

WORLD Resources Institute

BANKING BEYOND CLIMATE COMMITMENTS: TRANSFORMING CLIENT ENGAGEMENT AND PRODUCTS & SERVICES FOR A NET-ZERO EMISSIONS FUTURE

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EXECUTIVE SUMMARY

Highlights

- Increasingly, private sector banks are committing to shift their portfolios to net-zero emissions by 2050 to align with the objectives of the Paris Agreement—a welcome trend given their important role in shaping and advancing inclusive, sustainable economic growth.
- This paper explores the changes and innovations banks need to make in their client engagement as well as their products and services; these two business model elements will be central to achieving alignment with the Paris goals.
- Banks face important challenges, which represent opportunities for change, including collecting emissions-related data, strengthening the climate-related knowledge of relationship managers and key backoffice functions (credit analysis, credit risk, and product managers), and rewarding staff for climaterelevant transactions through performance incentives. These challenges are shared by banks operating in developed, emerging, and new frontier markets.
- Banks should design a Paris-aligned client engagement strategy that clarifies to clients and other stakeholders how, and over what time frame, their relationships and offerings will change.
- This strategy should include five steps: data collection and management, setting emissions reduction targets, benchmarking clients' emissions reduction performance, drafting clear client engagement policies, and equipping relationship managers with knowledge and tools about climate change and Paris alignment.

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Background

Banks are gradually setting different types of targets: sustainable finance (green) commitments, sciencebased targets (SBTs), and net-zero commitments. In the financial sector, a sign of growing momentum behind climate action is the launch of the Glasgow Financial Alliance for Net Zero and the Net-Zero Banking Alliance in April 2021.¹ Increased engagement in the Science Based Targets initiative is another sign of growing engagement from the banking sector in Paris alignment. Currently, 78 banks are working on their SBTs, and the number of participating banks is on the rise. This paper explores how banks can best shape their client engagement with compelling products and services to align their portfolios, and their clients' businesses, with the Paris Agreement's goal to limit temperature rise to 1.5°C.

About This Working Paper

This paper targets representatives of the banking sector, investors, governments, regulatory authorities, and other stakeholders who can influence how banks do business. It focuses on answering the following question: how can a private sector bank—one that has already committed to shifting its business model towards net-zero emissions change its client engagement strategy and update its offerings? This paper analyzes action already taken by banks and identifies additional steps private sector banks should take to align their business model with the Paris Agreement (greenhouse gas mitigation objective) and cater to their clients' needs in a manner that fosters a netzero transition.

The authors appreciate that adaptation finance is as important as financing emissions reduction—related investments. However, the adaptation and resilience objectives of the Paris Agreement are not included in this paper to allow us to go deeper into the issues around net-zero emissions. The progress made by banks in the domain of adaptation finance could be the subject of future research.

Key Findings

Many banks are just beginning to include Paris alignment in their business strategies. The current approach to including Paris alignment in a bank's business model is erratic, and the authors learned from interviews that bank staff would welcome better structuring of their Paris alignment efforts. Values-based banks, though relatively small in terms of assets, demonstrate how a profitable business model can be linked with Paris alignment in the banking sector. Values-based banks have made significant progress in setting emissions reduction targets, accounting for their financed emissions, engaging with their clients on Paris alignment, and offering Parisaligned products and services.

Client engagement is the key opportunity and lever for a bank to help its clients transition to Paris-aligned business models. Most banks in our sample set put client engagement central in their efforts to align their own business model with the Paris Agreement.

Paris alignment is becoming part of the conversation between banks and their clients, and banks prioritize conversations with the most carbonintensive clients. This development is happening worldwide—in developed, emerging, and new frontier markets. At the core of these discussions is supporting the client in setting a transition trajectory by identifying intermediate emissions reduction targets. Tested methodologies to account for financed emissions are coming within reach of most banks.

The current Paris-aligned client engagement strategies are structured around the principles of "supporting clients in their climate transition" and are based upon the principle of the inclusiveness of all clients. None of the banks—except for values-based banks—wanted to exclude clients. Although they may have policies excluding financial or advisory services for certain types of transactions, they have no clear exclusion policies at the client level.

Banks with Paris alignment commitments are currently strengthening the role of the relationship manager. Bank staff qualified as essential the provision of relevant tools, support by back-office specialists, and the facilitation of training. One challenge for relationship managers is the tension between financial and sustainability incentives.

Green products do not automatically lead to Paris alignment of the bank's portfolio. Banks in our sample set were all committed to providing their clients with sustainable financial products and services. Sustainable finance has traditionally focused on products related to "green" environmental themes, as opposed to specifically tracking the role of a financial instrument to support a bank and its client to transition towards Paris alignment. The level of sophisticated data needed to track a financial product's role in supporting decarbonization pathways is currently being worked on by various initiatives and banks, but uncertainty persists amongst interviewed banks on the accuracy of climate-related criteria in terms of transitioning to Paris alignment.

Banks consider innovative offerings, particularly sustainability-linked loans (SLLs) and transition finance, as the next step on the road to Paris alignment. The challenge remains to build these products and services on a well-designed greenhouse gas (GHG) data methodology that captures GHG emissions at the sectoral and client levels. Bank staff noted that having a solid, current, and relevant GHG database is expensive, capacity intensive, and requires considerable time to develop.

The regulatory environment is not always condu-

cive to a Paris-aligned future. This causes challenges for banks aiming to shift their portfolios. It is problematic for banks in certain jurisdictions to effectively decline engagement with clients that do not intend to change their business model to net-zero emissions. Consider, for example, a major U.S.-based oil producer unwilling to commit to a net-zero business model; the previous U.S. government insisted that banks have a fiduciary duty to serve legal businesses—such as oil-producing companies regardless of the potential negative effects on climate change (Ackerman 2020). We heard these concerns from banks in both developed as well as emerging markets.

Recommendations

Banks should be clear about how their engagement with clients will relate to Paris alignment. Prudence is required when accepting new clients and engaging in new transactions. The bank and the client need to have a clear, mutual understanding of how, and within what defined time frame, the client's business will fit into a net-zero economy. In cases where the client's Paris alignment will be impossible, the bank should consider excluding the client.

A five-step approach could enhance Paris alignment of a bank's client engagement strategy.

The approach builds on key elements of a bank's business model to strengthen engagement with clients. The approach concentrates on corporate clients and could be expanded over time to retail clients. These are the five key steps:

- 1. Collect and manage GHG data.
- 2. Set emissions reduction targets.
- 3. Introduce client benchmarking.
- 4. Formulate clear client engagement policies.
- 5. Ensure that relationship managers are well equipped.

We encourage banks to test this approach and share lessons learned.

A well-founded data methodology is required to introduce innovative products such as SLLs and transition finance. These data will help banks meet their clients' demand for products and services that incentivize or reward Paris alignment. Organizing GHG data at the company level is a costly and capacity-intensive exercise and takes time. Banks should take advantage of platforms that seek to address the joint challenge of establishing current, relevant, and transparent data to enable agreement on emissions targets with the client.

Banks should be alert to the risk of fungibility in case of green finance offerings. The "use of proceeds" foundation for green products is sound, but a client potentially could retain "carbon-heavy" businesses outside of the ring-fenced green finance transaction. This would undermine the credibility of a bank's net-zero commitments.

In cases where jurisdictions have cultivated regulatory environments that can hinder sustainable developments for a Paris-aligned future, banks should alert the regulatory authorities to the limitations they face in providing their products and services. Now that many large banks make net-zero commitments, it is evident that all corporations will need to take emissions reductions very seriously. In case government policies continue to promote climateunfriendly investments, such as promoting coal mine exploitation or intensive, nitrogen-heavy cattle breeding, banks should alert the regulatory authorities.

1. INTRODUCTION

This working paper explores the steps banks can take to accelerate the transition of their portfolios to net-zero emissions. Private sector banks are essential players in the real economy. These banks build their portfolios on longstanding relationships with their clients and provide a range of financial products and services to them, whether they are individuals, businesses, or public agencies.

Private sector banks, referred to as banks in this paper, link economic actors with the capital markets (see Box 1). The total size of global assets held by private sector banks is difficult to quantify given the large number of banks, the diversity and geographic spread of their offerings, and the fluctuations in exchange rates of the currency in which each bank operates. The top 20 private sector banks alone were estimated to have held US\$49.6 trillion in total assets in 2019 (Ali 2020).

Given the importance of banks in the real economy, the question arises as to what role banks can, and should, play to accelerate the transition towards a net-zero economy. This transition is required to meet the commitments in the Paris Agreement, signed by almost every UN member state. The responsibility for achieving net-zero emissions and limiting warming to 1.5° C (and other objectives) lies first and foremost with governments, as signatories of the Paris Agreement (see Box 2). Two of the biggest challenges are getting the required financial means available to realize the economic and social transition and aligning all other financial flows with the Paris Agreement.

As providers of finance and services to companies and other entities that are responsible for reducing GHG emissions, private sector banks have the ability to boost the transition to a net-zero economy. Both an increase in private climate finance and a decrease in carbon-intensive financial transactions are required to limit global warming to 1.5°C. Strengthening the role of banks in the transition means aligning portfolios and strategies with the Paris Agreement. This implies that current financial transactions and investments in non-Paris-aligned activities should phase out. In line with this approach, more than half of the thirty biggest global banks have made net-zero commitments between May 2019 and May 2021.² As this transition unfolds, it also creates an opportunity for banks to innovate and develop a competitive edge over their peers.

BOX1 | What Are Private Sector Banks?

