

SUPERVISING THE TRANSITION:

How Banking Regulators
Can Address the Coming
Shift to Net-Zero Emissions

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SECTION ONE

INTRODUCTION

The financial system is invested in the appearance of taking climate change seriously, but its public commitments mask a failure to take meaningful action.

Financial institutions and regulators agree that climate change poses significant physical risks to markets, even as the ongoing clean energy transition creates risk for assets and lines of business that may rapidly lose value as political, economic, and technological developments render them obsolete. As customers, investors, and employees recognize these trends, they are starting to scrutinize whether and how banks are addressing climate-related risks. In response, US megabanks trumpet their commitment to reducing operational and financed emissions in line with science-based climate targets. Banks promise to reach “net-zero” emissions by 2050, in order to meet the Paris Agreement goal of limiting global temperature increase to 1.5°C above pre-industrial levels. Following through on these commitments would strengthen the financial system against the ongoing and growing shocks created by both the climate crisis and the low-carbon energy transition.

But it appears these net-zero commitments are rarely worth the pixels they’re rendered on (Scott 2022). The largest American banks, all of which have committed to “net-zero” emissions by 2050 and announced initial plans to meet those commitments, remain the world’s biggest financiers of the fossil fuel projects that drive global emissions (Shraiman and Cushing 2022). None have stopped or pledged to stop financing new oil and gas production or infrastructure projects such as pipelines, even though such projects are incompatible with limiting global temperature rise to 1.5°C above pre-industrial levels. Taking advantage of the ill-defined “net” in net-zero, most banks have given few, if any, specifics on how they will achieve the promised emission reductions, aside from noting vague plans to engage with borrowers and other clients on the issue. In short, despite making commitments to reduce emissions, banks continue to operate in ways that do not reflect these promises—or the growing risks posed by climate change and the clean energy transition.

US banking regulators have noticed this dangerous disconnect. In December 2021, the Office of the Comptroller of the Currency (OCC) became the first US regulator to issue guidance for large banks on addressing the risks posed by climate change (OCC 2021). The OCC’s draft principles for addressing climate risk state that “where banks engage in public communication of their climate-related strategies, boards and management should ensure that any public statements about their banks’ climate-related strategies and commitments are consistent with their internal strategies and risk appetite statements” (OCC 2021). The Federal Deposit Insurance Corporation (FDIC), another banking regulator, proposed guidance with similar language in March 2022 (FDIC 2022). In December 2022, the Federal Reserve joined its peer regulators in issuing “substantially similar” guidance with the same expectations regarding commitments (Board of Governors 2022).

Transition plans and climate commitments are within the purview of bank regulators, and their forthcoming scrutiny of voluntary climate commitments is an important first step. Climate commitments and transition plans can illuminate how well bank management understands climate risk and how effectively this group can implement a plan for handling such risk. To that end, the principles are a welcome and needed start. But regulators must complement them with more detailed guidance, as the principles fall far short of providing sufficient guidance for banks or examiners to assess whether a bank's commitments and internal strategies are aligned, or what risks are revealed by any misalignment. Given the wide adoption of net-zero commitments and the lagging development of transition plans, regulators should provide detailed guidance on how they will assess alignment and how failure to achieve alignment raises concerns about a bank's management and asset quality.

But regulators should not rely on banks meeting their voluntary commitments. The passage of the Inflation Reduction Act (IRA), along with a package of California legislative and regulatory enactments in August 2022, constitutes a major government effort to reshape the economy, and will hasten the clean energy transition. Modeling from the Princeton Net Zero Lab's REPEAT Project predicts that the IRA will significantly reduce emissions by 2030 (Jenkins et al. 2022). Coupled with state-level policies, the IRA is likely to reshape the economic landscape for energy producers and consumers in the US, which is the type of transition risk that both banks' net-zero commitments and regulatory climate-related risk guidance are meant to address. Banking regulators should make sure banks are preparing for future disruptions instead of taking unnecessary risks for short-term gains.

Given the uncertainty and complexity inherent in both climate change and the energy transition, net-zero transition plans are a strong risk management and financial stability tool available to large banks and their regulators. To protect the banking system, regulators should encourage or even require large banks to adopt commitments to reach net-zero emissions by 2050 and credible transition plans to achieve that goal.

SECTION TWO

LARGE BANK ACTIONS ARE INCONSISTENT WITH THEIR PUBLIC COMMITMENTS TO REDUCE THEIR GREENHOUSE GAS EMISSIONS

The largest US banks have made public commitments to reduce their financed and operational emissions in line with science-based limits. Seven large US banks, including JPMorgan Chase, Citi, Bank of America, and Wells Fargo, have made specific public commitments to reach net-zero emissions by 2050 as part of joining the global Net-Zero Banking Alliance (NZBA) initiative under the Glasgow Financial Alliance for Net Zero (GFANZ) (Sutton 2021). A few other large banks, like Truist (Truist 2022) and US Bank (US Bank 2021), have made similar public commitments through other venues.

To join NZBA, members must commit to reducing the emissions financed via their lending or investment activity to net zero by 2050 (UNEP FI 2022). Eighteen months after joining NZBA, banks are also expected to set intermediate targets, including a 50 percent reduction in greenhouse gas emissions by 2030. This requirement reflects the fact that carbon emissions are cumulative and the goal of limiting global temperature increase to 1.5°C above pre-industrial levels cannot be met if banks continue “business as usual” and only consider making real adjustments years or decades in the future.

Furthermore, all of these commitments require reducing significant emissions in bank borrowers’ and other clients’ value chains, which include the emissions of the client’s suppliers, vendors, and customers. This especially impacts financing for industries in which value chain emissions constitute the bulk of their business, including the coal and oil and gas sectors. Banks that join NZBA are also required to take into account the best available scientific knowledge in designing their plans, use decarbonization scenarios from credible and well-recognized sources, and prioritize reductions in the most greenhouse gas-intensive and highest greenhouse gas-emitting sectors within their portfolios. Finally, members commit to limit their reliance on negative-emissions technologies, such as carbon capture, in assessing their reductions.

A standardized measurement system is critical for assessing progress on net-zero emissions commitments. To help quantify their emissions in a consistent way, most large banks with net zero commitments have also joined the Partnership for Climate Accounting Financials (PCAF), a global voluntary standard setter (PCAF 2022). PCAF sets out a methodology for how banks account for the emissions from their lending, investments, and capital markets activities across different sectors, as well as expectations for how to assess data quality and disclose this information.

