FAQ & More on Methodology
Banking on Climate Change
Fossil Fuel Finance Report 2020

March 2020

This document is meant to provide additional detail on the methodology used in *Banking on Climate Change 2020*, which is available for download at www.ran.org/bankingonclimatechange2020. All page numbers refer to pages in the report itself.

Banking on Climate Change 2020 was produced by Rainforest Action Network, BankTrack, Indigenous Environmental Network, Oil Change International, Reclaim Finance, and the Sierra Club.

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Fossil Fuel Financing Data

General questions

How do you get the data?

Financing data is pulled using the LEAG function on the Bloomberg terminal, which aggregates lending and underwriting (of share and bond issuances) **led** by a given bank. This means that according to Bloomberg's league table methodology, the total value of a deal is split among the banks leading the transaction. A full explanation of how league credit is assigned is available to Bloomberg subscribers.[1]

In addition, for the top 30 coal power and LNG companies (see pages 96 and 102), we researched additional deals using IJGlobal, a project finance database. For these, the value of a deal is split among all banks on a given transaction.

Is the data scaled at all?

Each transaction is adjusted based on the particular company's involvement in the fossil fuel sector. For each company in the dataset, a segment adjuster was calculated or estimated. Segment adjusters detail a percentage of a company's operations in a specific activity in order to estimate how much financing is directed towards this activity. The research consultancy Profundo calculated many of the segment adjusters used in this dataset, as described below (researched by Léa Pham Van and Ward Warmerdam).

In applying the adjusters to finance data, if a bank is credited for loaning $1,000,000 to a diversified oil and gas company, and 20 percent of that company's business is in tar sands, then the bank will be credited with a $200,000 loan to the tar sands subsector. But if a bank is credited for loaning $1,000,000 to that company's tar-sands-only subsidiary, the full $1,000,000 will be counted.

Segment adjusters were calculated using the following sources: Rystad Energy, company annual reports and other publications. Where no data could be identified for one or multiple years, the segment adjuster from the most recent previous year was applied, using 2016 at the earliest. See the following section for specifics on how adjusters were calculated for each league table.

Where can I download the data?

Data is available at www.ran.org/bankingonclimatechange2020.

[1] Enter LEAG <GO>, then click Reports, then click League Table Standards and Guidelines to get the most current version of the document.

How do banks' fossil financing compare to their sustainable financing commitments?

In general this is tricky to compare, because banks' sustainable finance commitments vary in accounting methodology and transparency, as well as amount. WRI made a tool in July 2019 analyzing banks' sustainable financing commitments and comparing them to the banks' fossil financing, with numbers for the latter taken from *Banking on Climate Change 2019*.

Which banks are covered and why?

This report analyzes fossil fuel financing and policies from 35 large, private-sector commercial and investment banks based in Canada, China, Europe, Japan, and the United States. These include all of the commercial and investment banks in the world's top 20 banks by assets (19 total), as well as 16 other regionally significant players, all of whom are among the world's top 60 banks by assets. This scope allows us to have more global coverage than if we just looked at a certain number of the absolute biggest banks.

The 35 banks covered in all league tables and policy scoring charts are:

Bank	Country	Region	Global Rank by Assets, April 2018
Agricultural Bank of China	China	Asia	3
Bank of China	China	Asia	4
China Construction Bank	China	Asia	2
ICBC	China	Asia	1
Mizuho	Japan	Asia	17
MUFG	Japan	Asia	5
SMBC Group	Japan	Asia	14
BNP Paribas	France	Europe	8
BPCE/Natixis	France	Europe	20
Crédit Agricole	France	Europe	10
Société Générale	France	Europe	19
Commerzbank	Germany	Europe	54
Deutsche Bank	Germany	Europe	15
Intesa Sanpaolo	Italy	Europe	32
UniCredit	Italy	Europe	28
ING	Netherlands	Europe	26
BBVA	Spain	Europe	41
Santander	Spain	Europe	16
Credit Suisse	Switzerland	Europe	40
UBS	Switzerland	Europe	34
Barclays	UK	Europe	18
HSBC	UK	Europe	7
RBS	UK	Europe	29
Standard Chartered	UK	Europe	48
Bank of Montreal	Canada	North America	52
CIBC	Canada	North America	59
RBC	Canada	North America	24
Scotiabank	Canada	North America	42
TD	Canada	North America	25
Bank of America	United States	North America	9
Citi	United States	North America	13
Goldman Sachs	United States	North America	35
JPMorgan Chase	United States	North America	6
Morgan Stanley	United States	North America	38
Wells Fargo	United States	North America	11

Additional policy scores from banks in these regions, as well as from Australia and Singapore, are highlighted in some sections as further examples of progress in fossil fuel policies, or lack thereof (see below).

