



February 14, 2022

VIA ELECTRONIC FILING

Chief Counsel's Office
Attention: Comment Processing
Office of the Comptroller of the Currency
400 7th St. SW, Suite 3E-218
Washington, DC 20219

**Re: Principles for Climate-Related Financial Risk Management for Large Banks,
OCC Bulletin 2021-62, Docket No. OCC-2021-0023**

To Whom It May Concern:

Environmental Defense Fund (“EDF”), the Institute for Policy Integrity at NYU School of Law (“Policy Integrity”),¹ and the Initiative on Climate Risk and Resilience Law (“ICRRL”) respectfully submit the following comments to the Office of the Comptroller of the Currency (“OCC”) in response to its request for feedback regarding its *Principles for Climate-Related Financial Risk Management for Large Banks*, published on December 16, 2021 (the “Draft Principles”).²

One of the world’s leading international nonprofit organizations, EDF creates transformational solutions to the most serious environmental problems. To do so, EDF links science, economics, law, and innovative private-sector partnerships. With more than 2.5 million members and offices in the United States, China, Mexico and the European Union, EDF’s scientists, economists, attorneys and policy experts are working in 23 countries and across the E.U. to turn our solutions into action. Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. ICRRL is a joint initiative of Policy Integrity, EDF, Columbia Law School’s Sabin Center for Climate Change Law, and Vanderbilt Law School, focused on legal efforts on climate risk and resilience, particularly at the intersection of practice and scholarship.³

¹ These comments do not necessarily reflect the views of NYU School of Law, if any.

² Off. of the Comptroller of the Currency, *Principles for Climate-Related Financial Risk Management for Large Banks* (Dec. 2021), <https://www.occ.treas.gov/news-issuances/news-releases/2021/nr-occ-2021-138a.pdf> [hereinafter “Draft Principles”]; see also Off. of the Comptroller of the Currency, *OCC Bulletin 2021-62, Risk Management: Principles for Climate-Related Financial Risk Management for Large Banks; Request for Feedback* (Dec. 16, 2021), <https://www.occ.gov/news-issuances/bulletins/2021/bulletin-2021-62.html>.

³ This document does not necessarily represent the views of each ICRRL partner organization. For more information on ICRRL, see <https://icrri.org>.

EDF, Policy Integrity, and ICRRRL support the Draft Principles as an important step in the OCC's efforts to guide banks to update their risk management practices as needed in light of climate-related financial risks, thereby promoting safety and soundness. We recommend that the OCC continue building upon these Draft Principles with more detailed guidance, as it has indicated it plans to do, moving expeditiously and in coordination with other regulators working to address climate-related financial risk. We offer the following recommendations to help inform that process:⁴

- I. The OCC should consider offering more detailed guidance regarding the physical and transition risks that affect the management of various risk areas. (Draft Principles, Page 4–5)
- II. The OCC should consider guiding banks on the use of relevant, accurate, and timely climate-related data for risk management and reporting. (Draft Principles, Page 3)
- III. The OCC should consider requiring banks to incorporate climate risk into regulatory reports and can leverage other entities' work on climate-related disclosures. (Draft Principles, Question #11)
- IV. In designing and executing scenario analyses, OCC should consider defining orderly transition, disorderly transition, and hot-house scenarios, setting at least a thirty-year analysis period, and accounting for the correlated nature of risks. (Draft Principles, Question #13)
- V. The OCC should consider how to mitigate potential harm to disadvantaged communities from banks' climate risk management strategies. (Draft Principles, Page 1)

I. The OCC should consider offering more detailed guidance regarding the physical and transition risks that affect the management of various risk areas. (Draft Principles, Page 4–5)

Although the Draft Principles provide an outline of how banks should approach managing climate risk within their portfolios, they could be buttressed with additional insight into what types of risks may manifest themselves.⁵ The OCC notes that it “will elaborate on these risk assessment principles in subsequent guidance.”⁶ We support the OCC's intent to issue additional guidance (including the specified elements), recommend that the OCC make this further guidance publicly available, and provide a non-exhaustive list of additional considerations it should include. In addition, we encourage the OCC to more clearly highlight climate-related market risk, discuss the interconnectedness of these risk areas, and include private governance initiatives as an area of non-financial risk.

⁴ In parentheses beside each heading, we note the question(s) from or pages of the Draft Principles to which the section is most relevant.

⁵ Draft Principles, *supra* note 2, at 4–5.

⁶ *Id.* at 4. Specifically, the OCC intends to put forth subsequent guidance regarding these principles that will “distinguish roles and responsibilities of boards of directors (boards) and management, incorporate the feedback received on the principles, and consider lessons learned and best practices from the industry and other jurisdictions.” *Id.* at 2.

Climate-related financial risk is generally divided into two broad categories: physical risks and transition risks.⁷ Physical risks include the damages wrought by wildfires, flooding, extreme heat, and other direct results of climate change.⁸ Transition risks are the costs associated with societal shifts in response to climate change, such as those from technological and policy changes, changing consumer sentiment, and liability for climate damages.⁹ Typical bank portfolios exhibit both physical and transition risks.

The OCC identifies the following risk management areas in its Draft Principles: credit risk, liquidity risk, other financial risk (including price and interest rate risks), operational risk, legal/compliance risk, and other non-financial risk (including reputational, liability, and litigation risks).¹⁰ Additional guidance explicitly outlining the types of climate-related risks relevant to each risk management area would set clearer expectations for the scope of banks' risk assessments and make it more likely that banks acquire the tools necessary to assess the climate risks in their portfolios.¹¹ While climate risks are similar to other types of financial risks, it is also the case that "the nature of climate risks is less familiar to financial institutions."¹² Financial institutions are still building the expertise needed to identify potential climate risks and providing more tailored guidance will ensure that banks are on the right track.

A. *The OCC should consider clarifying how climate-related credit risk implicates both an obligor's ability to pay a loan, as well as risk to the underlying collateral.*

The OCC should consider providing examples of the types of credit risk that banks should review in risk assessments. In particular, the OCC could demonstrate ways climate change could either reduce an obligor's ability to pay or cause damage to the underlying collateral, increasing a bank's losses in the case of default. Currently, the Draft Principles focus most closely on the risks associated with credit concentration within a particular market or region.¹³ While these risks are important and bear discussion, other portfolio risks could also be made clear.

