RECOMMANDATIONS OF THE SCIENTIFIC AND EXPERT COMMITTEE ON FOSSIL FUELS

OBSERVATOIRE
de la finance durable

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Policy Statement

The Scientific and Expert Committee recalls that the actions of the Sustainable Finance Observatory will be all the more useful if they respect five major principles that are found in most of the published recommendations:

- **Transparency**
- **Legibility**
- **Consistency**
- **Reliability**
- **Relevance**

These five main principles should be the pillars of each indicator published in the Sustainable Finance Observatory.

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I. Executive Summary

Transparency in the financing of the energy sector, and of fossil fuels more specifically, remains a sine qua non condition in the context of aligning financial flows with a low-carbon trajectory. This is particularly the case given the major role played by these energies in the total energy supply (~80% according to the International Energy Agency (IEA)). Consequently, the decarbonisation of the energy system occupies a key place in the carbon neutrality trajectories and scenarios (IEA, IPCC), in particular via the massive reduction of greenhouse gas (GHG) emissions linked to the combustion of coal, oil and gas. In this context, the exposure of the entire financial sector to these energies must be rapidly reduced. Furthermore, it is imperative that the financial sector anticipates the necessary phase-out of these energies, taking into account the lifetime of these assets and future production and consumption trajectories up to 2050.

Therefore, in order to present the data from the financial sector's professional federations regarding exposure to fossil fuels in a more precise, structured and harmonised manner, the Scientific and Expert Committee (SEC) evaluated the current publication of the Sustainable Finance Observatory (OFD). A series of weaknesses in the existing data were noted, on several points: a) the organisation and understanding of the indicators (lack of relevance of specific sections; lack of precision on the contextual elements of the data presented; not easy to understand scope of the indicators, etc.); and b) the substance of the indicators (lack of clarity as to the possible interpretation of the indicators; lack of clear connection between the data presented and the scientific conclusions and recommendations; limited information on the different levers of action and transition dynamics of the financial actors).

The analysis carried out by the SEC thus led to two sets of recommendations for the attention of the professional federations of the Paris financial center (including aggregate indicators, as well as individual indicators aimed at facilitating data collection by sector and clarifying the SEC's expectations in terms of designing sectoral policies on fossil fuels):

1. A first set of recommendations targets the financing of the coal industry

These proposals reinforce those published in February 2021, given the urgency of ensuring full transparency on financing in this sector, as well as recent trends in coal production and consumption, both in Europe and in the rest of the world. As a reminder, the coal sector is expected to see the closure of all infrastructure by 2030 in the European Union and OECD countries, and by 2040 in the rest of the world. In this respect, the SEC recommends to :

1.1. Strengthen the substance of published cross-cutting information, including a) the existence of a sectoral coal policy within the financial institution; b) the use of a database; and c) the exact timing and nature of the coal exit.

1.2. Increase transparency on the scope of the indicators within the financial industry by clarifying a) the percentage of total stocks covered by the sectoral coal policy; b) the financial activities covered by a qualitative description; and c) the amounts of exposure to the coal industry, both in flow and stock terms.

1.3. Focus on incentives for the development and implementation of exit plans within the coal industry, as part of the stockpile commitment, by clarifying the contours of exit plans, in addition to the more general commitment indicator.

2. A second set of recommendations targets oil and gas industry financing

The transition of the oil and gas sector is imperative and must be marked by a halt to the financing of new oil and gas production capacity from 2021 (IEA, May 2021 and October 2022). In this context, the recommendations made in this document cover both conventional and unconventional oil and gas.

In view of the evolution of global energy policy, in the wake of the Russian invasion of Ukraine, and recent trends in industry financing and associated stranded asset risks, the SEC wished - on the basis of the September 2021 recommendations specific to unconventional oil and gas - to issue recommendations covering the whole sector. Therefore, the SEC recommends to :

2.1. Require the publication of the amounts of exposure to the oil and gas industry, covering the main business lines of exposed financial actors, using existing nomenclatures and databases.

2.2. Clarify definitions and indicators for monitoring controversial activities in the oil and gas sector (e.g. new projects, non-conventional, etc.)

2.3. Increase transparency on the oil and gas industry's transition plans, which should be at the heart of the Paris financial centre's strategy on fossil fuels, notably by specifying the share of oil and gas counterparties that have communicated elements of their low-carbon transition (i.e. GHG emission reduction targets; targets for increasing activities aimed at mitigating climate change, etc.).

2.4. Increase transparency on the transition plans of financial actors by publishing their transition plans (i.e. their targets for reducing exposure to oil and gas extraction and production activities and projects) specifying: a/ the scope of activities included and excluded; b/ a target for reducing their exposure in the short and long term; c/ a target for exiting unconventional projects and expansion projects; d/ the scenario or benchmark that guided the construction of these transition plans, if any.

For those actors who wish to go further in the completeness and granularity of their disclosures, the SEC suggests several avenues: for example, the SEC recommends that they make distinctions in their exposures, as soon as possible, between oil and gas on the one hand, and according to their positioning in the oil and gas industry value chain on the other.

Finally, the SEC stresses the crucial importance of designing and implementing a strategy for financial actors to reduce their exposure to the oil and gas sector and to exit controversial activities. Given the lack of harmonised methodologies and indicators to report on the strategies of financial actors in carbon-intensive sectors (including fossil fuels), particularly in the context of the so-called "net-zero" commitments made at the global level, the SEC will carry out work during 2023 to propose harmonised indicators and thus report on these commitments to reduce financing, or even exit, from fossil fuels.

II. Recommendations on fossil fuels

a. Recommendations on coal

i. Introduction

In February 2021[1], the Scientific and Expert Committee (SEC) published recommendations on indicators for financing and investment in the coal industry. These recommendations remain relevant in the light of the macroeconomic and energy context, as well as the current organisation of the indicators and the data actually published by the Observatory.

Firstly, the SEC recalls that the scientific and technical argument prevailing in February 2021 on the need to highlight coal-specific indicators remains valid; and has gained in relevance due to the consequences of the energy crisis of 2021-2022.

While global coal consumption reached an all-time high in 2022, at +1.2%, exceeding the 2019 level, coal production exceeded 8 billion tonnes in the same year, notably due to the rebound in production in India and China. This increase was driven by higher gas prices in the US and Europe and supply and demand shifts in energy markets (particularly coal-to-gas switching) resulting from the war in Ukraine; and increased economic activity in China following the pandemic. These trends thus contribute significantly to the largest annual increase in global energy-related greenhouse gas emissions in absolute terms[2]. In the European Union, limited hydro and nuclear generation due to weather conditions has put additional strain on the European electricity system: as a result, some countries - such as Germany and Poland - have increased their coal generation (and reactivated many power plants and mines). Although the International Energy Agency (IEA) anticipates a reduction in the use of coal in the US and Europe by 2025[3] - with renewables accounting for 90% of the additional electricity demand by that time - uncertainties about the evolution of demand levels remain in 2023. This is particularly the case in the European Union, depending on the rate of penetration of renewables and the effectiveness of the implementation of the REPower EU plan[4].

