



UNPACKING GREEN TARGETS: A FRAMEWORK FOR INTERPRETING PRIVATE-SECTOR BANKS' SUSTAINABLE FINANCE COMMITMENTS

ARIEL PINCHOT, ICHIRO SATO, GIULIA CHRISTIANSON, AND LIHUAN ZHOU

I. INTRODUCTION

The financing needs for today’s sustainability challenges are as massive as they are urgent. The Intergovernmental Panel on Climate Change estimates that maintaining global temperature rise to within a 1.5°C threshold will require global investments of US\$3.5 trillion per year in infrastructure and clean energy through 2050 (de Coninck et al. 2018). Delivering on the clean energy part of this cost will require an additional \$460 billion per year beyond what is expected under current trends and policy conditions (McCollum et al. 2018). The finance needs are even higher when considering the broader Sustainable Development Goals (SDGs), which include but go beyond climate goals. Achieving the SDGs would require an estimated \$5–7 trillion per year in global investments, with an investment gap of \$2.5 trillion per year in developing countries alone (UNCTAD 2014). Public finance alone cannot cover these gaps (UNEP-FI 2019).

As leading players in the global finance arena, the largest private-sector commercial, investment, and universal banks are well-positioned to play a key role in filling these investment gaps. For example, the 10 largest private-sector banks globally manage over \$21.9 trillion collectively in total assets (S&P 500 2018). That is equivalent to the gross domestic product of the United States and Brazil combined (World Bank 2017).¹

CONTENTS

I. Introduction	1
II. Method	3
III. Application to Sample of Largest Banks	4
IV. Limitations	10
V. Next Steps	11
Appendix A: Framework Details	12
Appendix B: Note on Inconsistent Methodologies	14
Appendix C: Data Sources	14
Appendix D: Details About Ran et al.’s Fossil Fuel Finance Calculations	15
Endnotes	18
References	19
Acknowledgments.....	20

Technical notes document the research or analytical methodology underpinning a publication, interactive application, or tool.

Suggested Citation: Pinchot, A., I. Sato, G. Christianson, & L. Zhou. 2019 “Unpacking Green Targets: A Framework for Interpreting Private-Sector Banks’ Sustainable Finance Commitments.” Technical Note. Washington, DC: World Resources Institute. Available online at: wri.org/upload/banks-sustainable-finance-commitments

These institutions are facing growing political, market, and societal pressure to direct finance toward low carbon, sustainable development. One way that these client-oriented institutions are signaling their response is through sustainable finance commitments, for which they pledge to provide or facilitate a large amount of capital, often for hundreds of billions of dollars, for sustainable finance investments over a set period.

Already, 23 of the world's 50 largest private-sector banks have made commitments. These pledges range from \$4 billion to \$300 billion, with commitment periods spanning from 2012 to 2030. These commitments are welcome. But they vary widely in scale, time horizon, and definition. As a result, stakeholders find it very difficult to compare and contrast the commitments and to assess their degree of ambition. For example, banks often describe the pledges using inconsistent language; they use various, often ambiguous, terms under the umbrella "sustainable finance," including "green finance," "environmental solutions," and "clean technology." There are no standard meanings for these terms, and banks do not always disclose the definitions they use.

The commitments also vary with respect to the financial products and services covered, which range from loans to equity investments to advisory services to policy advice. Some of this difference stems from the fact that banks have different functions and business models. For example, commercial banks provide loans and accept deposits, while investment banks serve as intermediaries between buyers and sellers, providing underwriting, advisory, and brokerage services. Both bank types may have asset management arms that provide investment services to clients. Other banks, known as universal banks, do all the above. To add to the complexities, institutions each have unique portfolios and capacities that provide important context for evaluating and comparing the meaningfulness of their commitments. What might be a substantial commitment for one bank may be relatively insignificant for another due to different sizes and lines of business.

Together, these differences make it difficult to interpret commitments and nearly impossible to draw apples-to-apples comparisons. This, in turn, impedes transparency and accountability. If stakeholders are to assess banks'

planned contributions, hold them accountable for their promises, and encourage greater ambition, they must first fully understand what banks are committing. Also, the banks themselves want to know how to improve the quality of their future commitments, how their pledges compare with those of their peers and competitors, and, for those yet to come forward, what to consider in developing their pledges.

To that end, this technical note presents a framework for interpreting sustainable finance commitments using information published by the banks. The framework focuses on aspects of the commitment design, accountability, and transparency, as well as the portfolio context of the banks. The framework does not cover implementation or performance. The outputs of the framework describe key characteristics of a commitment and enable comparison of commitments from different institutions. To our knowledge, this is the first time such a framework has been proposed, and we hope others will take this work and build on it in the coming months and years.

To demonstrate how this framework works in practice, the World Resources Institute (WRI) applied it to interpret the 23 voluntary sustainable finance commitments of the largest private-sector banks. The findings are published in an interactive web application, *Green Targets: A Tool to Compare Private Sector Banks' Sustainable Finance Commitments* where users can view data for each bank and compare data across banks. The objective of this tool is to improve understanding of banks' sustainable finance commitments and, by doing so, help drive greater flows of private capital toward solving global sustainability challenges.

The framework is useful for a variety of purposes. Bank staff can use it to understand the general components of commitments, benchmark themselves against their peers, and improve the quality and ambition of current and future commitments. Bank stakeholders (for example, investors, civil society, and bank customers) can use the tool to improve their understanding of the pledges, compare and contrast them, and help them hold banks accountable for their promises and push for them to do more, including those banks that have not yet come forward with commitments.

Improving the understanding of current sustainable finance commitments—both inside and outside of the institutions themselves—should foster healthy competition among banks. More transparency will ensure that those with the most ambitious pledges get the credit and recognition they deserve and that those with less ambitious commitments understand how they can strengthen their pledges. This includes new commitments altogether, as well as clearer, stronger commitments from banks that have already pledged. In so doing, the tool should help drive greater flows of private capital toward solving sustainability challenges.

II. METHOD

Scope

This research focuses on active, voluntary sustainable finance commitments made by private-sector banks.² The main unit of analysis for the research is the actual public pledge released by a bank for its most recent commitment. The following definitions and considerations elaborate on the scope of the research:

- **Private-sector banks:** WRI considers private-sector banks as those that are publicly listed and for which a government entity is not the majority shareholder. This includes commercial, investment, and universal banks. Although government-owned banks are among the world's largest commercial and universal banks, they are not included in the scope. Given their governance structure, these banks' strategies may be heavily influenced by broader government policy or priorities. With different levers for driving change, targeting them would require a different approach from that offered by this tool.
- **Sustainable finance commitments:** For the purpose of the study, WRI defines sustainable finance commitments as any public pledge that a bank makes to provide a *specified quantity* of financial services within a *certain time frame* for the stated purpose of enhancing environmental sustainability and/or supporting low-carbon, climate-resilient development.³
- **Financial services:** Any financial services provided by banks, including direct financing through loans or equity investments, as well as facilitation or other advisory services.

- **Most recent commitment:** The study includes all current or future sustainable finance commitments banks made by July 1, 2019. For banks that have several distinct but overlapping commitments, the study considers these pledges in aggregate as a single commitment. For banks that have renewed an existing commitment, the study only considers the renewal amount, unless the bank treats the renewal as part of the original commitment and reports on progress collectively. In that case, WRI considers the renewal and commitment as a single commitment.

Framework Design

The framework provides a standardized approach for interpreting sustainable finance commitments, focusing on the transparency, accountability, context, and design of the commitment. As an ex-ante approach, the framework considers commitments in concept only, without considering implementation or impact. The benefit of this approach is that it enables a standard understanding of commitments at the time of their announcement. This helps reveal the extent to which a commitment is positioned for successful implementation and whether it represents a meaningful effort to advance sustainable finance practices.