The OCC's Large Bank Supervision Handbook defines credit risk as, "the risk to current or projected financial condition and resilience arising from an obligor's failure to meet the terms of any contract with the bank or otherwise perform as agreed."¹⁴ The magnitude of this risk is

⁷ See, e.g., Madison Condon et al., *Mandating Disclosure of Climate-Related Financial Risk*, 23 N.Y.U. J. LEGIS. & PUB. POL'Y (forthcoming 2022) (manuscript at 3), <https://perma.cc/G3Z3-8GKY>.

⁸ *Id.* at 3–6.

⁹ *Id.* at 6–9.

¹⁰ Draft Principles, *supra* note 2, at 4–5.

¹¹ For a careful analysis of how climate-related financial risks intersect with each risk management category, please also refer to Amer. Fin. Reform Educ. Fund et al., *Recommendations for Supervisory Guidance from Bank Regulators* (Sept. 2021), <https://www.nrdc.org/sites/default/files/supervision-guidance-climate-risk-202109.pdf>.

¹² FIN. STABILITY OVERSIGHT COUNCIL, *REPORT ON CLIMATE-RELATED FINANCIAL RISK 24* (2021), <https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf> [hereinafter "FSOC Climate Report"].

¹³ Draft Principles, *supra* note 2, at 4.

¹⁴ OFF. OF THE COMPTROLLER OF THE CURRENCY, *LARGE BANK SUPERVISION, COMPTROLLER'S HANDBOOK 67* (2018), <https://www.occ.gov/publications-and-resources/publications/comptrollers-handbook/files/large-bank-supervision/pub-ch-large-bank-supervision.pdf> [hereinafter "Large Bank Supervision Handbook"].

defined both by the likelihood that the obligor will pay their debt and the value the bank can recover if the obligor fails to do so. In other words, credit risk responds both to the creditworthiness of the obligor and to changes in the value of the underlying collateral. Climate risk is present in both considerations.

There are myriad reasons why climate-related risks could decrease the probability of debt repayment. For example, as the world transitions to a low- or zero-carbon economy, a fossil-fuel company may abandon certain projects—a transition risk. Similarly, new environmental regulations—such as the regulation of methane emissions—could make fossil fuels less profitable. Physical risks could mean that a company dependent on physical outdoor labor could have diminished productivity with increasing incidences of extreme heat. An agricultural company might face reduced crop yields. Banks should weigh these risks when assessing the creditworthiness of a debtor.

Additionally, a failure to contemplate physical and transition risks may mean that the collateral underlying a loan is overvalued. Consider, for example, a home in California in a wildfire-prone area. If the home burns down—a physical risk—the value of the collateral is severely reduced. Even absent a fire, the looming specter of this risk could cause a home to lose value if, for example, insurers are no longer willing to cover the risk of wildfires or if consumers have concerns about living in wildfire-prone areas.¹⁵

In assessing a bank's safety and soundness, the OCC already considers a bank's underwriting practices with regards to the sufficiency of collateral and creditworthiness of obligors.¹⁶ The climate's impact on credit risk is an aspect of these traditional concerns. By providing illustrative examples of credit risks, the OCC can ensure these risks receive sufficient due diligence.

B. The OCC should consider providing more detail on the types of climate-related liquidity risks a bank may face.

While the OCC properly includes liquidity risk as a category to be considered in risk assessments, additional detail would be useful. The OCC should consider clearly laying out examples of climate-related liquidity risks and also describe how liquidity risks may

¹⁵ See Jay Feinman, *What Is a Protection Gap? Homeowners Insurance as a Case Study*, 27 CONN. INS. L.J. 82, 95–96 (2020) (describing how insurers are moving away from wildfire coverage, creating challenges for homeowners in wildfire-prone areas); Martha C. White, *Extreme Weather and Rising Insurance Rates Squeeze Retirees*, N.Y. TIMES (Feb. 4, 2022), <https://www.nytimes.com/2022/02/04/business/retirement-climate-change-homeowners-insurance.html>.

¹⁶ See Large Bank Supervision Handbook, *supra* note 14, at 32; see also OFF. OF THE COMPTROLLER OF THE CURRENCY, BANK SUPERVISION PROCESS, COMPTROLLER'S HANDBOOK 67 (2018), <https://www.occ.gov/publications-and-resources/publications/comptrollers-handbook/files/bank-supervision-process/pub-ch-bank-supervision-process.pdf>.

exacerbate—or be exacerbated by—operational and market risk.¹⁷ Liquidity risks may materialize when there is reduced buyer interest in particular assets. For example, societal movement away from fossil fuels could result in stranded assets, posing liquidity issues for banks invested in these assets.¹⁸

C. *The OCC should consider providing additional detail on market risk and suggesting acceptable measurement methods for such risk.*

The Draft Principles section on “Other Financial Risk” discusses interest and price risk—components of market risk.¹⁹ The OCC notes that there are challenges with existing methodologies to estimate these risks and therefore advises banks to “use the best measurement methodologies reasonably available to them.”²⁰ The OCC should consider treating market risk more explicitly within the Draft Principles and suggesting an array of acceptable measurement methodologies.

Market risk—the risk that an institution’s investments lose value—is a significant avenue for climate-related financial risk. Physical risks, for example, can threaten commodities, such as agricultural products, which could affect future values.²¹ Transition risks can also affect investment value. For example, policy or technology changes that align the U.S. energy system with a carbon-zero future could lead to declines in the oil market;²² given the global nature of the oil market, policy or technology changes in other parts of the world could lower demand for oil as well.²³ These risks could be explicitly noted.