[1] Report of 25 February 2021, which can be found on : https://observatoiredelafinancedurable.com/en/the-scientific-and-expert-committee-en/advisory-and-recommendations/

[2] IEA, *Coal 2022 - Analysis and Forecast to 2025*, 2022 https://iea.blob.core.windows.net/assets/91982b4e-26dc-41d5-88b1-4c47ea436882/Coal2022.pdf

[3] IEA, *World Energy Outlook*, 2022 https://www.iea.org/reports/world-energy-outlook-2022

[4] IFRI, "The challenge of expanding renewable energy in the EU by 2030: mobilising for an almost impossible mission", May 2021 https://www.ifri.org/en/publications/notes-de-lifri/eus-renewables-expansion-challenge-towards-2030-mobilizing-mission

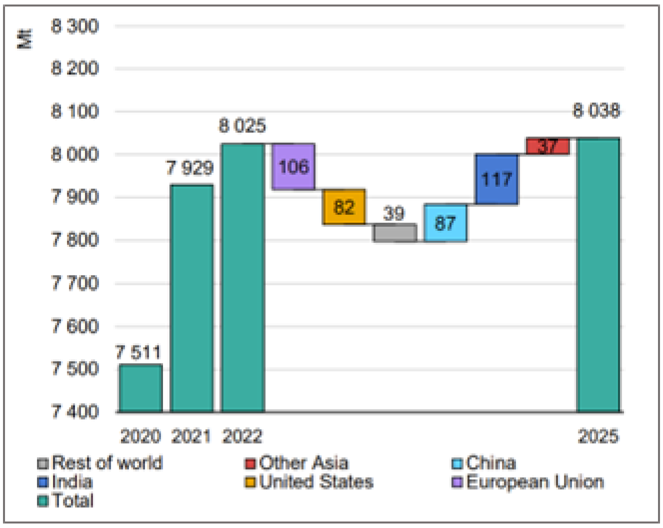

Figure 1 - Changes in (thermal) coal consumption 2020-2025 (IEA, 2022)[5]

Asia's industrial competitiveness in the current unstable macro-financial environment (i.e. high levels of inflation, effects of monetary policy tightening on the fiscal sustainability of emerging and developing economies[6]) therefore helps financial institutions to justify maintaining certain exposures in this region, and more broadly outside the Union's borders. The levels of Final Investment Decisions (FIDs) in the coal industry have indeed increased in 2021 and 2022 (more in power generation (around 30 GW per year), less in the development of new mines), mainly in developing countries, and this in the Asia-Pacific region (IEA, 2022[7]; IMF, 2023[8]). However, the financial stability issues associated with continuing to invest in the coal industry - particularly in relation to the development of new capacity - remain significant, given the risks of carbon lock-in[9].

[5] IEA, *World Energy Outlook*, 2022, https://www.iea.org/reports/world-energy-outlook-2022
[6] FMI, *Countering the cost-of-living crisis*, october 2022
https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022
[7] IEA, *World Energy Outlook*, 2022 https://www.iea.org/reports/world-energy-outlook-2022
[8] IMF, *Climate Finance Monitor*, february 2023
https://www.imfconnect.org/content/dam/imf/News%20and%20Generic%20Content/GMM/Special%20Features/Climate%20Finance%20Monitor%20Q4%202022.pdf
IMF, *Global Financial Stability Report*, 2nd chapter, october 2022
https://www.imf.org/en/Publications/GFSR/Issues/2022/10/11/global-financial-stability-report-october-2022
[9] Michael Jakob, Jan Christoph Steckel, The future of coal in a carbon-constrained climate, *Nature*, july 2020
https://www.nature.com/articles/s41558-020-0866-1

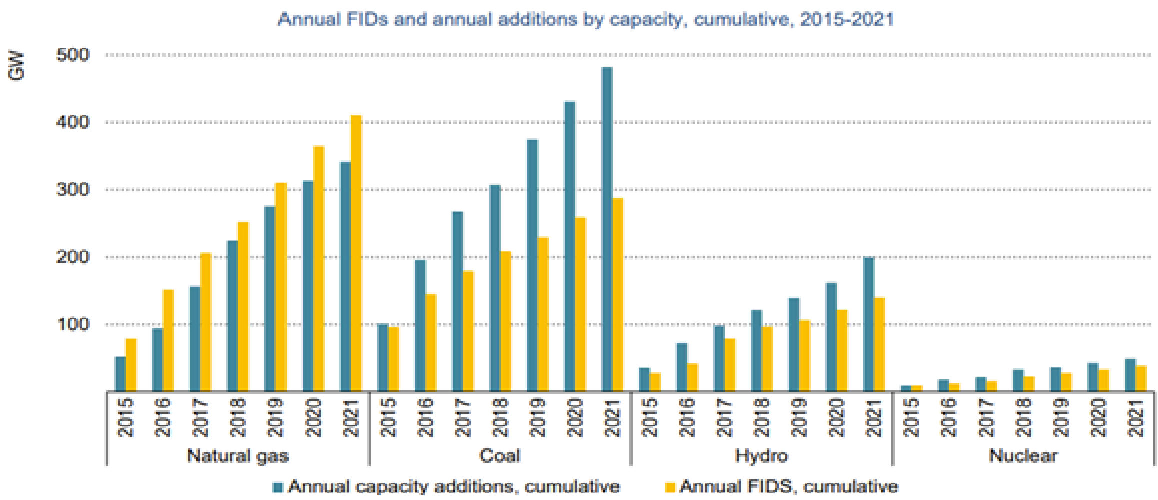

Figure 2 - Final annual investment decisions and additional annual decisions by type of production capacity [10] (IEA, 2022)

For all these reasons, the SEC has been working on the reorganisation and substantial strengthening of coal-related indicators in the current macro-financial and energy context. These trends are likely to continue and warrant particular attention to the transition of industry players, as well as divestment.

At this stage, the Scientific and Expert Committee has focused on two elements: 1. the elaboration of the existing weakness of the Observatory; and 2. Five recommendations aimed at updating and consolidating the indicators.