In joining NZBA and PCAF, large US banks have agreed to certain key elements of the transition plans needed to meet their public net-zero commitments. These elements reflect a considered process developed with wide-ranging stakeholder input (UNEP FI 2021). With those guideposts in place, the groups leave it up to each bank to make the credit and investment decisions needed to comply with and monitor their commitments. Unfortunately, to date, banks have not made the business decisions necessary to align their business with these net-zero commitments.

A. LARGE BANKS CONTINUE TO MAKE LENDING AND UNDERWRITING DECISIONS THAT CONFLICT WITH THEIR PUBLIC COMMITMENTS, AND THERE IS NO SIGN THEY INTEND TO CHANGE COURSE

The business decisions made by US signatories to NZBA do not align with their commitments (Kirsch et al. 2022). JPMorgan Chase, Citi, Wells Fargo, and Bank of America are still four of the five largest fossil fuel funders in the world. In fact, in 2021, when they joined NZBA, JPMorgan and Wells Fargo both significantly increased their oil and gas funding (Davey 2022). JPMorgan CEO Jamie Dimon has consistently maintained that the bank will continue to fund fossil fuel expansion (Towey 2022), even as it trumpets new net-zero targets.

Additionally, none of the largest US banks with net-zero commitments have promised to stop funding or underwriting new oil and gas development outside of the Arctic, and the rising funding levels for oil and gas at some banks suggest those commitments are not forthcoming. While NZBA has not yet explicitly banned funding or underwriting for new or existing oil and gas projects (Bindman 2022), such behavior is inconsistent with meeting NZBA targets or achieving net-zero emissions by 2050. Even the International Energy Agency, an influential energy modeler that has long been criticized as biased in favor of fossil fuels and long resisted calling for an immediate end to new fossil fuel production (Muttitt 2016), said in its 2021 World Energy Outlook that its “narrow” pathway to net zero by 2050 did not include any new fossil fuel supply or development (IEA 2021). Continuing to finance new fossil fuel development through 2030 or beyond is not consistent with the mechanics or purpose of a net zero by 2050 commitment. Even if the loans funding those assets are sold or otherwise removed from a bank’s balance sheet, the underlying projects will continue to operate, making it harder for the economy to meet the ultimate goals of the net-zero commitment: reducing the negative physical and economic impacts of both climate change and the energy transition.

Banks have also been unwilling to limit their reliance on offsets and negative emissions technologies like carbon capture and sequestration despite their NZBA commitment to use such technologies only as a last resort. As long as offsets and unproven technologies remain

part of banks' net-zero commitments, their emissions reductions are unlikely to reach the level of their commitments. As we discuss in Section 4B, these approaches are not a reliable method for reducing emissions, and they may never be. Yet of the largest banks, only Wells Fargo has stated that it will not include offsets in its 2030 targets. In contrast, Kathleen Finucane of Bank of America recently described offsets as an important component of a net-zero transition, even as she acknowledged the evidence that offsets do not, in fact, reduce emissions (Finucane 2021).

B. WITHOUT APPROPRIATE OVERSIGHT AND CONTROLS, BANKS ARE HIGHLY UNLIKELY TO MEET THEIR COMMITMENTS

In addition to specific decisions that are incommensurate with their commitments, large US banks have not implemented any real controls or processes for reducing their financed emissions. At a September 27, 2022 conference on “Financing a Net Zero Economy” hosted by Ceres, a sustainable markets nonprofit, a representative of one large bank with a net-zero commitment described the bank's current approach as focused on educating the staff who make loans and hold client relationships about the benefits of ESG. Without some form of monitoring in place, it will be virtually impossible for banks to make business decisions that align with their public climate commitments.

Banks already must implement different types of controls to align incentives. Banks are large institutions, and while climate risk is now understood as a mainstream challenge, the solutions are not universally accepted. In many cases, bankers' bonuses may be tied to relationships with borrowers whose businesses are not aligned with net-zero emissions goals. For these employees, meeting climate goals by divesting from certain businesses, introducing tougher loan terms, or doing anything more than engaging clients in gentle conversation may seem unacceptable. In the absence of rigorous data to quantify emissions and controls put in place by management, these recalcitrant employees or even whole departments can and will continue to act in a manner contrary to the bank's stated goals.

Ensuring that banks have appropriate controls in place to address risks is the purview of financial regulators. Other sources of pressure are unlikely to generate compliance because they cannot influence or direct banks to change their internal incentive structures, and they lack visibility into the specifics of internal bank controls. Nor can other bodies sanction banks for failing to make progress on their commitments. The NZBA, which banks join voluntarily, may be willing to sanction or expel a single scofflaw; but by and large, the group reflects the will of the majority of the very member banks who are failing to meet the organization's requirements and their own commitments. Indeed, several US banks, including JPMorgan, Morgan Stanley, and Bank of America, recently threatened to withdraw from NZBA (Marsh and White 2022) over concerns that it would require members to commit

to phase out fossil fuel funding. Other civil society organizations that have served as watchdogs also lack authority to sanction banks for misalignment. Nigel Topping, co-leader of GFANZ, has said, “It’s insane for the world to rely on underfunded NGOs to police capital markets . . . Governments need to step up” (Walker et al. 2022).

Market pressure is also unlikely to fill the gap. Climate change has long been called “the greatest market failure the world has ever seen” (Benjamin 2007). Governments around the world acknowledge that markets need additional regulation to properly internalize the risks posed by such a dramatic market failure. Banks are no different. Today, banks use three- to five-year time horizons for strategic planning that make it easy to assign climate-related risks and the costs of decarbonization to the future, while retaining the short-term profits generated by still-lucrative, high-emitting clients. The lack of available data will also blunt the possibility of market pressure. For instance, the 2 Degree Investing Initiative found that 0 percent of PCAF signatories are disclosing greenhouse gas emissions information that is compliant with the standard (Thomä 2022). Without high quality, properly baselined data, it is impossible for investors to know whether banks are complying with net-zero commitments. Regulators can push banks to address these shortcomings and require them to gather or measure necessary data. But because of the confidential nature of supervisory examinations, regulators need to do more than just identify misalignment: They must set out clear expectations for what alignment looks like.

