16 February 2022

Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel, Switzerland

Re: Comments on the Principles for the Effective Management and Supervision of Climate-Related Financial Risks

On behalf of Public Citizen, a US public interest advocacy group, and more than 500,000 members and supporters, we welcome the opportunity to comment on the Basel Committee on Banking Supervision's Principles for the Effective Management and Supervision of Climate-Related Financial Risks. These Principles are timely given the now widespread acknowledgment that climate change presents risks to the safety and soundness of banks and to the financial system. Outlining principles for both banks and prudential supervisors will advance global efforts to assess and address these risks.

General Comments

The consultative document provides welcome acknowledgment that climate change includes unique risk features that need to be better understood and addressed, and that could impact other material risks. It also rightly notes the high degree of uncertainty around these risks and the prospect that some will materialize beyond a bank's traditional planning horizon.

The Principles also provide critical guidance to banks on reducing their exposure to climate risk and to supervisors on ensuring that banks are responding adequately to their risk. The Principles confirm, for example, that banks should take a 'whole-of-business' approach to climate risk, with attention to governance, internal controls, capital and liquidity adequacy, risk management measures, monitoring and reporting, and scenario analysis. The Principles importantly acknowledge that climate-related risk drivers require attention to credit, market, liquidity, operational and other risks. They similarly confirm that supervisors should pay due attention to climate risk as they evaluate a bank's risk management framework and its implementation. We particularly support prompts to supervisors to conduct their own scenario analyses, to consider a range of time horizons as part of these analyses, and to recognize the limitations of such analyses when communicating their results and using them in supervisory assessments. We believe, however, that these measures to reduce individual bank exposure to climate risk would benefit from additional guidance on how to address unique aspects of climate risk and additional detail on how to integrate risk into broader risk management structures.

Additionally, while the focus on ways individual banks can address their exposures to climate risks is essential, it provides inadequate attention to two other critical concerns: (1) the risks that large banks—through their financing of fossil fuels and other high-emitting activities—create for smaller banks, other entities, and the financial system; and, relatedly, (2) the risks created for other entities by risk management measures taken by banks. Both concerns require greater attention to the primary underlying reasons climate risk exists—greenhouse gas emissions—and the central role that bank financing plays in enabling these emissions. To address these concerns, supervisory guidance should include macroprudential policies and identify robust parameters for net-zero transition plans to which banks have made public commitments.

Addressing Individual Bank Exposure to Climate Risk

The Principles usefully begin to recognize ways that climate-related financial risk differs from the other forms of risk that banks ordinarily seek to manage. As other regulators have discussed, the effects of climate-related financial risk will manifest in uncertain ways over a long time horizon.[1] The Principles reflect this reality by encouraging banks to assess climate risk over time periods that may extend beyond a bank's typical strategic planning horizon and by recommending scenario analysis and other tools for analyzing uncertain exposures. Climate-related financial risks are also highly correlated, in ways that may make traditional hedging and insurance approaches to risk management ineffective.[2] The Principles should explicitly recognize these correlations. They do appropriately recommend that management set internal limits for various types of exposures and attempt to identify and manage the impact of material risks that are not yet known.[3]

From this foundation, the Principles can be strengthened by providing more detailed expectations for how banks address climate-related risk. Such additional expectations fall into two categories: additional guidance on the unique aspects of climate-related financial risks and additional detail on how to integrate those risks into broader risk management structures.

Addressing the unique aspects of climate-related financial risk

1. Precautionary Approach

A lesson of the 2008 financial crisis is that even supposedly large and sophisticated banks like Lehman Brothers or Wachovia cannot engineer away threats that are too uncertain, too correlated, or too profitable. Hedging and insurance are always susceptible to tail risks and unexpected developments. Particularly for longer term scenarios where global temperatures exceed 1.5°C, relying on these solutions may introduce new risks instead of mitigating first-order

[1] See, e.g., https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2019/ss319

[2] https://www.dfs.ny.gov/system/files/documents/2021/11/dfs-insurance-climate-guidance-2021_1.pdf at 15

[3] Paras. 26, 27.

ones. Climate change will continue generating new and unpredictable risks that may turn diversification into correlation.