[10] IEA, *World Energy Investment*, 2022 https://www.iea.org/reports/world-energy-investment-2022

ii. Recommendations

Part I. Weakness of existing data on the Sustainable Finance Observatory

On the organisation, formal presentation of indicators and applicable definitions and perimeters

Some elements lack relevance today, in particular:

- The "Going Further" bubbles (e.g. banks and non-conventional hydrocarbons) as to the SEC recommendations, not accompanied by a gap analysis. In addition, the hyperlinks associated with the recommendations and/or the underlying scientific analysis are not consistent for all stakeholders ;
- The link with the SEC recommendations of February 2021 is not explicit, or even ignored; as well as with the recommendations of banking and financial supervisors on the subject, notably those of 2022 (e.g. exposure assessment); and
- The differences between the various databases used (e.g. Global Coal Exit List (GCEL) , Trucost) and their updating are not detailed.

The relationships between the specific sections for financial institutions are not obvious or even justified, so cross-sector analysis remains particularly difficult at this stage.

- In particular, the SEC notes inconsistencies between the section on insurers and those on asset management companies. The analysis appears more granular for insurers' assets than for asset management companies. Furthermore, the Committee notes a lack of clarity on the scope of coverage (assets and/or liabilities) in the section on insurers.
- In addition, the category applicable to banks suffers from gaps in the definition of "banking assets", the scope of consolidation of individual banks, the potential differential treatment of subsidiaries and groups, and the distinction between "flows" and "stocks".
- Finally, the current headings do not cover situations where, without prior exposure, the policies - and their associated monitoring indicators - lack relevance.

On the substance of indicators and their rationale

The section on the basis for specific **transparency on coal currently suffers from some limitations, in that**

- Global (and European) coal demand trends since the Paris Agreement should be clearly stated, in addition to investment trends in the sector;
- The scientific (e.g., carbon intensity of coal-fired power generation, role of coal in global average temperature increase, lock-in effects) and financial (e.g., stranded assets and costs) underpinnings of the analysis are not made explicit;
- - Key scientific recommendations (e.g. IPCC, IEA) on the role of coal in the transition to carbon neutrality are not highlighted. The recommendations of the IEA in its report "Coal in Net Zero Transitions" could be clarified or at least referenced;

- - The specificities - and possible related complexities - of the coal industry (e.g. distinction between thermal and metallurgical coal and opt-out options of the private equity and specialized finance companies sections; coal value chain; clarification of definitions, notably on infrastructure, distinction between "mines" and "energy") are not present at this stage.

With regard to metallurgical coal (i.e. coking coal, pulverized injected coal, coke), used in the steel industry in particular, its overall consumption in 2022 is expected to have declined by around 2.7%, particularly in China, Russia and the European Union. From 2022 to 2025, the IEA expects demand to stabilize, before falling to a pre-pandemic level after 2025. In this sense and taking into account the particularities of use and industrial structure of metallurgical coal production, the Committee does not recommend a specific inclusion in the Observatory's data.

The section on **output targets** suffers from significant inaccuracies, which may cause considerable difficulties from a scientific point of view and in terms of the relevance of the indicators published on the Observatory.

Indeed, the 2030/2040 timetable (recalled at COP 27 by the UN Secretary General and by Climate Analytics) is, from a scientific point of view, not that of financing but that of generating electricity (or even heat) from coal. However, the current presentation of the results reveals the lack of coherence inherent in the current coal exit policies of financial actors.

More specifically:

- The IEA, in its report "*Coal in Net Zero Transitions*", recalls that the net-zero scenario to 2050 calls for a **reduction in coal-fired electricity generation of the order of 70% by 2030, and a total exit from coal (except for coal-fired power plants using carbon capture and storage technologies) by 2040.**
- In its special report 1.5°C, the IPCC recalled that primary energy production from coal should decrease by 78% by 2030 and 97% by 2050 (compared to 2010 levels), in the P1 scenario (-61% and -77% by 2030 and 2050 in the P2 scenario).

Table 3.2 ▷ Key milestones in transforming global electricity generation

Category	
Decarbonisation of electricity sector	• Advanced economies in aggregate: 2035. • Emerging market and developing economies: 2040.
Hydrogen-based fuels	• Start retrofitting coal-fired power plants to co-fire with ammonia and gas turbines to co-fire with hydrogen by 2025.
Unabated fossil fuel	• Phase out all subcritical coal-fired power plants by 2030 (870 GW existing plants and 14 GW under construction). • Phase out all unabated coal-fired plants by 2040. • Phase out large oil-fired power plants in the 2030s. • Unabated natural gas-fired generation peaks by 2030 and is 90% lower by 2040.

Category	2020	2030	2050
Total electricity generation (TWh)	26 800	37 300	71 200
Renewables			
Installed capacity (GW)	2 990	10 300	26 600
Share in total generation	29%	61%	88%
Share of solar PV and wind in total generation	9%	40%	68%
Carbon capture, utilisation and storage (CCUS) generation (TWh)			
Coal and gas plants equipped with CCUS	4	460	1 330
Bioenergy plants with CCUS	0	130	840
Hydrogen and ammonia			
Average blending in global coal-fired generation (without CCUS)	0%	3%	100%
Average blending in global gas-fired generation (without CCUS)	0%	9%	85%
Unabated fossil fuels			
Share of unabated coal in total electricity generation	35%	8%	0.0%
Share of unabated natural gas in total electricity generation	23%	17%	0.4%
Nuclear power	*2016-20*	*2021-30*	*2031-50*
Average annual capacity additions (GW)	7	17	24
Infrastructure			
Electricity networks investment in USD billion (2019)	260	820	800
Substations capacity (GVA)	55 900	113 000	290 400
Battery storage (GW)	18	590	3 100
Public EV charging (GW)	46	1 780	12 400

Note: GW = gigawatts; GVA = gigavolt amperes.

Figure 3 - Key dates for the transformation of the global electricity system from the IEA's 2050 net-zero scenario[11]

[11] *Net Zero by 2050*, IEA, may 2021 https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf

The section on the **implementation of so-called "coal" strategies** suffers from the following difficulties:

- The approach adopted for the distinction between "exclusion" and "commitment" needs to be qualified, considering the differences between the different professions, depending on the type of financial player (and therefore the means of influence and levers of action), as well as the positioning in the coal value chain. The definitions used would also benefit from further clarification.