SECTION THREE

BANK REGULATORS HAVE THE AUTHORITY AND THE RESPONSIBILITY TO SUPERVISE WHETHER AND HOW BANKS ALIGN INTERNAL STRATEGIES WITH VOLUNTARY CLIMATE COMMITMENTS

Banking regulators assess whether banks are operating in a safe and sound manner—essentially, whether they are taking on excessive risks that may harm the institution or depositors or they lack procedures to guard against excessive risk-taking. As we discussed in a previous report, [*Looking Over the Horizon: The Case for Prioritizing Climate-Related Risk Supervision of Banks*](#) (Shrago and Arkush 2022), regulators can use supervisory guidance and bank examinations to assess how banks are handling climate risk in all aspects of their business, including planning for the transition.

The federal banking regulators, including the OCC, FDIC, and Federal Reserve, as well as state banking regulators, use a supervisory risk management framework known as CAMELS ratings (Board of Governors of the Federal Reserve System and FDIC 2019). Examiners assess six components, each of which contributes an initial to CAMELS,¹ on a scale of one (strongest) to five (critically deficient). Banks that are deficient in any area can be subject to sanctions such as limits on expansion, increased capital requirements, or even fines. Exams can look at public climate commitments through two CAMELS components.

The first relevant component is Asset Quality (A), which is based on the credit risk associated with a bank's lending and investment portfolios. The regulators' proposed principles for climate risk management identify transition risk as a potential source of credit risk to a bank's assets (OCC 2021). The regulators define transition risk as the stresses to banks or clients that arise from the policy-related, economic, and technological shifts associated with efforts to limit climate change (OCC 2021). Public climate commitments are a way to reduce a bank's exposure to high-transition risk assets. Failure to act on this commitment means a bank is keeping those assets on its balance sheet, increasing the risk of credit losses associated with the transition.

The second relevant component is Management (M), which is based on the capability of the bank's leadership to identify, measure, monitor, and control the risks of a bank's activities (Board of Governors of the Federal Reserve System and FDIC 2019). The implications of a failure to align public commitments and internal strategies go beyond a bank's exposure to transition risk. Voluntary net-zero commitments are part of a bank's business plan and represent a statement by management about a strategic and operational priority with

¹ The six components are: Capital Adequacy, Asset Quality, Management, Earnings, Liquidity, and Sensitivity.

far-reaching implications for the bank's business. Failure to appropriately implement the plan can reveal broader weaknesses in a bank's governance, strategic planning, and risk management apparatus.

A. REGULATORS SHOULD ASSESS CLIMATE COMMITMENTS AND TRANSITION PLANS TO UNDERSTAND WHETHER A BANK'S ASSETS ARE OVERLY EXPOSED TO TRANSITION RISK.

Regardless of whether individual banks align their internal strategies with net-zero commitments, the world is moving toward net zero. Bank assets are subject to the economic, technological, and political forces driving the low-carbon transition.

Existing commitments and transition plans reflect an emerging global consensus about what the transition will look like. Frank Elderson, Vice Chair of the European Central Bank's (ECB) Supervisory Board, has described these commitments as acknowledging the importance of "transition-robust business models" (Elderson 2021). Examiners can use a bank's plans for implementing its commitments as a tool for assessing the risks faced by assets subject to the transition, and the overall credit risk that the bank's own transition plans (or lack thereof) pose to its existing portfolio.

When a bank makes climate commitments and then implements an insufficient transition plan, examiners should consider whether the banks' assets are overexposed to transition risk. In these situations, the bank is projecting a world in which emissions fall off sharply, reaching net zero by 2050, even while continuing to fund borrowers whose business plans cannot exist in such a world. This leaves the bank's assets vulnerable to unexpected write-downs, as the threat of a sharp repricing of high-emitting assets, sometimes known as a "climate Minsky moment" (Miller and Dikau 2022), grows as the transition hastens. The exact timing of such a repricing is hard to predict. Regulators should provide additional scrutiny to assets and portfolios that a bank itself thinks are potentially at high risk of such a rapid impairment, and perhaps scrutinize even more closely a bank's failure to identify such assets.

B. REGULATORS SHOULD ASSESS BANKS' CLIMATE COMMITMENTS AND TRANSITION PLANS TO GAIN INSIGHT INTO MANAGEMENT'S ABILITY TO BUILD AND IMPLEMENT STRATEGIC PLANS

Along with testing portfolios and loans to identify whether a bank is engaged in excessive risk-taking, examiners assessing the bank's safety and soundness should assess management's power and ability to discharge its responsibilities. This includes implementing policies and processes for managing risk and developing and overseeing control systems for those risks (OCC 2019). This broader approach helps illuminate a bank's resilience to unexpected risk and predict management's ability to react to new developments.

Whether climate commitments and internal strategies are aligned provides a bellwether of how management can handle implementing the kinds of complex risk management processes necessary to protect the safety and soundness of a large financial institution. In addition, climate commitments are a highly visible part of a bank's overall strategic plan, which means they should garner additional attention from management. If management cannot execute on its climate-related commitments or plans, regulators should doubt its ability to successfully guide the bank in other strategic initiatives, including those related to managing risk.

Existing supervisory guidance from banking regulators sets an expectation that management should establish appropriate policies and procedures before introducing new activities (OCC 2019), such as a major climate commitment, that would require changes throughout the bank's business. Failure to do so may reflect broader weaknesses in oversight or policies and procedures. For example, if transition plans are not based on realistic assumptions or do not take into account the resources and technological needs to achieve the bank's goals—both of which are requirements of the strategic planning process—management may be setting up the bank to fail in meeting its commitment. Alternatively, misalignment between stated commitments and actions may show that management struggles to implement its policies, to review whether they are implemented effectively, or to maintain accountability for implementation.

C. FAILURE TO OBSERVE A NET-ZERO COMMITMENT MAY ALSO CONSTITUTE A DECEPTIVE ACT OR FRAUD

It is possible that banks might make public climate commitments with no intention of fulfilling them, seeking instead to obtain reputational or social benefits of "green" branding. Increasingly, consumers value sustainable choices and are more likely to take

climate impact into account when they select a product (J.P. Morgan Global Research 2021). Instances in which a bank tries to meet consumer and investor preferences via empty climate commitments should create concerns about both the specific deceptiveness of the bank's statements and its general market conduct toward consumers and investors. Anneli Tuominen, a member of the ECB Supervisory Board (Tuominen 2022), suggested that banks who make and then break climate commitments may face legal risks related to making misleading statements.