In this paper, the term private sector banks (or banks) refers to for-profit institutions. Most of these banks have their shares publicly traded on a stock market. Exceptions are several values-based banks (see below) as well as some banks in emerging markets. Some of these banks are based on a nongovernmental organization mandate or are linked to a specific societal group (such as trade unions). These private sector banks may have imposed restrictions on the level of trade of their shares. Private sector banks are sometimes referred to as commercial banks; in this paper, the term private sector bank includes commercial banks. Private sector banks work with corporations, which we refer to as the corporate and investment segment; individual clients; and small and medium enterprises (SMEs), which we refer to as the retail segment. A private sector bank provides a wide array of products. Examples of products are loans, mortgages, deposit and savings facilities, and investment products. Private sector banks provide services as well. Examples are capital-market transactions for governments and companies; underwriting, issuing, and trading securities; and facilitating derivatives transactions.

Values-based banks are private sector banks that have social and environmental impacts at the heart of their business model. Values-based banks are united in the Global Alliance for Banking on Values, which aims "to change the banking system so that it is more transparent, [and] supports economic, social and environmental sustainability."^a

Notes: Definitions are based on those found in the 2018 *Oxford English Dictionary. a. GABV n.d.*

Sources: Schoenmaker and Schramade 2019.

BOX 2 | How This Paper Defines Paris Alignment and Net-Zero Emissions

The Paris Agreement mentions three long-term goals (Article 2).^a The first two goals, regarding the reduction of greenhouse gases (GHGs) and fostering resilience, relate to the limitation of global temperature rise well below 2°C—and 1.5°C, if possible—and the strengthening of adaptation capacities. The third goal is "to make all financial flows consistent with a pathway towards low-emissions, climate-resilient development" (Article 2.1c). This third goal recognizes the key role that financial institutions, including private sector banks, play in realizing the goals of the Paris Agreement.

The Intergovernmental Panel on Climate Change's special report *Global Warming of 1.5°C* makes clear that limiting global warming to 1.5°C is necessary to have a low probability of facing some of the worst climate impacts, including the likelihood of some of them causing irreversible damage to our societies, economies, and the natural world.^b In this paper, the authors use a narrow definition of *Paris alignment* as limiting global warming to 1.5°C above preindustrial levels. The authors recognize the importance of the adaptation and resilience objectives of the Paris Agreement; the

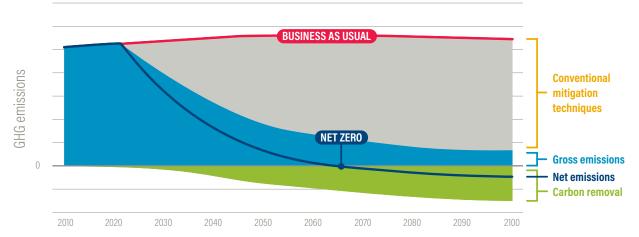
narrow use of the term in this paper is intended to foster a deeper exploration of the issues surrounding banks' efforts to support a net-zero emissions future.

It is not only banks but also all stakeholders across a given value chain who share influence over the direct emissions of each actor and, therefore, share responsibility for reducing GHG emissions. Financial institutions, including private sector banks, have unique influence over other actors through their provision of investment and lending services.^c

The term *net-zero emissions* relates to Paris alignment (the emissions target), and this will be achieved when any remaining human-caused GHG emissions are balanced out by removing GHGs from the atmosphere in a process known as carbon removal.^d

To remain within the upper limit of 1.5°C global temperature rise, global society needs to reach net-zero GHG emissions by 2050 or sooner and achieve at least a 50 percent GHG reduction level by 2030.° Figure B2.1 illustrates this timeline.

FIGURE B2.1 | NET-ZERO EMISSIONS ARE FEASIBLE AND REQUIRE IMMEDIATE, PROFOUND ACTION



Notes: a. Article 2, paragraph 1, of the Paris Agreement: "This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

b. IPCC 2018. c. SBTi 2020.

d. Levin et al. 2019. e. Levin et al. 2019.

Source: Levin et al. 2019

2. CONTEXT: A BANK'S BUSINESS MODEL AND PARIS ALIGNMENT TOOLS

2.1. A Bank's Business Model

Many banks have expressed their ambition to engage in sustainable finance. Bank commitments often refer to the Paris Agreement objectives and mostly to the requirement to reduce GHG emissions. Some banks have publicly committed to achieve certain sustainable finance targets. Since 2019/20, an increasing number of banks have publicly committed to become net-zero financial institutions by 2050. However, these commitments are not enough because most of these banks still have, and even expand, fossil fuel-related assets on their balance sheets (RAN 2021).

Paris alignment requires banks to set strategic targets and establish assessment criteria for transitioning sector-, client-, and project-level portfolios to the net-zero objective. To make this shift, banking institutions will have to change their business model, the main elements of which are illustrated in Figure 1. The question remains how to change a bank's business model.

Despite the urgency of the climate crisis and Paris commitments made by the leadership of several banks, a fundamental shift towards Paris alignment within large and systemic banks has not yet happened (RAN 2021). Boston Common Asset Management observes an important increase in risk assessment tools and green banking initiatives (Compere 2019). But Boston Common does not see the required shift in the commercial behavior of banks and observes a continuation of fossil fuel financing. The Boston-based group makes an appeal for new business models to manage the significant risks of climate-related changes and to benefit from the global transition to a netzero economy (Compere 2019).

In a recent report, the University of Cambridge Institute for Sustainability Leadership promotes its vision for 2030 by advocating that banks ensure that capital acts for the long term; price capital according to the true costs of business activities; and innovate financial structures to better serve sustainable business. The study underlines that in order to meet this challenge, banks will need to institutionalize a Paris-aligned mindset, competencies, and innovative practices by 2025–30 (CISL 2020).

Figure 1 | A bank's business model consists of several main elements



Sources: CISL 2020; Schoenmaker and Schramade 2019; Yip and Bocken 2018.

Banks that aim to shift their business to align with the Paris Agreement (become Paris aligned) must change their functional structure and operational framework as well as their tools and instruments (Hascott 2020). These banks must understand how change will penetrate all aspects of their systems; it is not developing "a new business line" but rather transitioning the entire bank.

This paper specifically focuses on client engagement and on the product and service elements of a bank's business model. Client engagement embodies the interface between a bank and its clients and is the essential step to explore client needs for the bank's products and services. We selected these two elements from the overall business model because, in our view, any fundamental shift within a bank's business model will materialize in its interaction with clients. This is the bank's raison d'être, the foundation of a bank's revenue model.

2.2. Paris Alignment Tools for Banks

In 2015, the signing of the Paris Agreement gave a new impetus to engaging the banking sector to address climate challenges. Article 2.1c of the Paris Agreement implies a responsibility for banks. Furthermore, as governments move to implement their commitments under the agreement, assets that are not Paris aligned could pose transition risks to banks.

A key indicator for Paris alignment is the level of GHG emissions. Several banks have been reporting their GHG emissions, but these reports relate to the bank's own emissions (Scope 1 of the Greenhouse Gas Protocol) and indirect emissions (Scope 2)—that is, emissions caused by the bank's suppliers, such as energy utility companies. Box 3 provides more detail regarding Scope 1, 2, and 3 emissions. The Paris Agreement helped sharpen the focus on the need for banks to measure "financed emissions," which are those caused by their clients (included in the Scope 3 emissions).

Paris-aligned banking and profitability are two concepts that go hand in hand, which green, or values-based, banks have demonstrated. These banks are mission led, which means that their objective is to use their banking business to create sustainable economic and environmental development. Their clients are mainly individuals and SMEs. Studies have shown that these banks have strong capital positions and obtain better financial returns than large systemic banks. Green, values-based banks have been able to position themselves firmly as part of the banking sector in many communities worldwide (GABV 2020).

2.3. Key Initiatives Offering Tools for Reducing Emissions

This section highlights examples of key initiatives that offer tools for developing and assessing a bank's Paris alignment strategies.

The Banking Environment Initiative's *Bank-Client Engagement Guide* serves to equip relationship managers for meaningful transition finance conversations. The approach builds on five phases: set the scene, assess, design, structure, and review. Each of its phases details the context and targeted outcomes, with helpful resources, guiding questions, and ideas to support relationship teams in their research and preparation efforts (CISL 2021).

The International Capital Market Association (ICMA) published its *Climate Transition Finance Handbook* in December 2020. The handbook provides guidance for climate transition purposes in the format of "use of proceeds" instruments aligned to green, **BOX 3** | Greenhouse Gas Emissions: What These Emissions Entail for Companies and Banks

The Greenhouse Gas (GHG) Protocol was initiated during the late 1990s and issued its first guidance in 2002. The GHG Protocol is the basis of the most widely used GHG accounting standards. The Corporate Accounting and Reporting Standard provides the accounting platform for virtually every corporate GHG reporting program in the world.^a The GHG Protocol identifies three scopes for GHG emissions for corporations as a basis for their accounting and reporting obligations.

Scope 1 emissions refer to emissions from operations that are owned or controlled by the reporting company.

Scope 2 emissions refer to the emissions from purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company.

Scope 3 emissions refer to all other indirect emissions (not included in Scope 2) that occur in the value chain, both upstream and downstream of the company. Scope 3 emissions are subdivided into specific categories, such as capital goods, waste generated in operations, business travel, and energy-related activities.

Category 15 (investments) within Scope 3 emissions is of particular importance to the banking sector. Under this category, the GHG Protocol requires the inclusion of debt holdings with known use of proceeds. In line with the finance sector guidance from the Science Based Targets initiative (SBTi), we follow the SBTi reasoning and expand the definition of Scope 3. The logic underpinning the expansion of the Scope 3 definition is the principle that financial institutions should apply the emissions measurement requirements applicable to the relevant asset class. Consequently, banks should also measure emissions of debt investments without known use of proceeds. In other words, the authors believe that banks should make sure that emissions are measured regarding specific projects as well as for the client's overall business activities.

Note: a. For more information about the Corporate Accounting and Reporting Standard, see https://ghgprotocol.org/corporate-standard.

Sources: SBTi 2020; GHG Protocol 2011.

social, sustainable, and sustainability-linked bond (SLB) principles (ICMA 2020). The handbook includes guidance for "general corporate purpose" instruments as well.