In this respect, let us recall the analysis carried out by the Institut de l'économie pour le climat which recalls the differentiated roles of financial market players in the transition [12] :

LES RÔLES DIFFÉRENCIÉS DES ACTEURS FINANCIERS DANS LA TRANSITION

	La finance « primaire »	La finance « secondaire »
Définition	Apporte aux agents économiques des financements supplémentaires pour réaliser de nouveaux investissements	Refinance des actifs financiers existants sans financements directs supplémentaires à l'économie réelle
Activités couvertes	- Capital investissement - Crédit bancaire - Marché financier primaire	- Marché secondaire des actifs financiers - Refinancement de crédits bancaires préexistants
Impact sur la transition	Impact le plus important sur la transition au sens de l'additionnalité (rend possibles des projets nouveaux)	Pas d'impact direct sur la transition au sens de l'additionnalité
Rôles à jouer	- Cesser de financer les activités fortement émettrices, - Apporter de nouveaux financements aux entreprises « soutenables » et aux solutions « climat » - Financer de nouvelles opérations de décarbonation des entreprises	- Faire pression sur les entreprises exerçant des activités qui doivent être abandonnées ou transformées - Accompagner le financement, notamment en améliorant leur attractivité, des entreprises déjà engagées dans la transition
Indicateurs de suivi	- Stratégie climatique (dans l'octroi de crédit ou dans l'investissement dans le marché primaire) et définition d'un plan de transition crédible - Indicateurs d'impact concernant la réduction du financement des activités nuisibles, le financement des activités durable et celui de la décarbonation	- Evaluation de l'alignement ou de la neutralité carbone des portefeuilles financiers - Politique d'engagement et d'escalade, actions menées en coalition et politique de vote

@I4CE_

Figure 4 - "The limits of voluntary climate commitments by private financial actors", November 2022

- The link with the SEC recommendation n°5 of February 2021 on exit plans (and associated criteria, notably on actions in case of absence of a total (or late) exit plan, in terms of just transition) is not explicit, or even seems non-existent at this stage;
- Some indicators lack granularity, such as a) the exclusion indicator (i.e. is it the resale of assets, or even the percentage of measures that have led to the resale of mines and/or power plants), and b) the application of the policy to certain business lines (e.g. 100% of players do not apply their coal policy to credit with a similar degree of ambition);

[12] Cardona M., *The limits of voluntary climate commitments by private financial actors, I4CE, November 2022* https://www.i4ce.org/wp-content/uploads/2022/11/THELIM1.pdf

- The indicator on relative exclusion thresholds is not accompanied by transparency on the rationale for using absolute thresholds (in line with recommendation 4 of the Scientific and Expert Committee of February 2021); and
- - The development indicator lacks granularity (e.g. new capacity, co-firing technologies, transition to biomass).

More generally, a more dynamic and accurate view of exposure vs. ambition of policies is currently lacking, especially for banks and asset management companies. For example:

- The indicators do not capture the concentration of exposure in certain financial institutions (i.e., recommendation n°6 of the Scientific and Expert Committee of February 2021), nor the overall geographical exposure of the remaining exposures (e.g., emerging and developing economies).
- The view in percentage of financial actors (having participated in the transparency on the Observatory) and in percentage of total financial outstandings, remains absent;
- Finally, the SEC recommendation n°1 of February 2021 on the visibility of the representativeness of financial institutions' business models does not seem to be implemented.

Part II. Proposed recommendations

Preliminary note on the scope :

The whole of this section applies to thermal coal, as outlined above.

Section #1 - Strengthening the cross-cutting information to be published on thermal coal

Findings

In view of the above explanations, several elements of transparency remain ambiguous at this stage, in particular: a) whether or not the financial institution has a sectoral coal policy; b) whether or not it uses one (or more) database(s) and for what purpose(s); and c) the exact timetable for the exit of coal and its nature (provision of new financial services versus exposure)

Goal of the SEC

Improve the overall relevance of the indicators published in all coal-related sub-sections through a common understanding of the methodology used by the financial institution within its policy..

Recommendation #1:

The SEC recommends that the following three elements be made explicit in the questionnaire:

1. Existence of a sectoral coal policy within the financial institution

2. Use of database(s) - and their description

3. Exact timing of coal exit and its nature (new service provision vs. exposure; applicable dates; and geographies covered).

Selected indicators

- ***AT THE INDIVIDUAL LEVEL***

Whether or not the financial institution has a sectoral policy on coal. If yes :

1. Turnover threshold for coal used by the institution,

The SEC refers to this as the **materiality criterion**. This is the application of the individual sector policy to companies active in all or part of the coal value chain (see Annex 4). These companies are identified according to their relative or absolute exposure to the sector, which the Committee qualifies according to the following relative or absolute (exclusive) criteria (in line with both the criteria used by the European "Paris Aligned Benchmark" (Article 12.1(d) of the Delegated Act of 17 July 2020[13]) and the criteria of the Global Coal Exit List, 2022[14]):

- A minimum of 1% of turnover is directly related to the coal business (regardless of the level in the value chain). If the company chooses to defer from its production, then the threshold must be 10% until October 2023, and 5% from then on;

[13] Delegated Act of 17th of July 2020 : https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12020-Sustainable-finance-minimum-standards-for-climate-benchmarks_en

[14] *Global Coal Exit List*, 2022, https://www.coalexit.org/methodology

- Any company with more than 300 MW of coal-fired generation capacity; and

- Any company developing new coal capacity (mine, power plant, infrastructure (e.g. transport, coal-to-gas...)).

2. Use of a database (specify)
3. Exact timing (funding vs. combustion)
4. Consideration of the development of new coal-related activities (or not)
5. Geographies covered (at least OECD vs. rest of the world). Note that in the portfolio management sector, the geographical breakdown is particularly complex. This sub-recommendation is therefore optional in this sector.

- ***At Aggregate level (by federation)***
    1. Percentage of entities (financial institutions) with a sectoral coal policy ;
    2. Distribution of thresholds (in turnover and/or generation capacity);
    3. Percentage of entities using the above-mentioned 2030/2040 phase-out schedule;
    4. Percentage of entities using an "OECD vs. rest of the world" categorisation (any more granular geographic detail in terms of exposure, especially by region, is welcome, especially for banking players);
    5. List of databases used (the Observatory will refer to the best practices identified in the marketplace regarding data on the coal industry): GCEL, Trucost and MSCI.

Section #2 - Increasing transparency on the scope of the indicators within the coal institution

Findings

The indicators currently published do not make it possible (in line with recommendation no. 2 of the Scientific and Expert Committee of February 2021) to grasp the scope of the policies pursued by financial institutions along the coal industry's value chain.