A bank's act or practice is deceptive if it misleads or is likely to mislead a reasonable consumer and the claim is likely to affect a consumer's conduct or decision (CFPB 2022). A bank whose internal strategies diverge significantly from its public commitments could be misleading consumers about those commitments. Determining whether such a divergence is deceptive requires further review and assessments of consumer preferences and behavior, bank commitments, and the contexts in which banks present those commitments. That analysis is beyond the scope of this paper but it should receive attention from the Consumer Financial Protection Bureau (CFPB), which has primary jurisdiction over consumer protection supervision for large banks.

SECTION FOUR

BANKING REGULATORS SHOULD ISSUE GUIDANCE EXPLAINING HOW THEY WILL ASSESS ALIGNMENT OF INTERNAL STRATEGY AND PUBLIC COMMITMENTS

Bank regulators can help address misalignment between public climate commitments and internal strategies by issuing supervisory guidance and reviewing bank transition plans during regularly scheduled examinations of compliance with banking law. Providing a clear framework for assessing alignment will help examiners understand which banks have serious problems with transition risk, management oversight, or market conduct. Once the regulators have issued guidance, they should incorporate the expectations into scheduled examinations, including consequences for a bank's CAMELS rating.

The guidance should explain what it means for a commitment to be aligned with internal strategies and how examiners should assess whether management is effectively implementing that commitment. Furthermore, in discussing what is needed to achieve alignment, regulators should use net-zero by 2050 commitments, the overwhelming market standard, as a benchmark.

A key element of the alignment review should consist of assessing whether a bank's transition plan reflects realistic projections of climate science, technological progress, market conditions, and policy. The review should consider how the commitments align with other business practices and risk management strategies, taking the commitments seriously and expecting the bank to do the same. Along with the overall direction of the business, examiners should also look at the governance and processes implemented by the bank to achieve its transition plan goals. Without these structures in place, a bank will struggle to implement something as transformative as a net-zero transition plan. Where a bank does not appear to have incorporated its climate commitments into its business, either at the strategic or operational level, the review should trigger additional scrutiny and questions from examiners about the alignment of the plan and the bank's ability to manage transition risks or address other significant strategic priorities.

A. NET-ZERO BY 2050 COMMITMENTS ARE ALIGNED WITH INTERNAL STRATEGY ONLY IF A BANK HAS TOOLS TO TRACK ITS PROGRESS AND MAKE ADJUSTMENTS IF IT IS NOT MEETING ITS GOALS

Banks achieve strategic alignment with climate commitments by building transition plans from credible, widely accepted decarbonization scenarios and pathways that reflect the latest in economic and technological development (Dikau et al. 2022). When it comes to achieving their commitments, banks have several options, ranging from engaging with clients about the value of a net-zero transition, to investing in client decarbonization, to divesting from clients who lack business plans that align with the bank's goals. Based on the scenarios they use for projecting emissions reductions, banks will need to assess how to balance these options. In all likelihood, they will need to employ different options based on client profile.

Regulators should ensure that the bank's pathways and scenarios are based on science and logic (Dikau et al. 2022). This will help examiners understand the validity of other assumptions about transition risk to assets and whether management can marshal the relevant subject matter expertise to balance risks and achieve business goals. Regulators should assess the basis of a bank's pathways and scenarios by examining how they diverge from existing well-regarded protocols, such as GFANZ. Regulators should also assess the processes the bank uses to track and manage progress. This means transition plans need to reflect meaningful intermediate milestones that are consistent with the chosen decarbonization scenarios. Effective transition plans should also include approaches for assessing client progress on the bank's metrics and for shifting approaches when clients make too little progress.

MILESTONES

Most banks' climate commitments promise net-zero financed emissions by 2050. However, as discussed above, few banks have announced any intermediate targets or other metrics to measure progress before that year.

The most obvious potential consequence of a bank's failure to set interim targets or metrics for a multi-decade plan is that the bank will not achieve its goal. Indeed, failure may become a near certainty well before the end date. Milestones are also important because a bank that delays its transition increases the credit risk associated with a future transition. If a bank waits to reduce the financed emissions in its portfolio until the late 2030s or 2040s, it may find a limited market for long-term assets, as other potential buyers implement their own

transition plans. In this case, the bank might have to choose between missing its climate commitments and writing down assets or engaging in a fire sale, threatening the bank's safety and soundness. Setting milestones will help reduce these risks.

A bank cannot manage this risk simply by pointing to the short-term nature of its loan portfolio. The 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 borrowers. Short-term decisions may push the bank down a path that is untenable in the medium or long term. If the bank does not let high-emitting assets run off its books according to a longer-term plan, it may be forced to do so in a way that disrupts its business strategy. Transition pathways are unpredictable: A bank faced with a choice between continuing to operate a stubbornly high-emitting line of business or significantly reducing revenues by cutting it will have no good short-term choices. Setting clear milestones will give the bank a more predictable plan for reducing emissions that it can tailor to the specific duration of its assets and the broader composition of its loan book, making it more likely to meet its commitments and weather the clean energy transition safely.

Without reasonable milestones, management will not be able to assess the bank's progress toward its decarbonization goal and, if it is lagging, adjust its strategy or execution. Climate commitments are not the only bank strategy that requires intermediate milestones, and their absence in this space should raise questions about the appropriateness of management's approach to implementing other policies and procedures. Milestones also show that management has a plan to assess whether the mix of pathways adopted in its transition plan will achieve its commitment and, if not, to adjust accordingly. If management finds that a bank's portfolio is not meeting its intermediate targets, milestones will allow them to adjust gradually rather than having to make a sharp pivot that may threaten the bank's safety and soundness or its reputation.

Given the complexity and heterogeneity of bank portfolios, banks will need to set different milestones for lines of business, economic sectors, and even individual borrowers or assets instead of setting milestones only for the whole bank. And while regulators should not dictate whether banks need to set milestones at a sector, borrower, or even loan level, they should provide guidance on the reasoning they expect to see from banks when they choose the granularity of these milestones.

BORROWER CREDIBILITY AND PROGRESS

Banks need to rely on projections of their borrowers' and other clients' future emissions when assessing how new and continuing loans will affect their portfolio alignment. That kind of forward-looking assessment is fundamental to management's ability to safely and soundly operate a bank. The process requires employing a mix of data and judgment similar to other forward-looking assessments, such as the ability to repay loans.