The Net-Zero Banking Alliance (NZBA) brings together banks that commit to aligning their lending and investment portfolios with net-zero emissions by 2050. This alliance launched in April 2021, and as of June 2021, its membership includes 45 banks with over \$29 trillion in assets. The cornerstone of this alliance is the *Guidelines for Climate Target Setting for Banks*. These guidelines include mandatory steps to set (intermediate) targets in line with the temperature goals of the Paris Agreement, to report about progress, and to regularly review targets to ensure consistency with current climate science (UNEP FI 2021).

The Paris Agreement Capital Transition Assessment (PACTA) for Banks is a climate scenario analysis tool. This free open-source tool supports the development and use of quantitative and qualitative stress tests under the PACTA analysis tool, the so-called PACTA Stress Test Model for the Exposure to Scope 1, 2, and 3 GHG Emissions (PACTA n.d.).

The Partnership for Carbon Accounting Financials (PCAF) is a GHG emissions accounting initiative. PCAF offers a method to account for a bank's financed (Scope 3) emissions and helps the bank better understand how to measure its portfolio's GHG emissions. This will help identify clients who need to shift their business towards reducing GHG emissions (PCAF 2020).

The Principles for Responsible Banking (PRB) offers a framework to align a bank's strategy and practice with the Sustainable Development Goals and the Paris Agreement. Launched in 2019, signatories are currently performing a self-assessment, which should be finalized within 18 months after signing the PRB.³ A recent progress report on the most advanced banks, the so-called Collective Commitment to Climate Action (CCCA), indicates that a full assessment of bank portfolios may be available by September 2022 (UNEP FI 2020). CCCA signatories developed the *Guidelines for Climate Target Setting for Banks* that are also used by the NZBA. The SBTi is a target-setting initiative that shows companies and financial institutions how much and how quickly they need to reduce their GHG emissions to align with temperature outcomes presented in the Paris Agreement. The SBTi considers targets to be "science based" if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement. In October 2020, the SBTi issued its "Financial Sector Science-Based Targets Guidance" for financial institutions (SBTi 2020).

The Task Force on Climate-related Financial Disclosure (TCFD) offers recommendations for more effective climate-related disclosures. Created by the Financial Stability Board, the TCFD issued its guidance in 2017 through the publication of its recommendations and an annex with implementation guidance (TCFD 2017). The TCFD disclosure has started, but a recent report regarding implementation by European businesses indicates that overall progress is slow, although the finance and energy sectors are making the most progress (CDSB 2020).

3. METHODOLOGY

3.1. Banks Included in the Analysis

Our research covers private sector banks operating in developed and emerging market economies. The authors selected the sample set (Appendix A) based on expressed commitment to Paris alignment. Qualifying banks were those that have committed to set a science-based target (SBT) via the SBTi and/or are members of the Global Alliance for Banking on Values. Next, the scope was expanded to include banks (with or without SBT commitments) in different geographical regions and emerging economies. This led to the addition of several banks headquartered in emerging economies. We then looked at the size of the banks' assets, and this led to the addition of some global systemically important banks (G-SIBs).⁴ Finally, banks were excluded when their annual reports were not available in English. From this initial list of banks, a subset was selected based on availability, geographical distribution, and a screening of relevant policies. The full sample set includes 31 private sector banks from all regions of the world, with assets ranging from \$1.17 billion to \$2.62 trillion (2018 data).

3.2. Client Engagement as Well as Products and Services

The research focused on two elements within a bank's business model that are key in its business process: the bank's client engagement and its products and services. Client engagement embodies the interface between a bank and its clients and is the essential step to explore client needs. Products and services, the bank's offerings, are based on the bank's core function in an economy: to provide lending-related products to firms and individuals that are funded by deposits.

3.3. Desk Research

The authors reviewed the banks' annual reports and screened reports on client engagement and on products and services. In addition, we reviewed the banks' environmental, social, and governance (ESG)/sustainability reports and policy papers as well as TCFD reports. We complemented this research with a literature review of other public sources related to climate action in the banking sector, such as publications from the Rainforest Action Network (RAN), BankTrack, Bank Environment Initiative, Boston Common Asset Management, and ShareAction. Our desk research focused on key questions involving the drivers behind the banks' green finance and net-zero commitments, the effect of climate change on the banks' risk management framework, and the innovations in products and services and engagement with clients, including those in hard-to-abate sectors.

3.4. Interviews

The authors approached several banks to interview staff from the sustainability/ESG department as well as a manager of a business line to obtain their perspectives on Paris alignment. The authors interviewed 20 bank staff, using an interview protocol (Appendix B). The interviews drew on the desk research to pose bank-specific questions as well. The interviews corroborated publicly available information, and they were effective in providing the authors with a better understanding of and insight into internal bank dynamics.

3.5. Counterfactual Methodology

This research made use of a counterfactual methodology to get a better understanding of the variables that advance the Paris alignment of banks. The statistical matching method compared banks with similar key characteristics except for one element; this exceptional element provided the counterfactual (Nielsen 2016). In our research, the counterfactual relates to the level of performance with regard to Paris alignment, which is operationalized as the amount of fossil fuel investments and a bank's green targets. Based on the outcome of the statistical matching method, we selected from the sample set banks from similar regions and size but with opposite levels of performance under the Paris Agreement. Given the limited availability of data, the level of commitment was based on the performance in RAN's most recent report on fossil fuel financing (RAN 2021) and the green targets tool (WRI 2019). The resulting matches were subject to process tracing to understand how the differences in performance emerged. Process tracing aims to identify causal relations throughout the process of policy development that advance Paris alignment among different banks within our sample set. The results from the analysis are integrated in Section 4 of this paper.

3.6. Limitations and Caveats

Developments with the banks' client engagement strategies and their products and services are only part of the bigger picture of their transition to Paris alignment. Progress in these areas cannot be achieved without progress in other elements of the banks' business models. Further research could explore innovations in these elements.

4. ANALYSIS

4.1. Key Takeaways

This section analyzes two elements of the banks' business models: client engagement (Section 4.2) and products and services (Section 4.3). There are 10 key takeaways from our analysis—5 from each element—though some takeaways have implications beyond the category in which they are listed. In several interviews, the impact of COVID-19 and its implications for Paris alignment were mentioned, as highlighted in Box 4.

Client engagement:

- Client engagement is the key opportunity and lever for a bank to help its clients transition to Paris-aligned business models.
- Banks prioritize conversations with the most carbonintensive clients.
- Tested methodologies to account for financed emissions are coming within reach of most banks.
- Setting a transition trajectory for clients by identifying intermediate emissions reduction targets is key in the conversations.
- The position of clients that do not transition to a low-carbon business model remains unclear, and banks are hesitant to identify consequences in case of noncompliance with agreed-upon net-zero transition pathways.

Products and services:

- Most interviewees considered updating data methodologies to support Paris alignment to be expensive, capacity intensive, and time-consuming.
- Paris-aligned products and services benefit both parties: they can support the transitioning of a bank's clients as well as the shifting of the bank's portfolio towards net-zero emissions.
- Recent innovations with the potential to promote Paris alignment are sustainability-linked loans and bonds (SLLs and SLBs) as well as transition finance.

BOX 4 | COVID-19: The Role of Banks in Addressing Social, Economic, and Financial Impacts

The COVID-19 pandemic was mentioned in several interviews. The bankers we spoke with felt that banks have played a supportive role in addressing the social, economic, and financial impacts of the COVID-19 pandemic. They mentioned that strengthening society's resilience is a key element in avoiding a repetition of a similar crisis. For interviewees, the COVID-19 pandemic confirmed the important role of banks in helping the global economy shift to net-zero emissions to reduce the risks of severe shocks stemming from the effects of climate change.

- Banks remain uncertain whether their current climate change criteria are indeed leading towards Paris alignment.
- Some jurisdictions have a regulatory environment that can hinder the implementation of a bank's commitment to aligning its portfolio with the Paris Agreement.

4.2. Client Engagement

Client engagement is the central element in a bank's business process to explore client needs and to offer its products and services against certain conditions and with a certain price. Client engagement is about the interaction between the bank and its clients to identify the client's financial needs and opportunities to align priorities. The conversation between the bank and its client focuses on the client's financial performance, business strategy, and investment plans. The bank normally prepares a risk assessment (regarding the client's financial and nonfinancial risks) and, subsequently, the bank will offer its products and services against a certain price and with certain conditions. The relationship between client engagement and the overall business model, as well as the key components, are illustrated in Figure 2.

Figure 2 | Client engagement is a pivotal element in the bank's business model to explore how a client's needs and the bank's offerings can match

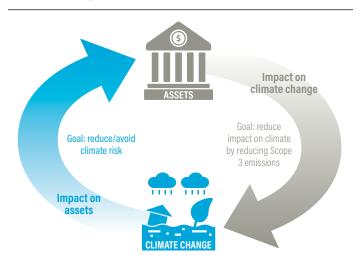
			Business as Usual	Elements	Paris Aligned
BANK'S	BUSINESS MC	IDEL	 Efforts to design systems to account for clients' GHG emissions Efforts to set client-specific GHG emissions reduction targets 	GHG Assessment	 Set Paris-aligned emissions reduction targets Account for all GHG emissions of all clients Incorporate tools to strengthen data framework
HR Management	Board	Products & Services	 Limited benchmarking efforts 	Bench-	Benchmark all clients from the same sector on their Paris alignment performance
sk Framework	Strategy	Shareholders/ Stakeholders		marking	
Data Management	Metrics & Targets	Client Engagement	No clear Paris-aligned policies place	Policies	 Transition targets Ambitious time frames Consequences in case of noncompliance
			 Minimal climate training of relationship managers Responsibility for ESG/sustainability team 	Human Resources	 Fully trained relationship managers on Paris alignment Sustainability/ESG team as coordinators and innovators Performance incentives based on Paris-

Notes: ESG = environmental, social, and governance; GHG = greenhouse gas. *Source*: Authors.