A bank's response cannot be to ignore uncertain or unpredictable risks until they can be appropriately modeled. Rather, the BCBS should encourage banks to adopt a precautionary approach to climate-related financial risk. This is the favored approach for addressing climate-related risk by experts like the United Nations Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change.

A precautionary approach means prioritizing reducing risk, even where there is not full certainty about its magnitude or probability, and in the absence of perfect scientific or economic data. Implementing this approach could mean taking on less risk than what models suggest is acceptable, on the assumption that those models do not accurately quantify the likelihood or magnitude of all relevant risk factors, and showing greater sensitivity to high-magnitude risks even when models suggest they are remote. This latter strategy is particularly apt in the climate context. Climate models themselves under-forecast harms, largely because significant aspects of climate change cannot be modeled yet. The science is being updated constantly, and most updates darken the outlook.

When developing risk management procedures, precautionary approaches also entail not just avoiding unacceptable harms, but also planning for resilience to inevitable failures. And they counsel banks to assume every part of the business is subject to climate risk, even in seemingly implausible lines of business. Global warming is still increasing and, even if it weren't, scientific knowledge is still growing.

2. Banks should reduce risks now, even if they are unlikely to manifest for many years.

A related challenge is the long time horizon under which many climate-related risks may manifest. As the BCBS recognizes in the Principles, typical bank strategic plans consider the risks and opportunities of the next three to five years and may not be well suited for identifying or avoiding risks that may take 30 or 40 years to fully manifest. As the time horizon lengthens, it becomes more difficult to project how a bank's operations and the broader economic context will develop.

The BCBS recommends that banks use scenario analysis to better assess risks outside of the standard time horizons. But improved assessment will help mitigate risk only if banks embed the findings into their risk models and management tools today. The uncertain and non-linear nature of climate harms means that adverse outcomes projected to occur in 20 or 30 years based on the best current climate science could manifest much sooner, or with much greater severity. In addition, long duration assets that appear entirely safe in a three to five year horizon may become extremely risky over two or three decades. Finally, bank assets can become path dependent, as even short-duration assets are typically refreshed with substantially similar ones. A failure to start reducing foreseeable risks now means that necessary future readjustments may be far sharper and more disruptive to a bank's business and to its customers. To better manage

these risks, banks should be taking steps now to mitigate risks that they believe will not manifest for years instead of assuming that they can mitigate those risks in the future.

3. Banks should develop plans for protecting their safety and soundness from the zero emissions transition.

A particularly important example of the need to manage risk for long time horizons is how banks plan for the zero-emissions transition. Governments and most major banks have said that they are pursuing net-zero emissions by 2050 targets, in line with the Paris Climate Agreement. The most recent set of commitments by Citi, which other major banks will likely follow, include commitments to make concrete reductions in financed fossil fuel emissions by 2030. But even Citi has not committed to ending financing for expanded fossil fuel activities.

This poses a contradiction: on the one hand, banks are projecting a world where emissions fall off sharply in order to keep global warming to within 1.5°C of pre-industrial temperatures. On the other, banks are continuing to fund new fossil fuel projects, which the International Energy Agency has concluded are incommensurate with that climate target. Such new projects, which are usually capital intensive and can feature long payback periods, may become stranded long before they have fully amortized their costs. Although banks may be able to decline to roll over a loan to a company before its assets reach this point, this risk management strategy likely relies on the company being able to find financing elsewhere to repay the loan principal. If the market for emissions-intensive assets shifts more quickly than expected, refinancing with another lender may be impossible, leaving the bank to choose between holding a rapidly degrading loan or a default.

To avoid the negative balance sheet effects of a sudden repricing, banks should develop and implement plans for responding to this transition. Such plans should reflect projections for when high-emissions activities and asset classes will be phased out, based on the latest government and private sector announcements. They should then develop a feasible pathway for reducing the bank's own exposure to such sectors in a way that mitigates the fire sale risk of a faster-than-expected transition. Because hedging and insurance may become less reliable tools to manage exposure as climate change worsens, banks should include plans for actually reducing their holdings of the riskiest assets in those plans.