The examination of the commitments' implementation and impact is an area for further research. For that line of inquiry, researchers can draw from WRI's existing work on climate metrics in the banking sector (see, for example, Weber et al. 2017).⁴

In designing the framework, WRI prioritized conciseness and simplicity. Rather than attempting to evaluate every aspect or characteristic of a commitment, the intent was to identify the fewest possible indicators necessary for meaningful understanding of the content and context of the pledge. Following this approach, WRI created a framework comprising nine indicators across three components: specificity, accountability, and magnitude of investments. WRI selected the indicators according to the following criteria:

- **Meaningful and relevant:** The indicator measures the topic under question and has a clear relationship to commitment quality.
- **Applicability in different settings:** The indicator is applicable to both commercial and investment banks with stock and flow commitments.

- **Availability of data:** Data are publicly available, reliable, and valid.
- **Intelligible and easily interpreted:** The indicator is simple and presented in layman’s terms.

In developing the indicators, WRI took several steps to ensure a robust framework that is fit for improving the understanding and comparability of finance commitments. To begin, WRI completed an early pilot test of the framework against a sample of six commitments. During this phase, WRI collected data for each bank and completed responses for each indicator. The research team used findings from this exercise to refine each indicator and the overall approach.

WRI also consulted with a group of internal and external experts to develop and refine the indicators. External experts included representatives from two civil society organizations, one private investment firm, and a private foundation. WRI incorporated inputs from these consultations into the final framework (presented in Table 1).

The Framework

The framework touches on three components of a commitment: specificity, accountability, and magnitude of investment. For each component, the framework uses three indicators to capture key aspects of a bank’s commitment under that category. A description of each component follows. The respective indicators, the rationale for inclusion, and output metrics are presented in Table 1. Further detail on the indicators is included in Appendix A.

Specificity refers to the level of detail that the bank discloses in describing the fundamental parameters of a commitment. Disclosing details about the commitment’s thematic focus, financial products and services offered, and duration indicates that the commitment is thoughtfully designed for implementation and that the institution is willing to take accountability for the commitment. The greater the degree of specificity, the easier it is for the bank and stakeholders to understand its content and ambition and to track its progress. On the other hand, a statement that uses broad and loosely defined terms may not be backed by a solid implementation plan, despite providing reputational benefit to the bank at the point of announcement.

Accountability refers to the ability of stakeholders and the bank itself to track and measure progress on the commitment in a way that is rigorous and transparent. The term also refers to the degree of high-level support and ownership that a commitment enjoys inside a bank, as evidenced by how the commitment is presented to the public.

Magnitude refers to the quantity of committed resources relative to the bank size and other financing practices of each bank. By itself, the volume of finance in a commitment is not particularly meaningful, especially when comparing the pledges of very large banks or banks of very different sizes. The headline commitment number must be put in context to understand whether it represents a significant push beyond business as usual or is only a small step beyond the status quo. The commitment’s size must be compared against the bank’s overall size and other business practices.

III. APPLICATION TO SAMPLE OF LARGEST BANKS

WRI used the framework to present standardized information on sustainable finance commitments from the world’s 50 largest private-sector banks. This analysis represents a first-cut effort to illustrate the applicability of the framework. A description of the research process follows.

Defining the universe and sample: WRI defined the starting universe for the research as the world’s top 50 private-sector banks, by total assets. WRI used the S&P Global Market Intelligence’s 2018 ranking of the top 100 banks to identify the largest 50 private-sector banks. (The universe excludes state-owned banks as they fail to meet inclusion criteria for private-sector banks.)

To determine which of the 50 banks had set a sustainable finance commitment, WRI’s research team conducted internet research using keyword searches. Within the starting sample of 50 private banks, 23 (see Table 2) have made a commitment according to WRI’s definition (“pledge a *specified quantity* of financial services within a *certain time frame* for the stated purpose of enhancing environmental sustainability and/or supporting low-carbon, climate-resilient development”). Smaller banks may have active commitments but are not included in this study.

Table 1 | **Framework for Understanding Sustainable Finance Commitments**

INDICATOR	EXPLANATION	METRIC
A. Specificity		
1. Defines sustainability criteria. The bank clearly defines what is within the scope of sustainable financial services under its commitment.	Understanding the scope of the sustainable financial pledge is essential for accountability. If bank staff and stakeholders do not know what the pledge is specifically designated for, they can neither understand the commitment, nor ensure that the bank is allocating resources as promised.	Yes/No; detailed description of criteria and/or list of activities, themes, and/or sectors
2. Identifies financial services included. The bank discloses the types of financial services (e.g., direct lending, equity finance, fee-based services) counted under the commitment.	Transparency about the type of finance offered under the commitment enables stakeholders to understand the types of financing and other services associated with the monetary value of the dollar figure of the commitment (for example, differentiating between direct financing versus indirect support via asset management, advisory services).	Yes/No; description of the types of financial services included
3. Provides specific timeline. The bank specifies a time horizon over which the commitment is to be met, complete with a start date and end date.	A time horizon provides an important boundary for commitments, indicating when the activities will take place and the deadline for achieving the target. When comparing multiple commitments, time horizons also help reveal the magnitude of the commitment by enabling figures to be standardized into dollars per year, using the specific time horizon of each commitment as the denominator.	Specific/Vague; details about the start and end date of the commitment
B. Accountability		
1. Discloses accounting methodology. The bank discloses a methodology for tracking total financing and other services provided under the commitment target. An accounting methodology details the types of businesses, projects, and transactions included in the commitment and how the bank counts different financing activities toward the commitment.	Because there is no widely accepted accounting methodology for sustainable finance, transparency of the accounting practices for a commitment is essential for clarity and accountability. By explaining its methodology, a bank demonstrates that it is concerned about the sustainability impact of its activity. It also provides stakeholders with insight into the potential impact of the commitment.	Yes/No; details about where the methodology is published
2. Includes plans for reporting. The bank has developed and disclosed plans to report progress in terms of the amount of finance provided toward the commitment.	By describing the reporting plans, the institution is making a commitment to public accountability and indicating an active intention to meet the targets. Omitting this information may indicate that a bank has either not thought through the implementation process or wants to avoid public accountability, both of which raise doubts about the strength of a commitment.	Yes/No; details about what/how the bank will report
3. Endorsed by CEO/ board chair. The bank's CEO or board chair has publicly supported the commitment in the press release for the pledge or the first annual report following the announcement.	An important component of accountability is that an initiative should be integrated across an institution rather than siloed in and confined to a particular business unit, like a sustainability department. One basic indication that the commitment is institution-wide is public endorsement by senior leadership. If leadership does not speak publicly about the commitment, this may suggest that the pledge lacks institutional backing or is not seen as a core part of the institution's strategy.	Yes/No; details about who endorsed the commitment

Table 1 | **Framework for Understanding Sustainable Finance Commitments (Cont'd)**