The Securities and Exchange Commission’s (“SEC”) anticipated regulations on climate-related disclosures should assist banks in considering climate impacts as they make certain types of investments.²⁴ In turn, this should make it easier to conduct thorough risk assessments regarding market risk. However, many tradeable assets may not be subject to the SEC’s

¹⁷ Nahiomy Alvarez et al., *A New Framework for Assessing Climate Change Risk in Financial Markets*, 448 CHICAGO FED. LETTER (Nov. 2020), <https://www.chicagofed.org/publications/chicago-fed-letter/2020/448> (noting that “typically, climate change risk is unlikely to make an asset less liquid without making the asset lose value, making a borrower insolvent, or disrupting financial infrastructure”).

¹⁸ See Drew Riedl, *Why Market Actors Fuel the Carbon Bubble: The Agency, Governance, and Incentive Problems that Distort Corporate Climate Risk Management*, J. SUSTAINABLE FIN. & INV. (June 1, 2020), <https://www.tandfonline.com/doi/full/10.1080/20430795.2020.1769986> (“A significant portion of fossil fuel assets will eventually become ‘stranded’ – prematurely obsolete over their expected lives.”).

¹⁹ Draft Principles, *supra* note 2, at 5; Large Bank Supervision Handbook, *supra* note 14, at 59, 71, 76.

²⁰ Draft Principles, *supra* note 2, at 5.

²¹ See FSOC Climate Report, *supra* note 12, at 108–112.

²² FSOC Climate Report, *supra* note 12, at 110–112.

²³ See BIS, BASEL COMM. ON BANKING SUPERVISION, CLIMATE-RELATED RISK DRIVERS AND THEIR TRANSMISSION CHANNELS 24 (Apr. 2021), <https://www.bis.org/bcbs/publ/d517.pdf> (noting that “countries, regions and sectors are exposed to different levels of transition risk depending on the likelihood of policy action, technological innovation or broad shifts in sentiment within a particular jurisdiction”).

²⁴ FSOC Climate Report, *supra* note 12, at 70.

regulation. Municipal bonds, for example, are not subject to SEC reporting requirements.²⁵ The Financial Stability Oversight Council (“FSOC”) has requested that the Municipal Securities Regulation Board (“MSRB”) examine how best to estimate climate-related risk; the OCC should remain abreast of this work.²⁶

These market considerations are within the ambit of risks that banks should already be considering. Bank supervisors already assess a bank’s “price sensitivity to various market factors (e.g. . . . commodity prices) [and] . . . sensitivity of assets, derivatives, and mortgage servicing rights to valuation inputs (interest rates, prepayments, and volatilities).”²⁷ The Draft Principles nevertheless serve as a critical reminder that the climate crisis will likely affect these prices in a tangible way and that these climate risks must be contemplated. Adding more detail could help ensure these risks are properly considered.

D. The OCC should consider describing third-party operational risk in more detail.

The Draft Principles provide some detail on how climate change could exacerbate operational risks. Additional concrete examples, demonstrating the range of risks, could be helpful, particularly regarding third-party risk. Even if a bank’s operation centers do not themselves face climate risk, if they depend on at-risk infrastructure—such as sanitation and power grids—the risk inherent in that infrastructure propagates to the business operations. While Hurricane Sandy caused evacuation orders that directly shuttered many Wall Street banks, in February 2021, it was failures in the Texas electricity grid that forced banks to close branches.²⁸ In our interdependent world, it is not sufficient to consider only the risk associated with a particular parcel of land; banks must also consider how third-party risk enters the system. While the Draft Principles mention “third-party operations” as a source of risk,²⁹ making these connections more explicit will encourage banks to create more robust plans.

E. The OCC should consider more explicitly describing how legal and compliance risk interplay with other forms of risk.

While the Draft Principles currently discuss legal and compliance risk, the OCC should consider expanding the discussion to describe the interconnectedness between legal risk and other

²⁵ FSOC Climate Report, *supra* note 12, at 87; see also Parker Bolstad et al., *Flying Blind: What Do Investors Really Know About Climate Change Risks in the U.S. Equity and Municipal Debt Markets?* 4–5 (Hutchins Ctr. On Fiscal & Monetary Pol’y at Brookings, Working Paper No. 67, 2020), <https://perma.cc/8VZH-FWFQ>.

²⁶ See FSOC Climate Report, *supra* note 12, at 8. Relatedly, MSRB is working to uncover greenwashing practices in the municipal bond market. See *Request for Information on Environmental, Social and Governance (ESG) Practices in the Municipal Securities Market*, MUNI. SEC. REG. BOARD (Dec. 8, 2021), <https://www.msrb.org/-/media/Files/Regulatory-Notices/RFCs/2021-17.ashx?n=1>.

²⁷ Large Bank Supervision Handbook, *supra* note 14, at 42.

²⁸ See Laura Alix, *Blackouts, Deep Freeze Force Texas Banks to Shutter Branches*, AMER. BANKER (Feb. 17, 2021), <https://www.americanbanker.com/news/blackouts-deep-freeze-force-texas-banks-to-shutter-branches>; John McCrank & Caroline Humer, *Stock Markets Closed as Storm Hobbles New York*, REUTERS (Oct. 28, 2012), <https://www.reuters.com/article/us-storm-sandy-markets/stock-markets-closed-as-storm-hobbles-new-york-idUSBRE89ROAV20121029>.

²⁹ Draft Principles, *supra* note 2, at 5.

types of risk. For example, the OCC flags “changes to legal requirements for . . . flood or disaster-related insurance” as an area of potential legal or compliance risk.³⁰ While changes to these legal requirements would pose a compliance risk for a bank, it is also the case that changes in insurance requirements could pose a *credit* risk, particularly given that property and casualty insurance terms are often only a few years long—shorter than many loan terms.³¹

F. *The OCC should consider including private governance initiatives as a sub-category when discussing other non-financial risk.*

The OCC notes that banks should consider other non-financial risks, such as reputational damage, liability, and litigation. In addition to these risks, OCC should also consider explicitly mentioning the potential for private governance initiatives,³² including investor pressure. Member banks of the Net-Zero Banking Alliance have committed to align their assets and liabilities with a pathway to a net-zero carbon emission earth by 2050.³³ It is possible that banks that have not made such commitments will face investor pressure to do so and, on the other hand, that banks that have committed will be held to those commitments by shareholders. In either case, banks should be aware of their position within the net-zero commitment landscape.