Better integrating climate-related financial risk into existing structures

1. The BCBS should add standards for assessing asset quality to its guidance.

The FSOC's Report on Climate-Related Financial Risk repeatedly highlights the way that both the physical harms of climate change and the ongoing transition toward clean energy and away from greenhouse gas emissions may lead to sharp changes in the values of certain assets.[4] Because of this risk, banks will need to incorporate climate-related risks into their assessment of numerous affected asset classes.

[4] *See, e.g.*, FSOC Report at 14.

The Principles should provide some initial expectations for how banks will undertake such guidance. The BCBS should immediately highlight that numerous asset classes are subject to both physical and transition risks, including oil and gas lending, agricultural lending, and real estate lending, and that climate risk is another vector for cross-asset class risks. As an example, reserve-based lending to oil and gas exploration companies is based on assumptions about the value of proven producing reserves, subject to semi-annual borrowing base redeterminations. The BCBS should explicitly state that banks need to take transition risk into account in valuing those reserves and in making assumptions about how quickly the value of a producer's borrowing base may decline. It should recommend that banks incorporate climate considerations like these into their asset quality assessments across the board.

2. Data and disclosure

The Principles direct banks to consider climate-related financial risks as part of their underwriting and monitoring of portfolios.[5] We strongly support the focus on climate-related risk assessments for client onboarding, credit application and credit review processes. The guidance should be more specific about climate-related risk information needed from potential clients and the need for banks to have capacity to appropriately assess the information's veracity and completeness. At a minimum, the information banks need should include information compliant with the Task Force on Climate-Related Financial Disclosures recommendations, including a company's metrics, targets, and transition plans.[6] For instance, for underwriting credit, banks should review the direct and indirect emissions attributable to a company at present, as well as projections of how an extension of credit would affect those emissions. This will help a bank assess the transition risk it assumes from extending credit. Banks should also ask for a company's own transition plans and understand how it is preparing for a coming net zero transition. That will help the bank better understand a potential client's vulnerability to transition risk.

Banks may find it difficult to obtain such information from some clients and resist such a process. But a company's failure to generate this information is itself a red flag about its ability to effectively manage climate risk, and should raise concerns about the safety and soundness of a loan.

Addressing the safety and soundness of all banks and ensuring fair access to capital

The consultative document provides useful principles to help banks assess and address their exposures to climate risk. This is an important first step to ensuring both the safety and soundness of individual banks and the broader financial system. However, while the document suggests that these principles will benefit all banks equally by seeking to "accommodate a diverse range of banking systems," the reality is that many smaller banks, including, for

[5] Principles at 4.
[6] Task Force on Climate-Related Financial Disclosures, Guidance on Metrics, Targets, and Transition Plans, 2021.

example, community and agricultural banks in the US as well as less-capacitated banks in developing countries, will be disproportionately impacted by climate risk. Increasingly, the features of these smaller banks in climate-vulnerable areas—entities that exist largely to serve given geographic areas and have relatively fixed portfolios—are colliding with the realities of climate change as an increasingly frequent, severe, and unpredictable threat to these areas. Such impacts to these financial entities likely will significantly increase challenges that many individuals, particularly in marginalized communities, face in securing access to credit and otherwise dealing with climate change.

The particular vulnerabilities of community banks in the US to climate change have been detailed previously. A recent analysis of bank exposure to physical risk notes that there "are already examples of climate-related disasters that have fundamentally impacted the safety and soundness of community banks and credit unions."[7] These banks face heightened safety and soundness concerns:

> Based on their local expertise, community banks tend to focus on a few key sectors, such as residential mortgages, commercial real estate (CRE), small business financing, and agricultural sector loans. Given this focus, community bank loan portfolios are more exposed to the physical risks of climate change considering the vulnerability of these sectors to acute weather events in the near term and transition risks in the medium to long term.[8]

The Commodity Futures Trading Commission's Climate-Related Market Risk Advisory Subcommittee concluded that such climate-related "sub-systemic shocks" significantly threaten the financial health of community and agricultural banks.[9] It additionally indicates that, when these threats materialize, small businesses, farmers, and households can be left without access to critical financial services—with particular damage to "areas that are already underserved by the financial system, which includes low-to-moderate income communities and historically marginalized communities." It describes that such repeated sub-systemic shocks represent "a *systemic crisis in slow motion*."