INDICATOR	EXPLANATION	METRIC
C. Magnitude		
1. Annualized commitment in U.S. dollars. The bank's commitment in annualized terms.	Showing the commitment in terms of dollars per year puts the commitments into tangible terms that can be clearly understood within the context of the annual operations of a bank. Annualizing the figures also allows for a standardized comparison of commitment amounts across different time spans.	U.S. dollars; with indication of the sustainable finance criteria, financial services provided, and public availability of an accounting methodology. (linked to A1, A2 and B1)
2. Average annual fossil fuel finance in U.S. dollars. The bank's three-year (2016–2018) average dollars per year financed to over 1,800 companies active across the fossil fuel life cycle (RAN 2019).	Fossil fuel finance is a metric for measuring a bank's brown finance (Weber et al. 2017). A bank's amount of brown finance provides an important context against which to interpret sustainable finance pledges. If the bank is financing an equal or greater amount for fossil fuel production and development, a substantial commitment to finance sustainable activities is less significant in terms of the bank's overall sustainability contribution.	U.S. dollars
3a. Bank size by average total assets in U.S. dollars. The bank's size based on a three-year average of total assets (2016–2018).	<p>Because the amount of financing that a bank can commit to or provide is influenced by its overall size, a measure of bank size provides an important context for understanding the relative magnitude of a bank's commitment and its fossil fuel financing.</p> <p>A widely used indicator for bank size is a bank's total assets. The measure is generally available for all banks. In fact, to initially determine the sample of the largest private-sector banks, WRI used S&P's 2018 list of The World's Largest Banks, which ranks banks by assets (S&P 500 2018).</p>	U.S. dollars
3b. Bank size by average annual revenue in U.S. dollars. The bank's size based on three-year average of annual revenue (2016–2018).	As an alternative measure for bank size, average annual revenue also helps put the annualized commitments and fossil fuel finance in the context of the bank's size. One source suggests that, while it is not as widely used as total assets, revenue is the most reliable measure of bank size (Deutsche Bank 2017). Revenue is consistent across business models and financial structures and so can be used as a measure for institutions involved in any combination of commercial banking, investment banking, and asset management.	U.S. dollars

Note: There are limitations to the comparability of the indicators, particularly in the magnitude section of the framework. Please see Section IV. Limitations, and additional discussion in Appendixes A and B. For banks with several overlapping commitments, binary indicators are assessed "Yes" or "Specific" only if each of the underlying commitments fulfill the criteria. The indicators are assessed "No" or "Vague" if any one of the commitments do not meet the criteria.

Source: WRI.

Table 2 | WRI's Sample: Largest Private-Sector Banks

BANK	HEADQUARTERS	TOTAL ASSETS (\$ BILLIONS, 2018)	COMMITMENT START
Banks with Commitments			
Mitsubishi UFJ Financial Group Inc.	Japan	2,788	2019
JPMorgan & Chase	US	2,534	2016
HSBC	UK	2,522	2017
BNP Paribas SA	France	2,357	2016
Bank of America Corp.	US	2,281	2020
Crédit Agricole Group	France	2,117	2016
Wells Fargo & Co.	US	1,952	2018
Citigroup Inc.	US	1,842	2014
Barclays PLC	UK	1,532	2019
Société Générale SA	France	1,531	2016
Lloyds Banking Group PLC	UK	1,098	2016
Royal Bank of Canada	Canada	1,039	2019
Toronto-Dominion Bank	Canada	1,026	2017
ING Groep NV	Netherlands	1,016	2018
Goldman Sachs Group Inc.	US	917	2012
Morgan Stanley	US	852	2018
Banco Bilbao Vizcaya Argentaria SA	Spain	806	2018
Commonwealth Bank of Australia	Australia	751	2018
Australia & New Zealand Banking Group Ltd.	Australia	704	2016
Westpac Banking Corp	Australia	668	2017
Standard Chartered PLC	UK	664	2016
National Australia Bank Ltd	Australia	618	2016
Bank of Montreal	Canada	592	2019
Banks without Commitments			
Sumitomo Mitsui Financial Group Inc.	Japan	1,775	NA
Deutsche BankAG	Germany	1,766	NA
Banco Santander SA	Spain	1,736	NA
Mizuho Financial Group	Japan	1,715	NA
Groupe BPCE	France	1,512	NA
Norinchukin Bank	Japan	1,007	NA

Table 2 | **WRI's Sample: Largest Private-Sector Banks (Cont'd)**

BANK	HEADQUARTERS	TOTAL ASSETS (\$ BILLIONS, 2018)	COMMITMENT START
Banks without Commitments			
UniCredit SpA	Italy	1,005	NA
Intesa Sanpaolo SpA	Italy	961	NA
UBS Group AG	Switzerland	940	NA
Credit Mutuel Group	France	837	NA
Credit Suisse Group AG	Switzerland	817	NA
Bank of Nova Scotia	Canada	773	NA
Rabobank	Netherlands	724	NA
Nordea Bank AB	Sweden	698	NA
DZ Bank AG	Germany	607	NA
Danske Bank A/S	Denmark	571	NA
Commerzbank AG	Germany	543	NA
Resona Holdings Inc.	Japan	508	NA
Canadian Imperial Bank of Commerce	Canada	478	NA
Sumitomo Mitsui Trust Holdings Inc.	Japan	472	NA
US Bancorp	US	462	NA
CaixaBank	Spain	460	NA
Itau Unibanco Holding	Brazil	433	NA
KB Financial Group	South Korea	409	NA
Shinhan Financial Group	South Korea	399	NA
Nomura Holdings	Japan	395	NA
PNC Financial Services Group	US	391	NA

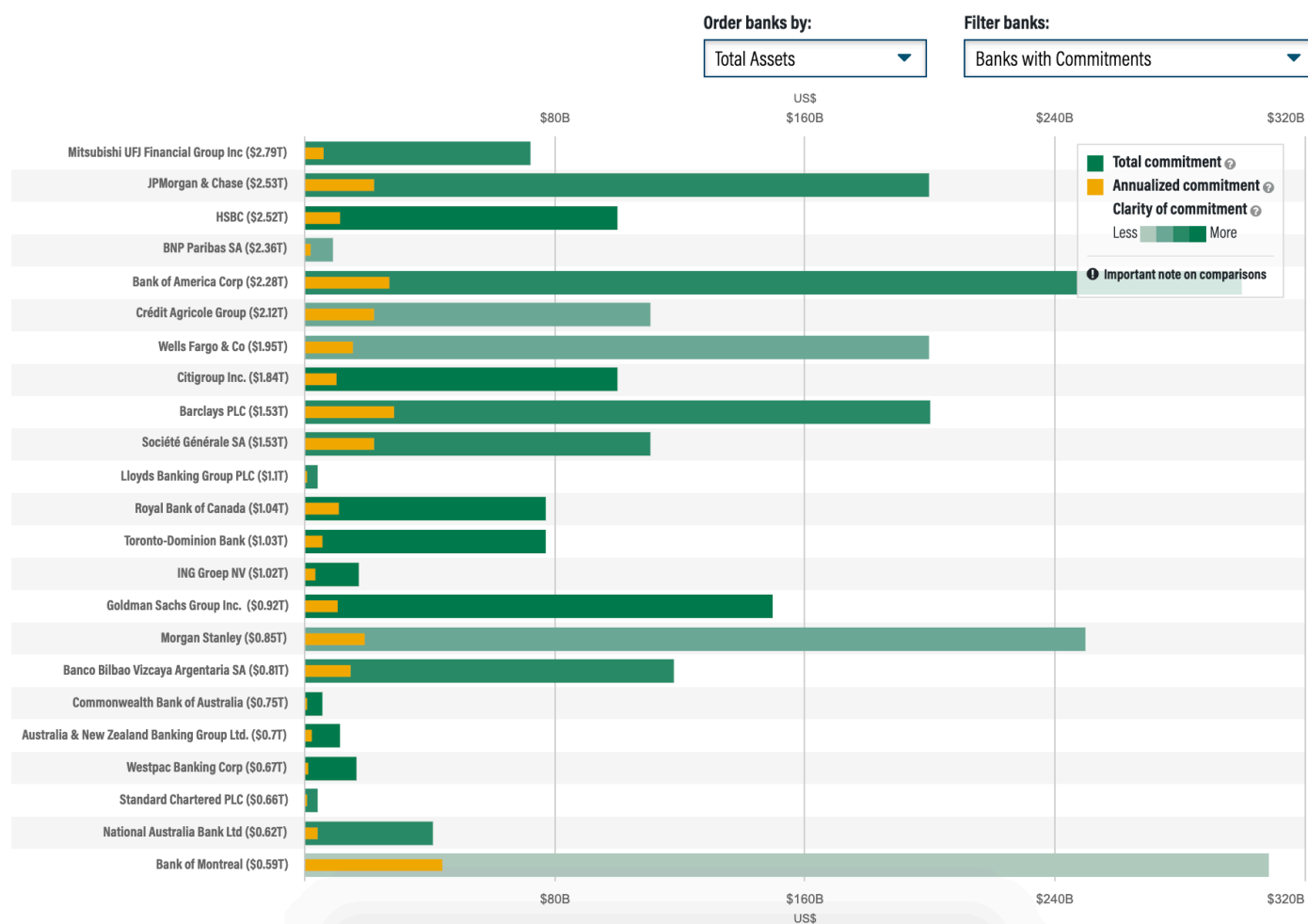
Source: WRI with assets data sourced from S&P 500 (2018).