4.2.1. Why is client engagement important for Paris alignment?

Banks' assets are at risk because of climate change, but at the same time, their financial transactions have an impact on global warming. This dichotomy is key for Parisaligned client engagement because bank portfolios—and, consequently, their client base—need to change. This is illustrated in Figure 3. Conversations with clients about Paris alignment are rooted in a bank's (nonfinancial) risk assessments, as identified in the bank's risk management framework. Managing risks was the reason for banks to provide support to clients to avoid or to mitigate climate risks (TCFD 2017). Climate risks are material not only for the client's success but for the profitability of the bank as well. The Network for Greening the Financial System (NGFS), a collaboration between central banks and supervisors, has emphasized repeatedly the relevance of climate change for financial risk levels. The NGFS is calling upon banks and other financial service providers to strengthen their resilience against climate impacts. The NGFS mentions several specific actions to be taken by the actors in the finance sector: building in-house capacity, strengthening technical knowledge regarding climate change, and integrating these climate change factors in their portfolio management (NGFS 2018). More recently, several banks expanded their risk-centered approach to assess the impact of their financial transactions on climate change.

Figure 3 | A bank's climate analysis expands from risk to climate impact assessment



Notes: Focus on the risks of climate change on the bank's assets (left arrow) gradually expands. Several banks expanded their assessment to analyzing the impact of their assets on climate change (right arrow).

Sources: Authors.

Engagement with clients is a key opportunity and lever for a bank to support its clients' transition to a Paris-aligned business model—and, therefore, its own transition (UNEP FI 2020). Reducing clients' GHG emissions should be an essential topic of a bank's engagement with its clients. It is about changing the lifestyle (for individual clients) or improving the client company's business strategy and business plan (SMEs and large corporations).

4.2.2. Values-based banks: Setting a standard for client engagement

Values-based banks use client engagement in innovative ways to align their activities with the Paris Agreement. Values-based banks are advanced in accounting for the GHG emissions of their clients, set ambitious Paris alignment targets for them, and apply strict sustainability criteria to assess their performance. These sustainability standards are also being applied when evaluating proposed financial transactions. An example is a European values-based bank that screens new clients on their potential to create a positive impact. The screening is based on a priority list of sustainable industries and activities. Only if the assessed client has an added value to a sustainable economy, according to the bank's standards, will the client be assessed on its financial performance (Triodos Bank 2020).

Comparing the client engagement approach of valuesbased banks with the approaches of mainstream banks will increase the understanding of how to strengthen a bank's Paris alignment commitment through improved client engagement. It is important to realize that valuesbased banks are significantly smaller in asset size than the mainstream banks in our sample set. We believe that there are lessons to be learned for mainstream banks from the approach taken by values-based banks. Further research into the applicability of values-based bank approaches for mainstream banks would be helpful. In the following section we discuss client engagement strategies for mainstream banks and, where applicable, compare them to best practices identified in values-based banks.

4.2.3. How banks tailor engagement strategies to support Paris alignment

Mainstream banks that have designed a Paris-aligned client engagement strategy emphasize an inclusive approach. Most mainstream banks that have committed to Paris alignment aim to help their carbon-intensive clients transition to a net-zero business model. Bank representatives emphasized that there is no intention on the bank's side to exclude carbon-intensive clients from their portfolio. Mainstream banks believe they can have a bigger impact by working with clients on their transition rather than divesting from them (see, for example, the 2018 Katowice Commitment). Another, less frequently mentioned reason for this approach is that the mainstream banks do not want to lose their carbon-intensive clients and see their portfolios shrink.

Values-based banks use an exclusion approach in their Paris-aligned client engagement strategy. Values-based banks have decided to be more selective than mainstream banks when deciding whether to continue their relationship with current carbon-intensive clients, particularly when existing clients are unwilling or unable to comply with the bank's emissions reduction targets. Applications by new clients are refused by values-based banks if these new clients do not meet specific sustainability criteria. Consequentially, values-based banks have lower levels of financed emissions, with some of these banks having achieved the net-zero objective for their entire portfolio. Banks prioritize conversations with the most carbonintensive clients. These discussions give banks a deeper understanding of specific sectors, the important players in these sectors, and the potential to transition towards net-zero emissions. The power sector was mentioned frequently in interviews as a starting point. Other sectors high on bank priority lists are infrastructure; fossil fuels; agriculture; shipping; and the automotive, steel, and cement industries.

Setting a transition trajectory by identifying intermediary emissions reduction targets is key in the conversations. The SBTi was mentioned in interviews as offering an important opportunity to set targets in key sectors. Banks use the target-setting exercise to help clients identify their options to transition to a net-zero emissions business model. The discussions are gradually expanding to the inclusion of a time frame when intermediate targets must be reached. As an example, a major European bank currently uses its own methodology, called "transition scoring." This screening tool focuses on the client's capacity to shift its business model to net-zero emissions and aims "to measure the client's contribution and capacity to adapt their business model to the challenges of achieving the energy transition and combating climate change" (Crédit Agricole 2020, 3).

Tested methodologies to account for financed emissions are coming within reach of most banks and are helping them better understand their clients.⁵ PCAF offers a firm basis to regularly assess the emissions of the bank's portfolio, down to the client level. In addition, PACTA is being used to test investments, financing, and portfolios against climate scenarios. The SBTi offers methodologies to set and measure Paris alignment targets. These methodologies make it possible for banks to understand clients' level of GHG emissions and their alignment with desired pathways, which provide insights on the banks' own Scope 3 emissions. Compared to mainstream banks, values-based banks are more advanced in implementing and applying emissions accounting tools. An example is a European values-based bank that applied the PCAF methodology to assess all of its assets to get a full picture of its financed emissions (Triodos Bank n.d.).

Banks have made progress with designing their own tools to aggregate climate-related information about their clients. An example of such an integrated assessment framework is the Terra Approach, which was developed by a European bank. The Terra Approach focuses on sectors with the highest climate impact. The approach is built on sector-related emissions data and combines SBTi, PCAF and PACTA methodologies. The Terra Approach permits a scenario assessment of "the changes that each sector needs according to the relevant Paris transition pathway" (ING 2019, 9). The underlying data, collected by the bank, are included in the bank's climate alignment dashboard. The bank uses the dashboard as a basis to "disclose quantitative results on the climate alignment of the lending portfolio" (ING 2020, 59).

Benchmarking clients against the performance of peers in the sector (without disclosing confidential business information) is becoming feasible. These benchmarking exercises, based on the gradual improvement of emissions databases, are being introduced in the bank-client dialogues. We learned from bank staff that benchmarking supports clients in their search for ways to strengthen their climate performance; it also helps them respond to requests from investors and other stakeholders to disclose their performance. This is a "no regret" tool, which banks could test more widely.

A bank's sustainability team and relationship managers play a key role. The sustainability team typically leads the design of Paris-aligned engagement policies. In most banks, the relationship managers, supported by risk and product specialists, are key in implementing the policy. Several banks have launched important staff-training programs to strengthen their knowledge about Paris alignment. For relationship managers, extensive training is an important element of a Paris-aligned client engagement strategy.

The "touch point" between the client and the bank is gradually expanding to encompass the client's sustainability expertise. The traditional counterpart for the bank's relationship manager is the client's finance director or treasurer. Adding Paris alignment to the bank-client conversations has led to the inclusion of the client's sustainability department in the conversations. The expansion of the relationship is gradually emerging as part of standard business practice. Using Paris alignment as part of due diligence when accepting new clients reflects an emerging opportunity to reduce the bank's exposure to carbon-intensive clients. Only values-based banks have published how Paris alignment criteria are applied to new clients; none of the other banks in our sample set has done so. One exception is the phaseout of thermal coal, which has been applied by most banks. This could lead to a decline in the number of new carbon-intensive clients, especially in cases where these clients have no intention of changing their business plan, avoiding lock-ins in carbon-intensive infrastructure. Some banks agree to accept new clients on the condition that these clients strengthen the Paris alignment of their business. Conditions are determined on a case-by-case basis. Most of these conditions require clients to provide additional nonfinancial information or to develop a netzero emissions strategy. A European bank reported the advice given about new clients and new lending requests for seven highly sensitive sectors. In 2019, it gave advice on 407 cases, out of which 173 were approved, 228 met with conditional approval, and 26 were rejected. This bank also reported on the effectiveness of its sustainability risk management system: the relationship managers identified 2,947 cases in 2019, of which 2,023 cases received sustainability assessments to ensure that the bank's ESG criteria were being respected (ABN AMRO Bank 2020).

4.2.4. Challenges for Paris-aligned client engagement

The design and population of a database with current, high-quality information about clients' GHG emissions levels is a challenge for several banks. In our interviews, bank representatives highlighted the difficulty of collecting robust, complete, comparable, and current emissions data about their clients and relevant sectors. In the interviews, bank staff stressed the need to build in-house capacity and improve data collection.

Targets for Paris-aligned client engagement are not very precise, and clarity and consistency require improvement of these targets. Most banks consider themselves as being in a trial phase to test Paris-aligned client engagement approaches. From the interviews, we learned that the formulation of goals is subject to internal debate, and the piloting of methods and approaches is ongoing. This ongoing internal discussion may lead to inconsistencies in how Paris alignment is being discussed with clients and gives rise to questions regarding banks' sincerity about their commitment to Paris alignment.

The position of clients that do not reduce their emissions to net zero remains unclear. The researched mainstream banks are not ready to divest from clients who do not comply with emissions reduction trajectories. Several banks have taken a stance on divestment from coal-related transactions. The targeted businesses are requested to shift away from thermal coal within a certain time frame (the time horizon for full divestment is often 2025 or sometimes 2030). Some banks have stated that they will disengage from clients who do not meet these goals, and other fossil fuel-related financial transactions are gradually being added to the exclusion list of banks. However, an exclusion approach is not yet widely accepted in the banking sector: some interviewed bank staff hold the view that continued engagement with fossil fuelheavy industry is needed to keep leverage to influence these carbon-intensive players to transition to a net-zero business model. Values-based banks do not accept carbonintensive clients at all, so these carbon-heavy companies are therefore excluded from their client base.