Regulators should provide guidance similar to what they provide for credit risk assessment, possibly building on the work done by GFANZ, which suggests a range of approaches for assessing client performance (GFANZ 2022). Examiners should check to see that the bank adopts a consistent methodology, consider how the bank plans to apply it, and at key milestones, review its effectiveness. Specifically, a bank should have a plan for changing its estimation approach where a methodology consistently underestimates climate emissions reductions generated by certain pathways, such as educating clients on the benefits of net zero or the unspecified “engagement” that many large banks say is their main tool for reaching their net-zero goals. Conversely, a lack of provisions for pivoting or adjusting when emissions reductions do not meet projections should raise questions about management’s ability to manage other nonperforming aspects of the bank’s business.

Along with adjusting methodologies, banks must have a plan for handling borrowers or sectors that do not make progress against milestones and targets, just as the bank would for nonperforming borrowers. Regulators should issue guidance detailing different approaches for managing this issue. Some examples include incentives like providing better terms for borrowers that are making the transition effectively (Philipponnat 2022), or alternatively, requiring more stringent covenants for those that do not meet the criteria as part of reassessing the adequacy and appropriateness of their loan pricing and collateral decisions. Banks have flexibility to set the terms of the loan, as long as the overall financing remains soundly underwritten. Other approaches might include funding a managed phaseout of a high emissions business line or investing in early-stage technologies that can help decarbonize other borrowers. These approaches need not always generate immediate emissions reductions, but they should reflect realistic economic and technological conditions.

Most banks today have said they will not stop doing business with clients or sectors that do not have a well-defined path to net zero, preferring client-engagement models. But to date, there is little or no description of what this engagement entails, and little evidence that client engagement yields progress toward banks’ commitments. At a minimum, where there is no progress based on engagement, banks should incorporate explicit commitment targets into their underwriting process, loan covenants, and collateral guidelines. Regulators need not require exit, but they should note in the guidance that continued engagement with a borrower that makes no progress will raise questions about the effectiveness of a bank’s transition plan. Examiners should conduct reviews of borrowers or sectors that consistently miss milestones or targets and evaluate management’s plan for generating different results.

B. STRATEGIES FOR ACHIEVING COMMITMENTS SHOULD REFLECT CLIMATE SCIENCE AND TECHNOLOGICAL REALITIES

While regulators may not wish to set specific parameters for net-zero commitments, they should require banks to design their transition plans in ways that reflect plausible assessments of future developments. Plans should be based on the latest in scientific assessments and grounded in realistic projections of technological, market, and policy conditions. The most important aspects of the commitment to assess will be how banks address financing for fossil fuel development and whether they rely on offsets and other negative emissions technologies.

FINANCING FOR FOSSIL FUEL DEVELOPMENT

Regulators should issue guidance clarifying that, based on the latest climate science and the current and projected state of technology, the transition plans and transition risk management of banks that continue to fund new fossil fuel development will receive significant additional scrutiny. As discussed in Section 2A, new fossil fuel development is incompatible with net zero by 2050. A climate commitment that is not aligned with this reality raises the likelihood that management is not accurately assessing other transition risks that the bank faces, or that the bank's assets are overly exposed to those risks, as reflected in the bank's own commitments.

CARBON OFFSETS AND NEGATIVE EMISSIONS TECHNOLOGIES

Banks that continue to invest in new fossil fuel development may be planning to “offset” this development by financing projects that ostensibly avoid emissions or actively reduce the level of greenhouse gases in the atmosphere.

The primary form of avoided emissions involves the preservation or expansion of nature-based sinks of greenhouse gases, such as forests or wetlands. Reforestation, in particular, is a popular type of offset project (Gurgel 2022). Any use of offsets by banks should reflect the serious concerns that climate scientists raise about the efficacy of relying on such nature-based offsets. The main sources of concern include the exaggeration of the level of additional carbon emissions avoided by preserving existing forests (Canham 2021; Elgin 2020), the limits on the level of emissions that can reasonably be sequestered through the creation of new natural carbon sinks (Stabinsky 2021), 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 (Kahn 2021).

In addition to these nature-based offsets, other offsets include efforts to develop or deploy carbon removal technologies, such as carbon capture, utilization, and storage (CCUS), and direct air capture (DAC). Both technologies are largely unproven, and existing pilot projects show the challenges in scaling up. For instance, a hydrogen plant that Shell touted as using a carbon capture system emitted 50 percent more greenhouse gases than it sequestered during the period of its operation (Global Witness 2022). 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 (Birnbaum 2021). The plant's operator does not expect direct air capture to be cost competitive until the late 2030s at the earliest, while sharp emissions cuts are needed immediately to remain consistent with a 1.5° pathway.

With these challenges in mind, excessive reliance by management on offsets or negative emissions technologies in net-zero plans creates risk that examiners should address. First, if these projects do not deliver on their emissions commitments, banks may fall far behind their milestones. That will require banks to either break their commitments, incurring significant credit risk and reputational harm, or quickly reduce portfolio emissions in a way that may trigger write-downs or fire sales of high-emitting assets. Second, excessive reliance on offsets suggests that management is willing to pursue projects that are not scientifically or technologically feasible, which should raise concerns about management's ability to assess the feasibility of other projects or borrowers it finances. Much like the purchase of collateralized debt obligations (CDOs)² during the subprime mortgage crisis, management's willingness to believe in something that is too good to be true poses a serious threat to a bank's safety and soundness, even beyond the specific credit risk of an asset.

C. SUPERVISORS SHOULD REVIEW HOW ALL PARTS OF THE BUSINESS EXPECT TO ALIGN WITH THE BANK'S COMMITMENT

The proposed principles for climate risk management issued by the federal banking regulators recognize that, to be effective, a bank must take a whole-of-business approach to risk management (Board of Governors of the Federal Reserve System 2022). Regulators must treat a transition plan as an important part of risk management and a major public commitment to be implemented throughout all parts of the business. The recommendations in this section include ways that a bank's management can demonstrate sound practices for managing transition plans and the climate risk they help mitigate. These recommendations largely apply the principles for climate risk management and the recommendations made in our report *Looking Over the Horizon* (Shrago and Arkush 2022) to transition plans.

² CDOs are a type of structured financial product that purported to transform risky subprime mortgages into safe, high-yield debt that could be held by pension funds.

