Methodology FAQ

Banking on Climate Chaos: Fossil Fuel Finance Report 2024

This document provides additional detail on the methodology used in *Banking on Climate Chaos: Fossil Fuel Finance Report 2024*. The report was published on May 12, 2024 by Rainforest Action Network, BankTrack, the Center for Energy, Ecology, and Development, Indigenous Environmental Network, Oil Change International, Reclaim Finance, Sierra Club, and Urgewald. *Banking on Climate Chaos 2024* is available for download at bankingonclimatechaos.org.

General Questions: Fossil Fuel Financing Data

How do you get the data?

The report assessed each bank's financial involvement in corporate lending and underwriting transactions — including project finance where data were available — between January 1, 2016, and December 31, 2023, inclusive. The report includes syndicated finance, e.g. finance that banks provide in groups, or syndicates. If a bank provides financing bilaterally to a fossil fuel company, it is unlikely to be reported here. Syndicated finance is more often subject to reporting requirements from regulators, and participants to deals provide information to commercial data providers to facilitate the market. For these reasons, syndicated finance is somewhat easier to trace than other types of finance.

Transaction data were sourced from Bloomberg Finance L.P and LSEG, formerly known as Refinitiv, between December 2023 and February 2024. These third-party data sources collect information about financial transactions and the parties involved in financing them. Loans, bonds, and share issuance underwriting were researched in both databases and merged through a multi-step deduplication process. Previous Banking on Climate Chaos reports included deals reported only in Bloomberg, supplemented with select project finance reported in IJGlobal. Using both Bloomberg and LSEG enables the identification of more deals and more companies in scope, and enables a cross-check for validating the data. Data was retrieved and processed by staff at Rainforest Action Network and at the Netherlands-based research consultancy Profundo.

All banks were given two opportunities - once in March and once in April - to comment on financing attributed to them. On each occasion, all banks were given two weeks to offer comments, rebuttals, or ask questions. All bank questions were answered regardless of whether they arrived after the close of the comment period. Approximately half of the banks acknowledged receipt; approximately one third of the banks provided feedback and/or asked clarifying questions.

Where can I download the data?

Our user agreements with Bloomberg LP do not allow us to provide any downloadable data. However, you can view additional charts at www.bankingonclimatechaos.org.

Why do I see differences between this year's and last year's data?

While the foundational methodology for this report does not significantly change, we do make adjustments from year to year in an effort to effectively capture the full scope of financing behind this global crisis. Importantly, our criteria for which companies are considered in scope for analysis have not changed. We look at all companies, including diversified companies, that do business in oil, gas, or coal in the upstream, midstream, or downstream segments. Our approach to diversified companies remains the same, as does our inclusion of syndicated loans, bonds, and share issuances. Reasons for differences in our annual reports may include:

- Additional research this year expanded the number of companies that met existing inclusion criteria.
- Since our report includes the 60 largest banks by assets, each year the list of banks may change. This year, we newly included Truist and DBS.
- Additional research in our data sources has enabled us to include more fossil fuel companies this year: about 4000 issuers (companies) in this year's report as compared to 3200 issuers in last year's report.
- We re-research our fossil fuel adjusters each year (see below for more on adjusters). Changes in adjusters may increase or decrease the amount of league credit allocated to previously-reported deals.
- Our data providers update their databases with additional information about deals that may lead to changes in how league credit is allocated to banks or how fossil fuel companies are adjusted. For example, if they report that more banks participated in a deal, each of those banks will be credited with slightly less.
- Companies may merge, split, be acquired, change ownership, or change names. We generally update each year's dataset with the most recent listed name of a company.
- We have expanded how many companies we report for each of the unconventional sector league tables to better align with the Global Oil & Gas Exit List and the Global Coal Exit List.
- This year we are using a different method to assign league credit to banks for their participation in deals. Information about this change is in the next section.
- The 2024 report applies the same methodology to all data from 2016 through 2023, thus enabling year on year comparisons of how much banks have financed fossil fuels since the Paris Agreement went into effect. However, **Banking on Climate Chaos 2024 finance figures do not compare directly to totals published in previous years**.

Did you change the scope of companies that are included this year?

The only change in scope this year is that we included metallurgical coal for the first time. That added only a small number of new companies. Otherwise, we have not changed our criteria for which companies to include. However, we have identified more companies exposed to the same sectors we have always included. These include subsidiaries and siblings of companies we had previously included. We have typically done research in industry databases, such as Rystad or Enerdata, to identify fossil fuel companies, and this year we did so again. Finally, we draw on company lists produced by Global Energy Monitor.

How do you decide how much to credit each bank for their participation in a deal?

This year's report uses an updated approach to crediting banks for their participation in corporate finance deals, including bonds, loans, and share issuances, an approach developed by the research company Profundo.[1] Previous years of this report relied on Bloomberg's league credit allocation. The methodology change allows the incorporation of research from multiple databases. Importantly, it makes it possible to credit all banks making financial contributions to a deal instead of only crediting banks in leading roles. Roles that do not involve financial contributions are excluded. There are additional details about this in the section called "Allocating League Credit," below.