Does this report cover investment?

No. Big banks are also significant supporters of the fossil fuel sector through investments made by their asset management arms (shares of bonds and companies held). In contrast, this report focuses on the Commercial and Investment Banking (CIB) part of a bank's business, in which it lends to and provides underwriting services for companies.

How much of a bank's business does this fossil financing represent?

These banks have many different business activities, and providing financing (lending and underwriting services) is just one of them. That said, we can calculate what percent of a bank's total financing this fossil financing represents, by looking at the unadjusted financing that these banks provided overall, across industries, and seeing what percentage is accounted for by the fossil fuel financing we calculated.

Of course, in climate terms, these percentages don't make a difference — what matters is the absolute amount of financing.

Here are the 35 banks, ranked by the percentage that their 2016-2019 fossil fuel financing made up of their total financing over that time period. Total fossil fuel financing was researched on the Bloomberg terminal using the league table function, which is also the basis for our fossil fuel financing calculations.

Bank	Country	2016-19 Fossil Fuel Financing as % of Total Financing
Scotiabank	Canada	18.0%
CIBC	Canada	16.9%
MUFG	Japan	15.9%
ICBC	China	14.0%
Bank of Montreal	Canada	13.4%
China Construction Bank	China	12.8%
Mizuho	Japan	12.3%
RBC	Canada	12.1%
Agricultural Bank of China	China	12.1%
Bank of China	China	11.8%
SMBC Group	Japan	11.2%
TD	Canada	10.8%
Wells Fargo	United States	10.8%
ING	Netherlands	9.9%
BPCE/Natixis	France	8.3%
Société Générale	France	7.8%
JPMorgan Chase	United States	7.6%
BBVA	Spain	7.4%
Standard Chartered	UK	7.4%
Citi	United States	7.1%
Credit Suisse	Switzerland	6.9%
Santander	Spain	6.7%
Morgan Stanley	United States	6.1%
Crédit Agricole	France	5.6%
Barclays	UK	5.5%
Intesa Sanpaolo	Italy	5.5%
Bank of America	United States	5.1%
UBS	Switzerland	4.7%
Goldman Sachs	United States	4.7%
BNP Paribas	France	4.2%
UniCredit	Italy	3.9%
RBS	UK	3.6%
HSBC	UK	3.4%
Commerzbank	Germany	2.7%
Deutsche Bank	Germany	2.3%

Which fossil fuel companies are included?

This league table analyzes bank financing for approximately 2,100 companies that received financing led by one of the 35 banks analyzed, and that are: involved in the extraction, transportation, transmission, combustion, or storage of any fossil fuels or fossil-based electricity, globally, according to either Bloomberg Industry Classification Standard (BICS) or relevant company metrics in Bloomberg; or are on the Global Coal Exit List; or are in the scope of any of the other tables in the report, as listed in the appendix of the report.

All companies are included that are classified under the following BICS categories, or that are marked in Bloomberg Terminal as having a recent percentage of assets, revenue, or operating income in these categories:

- Energy > **Oil, Gas, and Coal** (includes Integrated Oils, Exploration & Production, Midstream – Oil & Gas, Refining & Marketing, Oil & Gas Services & Equipment, Coal Operations)
- Utilities > Utilities > Power generation > **Fossil electric generation**
- Utilities > Utilities > Utility networks > **Gas utilities**
- Industrials > Transportation & Logistics > Marine Shipping > **Oil Services Ships**
- Industrials > Engineering and Construction > Infrastructure Const > Energy Infra Constr > **Oil & Gas Infra Const**
- Materials > Metals and Mining > Mining Services > **Coal Support Services**

Companies that are classified primarily under the following more ambiguous BICS categories are included if they have a fossil fuel adjuster as described in the "How were these transactions adjusted?" section below:

- Utilities > Utilities > **Integrated utilities**
- Utilities > Utilities > **Power Generation** > (no subcategory)
- Utilities > Utilities > Power Generation > **Other power generation oper**
- Utilities > Utilities > **Utility networks** > (no subcategory)
- Utilities > Utilities > Utility networks > **Electricity networks**

How were these transactions adjusted?