The Board of Directors should play an important oversight role in tracking the bank's progress on its transition plan and receive regular updates from bank officers on progress. Management should provide the board with training on how to understand and assess the details of any commitments or benchmarks it has agreed to meet and how to evaluate those standards. In addition to the board, senior management should be at the forefront when implementing climate commitments. Primary responsibility should sit with a senior leader with the authority to drive needed changes in practices across the business. Furthermore, all senior leaders must have incentives and responsibilities that are compatible with meeting that commitment. Management should develop plans for training and hiring staff to equip them with the necessary expertise to implement the transition plan.

Along with specifically aligning their transition plans with their strategic plans, banks with public climate commitments need to adjust their strategic planning process writ large. Banks can only be in alignment if they use a strategic planning horizon that reflects their commitments. Commitments for reaching net zero by 2050 will require investments and business decisions that exceed the standard three-to-five-year planning horizon most banks use (Bateson and Saccardi 2020). The planning process should identify where reducing emissions in the short, medium, and long term conflicts with other strategic priorities and should provide clear guidelines for resolving the conflict. It should also include a review and update of climate-related assumptions underlying the commitments. Rapid policy shifts like the passage of the IRA can cause major changes to these assumptions, and they will need to be reevaluated frequently.

Translating a strategic plan into operational success requires banks to update their existing policies and processes for monitoring and measuring progress and to identify risks to success. The review processes for lending, collateral adequacy, asset purchase, and other financing decisions should incorporate the bank's transition plan goals. For instance, alignment checks should accompany a loan during the loan underwriting process. Banks should also conduct periodic portfolio testing of their existing assets to assess whether they are still aligned with the transition plan. Bank staff should report these results regularly through the bank's normal risk management processes, similar to results from other portfolio tests for asset impairment.

Such assessments should align with the bank's management of climate-related credit risk. If a bank is financing a business or activity that is not aligned with its own net-zero commitments, the same asset may be subject to unsafe levels of transition risk (Arkush 2021; Stiroh 2022). When a bank runs scenario analyses, it should incorporate its own net-zero commitments (and those of other banks and counterparties) into the scenarios to understand the effect that plans may have on the ability to dispose of long-term, high-emissions assets as the market for them dwindles.

To make sure that these risk management processes are meaningful, banks must select metrics for assessing how both new and existing assets meet their transition plan goals. The most common metrics involve the percentage of portfolio companies that have net-zero

aligned emission reduction targets and how mature those commitments are. To make such metrics meaningful, banks should select from recognized options for portfolio alignment—like those GFANZ recommends in its report on portfolio alignment (GFANZ 2022)—or develop similar metrics that align with their plan goals. Banks should also have tools and processes to regularly gather necessary information from borrowers and other clients and track progress toward commitments. Most directly, this requires a process for understanding the emissions contribution of each financing or client relationship decision and accounting for those emissions across the entire bank.

SECTION FIVE

REGULATORS SHOULD ENCOURAGE OR DIRECT BANKS TO ADOPT NET-ZERO TRANSITION PLANS

The passage of the Inflation Reduction Act in August 2022, viewed alongside a subsequent package of California policies designed to phase out internal combustion engines and increase the adoption of renewable energy, represents perhaps the most significant regulatory policies and investments in the energy transition that any jurisdiction has made to date. These policies show how quickly the policy landscape can shift, and they are projected to catalyze rapid growth in the adoption of renewable energy (Jenkins et al. 2022). These investments are likely to trigger economic and technological changes that further exacerbate transition risk—and US banks and their regulators are failing to keep up. Banks and regulators need to be prepared for the effects that the transition risk will have on asset quality, even as they may be unable to predict the specific economic, political, and technological developments that drive it.

Transition plans are a way to manage this risk. Given the unpredictability and complexity of climate-related risk, regulators can use well-settled authorities to encourage or require transition plans as a tool for minimizing the risks that banks can control and to create resilience for the risks that they cannot anticipate. At the same time, the Federal Reserve and the Financial Stability Oversight Council have an expanded and underused financial stability mandate under the Dodd-Frank Act, and they have already recognized that climate change poses an emerging threat to financial stability (FSOC 2021).

To date, even regulators who recognize the challenges of climate risk have disclaimed any authority to direct banks to divest from specific sectors, asserting that they do not direct credit allocation (Gruenberg 2022; Cox 2021). Those statements are correct in a vacuum. But the relevant authorities are based on correcting unsafe and unsound practices and preventing threats to financial stability. If a whole sector is extremely risky, regulators have been willing to tell banks to take special steps to manage that risk (Board of Governors et al. 2023). In any event, transition plans are not sector specific: They are a tool for managing a major source of risk regardless of sector. Regulators in the US and abroad have begun to recognize the value of transition plans in mitigating climate risk and to push financial institutions in that direction. And US regulators have been willing to encourage banks to cease certain practices due to the risks they posed.

Federal bank regulators should not dismiss this powerful risk management and financial stability tool. Instead, they should start the process of understanding how to integrate it into their toolkit.

A. TRANSITION PLANS ARE THE BEST TOOL FOR MANAGING THE TRANSITION RISK OF HIGH-EMISSIONS ASSETS

Climate-related financial risk poses challenges that differ in important ways from risks that banks managed in the past. In particular, climate risk is uncertain, highly correlated, and occurs over a long time horizon. At the same time, some amount of climate-related “risk” is nearly certain to materialize (Arkush 2021). This set of characteristics may mean hedging, diversification, and buying insurance become less reliable tools to manage exposure as climate change worsens (Brainard 2021). As discussed in previous reports (Shrago and Arkush 2022; Arkush 2021), such characteristics of climate risk mean that banks and regulators should adopt a precautionary approach to managing those risks. Among other implications, that approach means reducing exposure to foreseeable climate risks, even where the potential quantifiable losses seem acceptable, to build additional resilience for unpredictable sources of risk (Brainard 2021).

Transition plans represent an effective approach for reducing knowable risk, and regulators should encourage their use via supervisory guidance on safety and soundness. High-emissions assets are the most vulnerable to transition risk, and their vulnerability grows as global progress toward reducing emissions moves forward. As the passage of the IRA shows, such progress is not linear or easily predictable. Even before the IRA, the Institute for Energy Economics and Financial Analysis had concluded that the growth of renewable energy made a strong case for divestment from the fossil fuel industry (Sanzillo et al. 2022). Analysts from the Rocky Mountain Institute have asserted that the markets for oil and gas have already peaked, and the repricing in these markets may be sharp and unpredictable (Bond and Butler-Sloss 2022). Banks cannot predict when this repricing will happen, but gradual reduction of exposures, in line with the broader global trends drawn by science-based targets, can help moderate exposure to these assets as their transition risk rises. In contrast, the approach that is least likely to mitigate risk in the event of a sharp, unpredictable transition shock is taking no action until there are clear indications that the shock is occurring.