Why do I see diversified companies on the list?

We include companies with a variety of industry classifications if we have evidence of exposure to fossil fuels. This means that we include not merely oil, gas, and coal majors. Many fossil fuel companies have finance subsidiaries, which we also consider to be in scope. This is important because all fossil fuels must be phased out and especially all fossil fuel expansion must stop, regardless of how the company is classified or how much exposure the company has. We invite banks to scrutinize their clients closely to understand what their diverse operations include.

We notice that the industry classifications in the finance databases are not always an accurate reflection of the company's operations. We increasingly see companies with names that include the words "renewable," "clean," or "green" but that are exposed to fossil fuels, sometimes significantly. We also see companies that are in the process of transitioning away from fossil fuels, have changed the name and company classification, but still only show revenue, assets, or income related to fossil fuels. In these cases, we apply year-specific adjusters if possible to account for changes in operations.

How do you assess financing for diversified companies?

As in previous years, to address the fact that some companies have comparatively small fossil exposure, we apply adjusters to the deal value. 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

[1] Profundo, Accessed April 23, 2024, https://www.profundo.nl/en.

company's operations in a specific activity in order to estimate how much financing is directed towards this activity.

In general, in applying the adjusters to finance data, the adjuster depends on the particular entity borrowing money or issuing debt or equity. For instance, 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 $200,000 of financing to the tar sands sector. 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: Urgewald's Global Oil & Gas Exit List, Global Coal Exit List, data on revenue, assets, and income data, as well as company annual reports, company sustainability reports, and other publications as available. When data on a company is not readily available, we adjust using data on the parent company. Annual adjusters were used whenever possible. In cases where no information could be identified for all years, the segment adjuster from the most recent year was applied. For all other transactions, one adjuster was applied to all years of data.

See the later sections (named, "How were these transactions adjusted?") for specifics on how adjusters were calculated for each league table.

What about green financing and sustainable financing?

This report does not calculate financing for new energy, renewables, or other developments necessary for the energy transition. Many companies in the scope of this report are beginning to transition away from fossil fuels. In some cases these companies already show revenue, assets, or capital expenditures on non-fossil fuel activities. In those cases of diversified energy companies with activities in those areas, the non-fossil fuel business was excluded from our calculations. This is especially true for many power generation and utility companies.

All deals marked as "Green Instruments" were removed from the dataset; deals designated as "Sustainability Linked" or "Sustainability Bond/Loan" are included. This is a conservative choice since the precise definitions and requirements for these designations have not been standardized.

We rely on the green instrument flag provided by our data providers. If any data provider flagged a deal as green we accept that flag. We also review the notes in the "Use of Proceeds" field. Please note that we do not as a rule exclude sustainability-linked instruments or social bonds, which often fall short of prohibiting the expansion of fossil fuels.

Do you include deals that have matured or revolvers that have not been drawn?

Financing is included if it was issued between January 1, 2016, and December 31, 2023, inclusive, regardless of when it matures. Banks are assigned league credit when financing is initially issued and again if it is renewed. We report cumulative financing totals rather than

financing that is active at any single point in time. Likewise, we report the amount that a bank has *committed* to a deal, not the amount that the borrower has drawn down or has outstanding. This is a key difference between this report and how banks report their corporate finance on their own balance sheets.

For this reason, the total amount of financing attributed to a single bank for a particular issuer may be more than they have actively committed in any given year. For example, if Company A takes out a revolving credit facility in 2016 and does not borrow against it, the banks lending that money would be credited with the full amount of the loan even though the issuer did not draw on it.[2] If the issuer then renews the revolving credit facility in 2018, the banks lending that money would be credited with the deal again. A revolving credit facility is a loan that can be borrowed and repaid repeatedly during the loan period, and the industry standard approach for allocating league credit is to credit the banks regardless of whether the issuer actually drew money from it.

We include all transactions, even those that have matured, that are recorded between 2016 and 2023. We report the commitment rather than the disbursement. We report on banks' decisions to finance fossil fuel issuers, not on how much those issuers draw from their issuances.

How does banks' fossil fuel financing compare to their sustainable financing?

Green or sustainable financing is beyond the scope of this report. In general, this is tricky to compare, because banks' sustainable finance commitments vary in accounting methodology and transparency, and in most cases are thus not directly comparable to the fossil fuel financing numbers in this report.