To adjust each transaction based on the particular company's involvement in fossil fuels, each transaction was multiplied by one of the following adjuster percentages, using whichever was available first, in the following order:

1. Percentage fossil fuels calculated by Profundo, for the year of the transaction (see description below)

2. Percentage fossil fuels calculated manually by asset or revenue percentage found in the most recent annual report (done for select companies, especially those with high financing totals)
3. Whichever of the following two is larger:
    a. The annual “coal share of revenue” percentage listed in the Global Coal Exit List (where values are marked as greater than or less than a certain percentage, that percentage was used)
    b. The first available of the following percentages from Bloomberg Terminal data:
        i. Largest >0 value of: % assets from last filing, % assets from most recent yearly filing, % assets from most recent quarterly filing, and % assets from 2019 filing
        ii. Largest >0 value of: % revenue from last filing, % revenue from most recent yearly filing, % revenue from most recent quarterly filing, and % revenue from 2019 filing
        iii. Largest >0 value of: % operating income from last filing, % operating income from most recent yearly filing, % operating income from most recent quarterly filing, and % operating income from 2019 filing
        iv. Largest >0 value of: % assets from 2018 filing, and % assets from 2nd most recent yearly filing
        v. Largest >0 value of: % revenue from 2018 filing, and % revenue from 2nd most recent yearly filing
        vi. Largest >0 value of: % operating income from 2018 filing, and % operating income from 2nd most recent yearly filing
        vii. % assets from 2017 filing >0
        viii. % revenue from 2017 filing >0
        ix. % operating income from 2017 filing >0
        x. % assets from 2016 filing >0
        xi. % revenue from 2016 filing >0
        xii. % operating income from 2016 filing >0
4. The value of 3. for the issuer’s parent company
5. The value of 3.b. for the issuer’s ultimate parent company
6. For the small percentage of companies where none of the adjusters above were available, the average (mean) adjuster value of all other companies in the dataset that share the same primary category of the Bloomberg Industry Classification Standard (BICS) Level 4 Sub Industry category was used. If there were fewer than three other companies in the same Sub Industry with adjusters in the dataset, the mean from all companies with the same BICS Level 3 Industry category was used.

- If the sum of percentage adjusters for all fossil fuel subsectors in the report as researched by Profundo (as described in the following sections) is greater than the value used in 3. 4. or 5. above, that percentage was used instead.

Percentage fossil fuels calculated by Profundo: For the 100 companies on the list of top fossil fuel expanders (see page 85), and any of their subsidiaries, the research consultancy Profundo calculated annual adjusters, which were used in this dataset. These adjusters take into account a company's upstream, midstream, and downstream fossil fuel operations.

- For electric utility companies – first the proportion of a company's activities in the power sector was determined using the company's segment assets or segment revenues as available. This figure was then further adjusted using the company's installed capacity that was based on fossil fuel feedstocks.
- For oil and gas companies – the proportion of the company's activities related to the sector were determined on the basis of their segment information.
- For coal mining companies – the segment adjusters were primarily calculated based on a company's total coal assets, as a percentage of the company's total assets, especially in the case of companies that are only involved in mining or have a segment dedicated to coal mining and production.

Banking on Fossil Fuel Expansion League Table

Page 28

Which fossil fuel companies are included?

We compiled a list of 100 top companies expanding fossil fuels:

- Oil and gas:
    - Top 60 companies by reserves projected to be produced by 2050 from shale wells (hereafter written as "expansion reserves"), and from non-shale projects reaching final investment decision from 2016-2030
    - 15 companies behind key pipelines and LNG terminals that would expand extraction upstream
- Coal:
    - Top 11 companies by coal production that have mining expansion plans (selecting one per country except for China, where three are included)
    - Top 16 companies proposing new coal power plants (selecting one per country except for India (four) and China (two))
    - (The above two categories total 25 coal companies due to overlap[2])

Source: Rystad Energy AS provided by Oil Change International, company reporting, and urgewald e.V.[3]

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[2] This approach covers key regional players while also accounting for the prominence of Chinese companies in the list top coal miners, and Chinese and Indian companies in the list top coal power producers.

[3] Rystad Energy AS is an independent oil and gas consulting services and business intelligence data firm. "Global Coal Exit List," urgewald e.V., September 2019. Company reporting was used to update the list of key oil and gas midstream companies included.

See page 85 for the full list.

How were these transactions adjusted?

For the 100 companies on the list of top fossil fuel expanders (see page 85), and any of their subsidiaries, the research consultancy Profundo calculated annual adjusters. These adjusters take into account a company's upstream, midstream, and downstream fossil fuel operations.

- For electric utility companies – first the proportion of a company's activities in the power sector was determined using the company's segment assets or segment revenues as available. This figure was then further adjusted using the company's installed capacity that was based on fossil fuel feedstocks.
- For oil and gas companies – the proportion of the company's activities related to the sector were determined on the basis of their segment information.
- For coal mining companies – the segment adjusters were primarily calculated based on a company's total coal assets, as a percentage of the company's total assets, especially in the case of companies that are only involved in mining or have a segment dedicated to coal mining and production.