A transition plan is particularly important for sectors—like oil and gas exploration and production—that finance assets that are capital intensive, with long payback periods. These assets are at risk of becoming stranded long before they have fully amortized their costs (Wilson et al. 2022). A bank may be able to decline to roll over a loan or extend further credit to a company before its assets reach this point, but this risk management strategy has pitfalls. First, international accounting watchdog Carbon Tracker has found that many high-emissions companies are not adequately disclosing the way that climate change and the energy transition affect their key financial assumptions (Davidson and Schuwerk 2022). This means that underwriting may overestimate the financial viability of these firms even in the short term. Second, where banks refuse to roll over or extend credit, their actions may trigger

the exact defaults they seek to avoid. If the defaulting firm is forced to liquidate assets at low prices, it may degrade the viability of higher quality loans to the same sector that remain on the bank's books. Banks with well-developed and well-implemented transition plans will have less exposure to assets affected by unpredictable "fire sale" dynamics.

B. TRANSITION PLANS HELP ADDRESS THE SYSTEMIC RISK GENERATED BY BANKS' CONTRIBUTION TO CLIMATE RISK

Climate change is a systemic threat to the US financial system (The White House 2021; Carney 2015). At the same time, recent analyses have concluded that financial markets tend to underprice climate-related risks (Campiglio et al. 2022). Climate scientists have consistently underestimated the speed and magnitude of climate change, just as forecasters have consistently underestimated the pace of the energy transition (Evans 2021; Wagner 2021). Such complex uncertainty counsels adopting a precautionary approach to managing climate risk (Arkush 2021).

Banking regulators have also highlighted the potential for climate-related risk to drive systemic threats. In its version of the draft supervisory principles, the FDIC (FDIC 2022) echoed the Financial Stability Board, noting that "interconnections within the financial system can accelerate the spread of . . . climate-related financial shocks, leading to potential contagion effects if institutions experience shocks as a result of physical or transition risks." The ECB's scenario analysis found that a delayed, disorderly green transition may be one of the biggest drivers of such financial instability (ECB and ESRB 2022). The ECB notes that in the event of a transition shock, overlapping risk exposures could drive fire sales that cannot be easily hedged by purchasing assets whose price will move up as the assets subject to a fire sale lose value. The ECB concludes, "a gradual greening of bank balance sheets, particularly among the most exposed banks, could eliminate the vast majority of transition risk losses."

Despite the ECB's strong conclusions, its analysis likely underestimates the risk, as it is based on NGFS scenarios and climate models that are limited in the level of fine detail they can provide for both physical and transition risks (Monasterolo et al. 2022). The scenarios also do not account for how damage from climate change even in "low" physical risk scenarios has disproportionate impacts on community banks, municipalities, small businesses, and other financial actors with limited ability to geographically diversify their exposures (Perrault and Giraud 2022). Indeed, an advisory committee to the Commodity Futures Trading Commission described the financial effects of sustained climate shocks on these actors as a "systemic crisis in slow motion" (Subcommittee on Climate-Related Market Risk 2020).

Based on these findings, implementing an orderly transition scenario—a gradual greening of bank balance sheets, in the ECB's words—would bolster financial stability by strengthening bank balance sheets and by reducing the level of physical risks that banks

and the financial system face. The most effective way to reduce these risks is to encourage or direct banks to adopt net-zero transition plans aligned with climate science. Doing so will reduce their exposure to high-transition risk assets and help move the transition forward.

The risks posed by the decision to continue financing high-emissions assets are the exact type of diffuse, systemic problems that the Dodd-Frank financial stability powers are designed to address. The Federal Reserve, for example, can establish prudential standards needed to mitigate risks to financial stability caused by the ongoing activities of bank holding companies with more than \$100 billion in assets.³ An appropriate use of that authority is to direct these systemically important banks to adopt plans to mitigate the risks they create for themselves and the financial system.

Although systemically important banks are the most interconnected and the largest financiers of high-emissions activities, regulators may worry that this activity will simply shift the risk to large nonbank financial companies. To address this concern, the FSOC could use its authority to designate systemically risky nonbank financial companies⁴ for supervision by the Board. An entity's contribution to risk should be a factor in the decision whether or not to designate. The Board would then apply prudential standards to those nonbanks, which could include requiring them to adopt transition plans.

Regulators also may fear that if they require transition plans for the largest banks, smaller banks or nonbank financial companies will increase their exposure to these high-risk assets. These small firms are unlikely to be able to significantly increase their exposure without financing from larger financial companies. Those larger firms would be unable to provide this financing as a result of their own transition plans, since their transition plans would need to account for the emissions financed by smaller firms borrowing from the larger ones. If small banks do significantly increase their exposure to high-transition risk assets, regulators should respond by using safety and soundness requirements for managing climate-related risk exposure.

C. OTHER FINANCIAL REGULATORS, ARE ALSO ADVANCING TRANSITION PLANS AS A RISK MANAGEMENT AND FINANCIAL STABILITY TOOL

European regulators have also begun considering transition plans as part of their safety and soundness mandates (Perrault 2022). In a 2021 speech (Elderson 2021), Frank Elderson, Vice Chair of the Supervisory Board of the European Central Bank, noted that legislative initiatives in the European Union, as well as the direction of private finance, implied

³ 12 U.S.C. §5365

⁴ 12 U.S.C. §5323

that “banks need transition plans compatible with EU policies implementing the Paris Agreement, with concrete intermediate milestones, to enhance their long-term strategies and decision-making.” Elderson made clear that from ECB Bank Supervision’s perspective, transition plans are a tool for managing risk exposure, and described formulating such plans as a guiding principle for stepping up risk management.

The United Kingdom’s Prudential Regulation Authority (PRA) has also described the value of transition plans in managing climate-related financial risks (PRA 2021). In its 2021 Climate Change Adaptation Report, the PRA noted that required disclosure of transition plans would be helpful for understanding the implications of a firm’s plans on the economy-wide transition, and assessing progress at the firm and system level. The UK government also announced plans to publish a transition pathway for the financial sector transition to net zero by 2050, and to provide guidance on what constitutes a transition plan (Transition Plan Taskforce 2022).