Most recently, Bloomberg New Energy Finance (BNEF) developed a dataset that compares banks' fossil fuel financing with their financing for low-carbon energy sources for 2021.[3] They found that low-carbon financing lagged behind fossil fuel financing; for every $1 of fossil fuel financing, banks provided .80 cents for low carbon sources. They suggest that the ratio should be closer to $4 on low carbon for every $1 on fossil fuels. In 2023 Profundo conducted separate research using a more rigorous definition of low carbon but a smaller universe of banks and found that just 7% of bank financing goes to renewables.[4]

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[2] "Revolving Loan Facility Explained: How Does It Work?," Investopedia, accessed April 29, 2024, https://www.investopedia.com/terms/r/revolving-loan-facility.asp.
[3] "Financing the Transition: Energy Supply Investment and Bank Financing Activity," *BloombergNEF* (blog), February 28, 2023, https://about.bnef.com/blog/financing-the-transition-energy-supply-investment-and-bank-financing-activity/
[4] "Just 7% of Global Banks' Energy Financing Goes to Renewables, New Data Shows," Rainforest Action Network, January 24, 2023, https://www.ran.org/press-releases/just-7-of-global-banks-energy-financing-goes-to-renewables-new-data-shows/.

Which banks are covered?

This analysis covers the world's 60 biggest relevant banks by assets, according to the S&P Global Market Intelligence ranking from April 2023.[5] Banks with less than $150 million league credit reported in Bloomberg LP for economy-wide financing were deemed irrelevant to this analysis. This resulted in the exclusion of three banks: Japan Post Bank (19th largest by assets globally), Norinchukin Bank (47th largest), and Resona Holdings (61st largest). The next three banks in the S&P Global ranking were added to the list to bring the total to 60 banks. Due to changes in bank sizes, Truist and DBS Group Holdings Ltd are new to this edition of the report. Commerzbank has been deemed out of scope this year. Credit Suisse is no longer included as an independent entity, but its financing is captured through figures for its parent, UBS.[6]

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

These banks have many different business activities, and providing financing (lending and underwriting services) is just one of them. The chart below shows banks' fossil fuel financing as a % of their total assets, as reported by S&P Global. Of course, with regards to the climate crisis, these percentages don't make a difference — what matters is the absolute amount of financing.

The 60 banks are organized alphabetically in this chart.

Bank	S&P total assets 2023 (US$ Billions)	S&P 2023 rank	2023 fossil fuel financing as a percentage of its assets
Agricultural Bank of China	4,919.03	3	0.07%
ANZ	669.66	52	0.25%
Banco Bilbao Vizcaya Argentaria (BBVA)	762.15	45	0.94%
Bank of America	3,051.38	6	1.10%
Bank of China	4,192.12	4	0.34%
Bank of Communications	1,883.72	15	0.24%
Barclays	1,823.84	18	1.33%
BMO Financial Group	859.05	40	1.83%
BNP Paribas	2,849.61	9	0.43%

[5] "The World's 100 Largest Banks, 2023," *S&P Global Market Intelligence*, April 26, 2023, https://www.spglobal.com/marketintelligence/en/news-insights/research/the-world-s-100-largest-banks-2023.
[6] "UBS Completes Credit Suisse Acquisition," UBS Global, June 12, 2023, https://www.ubs.com/global/en/media/display-page-ndp/en-20230612-ubs-credit-suisse-acquisition.html.

China Construction Bank	5,016.81	2	0.11%
China Everbright Group	913.49	38	0.81%
China Merchants Bank	1,470.00	24	0.78%
China Minsheng Banking	1,051.97	33	0.50%
CIBC	691.31	47	2.24%
CITIC	1,239.28	28	1.42%
Citigroup	2,416.68	11	1.25%
Commonwealth Bank of Australia	837.21	41	0.07%
Credit Agricole	2,542.61	10	0.46%
Credit Mutuel	1,180.22	31	0.02%
Danske Bank	540.66	60	0.22%
DBS	554.4	59	0.71%
Deutsche Bank	1,428.65	26	0.94%
DZ Bank	670.13	51	0.37%
Goldman Sachs	1,441.80	25	1.31%
Groupe BPCE	1,636.35	20	0.42%
HSBC	2,864.59	8	0.45%
Industrial and Commercial Bank of China	5,742.86	1	0.25%
Industrial Bank Company	1,343.54	27	0.60%
ING Group	1,034.32	35	1.21%
Intesa Sanpaolo	1,042.73	34	0.57%
JPMorgan Chase	3,665.74	5	1.12%
KB Financial Group	557.54	56	0.22%
La Banque Postale	796.88	43	0.01%
La Caixa Group	604.03	55	0.72%
Lloyds Banking Group	1,057.69	32	0.18%
Mitsubishi UFJ Financial	2,967.91	7	1.12%

Mizuho Financial	1,909.35	14	1.94%
Morgan Stanley	1,180.23	30	1.62%
National Australia Bank	679.76	48	0.23%
NatWest	867.59	39	0.24%
Nordea	635.72	54	0.26%
Ping An Insurance Group	771.55	44	0.80%
PNC Financial Services	557.26	57	2.18%
Postal Savings Bank of China	2,039.56	12	0.08%
Rabobank	671.7	50	0.57%
Royal Bank of Canada	1,544.17	22	1.83%
Santander	1,853.86	17	0.78%
Scotiabank	1,029.80	36	2.33%
Shanghai Pudong Development Bank	1,184.28	29	0.78%
SMBC Group	2,006.75	13	1.33%
Societe Generale	1,588.99	21	0.55%
Standard Chartered	819.92	42	0.89%
State Bank of India	694.94	46	0.43%
Toronto-Dominion Bank	1,524.83	23	1.34%
Truist Financial	555.26	58	2.56%
UBS	1,679.36	19	0.53%
UniCredit	916.72	37	0.71%
US Bancorp	674.81	49	1.89%
Wells Fargo	1,881.02	16	1.61%
Westpac	653.39	53	0.11%

Does this report cover fossil fuel investment?