Made apparent by these and other reports is the reality that the more direct, immediate physical impacts of climate change to homeowners, local infrastructure, and local businesses distinguish climate risk from previous financial risks. Climate-related impacts can create significant credit and operational risks for banks within a region even in the absence of failures of large institutions and a systemic crisis tied to their interconnectedness. A focus only on exposures to large institutions will not address these risks.

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[7] Ceres, Financing a Net Zero Economy: The Consequences of Physical Climate Risk for Banks, (Sept. 8, 2021).
[8] *Id*.
[9] Climate-Related Market Risk Advisory Subcommittee, Managing Risk in the U.S. Financial System, Commodity Futures Trading Commission (Sept. 2020).

The BCBS should also acknowledge that risk management measures it encourages could disproportionately impact the most vulnerable in "hotspot areas"—including not only the most vulnerable within countries, but also more vulnerable countries that lack the capacity to avoid and build resilience and adapt to risks posed by climate change.[10] It is clear, for example, that a bank's decision to increase credit costs or decrease credit availability as a climate risk management tool has the potential to disparately harm more vulnerable and marginalized communities both domestically and abroad. These decisions will impact financing to countries that are more vulnerable to climate change. The draft should acknowledge and address these impacts.

The most effective risk management measures for these entities are those related to reduced emissions, and yet the document does not explicitly recognize this need. One important way the document could advance useful supervisory guidance in this regard is to recognize that net-zero transition plans are important measures not only for banks managing their own transition risks, but also for banks, communities, and other entities vulnerable to physical risks. These plans are also important for the stability of the financial system. The document could outline for banks the parameters they should follow while meeting their public commitments to net zero.

Parameters for Net-zero Emissions Commitments

Climate commitments are a growing trend among large banks. Recently, for example, nine US banks have made specific commitments to "net-zero" emissions as part of the bank-led Net-zero Banking Alliance (NZBA) initiative under the Glasgow Financial Alliance for Net Zero (GFANZ). Other banks have made similar public commitments through other venues. For members of the NZBA, commitments include reducing the emissions financed via their lending or investment activity, as well as the direct emissions from operations.

A number of watchdog groups have raised questions about the sincerity of these commitments, pointing out that many of these banks continue to be among the largest fossil fuel funders. This disconnect should raise serious concerns for bank regulators. It suggests that a bank's public statements about its strategic direction are often not consistent with its operational decision making and internal controls. If the failure occurs in such a public, high stakes arena, it should create doubts about how effectively management can transmit other strategic direction and risk management initiatives throughout the business. Such doubts would pose a serious risk to a bank's safety and soundness.

Along with their positive reputational benefits, transitions from financing emissions are a way to manage climate risk. Where a bank cannot bring its internal practices in line with its commitments, that failure should serve as an early warning sign that the bank may not be able to implement other climate risk management imperatives into its operations. Like climate risk management, climate commitments are a developing field. Although a number of standard setters like the NZBA are working to align criteria across banks, there is still no single definition

[10] Serhan Cevic and João Tovar Jalles, Why Climate Change Vulnerability is Bad for Sovereign Credit Ratings IMFBlog (Feb. 17, 2021).

or standard for what a commitment means. To help regulators evaluate the alignment of banks' public commitments and internal management strategies, the BCBS should provide additional guidance on this topic. Among the most significant questions this guidance should address are (1) reliance on offsets; (2) limits on new fossil fuel development and phasing out of fossil fuels; and (3) measurable near-term targets.

1. *Banks should not rely on offsets to achieve their net-zero commitments.*

Some bank climate commitments rely, either implicitly or explicitly, on financing reductions of carbon in the atmosphere in addition to reducing the level of emissions financed by the bank.[11] As implemented, these reductions are intended to cancel out existing emissions, instead of ending them. This is the "net" in net zero commitments. Such approaches are known as "offsets."