Goal of the SEC

The sub-sectoral specialisations of financial institutions are a key factor to take into account when divesting from a key sector of the economy such as coal. Thus, greater transparency on both the value chain and the development of new production capacity (in light of the IPCC/IEA scenarios on how to achieve carbon neutrality by 2050), remains necessary. Uncertainty about the continued demand for coal in both the EU and the rest of the world in the coming years only accentuates the need for transparency on exposures in as much detail as possible, particularly on the development (of new coal activities).

Recommendation #2:

The SEC recommends that the questionnaire should state:

1. The level retained within the thermal coal value chain: upstream; midstream / downstream; associated services - including trade finance services, including coal transport and storage (see glossary)

2. The development coverage (i.e., expansion), specifying whether it is greenfield and/or brownfield[15].

Selected indicators

- ***At the individual level***
  1. Specify the level of the value chain, and the deviation from the SEC recommended definition
     Clarify whether the exclusion includes the development of new coal activities. This is an **exclusion criterion**. If yes :
     -. Whether or not the GCEL definition applies (i.e. minimum 100MW coal-fired electricity generation capacity; coal-related mining exploration activities (including development of new mines and/or expansion of existing mines); planning for expansion of coal-related infrastructure (e.g. transport, coal-to-gas)). If not, justify and specify the deviation, including the use of an alternative definition (e.g. date of final investment decision).
     -. Level of application of the exclusion (issuing company (including group); development subsidiary; other subsidiary(ies)).
- ***At aggregate level (by federation)***
  1. Distribution of levels of coverage of the overall value chain by financial institutions;
  2. Percentage of entities using the GCEL definition to exclude developers.

Section #3 - Increasing transparency on the scope of indicators within the financial industry

Findings

In line with the SEC's recommendation No. 1 of February 2021, the indicators currently published do not allow the scope of the policies pursued by financial institutions along the financial industry's value chain to be understood. Indeed, the scope of activities covered by the current sectoral policies - and the transparency indicators on the Observatory - suffers from significant heterogeneity, undermining the very credibility of the transparency carried out.

Goal of the SEC

The diversity of the business models of the financial institutions in the market requires transparency representative of the actual activity pursued, in the context of the implementation of sectoral policies related to coal.

Therefore, in line with the arguments raised in the February 2021 recommendations, it is important that the policies - and the associated transparency indicators on the Observatory - cover all the activities of the groups concerned, whether dedicated (project finance, buyer credit, advisory mandates, etc.) or not ("general purpose", including loans and revolving credit facilities), equity/bond investments, structuring of bond or equity issues, advisory, interest rate and equity products.) or not ("general purpose", including loans and revolving credit facilities), equity/bond investments, structuring of bond or equity issues, advisory services, interest rate and foreign exchange products, active and passive asset management, property insurance or other activities (leasing, factoring, rental of various

[15] See definitions of *greenfield and brownfield* in the annexed glossary.

equipment, etc.) without distinction. It is therefore important that the extent of the exemptions in force in the application of sectoral coal policies to certain services, strategies or clients be remedied or, failing that, made explicit.

A holistic coverage representative of the group's activity and business model (e.g. assets under management in the case of asset management companies) should therefore be applied to the indicators published on the Observatory. This activity includes all or part of the following functions: financing and refinancing (dedicated or not); own-account management; investments; equity investments; ancillary services (advisory, trading, hedging products, leasing, factoring, etc.); the entire scope of third-party management (collective and individualised under mandate) and for all assets (actively or passively managed); and issue structuring. Any exemption must be justified in the presentation of the data in the light of the group's business model.

Recommendation #3:

The SEC recommends that the questionnaire should specify:

1. The percentage of total outstanding amounts covered by the sectoral coal policy and/or the relevant measure (e.g., exclusion; commitment) - the metric differing according to the type of financial institution (e.g., assets under management, balance sheet...). It is important that the percentage relates to a substantial part of the activity of the financial institution concerned (see table in Annex 5).

2. A qualitative description of the financial activities concerned;

3. The amounts of exposure to the coal industry, in flow and stock.

The distinctions by type of financial business and economic sector (including a sub-category for companies active in development) are specified below and in Annex 6.

The reporting indicators should track the share of financial and insurance products and services actually dedicated to the coal sector along their value chain as closely as possible. In particular, the SEC recommends including exposures and indicators within the following business lines:

Banking activities

- Business line coverage: loans and advances (including revolving), project finance, trade finance, export finance, equity and bond advisory, guarantees and other off-balance sheet activities

Credit institutions will be able to rely on the Basel Committee's Pillar III requirements[16],, which promote the harmonisation and publication of prudential data for these players. These requirements include a sectoral breakdown of the gross book value of loans and advances granted to non-financial companies, according to the NACE classification[17]. It is therefore recommended that a distinction be made between the share of exposures categorised in sector B - Mining and quarrying (NACE code 05) and support activities for other mining and quarrying (NACE code 09.9).

The investment activities of the banking sector are covered under the heading of investor activities.

Investment activities (including asset owners and managers)

[16] Bank for International Settlements, Pillar 3 disclosure requirements - updated framework, updated : https://www.bis.org/bcbs/publ/d455.htm
[17] NACE classification online: https://ec.europa.eu/eurostat/fr/web/products-manuals-and-guidelines/-/ks-ra-07-015

- Scope of coverage: Equities, bonds, commodity trading, infrastructure, equity participation, debt instruments

Market activities may also be based on relevant classifications, including NACE, GICS[18], ICB[19] and BICS[20], for which the SEC provides the codes and headings related to the coal sector in the annex to this document.

Insurance activites

- Scope of coverage: total insurance premiums for companies in the sector, to be detailed according to the different branches of non-life insurance.

Insurers will be able to use national and European activity classifications to identify companies in the coal industry. In particular, a list of NACE codes associated with the coal industry is given in the Annex to this document.

The investment activities of insurers are covered under the heading "Activities of investors".

Indicators selected

- ***AT THE INDIVIDUAL LEVELS***
  1. Percentage of total outstanding amounts covered by the sectoral policy (details by business line above)
  2. If applicable, a description of the financial activities concerned
  3. Exclusion threshold. The SEC recommends a progressive exclusion threshold over time, namely
     - 2.5% of electricity generation/installed capacity (or revenues) from coal for 2023 and 2024 publications; and
     - 1% of electricity generation/installed capacity (or revenues) from coal for publication from 2025 onwards (similar to the exclusion target used by the Paris Aligned Benchmark).
  4. Amount of exposure, in flow and stock. Regarding the flow of banking activities, the SEC recommends that facilitated transactions in the coal industry, recorded off-balance sheet, be included (see Annex 5).

AT AGGREGATE LEVEL (BY FEDERATION)

The history required by the Scientific and Expert Committee is over two years (year N and N-1), in line with the cross-cutting recommendations of December 2022.