No. Big banks are also significant supporters of the fossil fuel sector through investments made by their asset management arms (ownership of bonds and shares). In contrast, this report

focuses on the corporate finance part of a bank's business, in which it lends to and provides underwriting services for companies. Reclaim Finance and Urgewald, two of the authoring organizations of this report, conduct research on fossil fuel investments. Urgewald has a forthcoming report (July 2024) entitled *Investing in Climate Chaos*.

Which projects/companies in which countries are getting financing?

Most fossil fuel financing goes to companies rather than specific projects. For that reason, the report does not systematically connect finance flows to projects unless the project was funded using dedicated project finance or through the formation of a Special Purpose Vehicle. *Banking on Climate Chaos 2024* includes project-specific financing data where available, but the majority of the financing assessed is not directed toward specific projects — rather, it is provided at the general corporate level to the recipient fossil fuel companies. The country of incorporation for companies is available at www.bankingonclimatechaos.org.

Are banks consulted during the research process?

Yes. We engage with banks several times during the research process. They had two opportunities to provide feedback prior to publication and to ask questions about our methodology. Many, though not all, banks provided feedback. Banks have criticized some of the methodological assumptions.

The report authors take all bank feedback into consideration when refining the dataset and planning for subject years of research. Ultimately, however, it is the final decision of the authors whether or not to make changes in response to bank requests. All changes are consistent with the established methodology, and all updates are applied to all deals and banks. The research team maintains high standards of data integrity and quality.

It is our practice not to share with banks any comparative data which might give information about another bank. For that reason, we do not share the banks' rankings or the embargoed report in advance of publication.

What should I do if I've found a possible error?

We are committed to rigorous standards of data integrity and strive to publish information free from errors. If you believe you have identified an error, you may contact the report authors using the contact information in the "Get in Touch" section of https://www.bankingonclimatechaos.org. The authors believe the information in this report comes from reliable sources and that the data analysis is sound. The information reported is, to the best of our knowledge, accurate as of May 13, 2024. We may issue occasional corrections, which are intended to correct errors of fact consistent with information that could have been known at the time of publication. Except under extraordinary circumstances, our published report does not reflect updates in the underlying data that occur after publication. We do not maintain Banking on Climate Chaos as a dynamic data set, nor is the pdf report intended to reflect new facts that emerge after publication. While we are confident in our research and analysis, ultimately we can not guarantee the accuracy, completeness, or correctness of the information or analysis.

Allocating League Credit

How did the league credit change in this year's report?

League credit is an industry-standard approach to allocating the value of a deal among bank participants, though there are various methods for doing it, which accomplish different goals.[7] Last year's report relied on Bloomberg's league credit allocation, which estimates bank contributions using a proprietary algorithm. In order to use data from multiple sources, the report now assigns league credit following the methodology developed by Profundo.

This approach credits banks for their participation in corporate finance deals, including bonds, loans, and share issuances. Bloomberg's league credit only credits banks playing leading roles. The new method credits a wider range of deal participants beyond the leading roles.

In cases where the actual bank contribution is known, that value is used. If the percentage of fees earned by each bank is reported, that percentage is imputed to represent the percentage of their participation. Otherwise, the value of the deal is divided among all known participants, with a greater share allocated to the banks in leading roles (bookrunners). We exclude roles that do not involve financial contributions.

Our methodology change allows BOCC to incorporate research from multiple data sources to increase accuracy and it enables us to allocate league credit without relying on a source that is behind a paywall. Importantly, it also enables us to credit all banks making financial contributions to a deal instead of only crediting banks in leading roles.

What are some important things to know about this change?

The 2024 report **applies this methodology to all data from 2016 through 2023**. It is thus possible to make a consistent year on year comparison of how much banks have financed fossil fuels since the Paris Agreement went into effect. However, BOCC 2024 finance figures **do not necessarily compare directly to totals we published in previous years since we have updated our methodology and researched additional deals and companies in this latest version of the report**.

The new methodology **tends to slightly reduce the total league credit for banks in bookrunning roles** since some of the credit for the deal is now given to banks in non-leading roles, such as lender or co-manager. By contrast, **banks that tend not to play leading roles may see increased league credit** using our new methodology.

This methodology has been rigorously tested. Profundo developed this approach, over a decade ago. They ran regression analysis on a set of deals where the bank contributions were known, and used that knowledge to build their formula to estimate contributions in cases where contributions were not known. They sought feedback from banks on their results, consult regularly with finance professionals to check their assumptions, and have been using this method in research for clients ever since.