Significant concerns exist about the efficacy of relying on nature-based offsets, such as forests and wetlands as sinks of greenhouse gases. These include an exaggeration of the level of additional carbon emissions actually avoided for preservation of existing forests, the limits on the level of emissions that can reasonably be sequestered via the creation of new natural carbon sinks, and the challenges of protecting natural sinks from human and natural impacts in ways that keep the emissions from being returned to the atmosphere at a later date.

- Exaggeration of additional emissions reductions: Many carbon offset deals pay for the manager of a forest to continue what they are already doing, creating a challenge for the "additionality" of an offset. At best, these carbon credits have no impact on emissions; at worst, they are used to justify *increased* emissions. Such baseline accounting is typical of large dealers in carbon offsets and acceptable to many offset standard setters.[12] Banks relying on this kind of offset are performing an accounting trick, not reducing carbon. These offsets should not be permitted, and a bank's reliance on them should raise questions regarding management's competence to meet any of its climate commitments or, alternatively, its willingness to use other accounting tricks to create the appearance of meeting them.

- Limits on sequestration: Another approach to carbon offsets is afforestation or, more plainly, planting trees. This superficially appealing idea rapidly runs into scaling challenges. As of 2021, global climate pledges already set a near term goal of using afforestation to sequester 2 gigatons of CO2 emissions annually.[13] Meeting those commitments would require ecosystem restoration of 678 million hectares, twice the land area of the country of India.[14] That level of afforestation is not plausible for one

[11] Anne Finucane, "Carbon Offsets Can Help in the Transition to Net Zero," Bank of America Newsroom (Jun. 8, 2021).
[12] Ben Elgin, "JPMorgan, Disney, Blackrock Buy Nature Conservancy's Useless Carbon Offsets," Bloomberg, (Dec 9, 2020).
[13] Doreen Stabinsky, Chasing Carbon Unicorns: The Deception of Carbon Markets and Net Zero, Friends of the Earth International (Feb. 2021).
[14] Id.

year, much less annually, and attempts to pursue it on that scale would likely trigger negative consequences for Indigenous peoples and other local communities residing on the land targeted for afforestation. Reliance on afforestation for offsets at any scale is simply implausible, and should raise questions about management's ability to assess the feasibility of a project.

- Protecting carbon sinks: Even assuming that some nature-based projects actually sequester carbon emissions relative to a reasonable baseline, there is still a challenge of maintaining them over time. Unfortunately, the increasing physical impacts of climate change create a new set of hazards. The increasing frequency of wildfires in 2020 and 2021 has burned a number of projects designed to sequester carbon in the US.[15] Some offset projects have "buffer pools" of unused emissions, but the growing frequency of wildfires will only increase the risk that those pools will be exceeded, rendering their contribution to a net-zero pledge null.

In addition to these nature-based offsets, there are efforts to develop or deploy carbon removal technologies, such as carbon capture, utilization and storage (CCUS), and direct air capture (DAC). These technologies are largely unproven with existing demonstration projects exhibiting challenges. For instance, a hydrogen plant that Shell touted as using a carbon capture system actually emitted 50% more greenhouse gases than it sequestered during the period of its operation.[16] Meanwhile, the cost to capture carbon dioxide at the world's largest direct air capture plant is four to eight times higher than what is needed to turn a profit.[17] The plant's operator does not expect direct air capture to be cost competitive until the late 2030s at the earliest. Assuming for the sake of argument that this projection is accurate, the technology will be far too late to play a significant role in meeting science-based emissions targets. Given these challenges, banks relying on these technologies in their net-zero plans should have to demonstrate specific, committed projects that are fully proven to reduce carbon safely and permanently at scale, and appropriately incorporate the cost of both funding and adequately monitoring those commitments into their profitability forecasts. No projects currently meet these criteria, and there may be none for decades, if ever. Given the current state of development, reliance on this technology to generate meaningful emissions reductions as part of a net-zero commitment should be viewed with extreme skepticism.