1. Average percentage coverage of outstanding amounts covered by the policy;
2. Qualitative description (in the form of a list) of the activities covered (highlighting those that are most often not included in sectoral policies); and
3. Amount of exposure, in flow and stock.

[18] *Global Industry Classification System*
[19] *Industry Classification Benchmark*
[20] *Bloomberg Industry Classification System*

Section #4 – Increasing transparency on the levers and modalities of action of financial institutions

Findings

In view of the above explanations, several elements of transparency remain ambiguous at this stage, in particular (a) the use of relative vs. absolute thresholds, and the underlying justifications, (b) the deployment of policy instruments within the financial institution and with the coal industry.

Goal of the SEC

The clear scientific recommendations on the continued burning of coal for electricity, heat and industrial purposes require the finest possible precision for the industry and companies that can still be financed, according to the thresholds applicable to them within the sectoral policies (e.g. turnover, generation capacity, etc.). However, the Observatory remains vague on this subject, especially as the means of action seem to be of limited effectiveness in view of the data currently published - and this despite the continuation of funding for coal in the European Union and the rest of the world. Substantially reinforcing these indicators thus seems necessary in order to accentuate the legitimacy and usefulness of the Observatory on this subject.

Recommendation #4:

The SEC recommends that the questionnaire should include clarification of the indicators relating to the means used in the sectoral policy (e.g. commitment, exclusion, etc.), as well as the thresholds (absolute/relative) applied, in connection with recommendations 1 to 3.

In particular, the SEC recommends that the Observatory should make available (at aggregate level) a) the distribution of actors systematically carrying out a review of their commitment to coal, and b) the distribution of the means used by individual financial institutions in their policies, including :

- Exclusion (i.e. application of the criteria of recommendation 3);
- Shareholder engagement, particularly with regard to asset owners and managers. An ambitious shareholder engagement includes :
  - Voting in the general meeting, based on the sector policy (application of the materiality and exclusion criteria mentioned above);
  - Publicly expressing disagreement on the exit from coal;
  - Proposing resolutions in line with the sector policy.
  - Customer engagement, particularly with regard to banking players. A customer engagement that is considered ambitious includes :

- A request for an escalation strategy in the event of non-compliance with a prior coal exit strategy (see recommendation 5), with a clear timetable set by the policy;

- A breakdown of the financial institution's approach to engagement, by type of coal industry actor;

- An element of systematicity.

The SEC recognises the difficulty inherent in aggregating criteria relating to engagement, which are often disparate in nature within the same business line (banking, portfolio management) and between financial business lines. At the very least, this recommendation makes it possible to determine the good practices that the Committee recommends in terms of client and shareholder engagement, given the urgent need for an effective exit from coal activities, including development. These criteria should be rigorously applied to coal by all players in the Paris financial centre.

Section #5 – Focus on incentives for the development and implementation of exit plans within the coal industry, as part of the commitment on coal assets in stock

Findings

In view of the explanations given above, the elements relating to the continued transition, or even exit, of coal assets in stock remain unclear in the current version of the Observatory.

Goal of the SEC

In line with recommendation 5 of the Scientific and Expert Committee of February 2021, it is important that the Observatory reports on the conditions associated with the engagement of financial institutions with coal companies in portfolio stock - also so that the coal section on the Observatory serves as an example of how to implement the transition in carbon intensive or even stranded sectors. The relationship with the more general transition section will also need to be ensured.

The exit plans required from companies (clients, investors, etc.) must include at least the following key elements: date of application of each criterion; timetable and exit scenario required by type of asset; conversion, closure or sale/disposal for each asset; deadlines for producing an exit plan and consequences of failure if applicable; social support arrangements or not. For assets where a sale/disposal is planned in lieu of closure, the future of the asset should be described, together with information justifying the situation on a "report or explain" basis.

Recommendation #5:

The SEC recommends that, in addition to the more general indicator relating to commitment (see Recommendation 4), the questionnaire should include clarifications on the outlines of exit plans, as well as clarifications on the part of financial institutions on the measures put in place to encourage the client to implement a transition plan that is compatible with the policy set.

- ***AT THE INDIVIDUAL LEVELS***

  In this sense, the Scientific and Expert Committee requires a minimum base of information that the financial institution (and the federation, at the aggregate level) should require from companies in stock (in line with the IEA's 2022 recommendations[21]), in order to aim for alignment with carbon neutrality objectives (cf. recommendations of the Glasgow Financial Alliance for Net-Zero[22] on the "managed phase-out" of carbon-intensive assets):

  1. Closure of all coal infrastructure by 2030 in the EU and OECD countries, and 2040 in the rest of the world[23] ;
  2. No plans to expand new capacity and infrastructure ;

[21] *Coal in Net Zero Transition*, IEA, november 2022 https://www.iea.org/reports/coal-in-net-zero-transitions
[22] *The Managed Phaseout of High-emitting Assets*, GFANZ, june 2022 https://assets.bbhub.io/company/sites/63/2022/06/GFANZ_-Managed-Phaseout-of-High-emitting-Assets_June2022.pdf
[23] *Coal in Net Zero Transition*, IEA**,** november 2022 https://www.iea.org/reports/coal-in-net-zero-transitions

3. A clear timetable, infrastructure by infrastructure, with measures for a just transition and compliance with associated environmental requirements (clean-up, decommissioning, etc.), without relying on carbon capture and storage technologies to delay closure ;
4. The plan should specify that in the event of a sale without closure, then the new owner should be required to specify a timetable for closure, and that the infrastructure should not be converted to new fossil (e.g. gas, hydrogen produced from fossil sources) or biomass activity.

- The SEC considers it necessary for the financial institution to specify to what extent compliance with these criteria is accompanied by incentives and/or disincentives (e.g. escalation procedure, restrictions on access to financial services, increased cost of capital, etc.).

- ***At Aggregate Level (By federation) – Selected Indicators***

The SEC recommends the publication of a) the distribution of financial institutions that have incorporated and implemented such schemes with their clients within their policies, and b) qualitative information (useful for understanding the engagement policy conducted in the Paris financial centre) on the incentive schemes used by financial institutions to implement transition plans in the coal industry.

b. Recommendations on oil and gas

i. Introduction

The credibility of the greening of the Paris financial centre depends on effective support for the fossil fuel industry in its decarbonisation, by integrating the issues related to a just transition. It is in this sense that the SEC has already emphasised, in its opinion published in September 2021, that the approach based on major principles (i.e. comparability, reproducibility, exhaustiveness and reliability) adopted for coal could be more widely applied to all the sectoral policies of market players, in particular for oil and gas - both conventional and non-conventional.