The bank's incentive structure is still focused on quantitative and short-term triggers. Banks expressed some concerns that policies related to Paris alignment might create the impression amongst staff that opportunities for new financial transactions—and, therefore, the potential for a reward—are unnecessarily restricted.

4.3. Products and Services

Products and services are part of a bank's core function, which is to provide long-term loans to firms and individuals that are funded by short-term deposits. This supportive role to economic and societal development requires that a bank monitor the financial as well as environmental and social performance of its clients as part of the bank's risk assessment framework. Asymmetric information lies at the core of banking. A bank has information about the cash flows of investment projects, which is not available to outside lenders. This is an important reason for a bank to monitor potential clients and investment opportunities (Schoenmaker and Schramade 2019). Figure 4 illustrates the role products and services play in a bank's Paris alignment ambitions, as discussed in this section.

4.3.1. Why is Paris alignment important for a bank's offerings?

Paris-aligned products and services offer a dual benefit: they can support the transitioning of a bank's clients as well as the shifting of the bank's portfolio towards net-zero emissions. From interviews, we learned that banks are

Figure 4 | Products and services are a second pivotal element in a bank's business model to explore how clients' needs and the bank's offerings can match

			Business as Usual	Elements	Paris Aligned
BANK'S	BUSINESS MOD	DEL	Deposits are the basis for the banks' core offerings	Deposits	 Use of proceeds as a tool to target use of deposits for the banks' offerings; example: Paris aligned/sustainable deposits
HR Management	Board	Products & Services	Standard lending vehicle where proceeds do not have to be ring-fenced with restrictions	Loans	Key performance indicators and/or loans based on use of proceeds to support the clients' transition strategy towards a Paris-aligned
lisk Framework	Strategy	Shareholders/ Stakeholders	Ponds to finance any type of project within the	Lound	business plan; examples: sustainability-linked loans (SLLs) and transition finance Use of proceeds bonds to finance Paris-aligned
Data Management	Metrics & Targets	Client Engagement	 Bonds to finance any type of project within the clients' business plan 	Bonds	example: green and climate bonds, transition bonds
			Standard rates apply for standard mortgages	Home mortgages	Interest rates linked to the level of Paris alignment; example: lower interest rates for energy-neutral homes

Source: Authors.

currently developing strategies and implementation plans to follow up on the net-zero and green finance commitments made by their senior executives. Business as usual is not sufficient, and current innovation seems to center around the integration of emissions reduction incentives and requirements to monitor and report agreed-upon emissions reductions. In interviews, bank staff explained how their bank's innovations are gradually rolled out. The development of crafting sustainability-related key performance indicator (KPI) frameworks at the sector level, in addition to traditional financial KPIs, has triggered the design of innovative products and services. Bank staff emphasized the potential to offer lower prices for sustainable banking instruments because of their lower risk profile. This development offers much opportunity for banks to expand Paris alignment in their offerings.

4.3.2. Values-based banks: Sustainable products and services are the norm

Values-based banks aim to create value by linking their offerings to the positive impacts on society and the environment. These banks consider ESG topics as the basis for their role in value creation. Values-based banks base their competitive edge on a long-term view, which incorporates potential risks stemming from climate change and from the societal pressure on companies to address climate change (KKS Advisors 2019).

4.3.3. How banks tailor products and services to support Paris alignment

Banks label products and services green rather than *Paris aligned*. In the past, sustainable banking product offerings were designed with a focus on financing environmental projects. Only recently have banks begun to consider how to integrate Paris alignment criteria that explicitly incorporate analysis related to how a financial instrument supports transition pathways towards a 1.5°C world. For products to be labeled as *green*, certain standards set by industry organizations must be met respective to the product type to qualify as a green loan, a green bond,⁶ or a green mortgage. More recent developments demonstrate the launch of new products beyond green products with a focus on sustainability issues and/or climate change, such as SLLs and transition finance.

A better understanding of Paris-aligned offerings is gradually emerging. We learned from our interviews that not all bank staff were clear about the meaning of *Paris alignment* and its implications for the bank's portfolio. The PRB self-assessment exercise offers an important opportunity to learn what is needed to shift banks' portfolios towards Paris alignment (NATI 2007).

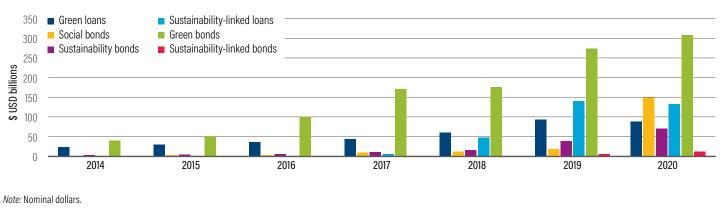
Retail customers prefer simple, easily understandable, and easily accessible green products. In the interviews, we heard that markets for such products are growing, especially in Europe. Examples are green housing loans, green mortgages, electrical vehicle loans, renewable energy loans, and green deposit/savings accounts. An important common feature is close monitoring of the use of proceeds: the bank will monitor the client's use of the product for the agreed-upon "green" purpose. In a similar vein, green mortgage offerings outline the competitive pricing structure, the criteria for the green mortgages, and the objective to be achieved by greening the mortgage.

Incentivizing retail clients to shift towards taking green products and services is a nascent business line. In France, the government requires all retail banks to offer at least one Paris-aligned savings or deposit product (La Loi Pacte, adopted in 2019). This facility has triggered additional uptake of green products. Some banks alert retail clients of the opportunity to identify how to make energy savings. The realization of savings will be feasible after certain investments have been made. To engage clients, banks provide retail clients an outline of available financial products to finance these energy efficiency investments (BNP Paribas n.d.).

Corporate banking's green, social, and sustainable bonds as well as "climate bonds" are based on the "use of proceeds" principle. For most banks, these bonds are an important step towards incorporating more Paris-aligned products in their product offerings. The use of proceeds approach means that the proceeds of the bond are to be applied to environmental projects in the case of green bonds and to climate-specific projects in the case of climate bonds. Several nonprofit organizations and industry associations have created standards to build credibility in the green bond market, and two of the most widely accepted standards include ICMA's Green Bond Principles and the Climate Bonds Initiative's Climate Bonds Taxonomy. Examples of use of proceeds in the case of a climate bond include the financing of renewable energy power plants or building sea walls to protect cities threatened by rising sea levels. In comparison, green bonds have more flexibility in terms of the types of projects they can invest in, such as financing sustainable buildings. Although this is an environmental project, it is not necessarily combating climate change.

Demand for green bonds is only expected to grow. The price of green bonds is comparable to or lower than the price of plain vanilla bonds; recent studies indicate that green bonds are performing better than traditional bonds in off-risk periods⁷ (Ramel and Michaelsen 2020). Recent literature indicates that evidence of the potential for higher returns on green bonds, called "greenium," is growing (Taylor 2021). In our interviews, the important growth of the green bonds market was mentioned, and the green bonds were, for many banks, a first innovation towards Paris-aligned products (see Figure 5). Interviewees referred to the pressure from investors to expand the green bonds market.





Source: BloombergNEF 2021.

Banks are also applying the use of proceeds concept to other products besides bonds. We heard about another recent product: a sustainable deposit account, held for a major company. This deposit is managed through the use of proceeds principle, with the bank guaranteeing that the deposit provider's funds will be used only for specific sustainable financial transactions.

SLLs,⁸ based upon KPIs, are a novel feature for corporate banking. These loans are based on the customer's business strategy. The loan terms and interest rates are linked with sustainability criteria. The link is based upon KPIs that track steps to be made by the borrower to improve sustainability. These KPIs must be material to the client's business and must be ambitious. These KPIs may include elements relating to Paris alignment as well as other criteria, such as biodiversity or the sustainability of the borrower's value chain. The SLL market is currently estimated at \$300 billion.

SLLs may be the next important growth market for banking products. Bank staff noted this and suggested it may be because they are not constrained by limits on volume and type of projects to be financed. Rather, they focus on the overall progress of the borrower towards agreed-upon sustainability goals. In our interviews, bank staff were very encouraged by the first results of this innovative product because it offers the chance to actively support the emissions reductions of a client. An example of an SLL is given in Box 5. In one interview, the possibility was mentioned of providing SLLs to borrowers in the oil and gas sector, provided they have a credible and measurable path towards net-zero emissions.

Transition finance is a new product for corporate banking, tailored to support borrowers who are engaged in transitioning their business to net-zero emissions. This product innovation aims to align the bank's client with the Paris Agreement, based on agreed-upon KPIs9 (Creed et al. 2020). KPIs are used as a basis to measure the borrower's performance towards a net-zero emissions business. The exact shape, conditions, and pricing are tailored to the borrower's needs. Transition finance may offer the potential to support the transitioning of hard-to-abate sectors (such as mining, cement, and agriculture) by combining a requirement of use of proceeds for net-zero purposes and sustainability-linked securities. Box 5 provides an early example of transition finance. In the interviews, bank staff were positive about the prospects of transition finance. Several staff referred to their first

BOX 5 | Examples of Sustainability-Linked Loans and Transition Finance

Sustainability-linked loans (SLLs) and transition finance are not yet as common as green bonds, but they are gaining traction in the market. Here, we provide two examples to further illustrate how banks have developed these products.

An SLL based on a pricing incentive: "Bonus penalty mechanism"

This SLL is issued to a Spanish telecom company and helps the telecom provider to improve its environmental, social, and governance (ESG) performance by offering a loan based on compliance with nonfinancial criteria.^a The interest rates on the loan are linked directly to the company's ESG rating, which was 67 out of 100 when the SLL was granted. The ESG rating is provided by a third party. This rating is used as a reference point to assess the annual variations in the interest rate. If the ESG rating is downgraded, the interest rate on the loan rises. Conversely, if the rating improves, the interest rate falls. The "bonus-penalty mechanism" linked to a company's ESG performance aims for a strong incentive effect.