Sourcing data: WRI applied the framework to information published by committing banks. Relying on data inputs that are freely available to the public helps ensure that data collection is both simple and replicable. It also enables assessment of banks' transparency and disclosure.

For each bank, WRI reviewed the media releases about the commitment, financial statements, sustainability reports, and web pages to gather information needed to complete each indicator. This included information about the commitment amount, currency, scope, time horizon, accounting methodology, and description of financial reporting practice, as well as general information about the bank, like baseline revenue. (See Appendix B for list of data sources.)

The one indicator for which data were not sourced from the banks' public disclosures is average annual fossil fuel finance (2016–2018). Because banks do not make this information publicly available in a consistent manner, WRI sourced these data from the 2019 Fossil Fuel Finance Report card published by Rainforest Action Network and a consortium of partners (RAN et al. 2019). However, five banks in the sample were not covered in the report card.⁵ Experts at Rainforest Action Network graciously conducted a separate analysis to calculate the level of fossil fuel finance of these five banks in 2018. That analysis followed the same methodology as the 2019 report.

Figure 1 | **Screen Shot from the Green Targets Tool: State of Bank Commitments**



Note: For illustrative purposes; the actual view on the tool itself may be slightly different. The tool contains additional views and overlays with more data and visualizations. Source: WRI.

Applying framework: Using the collected data for each bank, WRI completed the responses for each indicator. For binary indicators, WRI evaluated the data against the criteria for each indicator to determine the appropriate response. For quantitative indicators, WRI calculated final figures using data inputs collected. WRI also used the collected data to provide explanatory details for each response.

Validating the data: WRI took several steps to enhance the validity and accuracy of the findings. To reduce the potential for reviewer bias, two WRI researchers independently collected data and evaluated banks against the framework. Upon completion of this exercise the researchers compared the responses and discussed any discrepancies. The team made note of clarifying decision criteria in the methodology. This helped to ensure a consistent application of the framework across all banks and could facilitate replicability by other researchers.

Another important step in the validation process was to share the findings with each bank. WRI provided the data for each bank to a representative of that bank for review. If the bank noted inaccuracies in the data that WRI deemed valid, WRI updated the responses to reflect the bank's input. In presenting the findings, WRI noted all data for indicators for which the bank had made revisions.

Visualizing the data: After applying the framework to interpret the 23 voluntary commitments from the largest private-sector banks, WRI published the analysis in an interactive web application (Green Targets: A Tool to Compare Private Sector Banks' Sustainable Finance Commitments). On the site, users can view data across the entire sample, for each bank, or compare among banks.

IV. LIMITATIONS

The key caveats of this approach center around the scope and data.

Focus on a single aspect of sustainability efforts: Financial institutions are increasingly pursuing a diverse set of activities to align their business practices with sustainability. On top of making sustainable finance commitments, common efforts include setting renewable energy or carbon-reduction targets, committing to science-based targets, adopting the recommendations of the Task Force on Climate-Related Financial Disclosures, implementing new financing exclusion policies, strengthening environmental and social risk management procedures, fostering change to corporate culture, and building adequate governance structures for sustainability, among others. Collectively, these activities reflect the firm's overall sustainability position. This framework, however, considers just one piece of this larger sustainability equation. Because the approach does not consider relevant efforts outside of the sustainable finance commitments, the findings cannot be used to assess the overall sustainability efforts of the institutions.

No consideration of implementation of commitments: As an ex-ante tool, the framework is designed to enable improved understanding and comparability of sustainable finance commitments prior to their execution. As such, it considers only the design and context of a commitment and stops short of examining its implementation, progress, or impact. Given this scope, the framework cannot provide insight into the final impact of the commitment.

Largely based on publicly available information: The framework sources data inputs almost exclusively from resources published by the committing institutions or that are publicly available from other sources. This

approach serves as a means for gauging disclosure and transparency, which are both important aspects of a strong commitment. However, this approach also meant that the indicators must be limited according to data that are commonly made publicly available. If data accessibility were not a concern, the framework would likely incorporate additional indicators. These may include considering how much sustainable finance a bank provided on an annual basis before it set its commitment, whether the commitment represents an effort that goes beyond aligning financing with projected growth in a given sector, or how the bank apportions credit in deal values.

Comparison across different business models:

The sample comprises banks with several different business models, including commercial banks, investment banks, and universal banks. Given that each type of bank provides different services, direct comparisons of financing activities are difficult. WRI has tried to develop indicators to account for these differences whenever possible. Future studies may benefit from taking a sector- or activity-based focus.

Comparing across types of measurement: While the majority of banks have made flow commitments, a handful of the commitments are stated with the target finance amount put in terms of a stock variable instead of as a flow variable. This complicates comparison since they measure different things. In flow commitments, the target figure represents the collective value of sustainable finance *transactions* made over the period of the commitment. The target figure for stock commitments, on the other hand, represents the value of the *balance of sustainably invested assets* at the end of the commitment period. In other words, stock commitments make a pledge to a net financial inflow to sustainable finance assets during the commitment period. Given that these two types of commitments use different attributes of finance, it is difficult to make a valid comparison of the annualized

commitment amount. Therefore, when considering the magnitude indicators, inter-bank comparisons can only be made for organizations with similar types of commitment.

Comparison of sustainable finance figures derived from different definitions and methodologies:

Banks' use of different scopes and accounting methodologies creates limitations in comparing sustainable finance commitments across institutions. Each bank determines its own definitions of sustainable and focus areas. Each bank also uses its own methodology to count its commitments, and some banks are more liberal than others in quantifying spending. For example, some banks only count for a relative portion of a deal when multiple banks are involved, while others count the value of the entire deal toward their target. The same variation exists in the scope of commitments. Some banks use very rigid scopes for sustainability activities, while others count a much broader range of activities. The framework attempts to bring light to these issues by qualifying the figures with information about the accounting methodology and scope.

Comparison of sustainable finance figures with fossil fuel finance figures from different sources and methodologies:

There are also limitations in the comparability between the commitment amounts and the fossil fuel finance amounts. The fossil fuel figures are based on a consistent methodology with a consistent scope for all banks. The sustainable finance commitments, on the other hand, are derived using various methodologies and are based on different sustainability scopes. Because these figures in some cases measure different things, they are not fully comparable. This issue highlights a need for greater consistency and transparency in sustainable finance and fossil fuel accounting from banks.

V. NEXT STEPS

Applying this framework to a sample of 23 banks demonstrates that the approach can be a useful tool for facilitating greater understanding and comparability of sustainable finance commitments. Using this approach, a bank can explore whether its commitment meets basic criteria for specificity, accountability, and how the commitment compares to its size and other relevant financing practices. Banks can also easily see how the design, transparency, and context of their commitment compare to that of their peers. Banks that have not yet made a commitment can use the framework to help guide them in developing a strong one. Stakeholders can also use this approach to improve their understanding of whether a commitment represents meaningful efforts to advance sustainable financing practices by each bank.

As new banks announce commitments, and banks with existing commitments increase their ambition and transparency, WRI's analysis can be updated to reflect progress. WRI welcomes input from others to adapt and improve the framework to meet the needs of future analyses.