Note that even though this list focuses on top fossil fuel expanders, the adjuster takes into account current operations only. This effectively undercounts financing for fossil fuel expansion.

Banking on Tar Sands, Arctic Oil and Gas, Offshore Oil and Gas, and Fracked Oil and Gas League Tables

Pages 36, 42, 48, and 54

Which fossil fuel companies are included?

Tar sands: Top 30 companies by tar sands reserves under production plus expansion reserves, and the five companies with existing or proposed pipelines to carry tar sands oil out of Alberta.

Arctic oil and gas: Top 30 companies by onshore and offshore Arctic oil and gas reserves under production plus expansion reserves

Offshore oil and gas: Top 30 companies by offshore oil and gas reserves under production plus expansion reserves

Fracked oil and gas: Top 30 companies by shale oil and gas reserves under production plus projected shale production between 2019 and 2050 from currently undrilled wells, and 10 key fracked oil and gas pipeline companies

Source: Rystad Energy AS provided by Oil Change International, Oil Sands Magazine (for tar sands), and pipeline company reporting (for fracking)[4]

See pages 88, 90, 92, and 94 for the full list.

How were these transactions adjusted?

Explanation provided by Profundo:

This research uses companies' oil & gas reserves as the basis to define the proportion of selected companies' activities respectively in Arctic oil and gas, tar sands, offshore oil and gas, and shale oil and gas. Information about selected companies' reserves in the respective subsectors and their total reserves was collected from Rystad Energy, provided by Oil Change International. Sector-specific and total reserves were retrieved for each selected company by year between 2016 and 2019 when in-scope financing had been identified.

For each of these upstream oil and gas subsectors, adjusters are primarily calculated based on the subsector reserves that a selected company owns, as a percentage of the total reserves in oil and gas of the company. When the company is vertically integrated in oil & gas, the adjuster is solely based on the company's reserves percentage in the relevant subsector.
When the company is involved in other sectors in addition to oil & gas, the proportion of reserves is applied to the company's reported oil & gas business segment(s) capital expenditure, when available, as reported in the company's annual report for the respective year. If the company does not report capital expenditure by business segment, this calculation is made based on the business segment(s) assets. If assets are not reported by business segment, this calculation is made based on the reported segment(s) revenue.

Group-level adjusters are applied to both parent companies and subsidiaries that were found to have activities in the associated oil and gas sub-sector. When a subsidiary is identified to only have activities in a relevant upstream oil & gas subsector, 100% is applied. For subsidiaries for which no link could be found related to the relevant subsector, 0% is applied. For financing or trading subsidiaries, group-level adjusters are applied.

[4] In addition to the companies listed at that site, Kinder Morgan is also included because until September 2018, it was the owner of the Trans Mountain Pipeline. "Kinder Morgan Canada Limited - Trans Mountain Pipeline and Expansion Project Transaction Closes," Trans Mountain, 31 August 2018. Company reporting was used to review fracked oil and gas infrastructure projects in order to select 10 of the companies behind the most projects.

Banking on LNG League Table
Page 60

Which fossil fuel companies are included?

Top 30 companies by attributable capacity in current and planned LNG import or export terminals worldwide

Source: Bloomberg New Energy Finance[5]

See page 96 for the full list.

How were these transactions adjusted?

Explanation provided by Profundo:

Segment adjusters for LNG include all LNG-related activities at the midstream level. This excludes natural gas production and regasification, which form part of LNG supply chains, but also includes other parts of the natural gas sector that are unrelated to LNG. The methodology used to calculate LNG segments was primarily based on segment assets, when specific LNG segmentation was reported by the companies themselves. In the case where total LNG assets could be estimated from subsidiaries whose assets in LNG could be identified, these were calculated as a percentage of the group company's total assets. If this could not be identified, the adjuster was calculated based on LNG production capacity as a proportion of the group's total oil and gas production capacity. If production capacity could not be identified, the adjuster was calculated based on LNG sales as a proportion of total revenue. If no activities could be found in LNG for subsidiaries, 0% was applied for the subsidiary.

Banking on Coal Mining League Table
Page 66

Which fossil fuel companies are included?

Top 30 companies by annual coal production[6]

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[5] Analysis of top companies based on project-level data from: "LNG Export and Import Projects," BloombergNEF, 9 May 2019.
[6] While all other subsectors rank and include companies by some metric that takes into account both current and planned activities, the Global Coal Exit List does not have sufficient quantitative information on coal mining companies' expansion plans to take this into account. Instead, this analysis covers the biggest 30 coal mining companies by production.