II. **The OCC should consider guiding banks on the use of relevant, accurate, and timely climate-related data for risk management and reporting. (Draft Principles, Page 3)**

As the OCC recognizes in its Draft Principles, “[s]ound climate risk management depends on the availability of relevant, accurate, and timely data.”³⁴ The OCC should consider guiding banks on best practices regarding sources and analytical methods for climate risk data.

Banks should use data both from counterparties and from public sources to develop a comprehensive picture of their climate-related risk exposure. With transactional counterparties, banks should solicit information regarding risks to the particular assets or activities involved in the transaction, as well as risks to the counterparty’s creditworthiness generally.³⁵ The OCC could also guide banks on reliable sources and proper uses of various

³⁰ *Id.*

³¹ See Antonio Grimaldi et al., *Climate Change and P&C Insurance: The Threat and the Opportunity*, MCKINSEY & CO. (Nov. 19, 2020), <https://perma.cc/D6Z4-CHK4>.

³² See Michael P. Vandenberg, *Disclosure of Private Environmental Governance Risks*, WM. & MARY L. REV. (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3764130 (analyzing transition risks stemming from the pressures that private environmental governance initiatives can create for companies).

³³ *Net-Zero Banking Alliance*, U.N. ENV’T PROGRAMME, <https://www.unepfi.org/net-zero-banking/commitment/> (last visited Feb. 2, 2022); *Members*, U.N. ENV’T PROGRAMME, <https://www.unepfi.org/net-zero-banking/members/> (last visited Feb. 2, 2022).

³⁴ Draft Principles, *supra* note 2, at 3.

³⁵ Cf. Env’t Def. Fund & Initiative on Climate Risk and Resilience Law, Comments on Federal Acquisition Regulation: Minimizing the Risk of Climate Change in Federal Acquisitions (Jan. 13, 2022), https://www.icrrl.org/files/2022/01/EDF_ICRRL_Comment-Letter-re-Minimizing-the-Risk-of-Climate-Change-in-Federal-Acquisitions-FAR-Case-2021-016.pdf (providing recommendations on minimizing climate-related financial risks in the federal procurement process).

types of publicly available data, such as climate-related disclosures, climate projections, and climate-related financial risks. Data should be incorporated as relevant into identification, measurement, management, and disclosure of climate risks.

To efficiently develop rigorous and consistent climate data practices, the OCC should consider ways to coordinate with other regulators working to address climate risks, as well as other experts and stakeholders. The OCC's membership in FSOC, which has commenced work on climate risk issues including data,³⁶ as well as in the Federal Financial Institutions Examination Council ("FFIEC"), provide important opportunities for coordination among U.S. financial regulators generally and banking regulators specifically. Given the global nature of both the financial system and climate risks, continued participation by the OCC in the Network for Greening the Financial System ("NGFS")³⁷ and the Basel Committee on Banking Supervision ("BCBS")³⁸ will also be important. Finally, the OCC can benefit from communication with other agencies with expertise in climate-related data, like the Environmental Protection Agency, the National Oceanic and Atmospheric Administration, and the National Aeronautics and Space Administration, including through structures like interagency working groups.

III. The OCC should consider requiring banks to incorporate climate risk into regulatory reports and can leverage other entities' work on climate-related disclosures. (Draft Principles, Question #11)

The OCC should consider requiring banks to incorporate climate risk into the disclosures made in their quarterly Consolidated Reports of Condition and Income ("call reports") and any other regulatory reports where such information is relevant. Requiring public disclosures by regulated entities of climate-related financial risks can spur better risk identification and management practices by those entities, as well as provide benefits for regulators, investors, the market, and the general public. In designing these requirements, the OCC can leverage existing and forthcoming work by other regulators, entities, and experts on disclosure of climate-related financial risk.

Call reports are a core source of data for safety and soundness supervision, and the OCC should consider how these reports can be updated to reflect climate-related financial risks to banks. As the OCC states in the Regulatory Reporting section of its Comptroller's Handbook, "[t]he call report data provide detailed financial information on the bank's assets, liabilities, capital,

³⁶ FSOC Climate Report, *supra* note 12, at 47–66.

³⁷ See *NGFS Publications*, NETWORK FOR GREENING THE FIN. SYS., <https://www.ngfs.net/en/liste-chronologique/ngfs-publications> (last visited Jan. 26, 2022).

³⁸ See *Principles for the Effective Management and Supervision of Climate-Related Financial Risks*, BIS, BASEL COMM. ON BANKING SUPERVISION, <https://www.bis.org/bcbs/publ/d530.htm> (last visited Jan. 26, 2022); see also Statement of Acting Comptroller of the Currency Michael J. Hsu Before the H. Comm. on Fin. Servs. (May 19, 2021), <https://financialservices.house.gov/uploadedfiles/hrg-117-ba00-wstate-hsum-20210519.pdf> ("The OCC already participates in the Basel Committee on Banking Supervision's Task Force on Climate-Related Financial Risks. The group has taken stock of member initiatives on climate-related financial risks, cataloguing them for member organizations to benefit from one another's experience.").

income, and expenses, as of the report date and for the period covered.”³⁹ The FFIEC provides instructions on preparation of call reports.⁴⁰ Updating these instructions with details on where and how to incorporate climate risk into a call report will benefit both the reporting entities and the users of reported information.⁴¹ Standardizing disclosures helps to ensure that they are comparable, specific, and decision-useful.⁴²

Disclosing climate risk information publicly, such as through call reports,⁴³ benefits multiple stakeholders.⁴⁴ As explained by FSOC, “[r]egulatory reports assist the federal banking agencies in fulfilling their supervisory mandates, and assist the public, state banking authorities, researchers, and bank rating agencies in understanding the condition of the banking sector.”⁴⁵ Mandating disclosures would benefit banks by compelling them “to engage in careful and systematic analyses of their exposures to climate risk, preventing them from ignoring worst-case scenarios or unfavorable information,” while also addressing the collective action problems and mismatched incentives that dissuade voluntary disclosures.⁴⁶ Access to improved climate risk information benefits investors, who can better align their investment decisions with their objectives, which in turn helps the market avoid the destabilizing effects of a burst “climate bubble.”⁴⁷ Given the role climate-related disclosures can play in preventing economic crises and internalizing externalities, the greater public also benefits.⁴⁸