APPENDIX A. FRAMEWORK DETAILS

This appendix describes the details of the framework for interpreting private-sector banks' sustainable finance commitments.

A. Specificity

Indicator A1. Defines sustainability criteria. *The bank clearly defines the sustainability criteria for financial services under the commitment.*

This indicator assesses whether the bank explicitly discloses the definition or criteria for sustainable financing under the commitment. It is a binary (yes/no) metric. If applicable, the response will include details of the bank's definitions and a list of activities, themes, and/or sectors. An example of a response is, "Yes, the commitment is for financing clean technology and renewable energy"; or "No."

Indicator A2. Identifies financial services included. *The bank discloses the type of financial services counted under the commitment (e.g., direct lending, equity finance, fee-based services).*

This indicator assesses whether a bank is being transparent and disclosing the type of financial services counted against the dollar figure of the commitment. The metric is binary, yes/no, and is reported with details about financial services offered, if applicable. An example of a response is, "Yes, the commitment includes debt financing and debt structuring services"; or "No."

Indicator A3. Provides specific timeline. *The bank discloses a specific time horizon for the provision of financial services under the commitment, with a start date and end date.*

The metric is binary (specific/vague) and is reported with the details of the time horizon, if applicable. A specific time horizon is one for which the bank includes a start date and end date. A vague commitment may include an end date, or a number of years, without a start date. An example of a response would be, "Specific: 2016–2020"; or "Vague: by 2030, with no start date."

B. Accountability

Indicator B1. Discloses accounting methodology. *The bank discloses the accounting methodology used to track total financing and other services provided under the commitment target. An accounting methodology details the types of businesses, projects, and transactions included in the commitment and how the bank counts different financing activities toward the commitment.*

This indicator considers whether or not the bank discloses the accounting methodology for the commitment. An accounting methodology details the types of businesses, projects, and transactions included in the commitment and how the bank counts different financing activities toward the commitment. It is binary (yes/no) and is reported with a description of the methodology, if provided. An example response would be, "Yes, the bank applies environmental criteria for project selection, which is restricted to renewable energy and energy efficiency, and uses league table credit methodology to account for financing activities," or "No, the bank does not reference an accounting methodology."

While the framework does not assess the strength of the banks' accounting methodologies, the descriptive details collected for this indicator shed some light on this question. This is an important context for understanding the magnitude of the commitment. A particularly relevant distinction is how the banks apportion credit for deals with multiple financiers. Some banks only account for the portion of capital they inject into a deal, while others count the

entire value of a deal. Since these accounting practices lead to very different numbers, it is important to understand a bank's approach when considering the commitment amount relative to other banks.

Indicator B2. Includes plans for reporting. *The bank has developed and disclosed plans to report progress in terms of the amount of finance provided toward the commitment.*

While tracking implementation is beyond the scope of this research, having clear plans for reporting on implementation is an important aspect of accountability. This indicator simply considers whether the bank has developed and disclosed plans to report on implementation of the commitment. The metric is binary (yes/no) and is reported with details about the reporting process, if applicable. Any reference to reporting or tracking or evidence that reporting or tracking is taking place would be counted as yes for this indicator. An example of a response is, "Yes, the bank reports dollars of capital disbursed by region and megawatts of renewable energy capacity installed." Or, "No, the bank does not make note of reporting plans, nor is there evidence of public reporting."

Indicator B3. Endorsed by CEO or board chair. *The bank's CEO or board chair has publicly supported the commitment.*

The indicator is binary (yes/no) and is reported with details about the announcement. An example of a response is, "Yes, the press release includes a quote from the CEO."

C. Magnitude

Indicator C1. Annualized commitment in U.S. dollars. *The bank's commitment in annualized terms, with indication of sustainable finance criteria, financial services provided, and public availability of an accounting methodology.*

This indicator considers the annualized commitment amount, assuming even distribution across years. The figure is calculated by dividing the total commitment amount by the number of years in the commitment period. For example, if the commitment was to provide new finance of \$100 billion from 2016 to 2025 (a flow commitment), the annualized commitment would be \$10 billion per year (\$100 billion/10 years). If the commitment was to increase the balance of sustainably invested asset from \$40 billion in 2016 to \$100 billion in 2025 (a stock commitment), the annualized commitment would be \$6 billion per year (\$100 billion-\$40 billion/10 years).⁶ When a start date is not specified in the announcement, the framework takes the following approach to determine the time horizon and number of years in the commitment period: If the commitment is announced in the first half of the fiscal year for the bank, the framework uses the year of the announcement as the starting year. If it is announced in the second half of the fiscal year of the bank, the framework considers the year following the announcement as the starting year.

If a bank has more than one active sustainable finance commitment, these commitments are aggregated into a single figure with a combined time frame. For example, if a bank commits to \$5 billion in facilitation over 4 years (2017-2020) and \$10 billion in lending over 11 years (2018-2030), the commitment is for \$15 billion from 2017 to 2030. The annualized commitment would be \$1.07 billion/year (\$15 billion/14 years).

The indicator is shown with information from indicators A1, A2, and B1 (criteria, financial services, and accounting methodology).

Indicator C2. Average annual fossil fuel finance in U.S. dollars. *The bank's three-year (2016-2018) average dollars per year financed to over 1,800 companies active across the fossil fuel life cycle (RAN et al. 2019).*

This indicator considers the bank's average annual fossil fuel finance from 2016 to 2018. The indicator uses data published in the 2019 *Banking on Climate Change: Fossil Fuel Finance Report Card* (RAN et al. 2019), and an independent analysis conducted by RAN for five banks that were not covered in the report. That analysis considers financing for over 1,800 companies across the coal, oil, and fossil gas sectors globally. This includes companies that are active throughout the fossil fuel life cycle, including exploration, extraction, transportation, storage, and the generation of fossil fuel electricity. It counts lending, underwriting of stock, and bond issuances to these companies. More information on the methodology can be found in the *Fossil Fuel Finance Report Card* (RAN et al. 2019) and in Appendix D. The final metric is a dollar amount. An example response for this indicator is \$6 billion.

Indicator C3a. Bank size by average total assets in U.S. dollars. *The bank's size based on three-year average of total assets (2016-2018).*

Banks are required to regularly publish total assets (balance sheet total). The figures are presented in the banks' consolidated financial statements and are audited by a third party.

This indicator serves as a reference point to help understand the annualized commitments and fossil fuel finance in the context of the bank's size. This also facilitates comparison across banks of different sizes.

WRI includes total assets as an indicator of size because it is a widely used indicator of bank size.

Average total assets is the average total assets across the three most recent years (2016, 2017, 2018). Taking the three-year average accounts for potential variations across years.

The metric is presented as a dollar figure. An example response for this indicator is \$1.5 trillion.

Indicator C3b. Bank size by average annual revenue in U.S. dollars. *The bank's size based on three-year average of annual revenue (2016-2018).*

This indicator serves as a reference point to help understand the annualized commitments and fossil fuel finance in the context of the bank's size. This also facilitates comparison across banks of different sizes.

WRI includes revenue as an indicator of bank size because, while total assets are more widely used, one reputable source suggests that revenue is the most reliable measure of bank size (Deutsche Bank 2017). As a cash-flow-based measure, revenue does not vary by business model or financial structure and therefore serves as a consistent measure for commercial banking, investment banking, and asset management.

The framework considers total revenue, which is often reported as net operating income (or revenue) for banking, fund management, and insurance, as applicable. If banks present figures separately, manual calculation is required. Items included in revenue calculations are net interest income and other non-interest net incomes (e.g., net gain from insurance business [premiums-claims]). Items not included in revenue calculation include loan impairment charges, other credit risk provisions, and operating expenses (staff salaries, office rent, equipment, etc.).