[7] "League Table: What It Is, How It Works, Example," Investopedia, accessed April 29, 2024, https://www.investopedia.com/terms/l/league_table.asp.

Why make this change?

- **Accessibility**: Bloomberg's formula for allocating credit to banks is proprietary and they have detailed rules for what they credit and don't credit. Their process and calculations are only transparent to those who pay for the service.

- **Standardizing across multiple data sources**: In order to do finance research in multiple databases, a standardized methodology to allocate league credit is required; league credit assigned by a single North American data provider is insufficient. Each data provider builds their own league tables using slightly different criteria for what activities are included and slightly different formulas to allocate credit among banks. They could thus not be combined easily or credibly.

- **Improved accuracy since all data providers have errors, and we don't want to repeat them**: By comparing data from multiple sources, we are better able to identify errors and report the most accurate financing figures.

- **Global coverage**: This is a report of the top 60 *global* banks and thousands of fossil fuel companies incorporated *worldwide*. Bloomberg is the industry-standard data source for North America, but not necessarily for other market regions. By using other data sources, we are able to reduce some of the US-centric bias in the data.

- **Uncovering all bank financing, not just bookrunning**: Many league table methodologies only credit bookrunners for their participation in a deal on the assumption that this leading role is the only one that matters. That means that banks playing other roles – *including, importantly, lending* – do not show up in many league tables. We highlight all transactions with fossil fuel exposure – whether the bank's role is passive or active. We do, however, exclude roles that do not involve financial contributions, such as legal advisor or ESG assurance provider. Since league tables are created for many purposes and using various metrics, our approach is broadly consistent with how the finance industry analyzes itself.

- **Capturing lending, not just leading**: Many commercial league credit formulas do not assign league credit to banks marked as "lenders" on a loan. With the new methodology, all finance participants, whether they are in a leading role or not, are credited. Any financing for fossil fuels is contributing to climate chaos. Big banks say that only the leading roles count. But when it comes to climate change and associated human rights violations, every participant should be held accountable.

What is the algorithm for assigning league credit?

For this report, in cases where the actual bank contribution to a deal is known, that value is used. If the percentage of fees earned by each bank is reported, that percentage is imputed to represent the percentage of their participation. For example, if a bank is reported to have earned 3% of the fees, the bank is assigned 3% of the value of the deal for their league credit. Known contributions and percent fees are drawn directly from the databases. For approximately 27% of the deals in our dataset, the banks' contribution value and/or the fees they take is

known. In an ideal world, banks would voluntarily report this information and there would be no need for additional steps.

For 73% of the deals in the dataset, BOCC calculates banks' contribution in order to assign league credit because no actual contributions or fees are reported. This year's report uses an allocation formula developed by Profundo to assign league credit. Profundo derived their formula by running a regression analysis on bank finance data in order to predict which factors were most significant in explaining banks' contribution value. They found that bank contributions could be predicted based on the banks' roles, the number of deal participants, and the type of financing. The value of the deal is thus divided among all known participants, with a greater share allocated to the banks in leading roles (bookrunners).[8] The algorithm credits a wider range of deal participants beyond the leading roles. Roles such as legal adviser that do not involve financial contributions are excluded. The algorithm is as follows:

1) The bookratio, or the ratio of non-leading to leading participants on the deal is calculated: (total participants - total bookrunners) / total bookrunners

$$\frac{\textit{total number of participants} - \textit{number of bookrunners}}{\textit{number of bookrunners}} = \textit{bookratio}$$

2) Then, a percentage of the deal size is chosen from the below table based on the book ratio and the type of financing (lending or underwriting). This is the percentage of the deal that will be split among the leading participants (bookrunners) in order to be sure that leading participants receive more credit for the deal .

Bookratio	Lending	Underwriting
<1/3	No differentiation*	No differentiation*
> 1/3	75%	75%
> 2/3	60%	75%
> 1.5	40%	75%
> 3.0	< 40%**	< 75%**

** In cases where the book ratio is over 3.0, a formula is used which gradually lowers the commitment assigned to the bookrunners. For loans, this formula is (0.69282032301) /√(bookratio). For share issuances this formula is (1.29903810723) /√(bookratio)

3) The percentage from step 2 is split among the bookrunners to find the value for each bookrunning bank in the deal. This percentage is multiplied by the tranche value of the deal to arrive at the per bank value.

[8] "Book Runner: Definition, Duties, Vs. Other Underwriters," Investopedia, accessed April 30, 2024, https://www.investopedia.com/terms/b/bookrunner.asp.

$$\frac{\textit{credit percentage from step 2}}{\textit{number of bookrunners}} \times \textit{tranche value (mln USD)} = \textit{per bank value (mln USD)}$$

The same is done for the non-bookrunning banks, using the percentage out of 100% remaining from step 2. The result is the per-bank value for non-bookrunners.

$$\frac{\textit{1 - credit percentage from step 2}}{\textit{number of non- bookrunners}} \times \textit{tranche value (mln USD)} = \textit{per bank value (mln USD)}$$

Banking on Fossil Fuels League Table

Which fossil fuel companies are included?