Many other entities, including other regulators, NGOs, and IGOs, have undertaken efforts on developing climate-related disclosures that the OCC can leverage to the extent that they are relevant in this context. The OCC should continue to engage as a member of and draw from the

³⁹ OFF. OF THE COMPTROLLER OF THE CURRENCY, REGULATORY REPORTING, COMPTROLLER’S HANDBOOK 3 (Sept. 2021) <https://www.occ.gov/publications-and-resources/publications/comptrollers-handbook/files/review-regulatory-reports/pub-ch-regulatory-reporting.pdf> [hereinafter “Regulatory Reporting Handbook”].

⁴⁰ FFIEC, INSTRUCTIONS FOR PREPARATION OF CONSOLIDATED REPORTS OF CONDITION AND INCOME (Dec. 2020), https://www.ffiec.gov/pdf/FFIEC_forms/FFIEC031_FFIEC041_201812_i.pdf.

⁴¹ See Regulatory Reporting Handbook, *supra* note 39, at 2 (“The FFIEC publishes detailed instructions to help filers and users understand the items being reported. . . . The FFIEC periodically updates the instructions to reflect changes and for clarity.”).

⁴² See Condon et al., *supra* note 7, at 11.

⁴³ Regulatory Reporting Handbook, *supra* note 39, at 1 (Sept. 2021) (“Data accuracy in these reports is vital to effective bank supervision, and because the call report is publicly available, investors, depositors, and creditors may use the report to assess the bank’s financial condition.”).

⁴⁴ See Condon et al., *supra* note 7, at 26–31 (“Improved Disclosure Regulations Will Benefit Corporations, Investors, Markets, and Society”).

⁴⁵ FSOC Climate Report, *supra* note 12, at 73.

⁴⁶ See Condon et al., *supra* note 7, at 27–28.

⁴⁷ See Condon et al., *supra* note 7, at 28–30; see also Jack Lienke & Alexander Song, Assessing the Costs and Benefits of Mandatory Climate Risk Disclosure 12–13 (2022), https://policyintegrity.org/files/publications/Climate_Risk_v3_%281%29.pdf; see generally Madison Condon, *Market Myopia’s Climate Bubble*, 2022 UTAH L. REV. 63 (2022).

⁴⁸ See Condon et al., *supra* note 7, at 31.

climate risk disclosure resources developed by FSO, NGFS,⁴⁹ and BCBS.⁵⁰ The BCBS climate risk principles include guidelines specifically for examiners as well as for banks, an approach that OCC should consider for its subsequent guidance.⁵¹ Among U.S. federal regulators, the SEC has made the most progress to date, with a proposed rule mandating climate-related disclosures expected in early 2022. In addition to looking to the SEC's ultimate approach, the OCC can analyze the voluminous materials on climate disclosures that various experts submitted in response to the SEC's March 2021 request for public input.⁵² Many of those submissions highlighted the work of voluntary disclosure regimes like the Task Force on Climate-Related Financial Disclosures⁵³ and the industry-specific Sustainability Accounting Standards Board standards (including for financial institutions),⁵⁴ which could likewise be a useful resource for the OCC. Banking regulators in other jurisdictions both internationally, like the European Central Bank ("ECB"),⁵⁵ and sub-nationally in the United States, like the New York Department of Financial Services,⁵⁶ have also taken substantial steps on disclosure of climate risk by regulated entities. The OCC may also consider consulting with other types of state regulators that administer reporting or disclosure requirements relevant to certain climate-related physical or transition risks, including greenhouse gas emissions. The Texas Commission on Environmental Quality, for example, could provide valuable information on methane disclosure from the oil and gas sector. Furthermore, convening structures for banking industry participants like the Climate Financial Risk Forum⁵⁷ and the UN Environment Programme Finance Initiative⁵⁸ have produced multiple reports and guides reflecting the industry's views on best climate risk practices.

⁴⁹ See *NGFS Publications*, NETWORK FOR GREENING THE FIN. SYS. (last visited Jan. 26, 2022), <https://www.ngfs.net/en/liste-chronologique/ngfs-publications>.

⁵⁰ See BIS, *BASEL COMM. ON BANKING SUPERVISION, PRINCIPLES FOR THE EFFECTIVE MANAGEMENT AND SUPERVISION OF CLIMATE-RELATED FINANCIAL RISKS* (Nov. 2021), <https://www.bis.org/bcbs/publ/d530.pdf>.

⁵¹ See *id.*

⁵² See *Comments on Climate Change Disclosures*, SEC. & EXCH. COMM'N (last modified June 14, 2022), <https://www.sec.gov/comments/climate-disclosure/cl112.htm>.

⁵³ TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES, <https://www.fsb-tcfd.org/> (last visited Jan. 26, 2022).

⁵⁴ *Examples of SASB's Industry-Specific Approach*, VALUE REPORTING FOUNDATION, SASB STANDARDS (last visited Jan. 26, 2022), <https://www.sasb.org/industry-specific/>.

⁵⁵ See generally EUROPEAN CENTRAL BANK, *BANKING SUPERVISION, GUIDE ON CLIMATE-RELATED AND ENVIRONMENTAL RISKS, SUPERVISORY EXPECTATIONS RELATING TO RISK MANAGEMENT AND DISCLOSURE* (Nov. 2020), <https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.202011finalguideonclimate-relatedandenvironmentalrisks~58213f6564.en.pdf>.

⁵⁶ See *Climate Change*, N.Y. STATE DEP'T OF FIN. SERVS. (last visited Jan. 26, 2022), https://www.dfs.ny.gov/industry_guidance/climate_change.

⁵⁷ *Climate Financial Risk Forum*, BANK OF ENGLAND (last visited Jan. 26, 2022), <https://www.bankofengland.co.uk/climate-change/climate-financial-risk-forum>.