Transition finance to support sustainable commercial aviation

Etihad Airways issued its first transition *sukuk* (the Islamic version of a bond) in 2020.^b The US\$600 million transaction supports Etihad's drive for Paris-aligned aviation by linking the *sukuk* terms to Etihad's carbon-reduction targets: a 20 percent reduction in emissions intensity in the airline's passenger fleet by 2025, a 50 percent reduction in net emissions by 2035, and a commitment to net-zero carbon emissions by 2050. It is highly likely that besides stimulating energy efficiency, the use of sustainable aviation fuel, and other actions, the client will make use of carbon offsets to achieve the net-zero target.^c

Sources: a. BNP Paribas 2020; b. HSBC 2020; c. Walsh and Roy 2020.

transition bonds, being prepared for issuance upon the request of corporate clients. The opportunities to help "carbon-rich" clients shift to a net-zero emissions production model were mentioned frequently. It remains unclear how current data and target-setting tools will support transition finance as a credible tool to shift to Paris alignment.

4.3.4. Challenges for Paris-aligned products and services

Progress is being made towards Paris alignment by mainstream banks, but we heard about obstacles that delay necessary changes in the banks' offerings. Valuesbased banks have integrated climate change in their core values and are not, for the most part, facing the challenges described below.

Accessing and developing data to support Paris alignment is expensive, capacity-intensive, and will take time. In our conversations with banks, we heard about important costs associated with purchasing data sets and the challenge to keep data sets current and responsive to evolving internal demands. Capacity constraints and the lack of a solid data collection approach were mentioned as concerns as well. Other bank staff expected that a time frame of at least five years would be required to strengthen the data collection to capture emissions reduction progress.

Labeling the banks' offerings as *Paris aligned* requires clear standards and an alignment trajectory to be followed by the banks, but these are currently lacking. We heard in our interviews from several banks that it is challenging to design Paris-aligned products. Difficulties mentioned in interviews include the absence of a well-determined Paris alignment methodology and corresponding tools, insufficiently solidified legislation across the markets to create a level playing field, and a lack of clarity in government policies regarding national transition paths towards a net-zero economy.

Green bonds are facing some scrutiny. There is a concern about additionality or fungibility: if a green bond had not been issued, would the underlying activities have been financed by other means? A representative from a leading green bond issuer was certain that a company would go ahead with a new project anyway, preferably through a green bond or, otherwise, through the issuance

of a standard bond (Balch 2019).¹⁰ To rule out the risk of fungibility, the World Bank stresses the importance of seeing the full expenditure plan of the borrower.¹¹ Only by looking at all planned expenditures can banks ensure that the provision of a green bond does not free up a client's financial means to be used for a separate—not sustainable—investment (Giugale 2018). This is an evolving issue that will require our attention.

Some jurisdictions have a regulatory environment that can hinder sustainable developments for a Paris-aligned future. As more large banks make netzero commitments, it is evident that all corporations will need to take carbon emissions reductions very seriously. In August 2020, Citigroup's chief executive officer stated that banks should start walking away if clients are not serious about reducing carbon emissions (Surane 2020). But shortly after, in November 2020, the U.S. Office of the Comptroller of the Currency released a proposed rule that would not allow banks to deny lending services to entire industries, following complaints from oil and gas companies (Ackerman 2020). If the proposed rule is enacted, banks would be forced to service fossil fuel companies instead of denying services on the basis of climate risks. The rule was finalized in early January, then paused late January due to the transition of the new administration. Such a situation could reemerge, whether in North America or elsewhere, depending on political developments. Although banks play an important role in the transition to a Paris-aligned future, governments and financial regulators have an important role to play in shaping legislation that encourages the growth of sustainable finance as well.

Greenwashing is still a concern, which emphasizes the need for transparent and measurable **financial products.** The complex nature of designing transition-related financial products makes it difficult to create a strict framework that can allow companies in climate-intensive sectors such as fossil fuels participate in sustainable finance without the risk of greenwashing due to the nuances that differ by each sector This challenge is illustrated by ICMA's efforts to create a transition finance standard after its successful GBP have become an industry norm for green bond issuances. Although the GBP provide a set of standards to follow, the Transition Finance Handbook that the ICMA launched in December 2020 was notably more flexible, a reflection of the challenges the industry has encountered to properly define *transition* across all sectors.

5. FINDINGS

Many banks are just beginning to include Paris alignment in their business strategies. The current approach on how to include Paris alignment in a bank's business model is quite erratic, and the authors learned from the interviews that better structuring of the banks' Paris alignment efforts would be welcomed by bank staff. Elements mentioned as a necessary part of a cohesive Paris-aligned strategy are structuring of responsibilities; design of a comprehensive approach; and the inclusion of targets, benchmarks, timelines, and an accounting mechanism.

Private sector banks have a responsibility to align their portfolio with the Paris Agreement (Scope 3 emissions). Bank staff realize that offering green products is not sufficient to shift to Paris alignment. Sustainability departments within banks take the lead in strengthening Paris alignment in client engagement strategies, and relationship managers are considered key in discussing Paris alignment during conversations with clients. An important challenge is the tension between the financial and sustainability incentives for the relationship managers. The availability of timely and high-quality emissions data is another issue that needs to be solved.

Values-based, or green, banks are mission led and engage with their clients on a different basis than the other banks in our sample set. These banks accept only clients who have a positive impact on society by providing finance and services for sustainable financial transactions. The findings below do not relate to values-based banks, unless explicitly specified.

Target setting for Scope 3 emissions reductions and designing a methodology to measure progress is an important commitment by banks with net-zero commitments in our sample set. Given the data and methodology challenges, current target-setting exercises focus on specific sectors (such as the energy sector, power utilities, automotive industry, and real estate). Bank staff are supportive of prioritizing their bank's focus on "carbon-heavy" clients.

The current Paris-aligned client engagement strategies are structured around the principles of "supporting clients in their climate transition" and based upon the principle of inclusiveness of all clients. None of the banks is interested in excluding clients, and therefore the policies do not include clear sanctions. Bank representatives do firmly believe they have leverage to convince their clients to shift towards Paris alignment. Unfortunately, except for the values-based banks, the authors have not seen evidence of banks effectively convincing their clients to transition their business to net-zero emissions on the scale that is needed to become Paris aligned.

The availability of timely and high-quality data to assess clients' level of Paris alignment is essential. Important steps are being made by several banks, though bank representatives remain concerned about the robustness of the current data collection methodology, related costs, and required capacity.

Innovation on the product and services side led to the creation of green bonds, and currently SLLs, SLBs, and transition finance are being introduced. Banks label these products and services as *green* and not as *Paris aligned* because of the need to solve issues such as the appropriate emissions data methodology and the introduction of appropriate targets. SLLs, SLBs, and transition finance may support the transition of companies to net-zero emissions. Bank staff mentioned as their main challenge the design of the transition trajectory. Some bank staff mentioned the need for a time frame of five years to get all elements in place for offering Paris-aligned products and services.

The expansion of the green bonds market demonstrates the potential for a rapid transition to green investments, but concerns related to the fungibility of projects could hinder the integrity and impact of green bonds. The use of proceeds approach may lead to financing certain specific "ring-fenced" green projects at a corporation, but the corporation's core business operations potentially remain carbon heavy. According to the Climate Bonds Initiative, 85 percent of the use of proceeds of green bonds in 2020 financed projects related to energy transport, and buildings. There are arguments that many of these projects may have been necessary for the company and could have been financed through traditional debt instruments anyway; yet, conveniently, they fit the requirements for sustainable debt instruments instead. At the same time, these green financial sources may have freed up other funds for the client to invest in carbon-heavy business activities.

Green retail products can be easily accessible, simple in design, and straightforward in informing customers about their use, objective, and potential impact. This has been the initial experience, mainly of European banks, regarding the successful introduction of green products to cater to rising demand from individuals and SMEs. Bank staff mentioned the support from a conducive regulatory environment, which strengthens public awareness and stimulates demand for green retail products and services.

6. RECOMMENDATIONS

Private sector banks have a responsibility to align their portfolios with the Paris Agreement (Scope 3 emissions). Values-based banks demonstrate how a profitable business model can be linked with Paris alignment in the banking sector. Our recommendations are captured under the headings "Client Engagement" and "Products and Services." However, these two elements should not be considered in isolation of a bank's overall business model.

6.1. Client Engagement

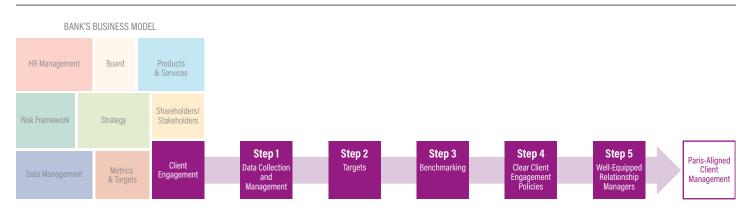
Banks should be clear about how their engagement with clients will integrate Paris alignment. Prudence is required when accepting new clients and engaging in new transactions. Bank and client need to have a clear mutual understanding of how, and within which time frame, the client's business will fit in a net-zero economy. If the client's Paris alignment will be impossible, exclusion of the client should be considered by the bank. We encourage banks to test our proposed five-step approach (see Figure 6) to enhance their Paris-aligned client engagement strategies. The approach concentrates on corporate clients and could be expanded over time to retail clients. We invite banks to share lessons learned when they apply the five-step approach.

Step 1: Data collection and management. Banks should transparently account for their portfolio emissions based on the collected GHG emission data of all their clients. These data form the basis of their client engagement strategies. PCAF provides a methodology to measure financed emissions that can serve as a tool to implement this step. To keep track of all GHG-related information, banks should build data management systems. Banks could use these climate data hubs to assess the amount of financed GHG emissions, develop and track the individualized emissions reduction targets for each client, and measure the portfolio-wide progress against their emissions reduction targets.