Approximately 2,435 group-level companies that are either independent or parent company — totalling 4,228 companies when including relevant subsidiaries — that are involved in the extraction, transportation, transmission, distribution, combustion, trade, or storage of any fossil fuels or fossil-based electricity, globally, according to the Bloomberg Industry Classification Standard; *or* are on the Global Coal Exit List; *or* are on the Global Oil and Gas Exit List; *or* are listed on Global Energy Monitor or Enerdata as significant fossil fuel companies; *or* are in the scope of any of the other tables in the report, as described below. Only companies that received syndicated financing by one of the 60 banks in scope are analyzed, which means that some fossil fuel companies are not included. Also, only companies for which data was available to create an adjuster were included (details in later sections). See "Fossil Fuel Company Lists," available at https://bankingonclimatechaos.org/companies2024.

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**
    - Includes **Integrated Oils, Exploration & Production, Midstream - Oil & Gas, Refining & Marketing, Drilling & Drilling Support, Oilfield Services & Equipment**
- Materials > Materials > Metals & Mining > Coal Mining > **Thermal Coal**
- Materials > Materials > Metals & Mining > Coal Mining > **Metallurgical Coal**
- Materials > Materials > Metals & Mining > Mining Services > **Coal Support Services**
- Industrials > Industrial Services > Engineering & Construction > Infrastructure Construction > Energy Infra Construction > **Oil & Gas Infra Construction**
- **Industrials > Industrial Services > Engineering & Construction > Infrastructure Construction > Utility Line Construction > Gas Utility Line Construction**

- Industrials > Industrial Services > Transportation & Logistics > Marine Shipping > Tanker Shipping > **LPG & LNG Tanker Shipping**
- Industrials > Industrial Services > Transportation & Logistics > Marine Shipping > Tanker Shipping > **Oil Tanker Shipping**
- Industrials > Industrial Services > Transportation & Logistics > Rail Freight > Total Commodity - Rail > **Coal Freight - Rail**
- Utilities > Utilities > Elec & Gas Marketing & Trading > Elec & Gas Marketing & Trading > **Gas Marketing & Trading**
- Utilities > Utilities > Electric Utilities > Power generation > **Fossil electric generation**
- Utilities > Utilities > Gas & Water Utilities > **Gas Utilities**

We confirm that companies are indeed appropriately classified during the adjuster research process, as described below.

How were these transactions adjusted?

Financing in the report is adjusted by the percentage of business each given company does in fossil fuels in order to account for diversified companies. “Adjusters” are applied on a year-specific basis for each step below when data is available. In other words, the adjuster for Company X in 2023 may be different from the same company’s adjuster in 2020 in order to reflect changing business models.

For the main “Banking on Fossil Fuels” league table, adjusters are selected using the following logic:

1. Select the fossil fuel share of revenue from the Global Oil and Gas Exit List 2023 (GOGEL) or the coal share of revenue reported on the Global Coal Exit List 2023 (GCEL)
    a. If there is no reported share of revenue, for companies classified as utilities take the fossil fuel share of power production from GOGEL or the coal share of power production from GCEL if available.
    b. In a small number cases where GOGEL or GCEL does not list a revenue or power production number, researchers apply a conservative lower-bound estimate based on company research done for the Exit Lists. If the company is not listed on an Exit List,
2. Select the most recent year-specific adjuster researched by Profundo for a prior report year (see note below.) If none exists,
3. Select the most recent year’s data from aggregated financial reporting data (accessed via EQS <GO>), in the preferential order of assets, revenue, or operating income. If there is no data available for a given year, select data from the next closest year using the sequence [Y+1, Y-1, Y+2, Y-2, etc…] If no data is found,
4. Select the adjuster for the issuer’s parent company, as mapped by Bloomberg, using steps 1-3 above. If none is found, select the adjuster for the issuer’s Capital Structure (CAST) parent. If none is found, select the adjuster for the issuer’s Bloomberg Ultimate Parent. If no data is found,
5. Determine if the company should receive a hand-researched adjuster. For companies with high levels of financing or which fall outside of typical fossil fuel sector

classifications, consult the company's annual reports and determine an appropriate adjuster based on revenue, assets, income, capital expenditures, and/or operating expenditures. The type of metric may change based on the type of company, so select the metric which is the best possible approximation for the company's business done in fossil fuels.

    a. For a small number of companies with significant expansion plans, but which do not have other adjuster information, apply a highly-conservative 5% "generic adjuster." This adjuster ensures the inclusion of significant diversified fossil fuel companies even if their own reporting is not sufficiently transparent.

6. If the company does not meet the criteria for a hand-checked adjuster, but does fall into a typical fossil fuel sector category, do the following: If the Bloomberg Industry Classification Standard (BICS) of the company is within the scope listed above, then for companies which do not yet have an adjuster, take 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 5 Segment category. If there were fewer than three other companies in the same Segment with adjusters in the dataset, use the mean from all companies with the same BICS Level 4 Sub Industry category. If there were fewer than three other companies in the same Sub Industry with adjusters in the dataset, use the mean from all companies with the same BICS Level 3 Industry category.