⁵⁸ *Principles for Responsible Banking*, U.N. ENV'T PROGRAMME (last visited Jan. 26, 2022), <https://www.unepfi.org/banking/bankingprinciples/>.

IV. In designing and executing scenario analyses, OCC should consider defining orderly transition, disorderly transition, and hot-house scenarios, setting at least a thirty-year analysis period, and accounting for the correlated nature of risks. (Draft Principles, Question #13)

A number of other jurisdictions have begun conducting either scenario analyses or stress tests over the past few years. These jurisdictions include the ECB,⁵⁹ the Bank of England,⁶⁰ the Bank of Canada, and the Hong Kong Monetary Authority,⁶¹ among many others.⁶² The OCC should take notice of the scenarios used by these jurisdictions and their comparative advantages, as well as the sample scenarios prepared by NGFS.⁶³ Here, we flag three best practices of particular interest: in designing and executing scenario analyses, the OCC should consider defining scenarios that include an orderly and disorderly transition, as well as a hot-house scenario, setting at least a thirty-year analysis window, and accounting for the correlated nature of risks.

- A. *The OCC should consider designing orderly transition, disorderly transition, and hot-house scenarios in order to ensure that banks are exercising safe and sound practices with regards to each of these possible these outcomes.*

The OCC should consider designing scenarios reflecting an orderly transition, disorderly transition, and hot-house world, in order to ensure that banks are meeting safety and soundness assessments under each of these possible future scenarios.

Much is still uncertain about the extent to which the world will rise to the challenge of climate change. The scientific community, through the Intergovernmental Panel on Climate Change, “has collectively chosen four Representative Concentration Pathways (RCPs),” reflecting a range of possible trajectories of greenhouse gas emissions and the resulting climate impacts, “to help [standardize] and improve comparability of climate change analysis.”⁶⁴ Financial sector experts

⁵⁹ Spyros Alogoskoufis et al., *ECB Economy-Wide Climate Stress Test*, EUROPEAN CENTRAL BANK (Working Paper No. 281, Sept. 2021), <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op281~05a7735b1c.en.pdf>.

⁶⁰ GUIDANCE FOR PARTICIPANTS OF THE 2021 BIENNIAL EXPLORATORY SCENARIO: FINANCIAL RISKS FROM CLIMATE CHANGE, BANK OF ENGLAND (2021), <https://www.bankofengland.co.uk/-/media/boe/files/stress-testing/2021/the-2021-biennial-exploratory-scenario-on-the-financial-risks-from-climate-change.pdf>.

⁶¹ HONG KONG MONETARY AUTHORITY, PILOT BANKING SECTOR CLIMATE RISK STRESS TEST (2021), https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/Pilot_banking_sector_climate_risk_stress_test.pdf.

⁶² See NETWORK FOR GREENING THE FIN. SYS., SCENARIOS IN ACTION: A PROGRESS REPORT ON GLOBAL SUPERVISORY AND CENTRAL BANK CLIMATE SCENARIO EXERCISES 6–7 (2021) <https://www.ngfs.net/sites/default/files/medias/documents/scenarios-in-action-a-progress-report-on-global-supervisory-and-central-bank-climate-scenario-exercises.pdf> (listing 29 planned, ongoing, or concluded climate scenario exercises that have been conducted by bank supervisors as of October 2021).

⁶³ NETWORK FOR GREENING THE FIN. SYS., NGFS CLIMATE SCENARIOS FOR CENTRAL BANKS AND SUPERVISORS (2021), https://www.ngfs.net/sites/default/files/medias/documents/ngfs_guide_scenario_analysis_final.pdf [hereinafter “NGFS Climate Scenarios”].

⁶⁴ NETWORK FOR GREENING THE FIN. SYS., GUIDE TO CLIMATE SCENARIO ANALYSIS FOR CENTRAL BANKS AND SUPERVISORS 12 (2020), https://www.ngfs.net/sites/default/files/medias/documents/ngfs_guide_scenario_analysis_final.pdf [hereinafter “NGFS Guide to Climate Scenario Analysis”].

then analyze the economic implications of these different emissions pathways, taking into account the accompanying societal action. The best-case scenario is an “orderly transition,” meaning stakeholders reduce emissions at a consistent rate, stemming warming around 1.5 to 2°C, as compared to pre-industrial levels.⁶⁵ This approach would blunt the worst of physical risks, while imposing some transition costs. On the other hand, it is possible that no climate action—beyond current policies—is taken. In this case, warming peaks at a much higher level leading to a “hot-house” scenario.⁶⁶ Under a hot-house scenario, early transition costs are limited because the economy does not decarbonize; however, physical risks are much more severe than under an orderly transition.⁶⁷ A third possibility is between the two: a “disorderly transition.”⁶⁸ In this scenario, emissions continue at the level of current policy commitments for another decade or so, at which point severe physical harms spur action to limit warming to 1.5 to 2°C, leading to increased transition costs as the world strives to reduce emissions on a shortened timeline. This third scenario, therefore, carries both high initial physical costs and high and abrupt transition costs, though ultimately lower physical risks than the hot-house scenario.

Depending on which scenario occurs, the nature, timing, and scale of physical and transition costs vary. In order to understand whether banks will continue to meet safety and soundness requirements, it is necessary to understand how banks’ portfolios would be affected under these different possible pathways. Among other jurisdictions that have conducted scenario analysis, the three scenarios described above are a consistent fixture, with the primary variation being whether the orderly and disorderly transition cap warming at 1.5 or 2.0°C.⁶⁹

B. The OCC should consider at least a thirty year time horizon and would likely benefit from also considering longer horizons.

In determining the time horizon of the scenario analysis, the OCC should consider at least a thirty year time horizon and would likely benefit from considering longer time periods as well, capacity permitting. NGFS notes the tradeoffs in setting a time window for scenario analysis. While a shorter scenario window period reduces uncertainty in the estimate and may be more immediately actionable, a longer window gives more thorough insight into climate-related risks that are likely to affect the financial institution’s balance sheet, long-term, particularly as assets can be long-lived.⁷⁰

⁶⁵ *Id.* at 18.