Step 2: Targets. Banks should set portfolio emissions reduction targets based on available data and methodologies. Banks could use the SBTi to set portfolio emissions reduction targets for themselves and advise clients to do the same for their company emissions reduction targets. Each bank needs to ensure that its clients' emissions reduction targets support achievement of the bank's own overall emissions reduction targets.

Step 3: Benchmarking. Banks should use conversations with clients to benchmark the Paris alignment performance of clients against their peers and share best

Figure 6 | A five-step approach enhances a Paris-aligned client engagement strategy



Source: Authors.

practices. PACTA, a tool for climate scenario analysis, could be helpful to perform the benchmarking exercise. This approach should facilitate a constructive interaction between bank and client and help identify finance required to shift the client's model in a timely fashion towards Paris alignment.

Step 4: Clear client engagement policies. Each bank should design and implement clear client engagement policies to ensure the transitioning to a net-zero emissions portfolio. The policies should include the Paris alignment targets for clients, the timeline to materialize Paris alignment, and the consequences in case of noncompliance. In case of carbon-intensive clients, this approach will clarify how the bank will support the Paris alignment and whether disengagement needs to be considered.

Step 5: Well-equipped relationship managers.

Relationship managers are essential for a successful transition of the bank's portfolio. These bank staff need to be trained to strengthen their knowledge of Paris alignment requirements and opportunities. In addition, these staff must have access to relevant specialists in the back office. The bank's human resources policies should design the right incentives for training and rewards for nonfinancial performance.

6.2. Products and Services

Banks should develop well-founded data methodologies to inform the introduction of innovative products such as SLLs, SLBs, and transition finance. Organizing GHG data at the company level is a costly and capacity-intensive exercise and takes time. It is important for the banking sector to organize itself through platforms to address the joint challenge of having current, relevant, and transparent data to agree on emissions targets with the client.

Banks should be alert about the risk of fungibility in cases of green finance offerings. The "use of proceeds" foundation for green products is sound, but the possibility remains that a client may retain carbon-heavy businesses outside of the ring-fenced green finance transaction. This would undermine the credibility of banks' net-zero commitments. The introduction of KPIs is a helpful feature to assess and monitor the transition towards Paris alignment of the clients' full business.

Banks should alert appropriate regulatory authorities regarding constraints imposed by regulations that hinder the provision of Paris-aligned products and services. Rather than being passive and refraining from action, banks with net-zero commitments have a responsibility to highlight rules and regulations that may (unintentionally) affect their Paris alignment commitments and help find solutions to address these constraints.

7. CONCLUSION

Banks are one of the engines that help societies develop and grow livelihoods and businesses of all sizes. It is therefore of the utmost importance that banks play their role in the transition to a net-zero global economy. The authors note that banks are beginning to wake up to the pressing threats of climate change on society. However, the tangible output of the banks' commitments to a netzero economy has been modest at best.

It is encouraging to see an ever-increasing number of banks taking Paris alignment seriously. Necessary nearterm actions include setting intermediate targets on the trajectory to meeting net-zero commitments. Innovation in the sustainable finance products space is exciting; however, credibility will only be gained by demonstrating measurable impact, whether through Paris-aligned financial transactions or through progress on well-founded and credible KPIs.

This paper outlines steps banks can take to accelerate the alignment of their portfolios with the Paris Agreement. The authors realize that the banking business is multidimensional, and client engagement as well as products and services are only two elements of a bank's multifaceted business model. Nevertheless, the authors believe that the recommendations in this paper will be no-regret steps that banks should implement.

More research will be required to support the banking sector in its ambition to move to a Paris-aligned portfolio. Two elements seem urgent to the authors. The first is a potential disruption in the finance sector that might be emerging from central banks' and regulators' aim to safeguard the financial system against the risk of climate change, including both transition and physical risks. The second is the potential support that could be offered to banks in emerging and new frontier markets. These banks are facing the same concerns as banks in developed countries, though more acutely and with pressing concerns to strengthen resilience against the effects of climate change. If well supported and well equipped, these banks can help their economies leapfrog to a resilient net-zero society.

APPENDIX A. BANKS INCLUDED IN WORLD RESOURCES INSTITUTE RESEARCH

COMMERCIAL BANK,		ASSET VALUE
COMMERCIAL BANK, COMMITTED TO SCIENCE- BASED TARGETS	HEADQUARTERS (COUNTRY)	IN 2018 (US\$, BILLIONS)
ABN AMRO Bank	Netherlands	380
ASN Bank	Netherlands	126
Bancolombia	Colombia	43
Bank Australia	Australia	4
BBVA	Spain	800
BNP Paribas	France	2,400
Commercial International Bank Egypt	Egypt	22
Crédit Agricole	France	2,020
DGB Financial Group	South Korea	2,200
Grupo Financiero Banorte	Mexico	17
HSBC Holdings	United Kingdom	2,560
ING Group	Netherlands	1,050
La Banque Postale	France	283
Novo Banco	Portugal	41
Raiffeisen Bank International	Austria	15
Société Générale	France	1,550
Standard Chartered Bank	United Kingdom	690
Swedbank	Sweden	224
Teachers Mutual Bank	Australia	5
Westpac Banking Corporation	Australia	568

VALUES-BASED "GREEN" BANKS	HEADQUARTERS (COUNTRY)	ASSET VALUE IN 2018 (US\$, BILLIONS)
Alternative Bank Switzerland	Switzerland	1.83
Amalgamated Bank	United States	4.68
BRAC Bank	Bangladesh	3.72
Triodos Bank	Netherlands	12.44
XacBank	Mongolia	1.17

OTHER BANKS	HEADQUARTERS (COUNTRY)	ASSET VALUE IN 2018 (US\$, BILLIONS)
Access Bank	Nigeria	12.7
Bank of America	United States	2,430
Bank of Montreal	Canada	587
Citibank	United States	1,917
JPMorgan Chase	United States	2,622
Mutual Trust Bank	Bangladesh	2.6

APPENDIX B. SEMISTRUCTURED INTERVIEW GUIDE FOR PRIVATE SECTOR BANKS

Background (2 minutes)

(This portion to be shared in advance in the interest of time but can be revisited if the interviewee has any questions.)

Research Overview

- This interview is in support of World Resources Institute (WRI) research exploring how private sector banks can align their portfolios with the Paris Agreement goals. The focus is on *how* banks are changing elements of their business model (products and services as well as client engagement) to align with the goals of the Paris Agreement; it is *not* about setting the targets itself.
- For purposes of this research, we are interested in banks that have committed to setting SBTs and green banks that are already Paris aligned.

Research rationale

- Banks play a key role in advancing the global transition to a net-zero carbon economy. As financial players, banks can steer financial flows in a sustainable direction and incentivize their clients to become greener. By doing this, banks can reduce their own exposure to climate risks and reduce the impact of their business on climate change.
- We are interested in understanding the progress made by banks to transition their internal structures and assets to become Paris aligned and the lessons learned for other banks making this transition. The goal of this research is to support bank officials and staff in implementing the transition towards Paris alignment.

Interview Purpose

We are interested in discussing key opportunities and challenges your bank faces in transitioning to Paris alignment, particularly as they relate to products and services that address Paris alignment and client engagement activities focused on Paris alignment.

A Note on Confidentiality

- We will be taking notes on this interview to facilitate our research.
- We will use your information in our research, but we will not refer to you as an individual or attribute anything directly to your institution. We will anonymize your responses and aggregate them in our overall findings.
- If we decide to pursue a case study of your institution, we will follow up with the draft of the case study and request your feedback.

General Question (5 minutes) in case of SBT Commitment

1. Please explain your bank's motivation to commit to SBTs.

a. Which stakeholder groups undertook this initial process (clients, investors, boards, external groups such as government or civil society organizations, other)?

Products and Services (20 minutes)

- 2. Has your bank developed any major new business products, particularly with a climate focus?
 - a. Has this development been affected by the COVID-19 pandemic response/ recovery?
 - b. Do you see potential for growth in climate-related products and services in your institution?
 - i. If so, are there certain sectors, regions, or types of products/services where you see the most potential?

1. Why?

- 2. Over what time frame?
- c. Have you faced challenges in integrating these climate-focused products and services?
 - i. If so, for which products, and where in the process?
 - 1. Designing/getting internal approval for these new products
 - 2. Building awareness and capacity of staff to offer these products
 - 3. Attracting clients to these products (selling)
 - A. Does your bank have a strategy for addressing these challenges? If yes, please provide an example (e.g., employees are not familiar enough with products).
- d. As your institution introduces new products/services, do you anticipate there being any products/services where it might scale back/disengage because of climate considerations?

i. Why?

- ii. Over what time frame?
- 3. Has or will your institution differentiate your pricing for products/services that support climate-friendly, neutral, and climate-harmful activities?
 - a. If yes, what are the financial/economic considerations for the pricing differentiation (e.g., lower risk, faster repayment, attractive conditions under which the capital was obtained from the capital market, such as through low-interest green bonds)?
- 4. Is your institution assessing which business products and services have a negative impact on climate change? If yes, what does it aim to do with the outcome of its assessment? Could you improve these products to and change them to become Paris aligned?