*Percentage fossil fuels calculated by Profundo: For previous editions of this report, Profundo calculated year-specific adjusters for the top expansion companies and companies in unconventional sectors. Those year-specific adjusters remain in the dataset, though we did not contract with Profundo to produce additional adjusters.

Banking on Fossil Fuel Expansion League Table

Which fossil fuel companies are included?

We compiled a list from the GOGEL and GCEL of 844 companies that have expansion plans. The Fossil Fuel Expansion League Table reports on financing committed to those companies between 2016 and 2023. The companies include:

- **Upstream oil and gas companies with expansion plans as listed on the GOGEL**: Urgewald reports upstream oil and gas expansion in the columns entitled "Short-Term Expansion - Resources under Development and Field Evaluation as of September 2023 in mmboe" and "IEA NZE incompatible - Exploration CAPEX 3-year average (2021-2023) in MUSD." All companies with nonzero figures in these columns which received financing are included in the expansion league table.
- **Midstream pipeline and liquefied methane gas (LNG) listed on the GOGEL**: Urgewald tracks midstream oil and gas expansion in the columns entitled "Length of Pipelines under Development in km," and "Expansion - LNG terminals Total Capacity under Development in Mtpa." This includes both import and export LNG terminals. All companies with nonzero figures in these columns which received financing are included in the expansion league table.

- **Downstream gas-fired power expansion companies listed on the GOGEL:** In the 2023 edition of GOGEL, Urgewald included a new gas-fired expansion table which tabulates companies with proposed and under construction gas-fired power infrastructure. All companies on this list which received financing are included in the expansion league table.
- **Coal expansion companies listed on the GCEL:** Urgewald tracks companies expanding in mining, power, and infrastructure. All companies on the GCEL which are indicated as expansion companies and received financing are included in the expansion league table.

The full list of companies included is published as an online appendix to the report, titled "Fossil Fuel Company Lists," and is available for download at https://bankingonclimatechaos.org/companies2024.

In some cases, parent companies appeared on the Exit Lists but their subsidiaries did not, or vice versa. For the expansion and sector lists, we only include companies which directly appear on GOGEL or GCEL, not their related subsidiaries *unless* that subsidiary is determined to be a finance subsidiary of a company listed on an Exit List.

How were these transactions adjusted?

The transactions in the expansion league table are adjusted using the same adjusters in the "Banking on Fossil Fuels League Table." Note that even though this list focuses on top fossil fuel expanders, the adjuster takes into account current operations only.

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

Which fossil fuel companies are included?

Tar Sands Oil
Scope: 37 companies listed on the Global Oil and Gas Exit List with tar sands production in 2022, which also received bank financing 2016-2023.
Source: Global Oil & Gas Exit List compiled by Urgewald

Arctic Oil and Gas
Scope: 44 companies listed on the Global Oil and Gas Exit List with Arctic oil and gas production in 2022, which also received bank financing 2016-2023.
Source: Global Oil & Gas Exit List compiled by Urgewald

Ultra-Deepwater Offshore Oil and Gas
Scope: 65 companies listed on the Global Oil and Gas Exit List with ultra-deepwater oil and gas production in 2022, which also received bank financing 2016-2023.
Source: Global Oil & Gas Exit List compiled by Urgewald

Fracked Oil and Gas

Scope: 237 companies listed on the Global Oil and Gas Exit List with fracked oil and gas production in 2022, which also received bank financing 2016-2023.
Source: Global Oil & Gas Exit List compiled by Urgewald

The full list of companies included is published as an online appendix to the report, titled "Fossil Fuel Company Lists," and is available for download at https://bankingonclimatechaos.org/companies2024.

How were these transactions adjusted?

For each of the selected upstream oil and gas sectors, adjusters are calculated based on the sector production that a selected company recorded, as a percentage of the total production of oil and gas of the company. Information about selected companies' production in the respective sectors and their total production was collected from research done for the Global Oil & Gas Exit List. The sector production is then multiplied by league credit, adjusted according to the all fossil fuel adjuster logic (as above) to arrive at league credit for that sector.

As with the expansion adjusters, adjusters are *only* applied to companies that directly appear on the GOGEL, not necessarily their related subsidiaries, *unless* that subsidiary is determined to be a finance subsidiary of a company listed on the Exit List.

Banking on Amazon Oil and Gas League Table

Which fossil fuel companies are included?

This report analyzes transactions with 24 companies for which there is evidence of **direct involvement** in oil and gas extraction in the Amazon biome in Brazil, Ecuador, Peru, and Colombia as researched by Stand Research Group. Companies with a direct relationship to the region include block operators and state-run oil companies. These companies have operations in the Amazon biome according to the definition detailed by the Amazonian Georeferenced Socio-Environmental Information Network (**RAISG**).[9]

How were these transactions adjusted?