⁶⁶ *Id.* See also NGFS Climate Scenarios, *supra* note 63, at 9 (estimating warming between 2.5 and 3.0°C in a hot-house scenario).

⁶⁷ NGFS Guide to Climate Scenario Analysis, *supra* note 64, at 18.

⁶⁸ *Id.*

⁶⁹ Alogoskoufis et al., *supra* note 59, at 16–17; HONG KONG MONETARY AUTHORITY, *supra* note 61, at 2; BANK OF ENGLAND, *supra* note 60, at 56; *but see* BANK OF CANADA, USING SCENARIO ANALYSIS TO ASSESS CLIMATE TRANSITION RISK (2022), <https://www.bankofcanada.ca/wp-content/uploads/2021/11/BoC-OSFI-Using-Scenario-Analysis-to-Assess-Climate-Transition-Risk.pdf> (using four scenarios, “no additional action”, two pathways that limit warming to 2°C, and one pathway that reduces emissions in time to meet a 1.5°C total warming).

⁷⁰ NGFS Guide to Climate Scenario Analysis, *supra* note 64, at 14–15.

Other jurisdictions have taken varying approaches, with some setting windows in 2050, 2080, and 2100, while others consider a timescale of five years or less.⁷¹ If possible, sampling a short, medium, and long-term window would allow the OCC to gain the most thorough understanding of a bank's risk. It may be particularly important to include a window that is at least thirty years in length, in order to account for the traditional thirty year mortgage cycle and other long-term loans. The mortgages that banks make today, for example, could be on their balance sheets until 2052, at which point the collateral will have faced highly escalated physical risks from climate change.

C. In executing scenario analyses, the OCC should be mindful of correlated risks.

In executing scenario analyses, the OCC should be mindful of the interplay among correlated risks. Sudden, large shocks to a bank's portfolio could be more damaging than risks accruing over time in a more manageable fashion. Regional banks, for example, could be at particular risk from geographically correlated risks, such as wildfires or hurricanes. Although non-regional banks benefit from geographical diversity, they are not immune to correlated risks. Climate change may cause shifting environmental conditions and extreme weather events that affect large portions of the world at the same time.⁷² Furthermore, transition risks are also correlated. Under a scenario that includes decarbonization due to policy or technology changes, for example, there may be mass devaluation of oil and gas assets.⁷³ This could lead to large portions of a bank's portfolio losing value simultaneously. The Federal Reserve Bank of New York recently published research investigating the risk to banks from various stranded asset scenarios that may be useful in informing the OCC's thinking.⁷⁴

V. The OCC should consider how to mitigate potential harm to disadvantaged communities from banks' climate risk management strategies. (Draft Principles, Page 1)

The OCC recognized in its Draft Principles that banks' climate risk management strategies have the potential to harm "disadvantaged households and communities"⁷⁵ that also face disproportionately high physical climate impacts. Recognizing this risk, the OCC should examine how it can take proactive steps to mitigate it, including by offering additional guidance, working with other agencies, and incorporating the input of affected communities.

⁷¹ *Id.*

⁷² See Condon, *supra* note 47, at 82–83 ("Recent studies, for example, have highlighted the increasing, yet still largely unanticipated, chance for simultaneous temperature- and weather-induced crop failures in key breadbaskets around the world."); Jitendra Singh et al., *Enhanced Risk of Concurrent Regional Droughts with Increased ENSO Variability and Warming*, 12 NATURE CLIMATE CHANGE 163 (2022), <https://www.nature.com/articles/s41558-021-01276-3.pdf>.

⁷³ See, e.g., Jean-Francois Mercure et al., *Macroeconomic Impact of Stranded Fossil Fuel Assets*, 8 NATURE CLIMATE CHANGE 588 (2018), <https://perma.cc/7YWU-9ZG3>.

⁷⁴ Hyeyoon Jung et al., *Climate Stress Testing*, 977 FED. RESRV. BANK OF N.Y. STAFF RPTS. (Sept. 2021) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3931516.

⁷⁵ Draft Principles, *supra* note 2, at 1, 3, 5.

Due to historical and ongoing injustices, low-income communities and communities of color face heightened climate risks such as flooding, wildfires, and heat stress.⁷⁶ Some of these inequities can be traced back to redlining, a set of racist housing policies that pushed communities of color into less desirable areas, with disparities in environmental hazards that persist to this day.⁷⁷ Differential spending on infrastructure, such as sewer systems, and disaster assistance has reinforced this divide in risk.⁷⁸ Today, a home located in a historically redlined neighborhood is 20% more likely to suffer high flood risk than a home in a greenlined neighborhood.⁷⁹ Historically redlined neighborhoods also face higher heat stress.⁸⁰

As a result, if banks decided to reduce lending in areas exposed to higher physical climate risks as a risk management strategy, low-income communities and communities of color could be disproportionately affected.⁸¹ The OCC recognizes this concern in its Draft Principles, urging banks to consider “climate-related financial risk impacts on . . . [low- to moderate-income] and other disadvantaged households and communities, including physical harm or access to bank products and services.”⁸² The OCC also advises banks to consider “possible fair lending concerns if the bank’s risk mitigation measures disproportionately affect communities or households on a prohibited basis such as race or ethnicity.”⁸³

The OCC should contemplate whether and how it could revise the Draft Principles to mitigate the risk of inequitably reduced credit access and also how it might work with other agencies to address these challenges more comprehensively, informed by the input of affected communities. For example, in subsequent guidance, the OCC could consider more specifically outlining intersections between climate risk and banks’ obligations under the Fair Housing Act, Equal Credit Opportunity Act, and Community Reinvestment Act.⁸⁴ This could include offering

⁷⁶ See ANNA CASH ET AL., CLIMATE CHANGE DISPLACEMENT IN THE U.S. – A REVIEW OF THE LITERATURE (2020), <https://perma.cc/S923-2YNL>; Brad Plumer & Nadja Popovich, *How Decades of Racist Housing Policy Left Neighborhood Sweltering*, N.Y. TIMES (Aug. 24, 2020), <https://perma.cc/CZ4B-6QAS> (explaining how formerly redlined neighborhoods are more likely to suffer from heightened heat stress today); Jesse Keenan et al., *Climate Gentrification: From Theory to Empiricism in Miami-Dade County, Florida*, 13 ENV’T RES. LETTERS 054001 (Apr. 2018).