Client Engagement (15 minutes)

5. Does your institution engage clients in Paris alignment activities?

- a. If so, how? For example, does your institution do the following:
 - i. Provide guidance/educational materials to help clients transition to Paris alignment
 - ii. Discuss with clients the climate-related risks and opportunities in clients' respective sectors (e.g., transition and physical risks) and provide related educational materials on these issues
 - iii. Discuss with clients their plans for reaching net-zero by 2050 and/or setting an SBT for emissions reductions

- iv. Require TCFD and other climate-related disclosures (either publicly or privately to the bank itself)
- b. If this engagement happens, who would typically be conducting this type of engagement? For example, would it typically be someone from your institution's sustainability team, the client relationship manager, or the person managing the specific transaction? Please explain why this bank officer has the lead and whether there is competition between bank objectives.
- c. What share of clients is responsive, and what type of client responds more? Who are more reluctant?
- 6. Are there financial incentives that your institution uses to *proactively incentivize* clients to become Paris aligned?
- a. Preferential pricing for products/services (if discussed above)
- b. Other incentives
- 7. What are the main challenges your institution faces in engaging clients and steering them towards Paris-aligned business plans? Describe also how your bank addresses the following challenges:
- a. Capacity of your institution's staff (in terms of knowledge and available resources) to meaningfully engage clients on Paris alignment matters
- b. Client receptiveness/willingness to engage
- c. Fear of losing a client's business (client will simply go to another institution)
- 8. Will your institution evaluate clients in certain climate-harmful industries (or has it already done this)? What will you do with the outcome of this evaluation?
- a. If not, is this something that would be considered in the future?

Final Question (3 minutes)

9. What would be the most helpful insights and findings, stemming from this research, that would help accelerate your bank's shift towards Paris alignment?

ABBREVIATIONS

CCCA	Collective Commitment to Climate Action
ESG	environmental, social, and governance
GBP	Green Bond Principles
GHG	greenhouse gas
G-SIB	global systemically important bank
G-SIFI	global systemically important financial institution
ICMA	International Capital Market Association
KPI	key performance indicator
NGFS	Network for Greening the Financial System
NZBA	Net-Zero Banking Alliance
PACTA	Paris Agreement Capital Transition Assessment
PCAF	Partnership for Carbon Accounting Financials
PRB	Principles for Responsible Banking
RAN	Rainforest Action Network
SBT	science-based target
SBTi	Science Based Targets initiative
SLB	sustainability-linked bond
SLL	sustainability-linked loan
SME	small and medium enterprise
TCFD	Task Force on Climate-related Financial Disclosure

GLOSSARY

climate risk	Financial risk associated with climate-related investments and activities, including carbon as- set risk or transition risk, physical risk, and legal risk (SBTi 2020).	Scope 1, 2, and 3
financed emissions	Absolute emissions that banks and investors finance through their loans and investments. Financed emissions can be calculated and disclosed at an asset class level (SBTi 2020).	
green finance	Financial flows (such as lending, equity posi- tions, or underwriting and advisory services) associated with zero- or low-carbon assets or activities. This term is often used to reflect non- climate-specific "green" activities as well, such as "green" bonds, which can support climate- relevant activities or water, conservation, and other related activities (SBTi 2020).	
net-zero emissions	Net-zero emissions relates to Paris alignment (the emissions target), and this will be achieved when any remaining human-caused GHG emis- sions are balanced out by removing GHGs from the atmosphere in a process known as carbon removal (Levin et al. 2019).	
Paris alignment	In this paper, <i>Paris alignment</i> refers to the objec- tive to limit GHG emissions. A financial institu- tion is "Paris aligned" if its portfolio exposure, institutional-level criteria, and project-level investment criteria are consistent with the objec- tive of the Paris agreement to remain below 1.5°C global warming.	systemic bank
private climate finance	Private climate finance flowing to developing countries is finance and investment by private actors in/from developed countries for activities in developing countries whose expected effect is to reduce net GHG emissions and/or to enhance resilience to the impacts of climate variability and the projected climate change (Gupta et al. 2014).	
private sector bank	In this paper, we refer to <i>private sector banks</i> ("banks") as for-profit institutions. Most of these banks have their shares publicly traded on a stock market. Exceptions are several values- based banks as well as some banks in emerging markets. Private sector banks are sometimes referred to as <i>commercial banks</i> as well; in this paper, the term <i>private sector banks</i> includes commercial banks.	

Scope 1, 2, and 3 The Greenhouse Gas Protocol is the basis of the most widely used GHG accounting standards and identifies three scopes for GHG emissions for corporations as a basis for their accounting and reporting obligations.

Scope 1 emissions refer to emissions caused by operations of the company itself.

Scope 2 emissions refer to the emissions caused by electricity suppliers to the company (electricity, used for the company's own consumption or to deliver heating, cooling, or steam).

Scope 3 emissions refer to all other indirect emissions that occur in the value chain, both upstream as well as downstream of the company. The Scope 3 emissions are subdivided into specific categories, such as capital goods, waste generated in operations, business travel, fuel, and energy-related activities.

Category 15 (investments) of Scope 3 emissions is of particular importance to the banking sector.

The Financial Stability Board annually publishes a list of global systemically important financial institutions (G-SIFIs), or systemic banks. These banks pose a systemic risk to the stability of the global economy in case these banks fail. The current list consists of 30 large banks, which are classified in several categories based mainly on the size of their portfolios. Based upon the G-SIFI classification, these banks are required to keep additional financial resources so that they can absorb exceptional financial shocks (FSB n.d.).

ENDNOTES

- 1. The Glasgow Financial Alliance for Net Zero aims to accelerate the transition of the global economy to net-zero emissions by 2050 at the latest.
- 2. The authors checked the 30 global systemically important banks (G-SIBs), as defined by the Basel Committee on Banking Supervision (FSB 2020). Of these 30 banks, 19 had expressed net-zero commitments (status: May 2021). Note that there is no standard definition for *net-zero commitments and targets* for financial institutions. Therefore, a net-zero commitment is an indication of a bank's ambition rather than a precise outline of the actions it will take.
- 3. The PRB signatories are currently performing an impact analysis of their portfolios to determine their areas of most significant impact on climate change. These are the areas in which banks will set their targets, which will drive alignment with the Paris Agreement and the Sustainable Development Goals. This is the so-called self-assessment, which should be finalized within 18 months after signing the PRB. Thirty-eight PRB banks have signed on to the Collective Commitment to Climate Action (CCCA), committing to align their portfolios with a pathway well below 2°C, striving for 1.5°C. These banks have developed guidelines that are intended to provide rigor to climate targets; as such, they underpin target setting for CCCA banks as well as NZBA signatories. A full assessment of bank portfolios may be available by September 2022.
- 4. The Basel Committee on Banking Supervision has established a number of indicators that determine whether a bank can be classified as a G-SIB. Banks that meet the criteria are subject to additional supervisory requirements aimed at mitigating systemic risk in the financial system (FSB 2020). Of the 30 G-SIBs, 19 have committed to net-zero portfolios.
- For an example of tested methodologies becoming available to stakeholders, see the consultations by the European Banking Association regarding mandatory carbon accounting by 2024 (EBA 2021).
- 6. The definition in the Green Bond Principles (GBP) states that green bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/ or existing eligible green projects and which are aligned with the four core components of the GBP. The four core GBP components are use of proceeds, process for project evaluation and selection, management of proceeds, and reporting.

- 7. Lower prices for green bonds in off-risk periods may be because green bond issuers are large, stable, and forward-looking entities that can withstand a crisis; oil companies, which were hit hard in recent crises, are normally not involved in green bonds; and investors in green bonds include several large long-term investors who will keep their bonds in their portfolios, even in times of crisis.
- 8. SLLs are defined as follows by the Loan Market Association: "Sustainability linked loans are any types of loan instruments and/or contingent facilities (such as bonding lines, guarantee lines or letters of credit) which incentivize the borrower's achievement of ambitious, predetermined sustainability performance objectives. The borrower's sustainability performance is measured using sustainability performance targets (SPTs), which include key performance indicators, external ratings and/ or equivalent metrics and which measure improvements in the borrower's sustainability profile" (LMA 2019).
- 9. The Climate Bonds Initiative has outlined in a recent white paper five key elements that need to be fulfilled to qualify as a transition finance instrument: alignment with the 1.5°C scenario, benchmarks/KPIs are established based on scientific considerations, offsets do not count, technological viability trumps economic expectations, and actions count—pledges are not sufficient.
- 10. J.P. Morgan's Marilyn Ceci, cofounder of the GBP, made these remarks in an interview.
- 11. World Bank official Marcelo Giugale says the following: "Money is fungible. You may think that you are financing the purchase of solar panels but, if the borrowing government or corporation already has the money to pay for those panels, you would be freeing its own resources to do something else. Green bonds may in fact finance national monuments or company cars. Hopefully, they will not. But you cannot rule it out if you do not see the entire expenditure plan of the borrower, before and after you lend" (Giugale 2018).

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The views and recommendations contained in this report are the sole responsibility of WRI. Any omissions, inaccuracies, or errors are our own.

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ABOUT WRI

World Resources Institute is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity, and human well-being.

Our Challenge

Natural resources are at the foundation of economic opportunity and human well-being. But today, we are depleting Earth's resources at rates that are not sustainable, endangering economies and people's lives. People depend on clean water, fertile land, healthy forests, and a stable climate. Livable cities and clean energy are essential for a sustainable planet. We must address these urgent, global challenges this decade.

Our Vision

We envision an equitable and prosperous planet driven by the wise management of natural resources. We aspire to create a world where the actions of government, business, and communities combine to eliminate poverty and sustain the natural environment for all people.

Our Approach

COUNT IT

We start with data. We conduct independent research and draw on the latest technology to develop new insights and recommendations. Our rigorous analysis identifies risks, unveils opportunities, and informs smart strategies. We focus our efforts on influential and emerging economies where the future of sustainability will be determined.

CHANGE IT

We use our research to influence government policies, business strategies, and civil society action. We test projects with communities, companies, and government agencies to build a strong evidence base. Then, we work with partners to deliver change on the ground that alleviates poverty and strengthens society. We hold ourselves accountable to ensure our outcomes will be bold and enduring.

SCALE IT

We don't think small. Once tested, we work with partners to adopt and expand our efforts regionally and globally. We engage with decision-makers to carry out our ideas and elevate our impact. We measure success through government and business actions that improve people's lives and sustain a healthy environment.

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