Average annual revenue is the average revenue across the three most recent years (2016, 2017, 2018). Taking the three-year average accounts for potential variations in revenue due to acquisitions or changes in business cycle.

The metric is presented as a dollar figure. An example response for this indicator is \$50 billion.

APPENDIX B. NOTE ON INCONSISTENT METHODOLOGIES

Key differences in methodologies used to count sustainable finance commitments and fossil fuel finance figures

It is important to note that the figures for the bank's annualized sustainable finance commitment and fossil fuel finance are not calculated with the same methodology. The figures for fossil fuel finance, calculated by RAN et al. (2019), provide a conservative estimate of the annual financing that each bank provided to over 1,800 companies active across the fossil fuel life cycle. The RAN et al. (2019) report includes the methodology for calculating these figures. The report takes the value of a bank's deal with each of these companies, assigns the bank a league credit based on the number of leading banks in on the deal, and then adjusts that number by the fossil fuel intensity of the given borrower or issuer.

There are several ways in which the figures for sustainable finance commitment differ. To begin, the amounts are forward-looking, based on the targets the bank intends to reach, averaged over the number of years of the commitment. But the banks do not use a shared definition of sustainable finance or a common, transparent methodology to account for sustainable finance transactions. Some banks, for example, use methodologies that overstate their actual financial

contribution. This may include practices like counting the entire value of each deal in which they participate toward the commitment, even though they may only finance a small portion of it. Some banks may also count the value of a deal for which they provide advisory or facilitation services, even though they do not invest actual capital in the deal. In these cases, the figures for annualized commitment would be inflated relative to the fossil fuel financing figures, which counts only capital flows injected by each bank. Lastly, RAN et al. (2019) look only at lending and underwriting transactions, while banks' sustainable finance commitments may include other financial products and services.

To avoid misleading comparisons, when banks provide no transparency into accounting methodologies, it will be noted on indicator C1. This will also help remind readers that the annualized sustainable finance figures are based on different, non-standardized methodologies, in contrast to the fossil fuel finance figures, and therefore are not directly comparable and should be interpreted with care.

APPENDIX C: DATA SOURCES

Table C1 outlines the data sources used in the research.

Table C1 | **Data Sources**

DATA POINT	INDICATOR USED	DATA TYPE	SOURCE	SOURCE DOCUMENTS	NOTES
Commitment details (amount, scope, time horizon, accounting methodology, reporting)	A, B, C	Public records	Committing bank	Commitment announcement, annual reports, sustainability reports, website	
Bank revenue	C3a	Public records	Committing bank	Financial statements, annual reports	Revenue is defined as net operating income for banking, fund management, and insurance, as applicable. If banks present figures separately, manual calculation is required.
Total assets	C3b	Public records	Committing bank	Financial statements, annual reports	
Fossil fuel finance	C3	Public report; independent analysis	Rainforest Action Network	<i>Fossil Fuel Finance Report Card</i> (2019), independent analysis	Fossil fuel finance is defined as total annual financing provided to "over 1,800 companies involved in the extraction, transportation, transmission, combustion, or storage of any fossil fuels or fossil fuel electricity, globally, according to the Bloomberg Industry Classification Standard, and the companies on the Global Coal Exit List." (RAN et al. 2019)

Source: WRI.

APPENDIX D: DETAILS ABOUT RAN ET AL.'S FOSSIL FUEL FINANCE CALCULATIONS

Indicator C2, *Average annual fossil fuel finance in U.S. dollars*, relies on data from the Fossil Fuel Finance Report Card (RAN et al. 2019). Figures for banks that were not included in that report were calculated by RAN using the same methodology. The methodology and report were a joint effort between RAN, BankTrack, Indigenous Environmental Network (IEN), Sierra Club, Oil Change International, and Honor the Earth, with additional input from other organizations.

More information on the methodology can be found in the Fossil Fuel Finance Report Card (RAN et al. 2019) and in the Supplemental Methodology Note (Marcelis & Warmerdam 2019).

In addition, RAN provided inputs for the following overview of the goals, data sources, underlying assumptions, and analytical methods.

Goals of the methodology

The purpose of the analysis is to estimate the amount of financing that large, private-sector commercial and investment banks provide to fossil fuel companies. Financing is defined as corporate lending and underwriting transactions. The scope covers approximately 1,800 companies involved in the extraction, transportation, transmission, combustion, or storage of any fossil fuels or fossil fuel electricity, globally, according to the Bloomberg Industry Classification Standard (BICS) (Bloomberg L.P. 2018) and the companies on the Global Coal Exit List (GCEL) (Urgewald 2018). Fossil fuel financing is measured as a “flow” metric—the collective value of financing provided to fossil fuel companies in the course of a year; in contrast to a “stock” metric—the balance of invested assets, such as credit exposure to fossil fuel companies, at a given point in time.

Data selection

The Bloomberg Industry Classification Standard (BICS) organizes legal entities and securities into consistent groups based on specific activities and risk categories. The standard was chosen because the system of classification is specific enough that it can be used to determine which subsectors are reasonably part of the fossil fuel industry. “Fossil fuel companies” were identified according to these classifications. “Fossil fuel companies” are defined as companies that are clearly classified in the fossil fuel sectors (e.g. *oil, gas, and coal; fossil fuel generation; gas utilities*; see methodology below for full list), and those in more diversified sectors—such as utilities—with assets, revenue, or operating income in the fossil fuel classifications during the time period under review.

The one area for which BICS has limited utility is in identifying thermal coal companies. Due to narrower definitions, the coal mining sector in BICS excludes some companies active in the thermal coal value chain. Accordingly, the analysis supplements the BICS-identified fossil fuel companies with thermal coal companies found on the Global Coal Exit List (GCEL), a comprehensive database of companies active in the thermal coal value chain. With both the BICS and GCEL companies, the final list comprises over 1,800 companies active in the fossil fuel value chain.

Banks' financing to the 1,800+ companies is measured using transaction data sourced from Bloomberg Finance L.P., using the Bloomberg Terminal's league table function. The league tables list the top arrangers, bookrunners, and advisors across a broad array of deal types, including loans, bonds, equity, and M&A transactions. They aggregate the “creditable” transactions and assign the banks a percentage of the deal based on their role, according to the Bloomberg L.P. League Table Standards and Guidelines (Bloomberg Finance L.P. 2018). Bloomberg Finance L.P. was chosen as the primary data source because of its ubiquity in the financial sector, the comprehensiveness of its data, and its league table functionality.

For coal power and Liquefied Natural Gas (LNG) subsectors, the Bloomberg league table data were supplemented with data on project finance deals from IJGlobal (a platform for market intelligence and data on the global infrastructure market). For these transactions, where known, exact amounts lent or underwritten were attributed to participating banks; where unknown, amounts were distributed equally between participants. These data were compiled and calculated by Profundo Research and Advice, which served as a research consultant to RAN on the project.

Profundo selected this additional data source as an appropriate supplement to the Bloomberg data because it offers detailed information on energy and infrastructure project finance in certain areas where Bloomberg has less comprehensive data (e.g., it covers coal deals in emerging markets).

Segment adjusters (described below) were calculated using the methodology in the next section, primarily based on information of segmented assets or revenue available on the Bloomberg terminal. This approach was taken due to Bloomberg's ability to scrape company reporting and automatically calculate a company's segmented information. There were several potential metrics to use as an indicator of a given company's fossil fuel involvement. These were prioritized with the logic that either overall fossil fuel percentage adjusters or adjusters for specific fossil fuel subsectors would both be valid and that the larger of those two should be used.

The banks analyzed in the report were given the opportunity to review the data involving their bank, upon request.

Key Assumptions: Segment Adjusters

In order to account for a company's activities across industries, each transaction was weighted based on the proportion of the borrower or issuer's operations devoted to fossil fuels, according to each company's fossil fuel-based assets, revenue, or operating income. These weights are referred to as adjusters.