The scientific literature has repeatedly reminded us that, in the perspective of alignment with the temperature targets of the Paris Agreement, the scientific imperative to stop all new fossil fuel projects and to reduce oil and gas production remains decisive[24].

In this respect, as recalled in September 2021 and since underlined by the Intergovernmental Panel on Climate Change (IPCC) in its 6th Assessment Report (2021-2022), the scientific literature is unambiguous on the transition of the oil and gas industry, in particular:

(i) The IPCC's 2018 special report on 1.5°C[25] global warming highlights that between 2020 and 2050, primary energy supplied by oil must decrease in most scenarios by between -39% and -77% (interquartile range), while natural gas is projected to decrease in the range of -13 to -62% (interquartile range), with overall deployment of carbon capture and storage (CCS) technologies varying considerably across the scenarios (from zero to 300 GtCO2eq stored in 2050);

(ii) The UN Production Gap Report[26] stresses that a reduction in fossil fuel production of around 6% per year between 2020 and 2030 is needed to avoid exceeding a global warming of 1.5°C;

(iii) The IEA report "Net Zero by 2050 A Roadmap for the Global Energy Sector"[27] (2021) stresses that investment in fossil fuel-based electricity supply should decrease significantly on an annual basis (from an average of $575bn/year over the last five years to $110bn/year in 2050), and that investment should be limited to maintaining production from existing oil and gas fields (i.e, In addition to the projects already underway, the European Commission is also considering the possibility of using CCS for petrochemical production or in sectors where it is more difficult to reduce greenhouse gas emissions - with a 55% reduction in gas demand and a 75% reduction in oil demand). Furthermore, beyond the projects already committed from 2021 onwards, no new oil and gas fields are approved by the IEA in this scenario

(iv) According to Welsby et al[28], it is estimated that up to 60% of fossil oil and gas reserves should not be extracted ("unextractable reserves") in order to stay within the 1.5°C warming target.

There are also financial stability issues associated with continued investment in new fossil fuel infrastructure - as documented in September 2021 by the SEC. These issues relate to (i) the general lock-in effect of continued investment in fossil fuels; and more specifically (ii) the continued methane emissions from industry, despite industry initiatives and government policies announced and implemented since 2020 (IEA, 2021), contributing to the unprecedented accumulation of greenhouse

[24] Dan Welsby, James Price, Steve Pye & Paul Ekins, Unextractable fossil fuels in a 1.5 °C world, *Nature*, january 2022 https://www.nature.com/articles/s41586-021-03821-8

[25] *Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments*, IPCC, 2018 https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/

[26] *Report 2020, Production Gap*, UN, 2020 https://productiongap.org/2020report/

[27] *Net Zero by 2050: A Roadmap for the Global Energy Sector*, IEA, may 2021 https://www.iea.org/events/net-zero-by-2050-a-roadmap-for-the-global-energy-system

[28] *Ibid.*

gases in the atmosphere. On the latter point, oil production is currently responsible for about 40% of methane emissions, with leakage in the natural gas value chain accounting for the remaining 60%. Upstream oil and gas operations account for more than three-quarters of total emissions, while the downstream segment accounts for the remaining share[29].

On the other hand, although oil and gas companies' investments in renewable energy, i.e. outside of "traditional" supply, continue to grow, investment levels in renewable and decarbonisation infrastructure amount to only 5% of the total projected in 2022 (on an annual basis), while the estimated target needed in the ACT Oil & Gas[30] baseline is 49% over the period 2020-2050.

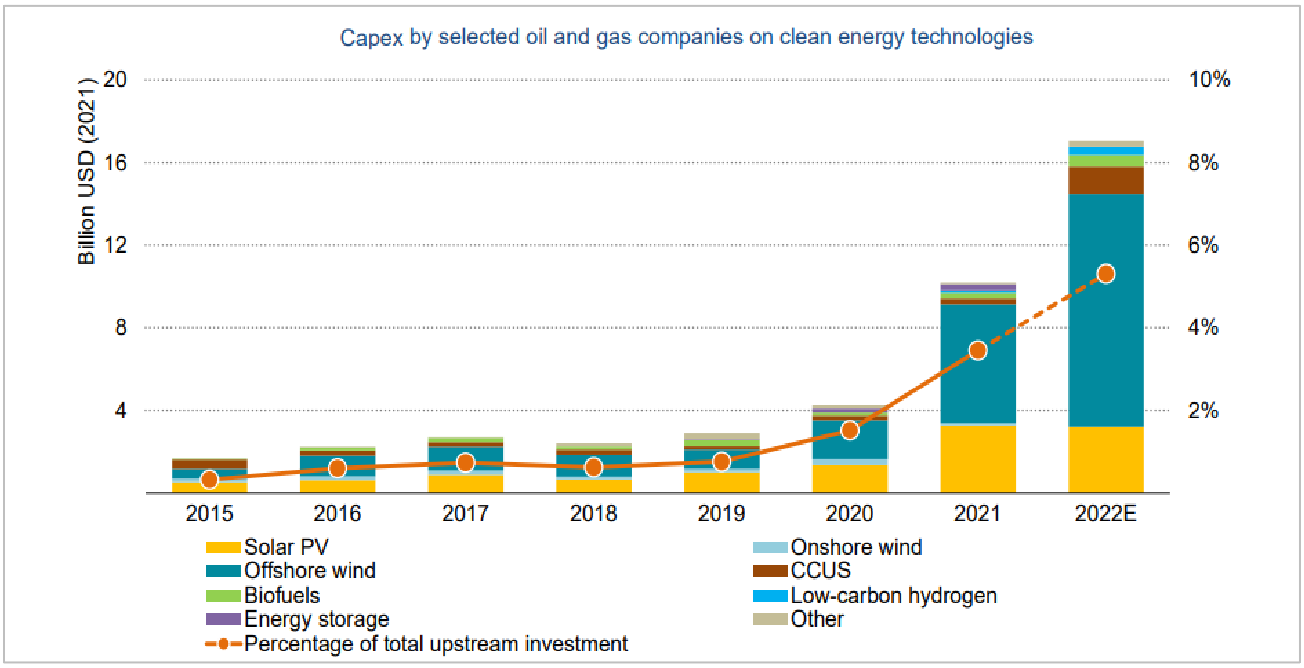

Figure 5 - Capital expenditure by oil companies (including the majors, ADNOC, CNPC, CNOOC, Equinor, Gazprom, Kuwait Petroleum Corporation, Lukoil, Petrobras, Repsol, Rosneft, Saudi Aramco, Sinopec and Sonatrach). Source: IEA, World Energy Investment Report, 2022[31]

The current macro-financial and energy context, particularly since the start of the war in Ukraine in the first quarter of 2022, requires particular attention to the financing trajectory of the entire oil and gas industry. The continued increase in the use of oil for power generation and the shift from gas to oil is driving demand (IEA, 2022). Estimates of global demand growth in 2022 are thus in the order of 2.1 mb/d according to the IEA, with high demand levels forecast for 2023. The outlook for global oil supply has thus been revised upwards since the start of the war in Ukraine, with the decline in Russian supply being more limited than anticipated (i.e. given the redirection of flows to India, China, Turkey and other countries).