These companies were either assigned a 100% direct relationship or given a proportion based on the capital expenditures, operating costs, and production costs associated with any Amazon oil and gas projects. To qualify as 100% direct, a company must have the majority of its oil and gas projects and all of its major producing blocks in the Amazon. Adjusters were researched by Stand Research Group

[9] "Amazonia Under Pressure 2020," *RAISG* , 2021, https://www.raisg.org/en/publication/amazonia-under-pressure-2020/.

Banking on Liquefied Methane Gas (LNG) Expansion League Table

Which fossil fuel companies are included?

Scope: Bank financing for 129 liquefied methane gas import and export companies listed on the GOGEL. Any company indicated on the list as a company developing import or export LNG capacity, which also received bank financing 2016-2023, is included.
Source: Global Oil & Gas Exit List compiled by Urgewald

The full list of companies included is published as an online appendix to the report, titled "Fossil Fuel Company Lists," and is available for download at https://bankingonclimatechaos.org/companies2024.

Note that additional operational methane companies are included in the all fossil fuel table but not included here if they do not appear on the GOGEL as expansion companies.

How were these transactions adjusted?

These transactions were adjusted using the same adjusters in the "Banking on Fossil Fuels League Table." They are adjusted based on the total financing for *all fossil fuels* at companies expanding methane gas.

Banking on Gas-Fired Power Expansion League Table

Which fossil fuel companies are included?

Scope: Bank financing for 252 companies actively expanding gas-fired power as listed on the GOGEL. Any company indicated on the list as a company developing gas-fired power capacity, which also received bank financing 2016-2023, is included.
Source: Global Oil & Gas Exit List compiled by Urgewald

The full list of companies included is published as an online appendix to the report, titled "Fossil Fuel Company Lists," and is available for download at https://bankingonclimatechaos.org/companies2024.

How were these transactions adjusted?

These transactions were adjusted using the Fossil Fuel Share of Revenue metric for each company as reported on the GOGEL. If unavailable, the Fossil Fuel Share of Power Production was used if that company was classified as a utility.

Banking on Coal Mining League Table

Which fossil fuel companies are included?

Scope: Bank financing for 211 coal mining companies listed on the GCEL. Any company indicated in the "Coal Industry Sector" column to engage in mining, which also received bank financing 2016-2023, is included.

Source: Global Coal Exit List compiled by Urgewald

The full list of companies included is published as an online appendix to the report, titled "Fossil Fuel Company Lists," and is available for download at https://bankingonclimatechaos.org/companies2024.

How were these transactions adjusted?

The Coal Share of Revenue metric as reported on the GCEL 2023 is used as an adjuster for this league table. In a small minority of cases where this metric was not available on the GCEL, researchers applied either a conservative lower-bound estimate or the company's all fossil fuel adjuster, based on the advice of the GCEL research team.

Banking on Coal Power League Table

Which fossil fuel companies are included?

Scope: Bank financing for 456 coal power companies listed on the GCEL. Any company indicated in the "Coal Industry Sector" column to engage in coal power business, which also received bank financing 2016-2023, is included.
Source: Global Coal Exit List compiled by Urgewald

The full list of companies included is published as an online appendix to the report, titled "Fossil Fuel Company Lists," and is available for download at http://bankingonclimatechaos.org/companies2023.

How were these transactions adjusted?

The Coal Share of Power Production metric as reported on the GCEL 2023 is used as an adjuster for this league table for companies which are reported as utilities. If a company is not classified as a utility, the Coal Share of Revenue metric is used. In a small minority of cases where these metrics were not available on the GCEL, researchers applied either a conservative lower-bound estimate or the company's all fossil fuel adjuster.

Banking on Metallurgical Coal League Table

Which fossil fuel companies are included?

Scope: Bank financing for 48 top metallurgical coal companies identified by researchers via company annual reports and Bloomberg. These are companies which do significant business in metallurgical coal.

How were these transactions adjusted?

Report authors examined the financial reporting of top metallurgical coal companies and determined adjusters to be used as proxies for each company's business in metallurgical coal. Predominantly, revenue and capital expenditures were used when available. If unavailable, other metrics including operations, reserves, and liabilities were substituted if deemed appropriate stand-ins for the company's business in metallurgical coal.

Policy Analysis

How are banks' fossil fuel policies analyzed?

Policy assessments are available at https://www.bankingonclimatechaos.org/policy2024. This year's edition of *Banking on Climate Chaos* excerpts policy assessments from the Oil and Gas Policy Tracker and Coal Policy Tool, both led by Reclaim Finance, one of this report's authoring organizations. See oilgaspolicytracker.org and coalpolicytool.org for full assessments of banks' fossil fuel exclusion policies, as well as parallel assessments of other banks, insurance companies, and asset managers. In addition, the report excerpts from the Decarbonization Targets Tracker, led by BankTrack, an authoring organization. For details on how to read their tracker, see http://bankingonclimatechaos.org/tracker-guide. For full assessment visit https://www.banktrack.org/ourproject/tracking_the_net_zero_banking_alliance.