These adjusters were primarily based on segmented data available on the Bloomberg terminal, usually via scraping of company reports, and thus rely heavily on the accuracy of Bloomberg's analysis. The segment adjuster was based on the activities of the company that borrowed money or issued debt; thus, the use of proceeds of the particular transaction was not considered. While some individual transactions may be undercounted and some overcounted, the overall result is presumed to be a reasonable estimate of an adjustment for a company's fossil fuel intensity across the financing it receives.

In some cases, where adjusters were not available for the company receiving financing, an adjuster was used from the parent company or ultimate parent company, as deemed appropriate. In the cases where segment adjusters were not available, the average adjuster value of all other companies that share the same industry classification category was used. This is assumed to be a reasonable estimation for a relatively small amount of financing that was not adjusted by more precise methods.

Limitations

As noted above, the primary source of this information is Bloomberg; the data therefore relies on the accuracy and comprehensiveness of this database. The authors did not cross-reference with company filings to the SEC, for instance.

There are several other aspects of the methodology that may limit the accuracy of the fossil fuel finance estimates. For example, while the scope covers over 1,800 companies active in the fossil fuel value chain, it is not necessarily an exhaustive list. Some companies active in fossil fuel industry may be omitted due to their BICS classification, leading to an underestimate of some of the bank's fossil fuel finance.

In other respects, the approach may overestimate fossil fuel finance by some definitions. Since the analysis does not sort transactions by activity type or use of proceeds, financing that banks provide to fossil fuel companies for renewable energy projects, for example, is counted as fossil fuel finance.

The methods for estimating adjusters, when necessary data are not available for a company, may also limit the precision of the estimates.

The data and assessments presented in this report have not been directly provided or authorized by any of the financial institutions or clients concerned. While every attempt has been made to research and present data and assessments accurately and objectively, it is difficult to guarantee complete accuracy. This is not least because of the lack of consistency and transparency in how financial institutions and their fossil fuel sector clients record key financial and company information. Where there was ambiguity in source information of financial services, the authors of this report have acted cautiously, resulting in a likely underestimation of the true amounts of finance involved. The RAN authors have expressed their commitment to correcting any identified errors at the earliest opportunity. Any such errors would also be corrected in WRI's tool.

Analytical Method for Quantifying Overall Fossil Fuel Financing by Bank

RAN provided the following detailed explanation of the methodology and how it calculated the total fossil fuel finance figure for each bank:

1. **Find relevant fossil fuel companies and pull all financing data.** Using Bloomberg Terminal, pull all "league credit" dollar amounts for the relevant banks (using Bloomberg Terminal's own league credit methodology under the league table [LEAG] function) for issuances of bonds, loans, and equities, including all private securities, from the relevant time period, for the following companies:
 - a. All companies from the following sources:
 - i. Companies primarily classified as the following categories under the Bloomberg Industry Classification Standard (BICS), and all subcategories within these:
 1. Energy > **Oil, gas, and coal** (includes Integrated oils, Exploration & production, Midstream—oil & gas, Refining & marketing, Oil & gas services & equipment, Coal operations)
 2. Utilities > Utilities > Power generation > **Fossil electric generation**
 3. Utilities > Utilities > Utility networks > **Gas utilities**
 4. Companies with any percentage of assets, revenue, or operating income in the categories in 1.a.i. for any quarter or year in the relevant time period, as listed in Bloomberg Terminal using the function EQS.

- ii. Companies listed in the most recent version of the Global Coal Exit List at <https://coalexit.org/database-full> (accessed October 2018).
 - iii. Companies included in any of the Spotlight Fossil Fuel Subsectors or the Fossil Fuel Expansion League Table in the 2019 Banking on Climate Change report. See pages 16–17 for methodology and scope of these company lists.
- b. All companies from the following sources that have a fossil fuel percentage adjuster in step 2 below.
- i. Companies primarily classified as the following categories under the Bloomberg Industry Classification Standard, and all subcategories within these:
 1. Utilities > Utilities > **Integrated utilities**
 2. Utilities > Utilities > **Power Generation** > (no subcategory)
 3. Utilities > Utilities > Power Generation > **Other power generation oper**
 4. Utilities > Utilities > **Utility networks** > (no subcategory)
 5. Utilities > Utilities > Utility networks > **Electricity networks**
2. **Adjust all data by company involvement in fossil fuels.** To account for each company's varying degree of involvement in the fossil fuel sector, adjust all transactions by multiplying the league credit amount by one of the following percentage adjusters. Use the first percentage adjuster available in the following order:
- a. The larger of these two:
 - i. The larger of these two for the company, or if neither of these is available for the company, then the larger of these two for the parent company or ultimate parent company:
 1. The annual "coal share of revenue" percentage listed in the Global Coal Exit List at <https://coalexit.org/database-full>. This is calculated from the company's most recent consolidated financial statement available at the time of research. Where values are marked as greater than or less than a certain percentage, that percentage was used. For more on the Global Coal Exit List's methodology, see <https://coalexit.org/methodology>.
 - ii. The first available value in the following order, as listed on the Bloomberg Terminal using the EQS function:
 - a. The highest percentage (of any quarter or year in the relevant time period) of total **assets in all categories in 1.a.i.**
 - b. The highest percentage (of any quarter or year in the relevant time period) of total **revenue in all categories in 1.a.i.**
 - c. The highest percentage (of any quarter or year in the relevant time period) of total **operating income in the categories in 1.a.i.**
 - ii. If the company appears on any of the lists of top companies by fossil fuel subsector in the 2019 Banking on Climate Change report (pages 94–101): The sum of the company's fossil fuel subsector adjuster values as researched by Profundo. See #2 in the 2019 Methodology Note.
 - b. If the company appears on the list of 100 top fossil fuel expansion companies in the 2019 Banking on Climate Change report (pages 90–92): The company's fossil fuel adjuster value as researched by Profundo. See #3 in the 2019 Methodology Note.
3. **Adjust data by fossil fuel involvement for top companies that are still unadjusted.** Research adjusters for the following companies that do not have any of the adjusters available from step 2, using publicly available information from annual reports and company websites to calculate proportion of segment assets or revenues. These are researched by Profundo; see #3 in the 2019 Methodology Note.
- a. Companies in the BICS categories from 1.b. that did not have the adjuster required to be included in the dataset but that received over \$5 billion in combined unadjusted finance from the 33 global banks in Banking on Climate Change 2019 over the time period. Adjuster researched at the group level and applied to all subsidiaries.
 - b. Companies from 1.a. where, when grouped by ultimate parent, received over \$5 billion in combined unadjusted finance from the 33 global banks in Banking on Climate Change 2019 over the time period.
 - i. Where the ultimate parent was a state/country, only subsidiaries with over \$1 billion in combined unadjusted finance were individually researched.
4. **Use adjuster averages for the small amount of remaining unadjusted financing.** For the small percentage of companies where none of the adjusters above are available, use the average (mean) adjuster value of all

other companies in the dataset that share the same primary category under the Bloomberg Industry Classification Standard (BICS).

- a. If there are fewer than three other companies in that category in the dataset, use the mean from the BICS category one level broader (one level "higher"). If there are still fewer than three other companies in the dataset in that category, remove that financing from the dataset.

5. **Spot check adjusters for accuracy.**

- a. Look for adjusters that appear problematic based on their value, or using random checks. Individually research these adjusters as per step 3.