Source: urgewald e.V.'s [Global Coal Exit List]

See page 100 for the full list.

How were these transactions adjusted?

Explanation provided by Profundo:

Segment adjusters for coal mining were primarily calculated based on a company's total coal assets, as a percentage of the company's total assets, especially in the case of companies that are only involved in mining or have a segment dedicated to coal mining and production. In the context where coal assets could not be determined, the segment was calculated based on the company's coal revenues as a percentage of total revenues.

When no specific assets or revenues could be determined, an estimation of coal mining percentage was made based on the total number of various operations, and a 1:1 percentage of operations related to coal mining. For example, if the company has eight different subsidiaries in different sectors, of which five or six are coal mining subsidiaries, a percentage of 62.5% or 75% was applied. In the same context where no assets or revenues could be found, but the company seemed clearly only or primarily involved in coal mining, with no specific indicator for other activities, 100% was applied. If a subsidiary was found to not be involved in coal mining, 0% was applied.

For companies that are involved both in coal mining and coal power and where assets could not be identified, the adjuster for coal mining was based on the revenue percentage from coal. However, these revenues only account for coal that is sold to third-parties, whereas these companies likely use the coal that is mined primarily for their own coal-fired power assets. Therefore, in these cases, coal mining segments are likely much larger than represented by the adjusters here calculated.

Banking on Coal Power League Table
Page 72

Which fossil fuel companies are included?

Top 30 coal power companies by installed plus planned coal power capacity

Source: urgewald e.V.'s [Global Coal Exit List]

See page 102 for the full list.

How were these transactions adjusted?

Explanation provided by Profundo:

Segment adjusters for coal power were calculated as coal-fired power capacity as a percentage of the company's total power capacity, based on the concept that generation capacity is most parallel to calculations of a company's adjuster by assets. In the context where a company was involved in other activities than energy generation and distribution, the coal-fired capacity percentage was applied to the electricity generation or power segment of the company as a percentage of total assets. If a subsidiary was found to not be involved in power or not have any capacity in coal-fired power, 0% was applied.

For subsidiaries that are only involved in transmission of electricity but are part of a group that includes coal generation capacity, the parent company level adjuster was applied. If no adjusters could be found for coal capacity or coal-power assets, revenues from coal-power generation was applied, as a percentage of total revenues. When no coal-power capacity, assets or revenues could be identified, the segment was calculated based on thermal capacity or assets, as a percentage of total capacity or assets. For companies that are involved both in coal mining and coal power, the coal capacity percentage was applied to assets or, if not available, to annual revenues.

Policy scores

Why did you change the scoring system?

In previous years, this report used an A-F system to score bank policies on fossil fuel financing. This year, a new point-based system was used, which we think is clearer and more straightforward.

How does this year's approach compare to last year's?

This new approach assesses banks on the same types of policies as the previous A-F scale and leads to similar — but clearer — rankings as last year's A-F grading.

How are bank policies scored?

Scoring criteria are published on pages 87, 89, 91, 93, 95, 97, 101, 104, and 105 of the report.

We looked at every bank's public-facing documentation and assessed its score based on our best understanding of the policy. We then sent this assessment to all banks profiled in the report and invited comment, which we took into account in finalizing policy assessments. We also consulted with campaigning groups that have particular expertise on the major fossil banks in their countries (Market Forces in Australia, urgewald in Germany, ReCommon in Italy, etc.).

Each bank's score in every category, as well as an explanation of why it got that score, is available for download at www.ran.org/bankingonclimatechange2020.

Which additional bank policies did you assess?

In addition to assessing fossil fuel policies for all of the 35 banks in this report's scope (see above), the following bank policies were also included to show additional progress or lack thereof:

Bank	Country	Region	Policy Assessment Included
ANZ	Australia	Asia & Australia	All
Commonwealth Bank	Australia	Asia & Australia	All
NAB	Australia	Asia & Australia	All
Westpac	Australia	Asia & Australia	All
DBS	Singapore	Asia & Australia	All
OCBC Bank	Singapore	Asia & Australia	All
UOB	Singapore	Asia & Australia	All
KBC	Belgium	Europe	Tar sands
Crédit Mutuel	France	Europe	Coal mining, Coal Power, Other coal
ABN AMRO	Netherlands	Europe	Tar sands, Arctic, Coal mining, Coal power, Other coal
Rabobank	Netherlands	Europe	Tar sands, Fracking
CaixaBank	Spain	Europe	Tar sands, Arctic, Fracking
PNC	United States	North America	Coal mining, Coal Power, Other coal
US Bank	United States	North America	Tar sands, Fracking, Coal Mining, Coal Power, Other coal