*, Basel Committee on Banking Supervision, *supra* note 3.