ENDNOTES

1. The GDP figures are included simply to give a sense of scale of the banking institutions. However, as a flow measure, GDP is not a comparable metric to total assets, a stock measure.
2. While there is no widely accepted definition of sustainable finance, the term broadly refers to the provision of financial products or services that account for environmental, social, and governance considerations. Sustainable finance is generally deployed with the aim of contributing toward social or environmental value creation while supporting economic growth. It may also be oriented toward more specific goals such as limiting greenhouse gas emissions, reducing negative environmental impacts, or enhancing social well-being and prosperity, among others. (European Commission 2019).
3. Other efforts to advance environmental solutions that are not part of a pledge for a specified quantity of financial services within a given timeline fall outside the scope of this research. Examples of such efforts include setting science-based targets or other emissions-reduction goals, initiatives to improve supply chain and operations sustainability, and the adoption of sustainability exclusions policies, among others. These activities are an important part of a bank's overall climate approach but are not considered in this research.
4. Another relevant resource is "Banking on a Low-Carbon Future," published by ShareAction and the Asset Owners Disclosure Project in 2017. Available here: <https://shareaction.org/wp-content/uploads/2017/12/BankingRanking2017.pdf>.
5. The five banks not included in the 2019 *Fossil Fuel Finance Report Card* are Lloyds Banking Group PLC, Commonwealth Bank of Australia, Australia & New Zealand Banking Group Ltd., National Australia Bank Ltd., and Westpac Banking Corp.
6. The latter example may undervalue the annualized commitment compared to the former example because the latter case cancels out the amount of retired assets from the amount of new investments during the commitment period. Therefore, care must be taken when interpreting and comparing the bank commitments with different commitment types.

REFERENCES

- Bloomberg L.P. 2018 (Database). Classification Data. https://data.bloomberglp.com/professional/sites/10/131915_CDS_REF_Classification_SFCT_180315_DIG.pdf. Accessed August 15, 2019.
- Bloomberg Finance L.P. 2018 (Database). Global Capital Markets: League Tables FY 2018, pp. 11–12. <https://data.bloomberglp.com/professional/sites/10/Bloomberg-Global-Capital-Markets-League-Tables-FY-2018.pdf>. Accessed August 15, 2019.
- de Coninck, H., A. Revi, M. Babiker, P. Bertoldi, M. Buckeridge, A. Cartwright, W. Dong, et al. 2018. "Strengthening and Implementing the Global Response." In *Global Warming of 1.5°C: An IPCC Special Report*, edited by V. Masson-Delmotte, P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, et al. https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter4_Low_Res.pdf.
- Deutsche Bank. 2017. *Large or Small? How to Measure Bank Size*. https://www.dbresearch.com/PROD/RPS_EN-PROD/PROD000000000443314/Large_or_small%3F_How_to_measure_bank_size.pdf.
- European Commission. 2019. "Sustainable Finance." https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en.
- Hierzig, Sonia. 2017. *Banking on a Low-Carbon Future: A Ranking of the 15 Largest European Banks' Responses to Climate Change*. London, UK: ShareAction and Asset Owners Disclosure Project.
- Marcelis, A., and W. Warmerdam., 2019. *Banking on Climate Change: Fossil Fuel Finance Report Card 2019 Methodology Note*. Profundo Research & Advice. <https://www.ran.org/wp-content/uploads/2019/03/More-on-Methodology-2019.pdf>.
- McCollum, D., W. Zhou, and K. Riahi. 2018. "Energy Investment Needs for Fulfilling the Paris Agreement and Achieving the Sustainable Development Goals." *Nature Energy* 3 (July): 589–99. <https://www.nature.com/articles/s41560-018-0179-z>.
- RAN. 2019. Independent analysis conducted on fossil fuel exposure of (five banks).
- RAN (Rainforest Action Network), BankTrack, Sierra Club, Oil Change International, Indigenous Environmental Network, and Honor the Earth. 2019. *Banking on Climate Change: Fossil Fuel Finance Report Card*. https://www.ran.org/wp-content/uploads/2019/03/Banking_on_Climate_Change_2019_vFINAL1.pdf.
- S&P 500. 2018. *The World's 100 Largest Banks*. <https://www.spglobal.com/marketintelligence/en/news-insights/research/the-world-s-100-largest-banks>.
- Urgewald. 2019. *Database: Global Coal Exit List (GCEL)*. <https://coalexit.org/database-full>. Accessed November 2018.
- UNCTAD (United Nations Conference on Trade and Development). 2014. *World Investment Report*. https://unctad.org/en/PublicationsLibrary/wir2014_en.pdf.
- UNEP-FI. (United Nations Environment Programme Finance Initiative). 2018. *Sustainable Finance Progress Report*. http://unepinquiry.org/wp-content/uploads/2019/03/Sustainable_Finance_Progress_Report_2018.pdf.
- Weber, C., J. Thomä, S. Dupre., R. Fischer, C. Cummis, and S. Patel. 2017. *Exploring Metrics to Measure the Climate Progress of Banks*. Washington, DC: World Resources Institute, UNEP Finance Initiative, 2 Degrees Investing Initiative.
- World Bank. 2017. (Database.) "GDP (Current US\$) World Bank National Accounts Data, and OECD National Accounts Data Files." https://data.worldbank.org/indicator/ny.gdp.mktp.cd?most_recent_value_desc=true. Accessed May 20, 2019.

ACKNOWLEDGMENTS

This publication and the online tool benefited from the involvement of many individuals within and outside of WRI.

The authors would like to thank our colleagues at WRI: Leonardo Martinez-Diaz for his strategic advice and oversight; Manish Bapna for his support; Cynthia Cummis and Kevin Moss for their expert feedback; Hanyu Liu for her research inputs; Achille Djeagou, Noah Maghsadi, Jack McClamrock, Joe Thwaites, and Vipassana Vijayarangan for their valuable peer review of the draft technical note; the Finance Center team for their contributions to the initial scoping discussions; Laura Malaguzzi Valeri and Gregory Taff for their helpful guidance; and Emilia Suarez for her assistance with the review process. We would like to thank Jessica Bahsoon, Devika Jaipurkar, and Jayson VanBeusichem for their operational support. We also wish to thank all those who helped shape our early thinking for the online tool and contributed to the production process for the technical note: Bill Dugan, Hayden Higgins, Carni Klirs, Kevin Powers, Caroline Taylor, Billie Kanfer, Lauri Scherer, and Romain Warnault.

We would also like to thank various external experts who supported this publication and the online tool. We are grateful for the additional research conducted by Alison Kirsch and Grant Marr at the Rainforest Action Network to provide fossil fuel finance figures for banks in our sample that were not included in their report, *Banking on Climate Change: Fossil Fuel Finance Report Card 2019*; we also appreciate their feedback on the framework and the draft technical note. We value the early feedback that we received on our approach from Lauren Compere, Alex Doukas, and Shilpa Patel. We are thankful for the additional external peer review of the technical note by Sonia Hierzig and Kate Levick, and for the external peer review of the fossil fuel finance methodology by Julie Gorte. Lastly, we received data validation and feedback on our approach from staff at banks included in our sample—more than we can list here—and we are sincerely grateful for their time, input, and active engagement.

We would like to extend special thanks to Kevin Lustig for lending his valuable digital development skills to build the online tool.

We are pleased to acknowledge our institutional strategic partners, who provide core funding to WRI: Netherlands Ministry of Foreign Affairs, Royal Danish Ministry of Foreign Affairs, and Swedish International Development Cooperation Agency.

ABOUT THE AUTHORS

Ariel Pinchot is an associate in WRI's Finance Center
Contact: apinchot@wri.org

Ichiro Sato is a senior associate with WRI's Climate Program and Finance Center
Contact: ichiro.sato@wri.org

Giulia Christianson is a senior associate in WRI's Finance Center
Contact: gchristianson@wri.org

Lihuan Zhou is an associate in WRI's Finance Center
Contact: lzhou@wri.org

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.

Maps are for illustrative purposes and do not imply the expression of any opinion on the part of WRI, concerning the legal status of any country or territory or concerning the delimitation of frontiers or boundaries.



Copyright 2019 World Resources Institute. This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of the license, visit <http://creativecommons.org/licenses/by/4.0/>