In the US, one financial regulator has already encouraged transition plans to meet solvency goals. In 2021, the New York Department of Financial Services (DFS) issued guidance for domestic insurers on managing climate risk (NY DFS 2021). In this guidance, the first by any US financial regulator on climate risk, DFS told insurers that “reducing financed and underwritten greenhouse gas emissions in line with science-based targets is also a way to mitigate the financial and consumer risks that climate change poses to insurance markets” (NY DFS 2021). Another way to understand this is that DFS considers a transition plan aligned to a net-zero by 2050 commitment to be a useful risk management tool for insurers.

SECTION SIX

CONCLUSION

Bank net-zero commitments reflect the reality that the energy transition will transform the global economy. But despite the threats posed by the speed and disruptiveness of this transition, banks are acting as if they will be able to manage this change at some future date, without laying the appropriate groundwork in their governance and operations today.

A bank's willingness to ignore its own public commitments—commitments that are byproducts of widespread agreement that critical risks must be avoided—should draw immediate and serious regulatory attention. This is even more true when the bank's pronouncements, if taken seriously, likely require significant changes to its business.

Although initial statements by regulators are encouraging, they are not enough to mitigate the relevant risks. Banks and examiners need guidance on what alignment of public commitments and internal strategies looks like in practice. By embracing their role as supervisors of voluntary transition plans, regulators can reinforce the value of those plans as risk management tools. But they should also follow this insight to its logical conclusion and encourage or require banks to adopt transition plans to protect the safety and soundness of both individual banks and the larger financial system.

APPENDIX

SAMPLE EXAM PROCEDURES: ALIGNMENT OF PUBLIC CLIMATE COMMITMENTS WITH INTERNAL STRATEGIES

The following is a set of sample exam procedures that bank examiners can use to understand a bank's climate commitments and net-zero transition plan and the risks that the bank faces from failing to align its transition plan with its climate commitments. It assumes that a bank's commitment meets the emerging market standard of net zero by 2050, broadly aligned with the Net Zero Banking Alliance's (NZBA's) principles.

UNDERSTANDING THE CLIMATE COMMITMENT

Examiners should develop a detailed understanding of the bank's public climate commitments, including membership in any organizations that require specific commitments, such as the NZBA.

1. Review public pronouncements related to climate and emissions targets.
2. Review policies and procedures related to those targets.
3. Identify the bank's specific emissions targets. Examiners should review whether:
 - a. Targets include financed and underwritten emissions along with operational emissions; and
 - b. The bank has set targets for specific sectors and lines of business.
4. Identify the baseline emissions used to evaluate any planned reductions.
5. Review any specific milestones included in the climate commitment. Examiners should:
 - a. Assess whether the milestones include commitments for emissions reductions in 2030 or earlier; and
 - b. Determine whether any milestones have elapsed, and how the bank measured its performance against those milestones.

UNDERSTANDING THE TRANSITION PLAN

1. Identify which approaches to decarbonization the bank plans to pursue to meet its commitment. Examiners should:
 - a. Review the range of scenarios regarding technological, economic, and political changes the bank is using to project progress on its transition plan; and
 - b. Assess whether those approaches and scenarios were taken from specific widely accepted benchmarks. If not, examiners should determine how those approaches and scenarios were developed.
2. Review the bank's policies and procedures for determining whether a client's business model and strategy is compatible with the bank's targets. Examiners should:
 - a. Review whether the bank has set policies regarding clients that continue to fund fossil fuel development as part of their business; and
 - b. Assess how the bank reviews client climate commitments and how it incorporates those commitments into its transition plan.
3. Review the metrics that the bank uses to track its progress to understand whether they are based on existing benchmarks.
 - a. Determine how the metrics were developed if not based on existing benchmarks; and
 - b. Assess whether metrics are tracked at the level of the bank, lines of business, specific portfolios, specific clients, or something else.
4. Draw preliminary conclusions as to whether performance in setting targets and planning consistently with them is strong, satisfactory, deficient, seriously deficient, or critically deficient.

ASSET QUALITY

1. Review the training that the bank's board, senior management, and relevant staff receive on the transition plan to assess whether they have the expertise needed to evaluate and maintain progress on the bank's commitments.
2. Review how the bank updates its climate-related assumptions regarding science, technology, and business progress.
3. Assess how the bank's strategic planning process considers how other strategic priorities affect or are affected by the bank's transition plan.
 - a. Determine if the bank's strategic planning horizon is long enough to reflect the interaction of the transition plan with other priorities.

4. Assess whether the bank's current milestones are sufficient to avoid an elevated risk of fire sales or asset write-downs if the bank aims to meet its commitments.
5. Review how the underwriting process incorporates the transition plan. Examiners should:
 - a. Determine whether alignment checks are performed during credit review and whether those checks have any effect on the credit review process; and
 - b. Assess whether climate scenario analyses and internal stress tests incorporate the transition scenarios used by the bank.
6. Draw preliminary conclusions as to whether the bank's incorporation of its transition plan into its credit risk management is strong, satisfactory, deficient, seriously deficient, or critically deficient.

MANAGEMENT

1. Identify Board members, senior management, and staff responsible for establishing and implementing the transition plan.
2. Review the bank's policies and procedures regarding board and management oversight of planning and implementation.
3. Review policies and procedures for management oversight of compliance with emissions plans and targets.
4. Review how incentives for senior management support or interfere with progress on the transition plan.
5. Review the bank's policies and procedures for adjusting its transition plan where emissions reductions do not meet milestones or targets. Examiners should:
 - a. Determine whether the bank reduces its reliance on certain pathways that do not yield expected results. If it does not, assess how bank management plans to meet commitments otherwise.
6. Review the bank's policies and procedures for assessing client credibility and performance on clients' own climate commitments. Examiners should:
 - a. Determine what processes are in place for assessing the continued alignment of existing loans; and
 - b. Where a client has not met projected targets, determine whether the bank updates covenants with that client or takes other steps to encourage the client to meet its targets.

7. Review policies and procedures the bank has in place for evaluating offsets and negative emissions projects that are part of the transition plan. Examiners should:
 - a. Determine what benchmarks and projections the bank uses to conclude that the projects will yield their promised emissions reductions.
8. Draw preliminary conclusions as to whether board and management oversight of target-setting, planning, and implementation is strong, satisfactory, deficient, seriously deficient, or critically deficient.

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