As a result of these concerns, and the current scarcity of offsets that meet quality standards, offsets are becoming increasingly disfavored among those seeking to reduce emissions in the financial sector and beyond. GFANZ Chair Mark Carney has indicated that use of such "carbon offsets" should be a "last resort" to cover residual emissions that remain at the conclusion of an extensive process to reduce absolute emissions to zero. Similarly, the European Commission and Parliament recently provisionally agreed on the need to prioritize emissions reductions over emissions removals. The BCBS should provide guidance on how member jurisdictions could

[15] Debra Kahn, Wildfires rage and a tool to combat climate change goes up in smoke, POLITICO (July 27, 2021).
[16] Global Witness, Hydrogen's Hidden Emissions (Jan 20, 2022).
[17] Id.

assess the emissions removal component of climate commitments that reflects the challenges in employing them recognized by other regulators and standard setters.

2. *Any science-based climate commitment must include a bar on financing new fossil fuel projects.*

The International Energy Agency's Net Zero Emissions Scenario and related Roadmap for the Global Energy Sector say that, to limit global temperature rise to 1.5°C and meet Paris Agreement goals, new fossil fuel development cannot be permitted. But, as discussed above, U.S. banks, including JPMorgan Chase, Citi, Wells Fargo, and Bank of America are the most significant financiers of fossil fuels globally and have continued to fund both new and existing development despite voicing their support for the Paris Agreement. Only Citi has made commitments to reduce the absolute volume of financed emissions from energy sources, but even its commitment lacks any plan to cease funding new fossil fuel development. This means these banks are not aligning their management plans with their climate commitments, and cannot do so as long as they do not exclude fossil fuel expansion from their business. The BCBS should, as part of its guidance, explain how it will assess the alignment of continued support for fossil fuel expansion and other high emissions sectors, with net zero climate commitments.

3. *Climate commitments must include short and medium-term targets.*

Most banks' climate commitments promise net-zero financed emissions by 2050. Few, however, give any near and intermediate timelines or metrics for how they will achieve them. Given the transition risk faced by high emissions assets, this is not a safe and sound practice. Banks that expect to do the bulk of their emissions reductions in the late 2030s and 2040s may find a limited market for those assets, especially if other banks have the same idea. Such a situation could require writedowns of asset values that would threaten a bank's solvency. Measurable, near-term sector-specific targets for absolute financed emissions are centrally important to monitoring whether a bank has a credible plan to meet its climate commitments and is executing the plan effectively. Citi's recent climate commitments reflect this reality, with significant emissions drawdowns by 2030, although it fails to meet another reality, the need to end new development. The BCBS should help member jurisdictions understand what a safe and sound emissions reduction pathway looks like, and the specific milestones that will help examiners assess whether a bank can credibly align its business with climate commitments in a safe and sound fashion.

Capital and Liquidity Requirements

The Principles usefully recognize that climate risk requires attention to capital and liquidity adequacy. Principle 5 indicates, for example, that banks should incorporate material climate-related financial risks into their internal capital and liquidity adequacy assessment processes.

The Principles should also discuss the need for macroprudential policy, including macroprudential-related capital requirements, as evidenced by recent research from the

European Central Bank.[18] These policies would respond to "the long horizon of climate-related risks and their complex interactions." A failure to employ a macroprudential approach would be not only ineffective but also inequitable, putting the onus on climate vulnerable countries already limited in their capacity to respond to climate change-related impacts.

In this regard, the Committee should utilize not only Pillar II, but also Pillar I capital requirements. Use of these requirements for fossil fuel exposures would both address individual bank risk and prevent the buildup of systemic risk by disincentivizing these investments.

The Committee should also introduce a one-for-one rule for stability: that every euro/dollar/pound of financing provided to new fossil fuels must be matched by one euro/dollar/pound of a financial institution's own funds. And where supervisors find that climate risk is excessively high, restrictions should be imposed on lending to certain categories of activities, in particular financing for new fossil fuel exploration and extraction.

[18] Ivana Baranović, Iulia Busies, Wouter Coussens, Michael Grill and Hannah Hempell, The challenge of capturing climate risks in the banking regulatory framework: is there a need for a macroprudential response? Macroprudential Bulletin, European Central Bank (Oct. 22, 2021).