⁷⁷ Kriston Capps & Christopher Cannon, *Redlined, Now Flooding*, BLOOMBERG CITYLAB (Mar. 15, 2021), <https://www.bloomberg.com/graphics/2021-flood-risk-redlining/>; Plumer & Popovich, *supra* note 76.

⁷⁸ See Capps & Cannon, *supra* note 77; Env’t Def. Fund, Comments on Request for Information on FEMA Programs, Regulations, and Policies 1 (Jul. 21, 2021), <https://www.edf.org/sites/default/files/documents/EDF%20FEMA%20RFI%20Climate%20Chance%20and%20Underserved%20Populations%207.21.21%20%28002%29.pdf> (“FEMA . . . provid[es] a critical safety net of support and resources when communities face catastrophic disaster damages. However, long-standing policies and programs have actively exacerbated the natural hazard and socioeconomic vulnerability of underserved communities, as noted in recent analyses of unequal outcomes of post-disaster FEMA assistance along racial lines.”).

⁷⁹ *Id.*

⁸⁰ See, e.g., Plumer & Popovich, *supra* note 76.

⁸¹ Draft Principles, *supra* note 2, at 1, 3, 5.

⁸² *Id.* at 3.

⁸³ *Id.* at 5.

⁸⁴ See *Fair Lending*, OFF. OF THE COMPTROLLER OF THE CURRENCY, <https://www.occ.treas.gov/topics/consumers-and-communities/consumer-protection/fair-lending/index-fair-lending.html> (last visited Feb. 7, 2022); *Community Reinvestment Act (CRA)*, OFF. OF THE COMPTROLLER OF THE CURRENCY, <https://www.occ.treas.gov/topics/consumers-and-communities/cra/index-cra.html> (last visited Feb. 9, 2022); OFF. OF THE COMPTROLLER OF THE CURRENCY, FAIR

recommendations for banks on strategies for reducing climate risk exposure that would preserve lending in low-income communities and communities of color, such as advising banks on how to weigh resilience measures in risk assessments.

With other agencies, the OCC could consider supporting the formation of a coordinating structure, such as an interagency working group, focused on the issue of continued credit and insurance access in low-income areas at heightened risk from climate change.⁸⁵ A non-exhaustive list of potential agency members could include the Federal Emergency Management Agency, which coordinates disaster relief funding and is working to update its practices to advance equity and bolster climate resilience;⁸⁶ the Federal Insurance Office, which is researching climate change-driven insurance coverage gaps;⁸⁷ the Department of Housing and Urban Development, which is working on issues of climate risk and equity in mortgage lending;⁸⁸ the Treasury Department’s Community Development Finance Institutions Fund and Commerce Department’s Economic Development Administration, which facilitate access to funding for low-income communities;⁸⁹ and other financial regulatory entities. Additionally, the expertise and priorities of affected communities should inform the creation and operation of any such interagency group.

* * *

LENDING, COMPTROLLER’S HANDBOOK (2010), <https://www.occ.treas.gov/publications-and-resources/publications/comptrollers-handbook/files/fair-lending/pub-ch-fair-lending.pdf>.

⁸⁵ The White House Climate Policy Office has formed similar interagency working groups, including one on flood resilience, in response to Executive Order 14,030 on Climate-Related Financial Risk. See Press Release, Readout of the White House Flood Resilience Interagency Working Group Meeting of Implementation of the Federal Flood Risk Management Standard (Aug. 27, 2021), <https://www.whitehouse.gov/ceq/news-updates/2021/08/27/readout-of-the-first-white-house-flood-resilience-interagency-working-group-meeting-on-implementation-of-the-federal-flood-risk-management-standard/>. Credit access protection would also align with the goals of Executive Order 14,030, which include “accounting for and addressing disparate impacts on disadvantaged communities and communities of color.” See Exec. Order 14,030 §1, 86 Fed. Reg. 27,967, 27,967 (May 25, 2021).

⁸⁶ Fed. Emergency Mgmt. Agency, Request for Information on FEMA Programs, Regulations, and Policies, 86 Fed. Reg. 21,325 (Apr. 22, 2021); see generally Env’t Def. Fund, Comments on Request for Information on FEMA Programs, Regulations, and Policies (July 21, 2021), <https://www.edf.org/sites/default/files/documents/EDF%20FEMA%20RFI%20Climate%20Chance%20and%20Underserved%20Populations%207.21.21%20%28002%29.pdf>.

⁸⁷ Fed. Ins. Off., Request for Information on the Insurance Sector and Climate-Related Financial Risks, 86 Fed. Reg. 48,814 (Aug. 31, 2021) (requesting information on how gaps in insurance may be exacerbated by climate change). For an overview of how climate change may affect insurance access, please refer to Inst. for Pol’y Integrity et al., Comments on Request for Information on the Insurance Sector and Climate-Related Financial Risk, 5–6, 15–16 (Nov. 15, 2021), https://policyintegrity.org/documents/FIO_RFI_-_Comments.pdf.

⁸⁸ U.S. CLIMATE-RELATED FINANCIAL RISK EXECUTIVE ORDER 14030, A ROADMAP TO BUILD A CLIMATE-RESILIENT ECONOMY 28–29 (2021), <https://www.whitehouse.gov/wp-content/uploads/2021/10/Climate-Finance-Report.pdf>.

⁸⁹ See *About Us*, CMTY. DEV. FIN. INSTS. FUND, U.S. DEP’T OF THE TREASURY, <https://www.cdfifund.gov/about> (last visited Feb. 9, 2022); *Overview*, U.S. ECON. DEV. ADMIN., U.S. DEP’T OF COMMERCE, <https://eda.gov/about/> (last visited Feb. 9, 2022).

We thank the OCC for its attention to climate-related financial risk and its consideration of these comments.

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