Also, the energy crisis and the war in Ukraine have prompted new investments in fossil fuels, especially in the expansion of the upstream segments of the oil and gas industry, as well as in liquefied natural gas.

29 *Global Methane Tracker 2022*, IEA, february 2022 https://www.iea.org/reports/global-methane-tracker-2022
30 *ACT initiative Oil & Gas*, ACT, ADEME, february 2021 https://actinitiative.org/wp-content/uploads/pdf/act_og_methodology.pdf
31 *World Energy Investment 2022*, IEA, june 2022 https://iea.blob.core.windows.net/assets/b0beda65-8a1d-46ae-87a2-f95947ec2714/WorldEnergyInvestment2022.pdf

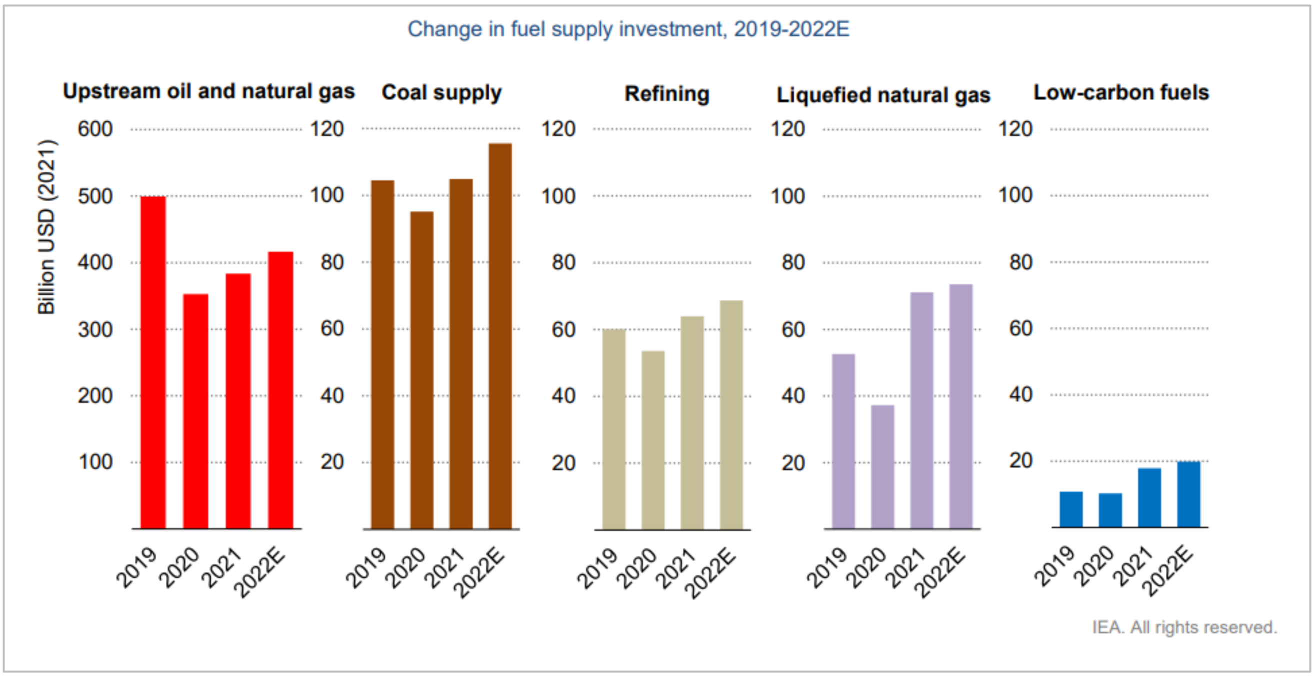

Figure 6 - Fuel supply investment trends (fossil and low-carbon). Source: IEA, World Energy Investment Report, 2022[32]

However, further expansion in natural gas has key consequences for lock-in and financial stability, as outlined in the literature review published by Kemfert et al. [33] - and whose main conclusions are set out below.

Methane emissions are much higher than previously estimated.

- The contribution of anthropogenic fossil fuel sources to total methane emissions has been underestimated by 20-60% - due to higher methane leakage rates than previously estimated (which are highly dependent on individual technical characteristics and gas system process factors).
- If this is taken into account, the advantage of natural gas over coal in terms of GHG emissions becomes marginal (if 3.2-3.4% of the gas produced escapes to the atmosphere). The current average rate is estimated at about 2.2%, but "super emitters[34]" can increase this rate to 6-17%.
- The global warming potential of methane is up to 87 times that of CO2 in the first 20 years after emission, and up to 36 times in the first 100 years (see IPCC, 2013[35]). Given this high warming potential, the use of natural gas as a temporary substitute for coal could even lead to an additional temperature increase in the short term.

[32] *Ibid*
[33] Claudia Kemfert, Fabian Präger, Isabell Braunger, Franziska M. Hoffart & Hanna Brauers, The expansion of natural gas infrastructure puts energy transitions at risk, *Nature Energy*, july 2022 https://www.nature.com/articles/s41560-022-01060-3
[34] Global S&T Development Trend Analysis Platform of Resources and Environment ; http://resp.llas.ac.cn/C666/handle/2XK7JSWQ/328609
[35] *Climate Change 2013*, IPCC, 2013, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf

Emissions from natural gas are currently poorly estimated in the scenarios

- The impact of methane is largely under-examined, so the latest findings on methane emissions need to be applied to energy modelling exercises, balancing of emissions budgets and climate policy derived from these models.
- If natural gas is not considered a marginal fuel, energy efficiency and sufficiency measures can be considered.

Misleading narratives prevent a direct transition to renewables

- The "bridging technology" (like gas) argument has been commonly used in public discourse since the 1970s, and mainly claims that renewable energy infrastructures are technologically immature or unreliable to replace fossil fuels. It is only consistent if the transition technology offers sufficient advantages over the old one to make additional investment available. See IEA (2019), "*Beating coal is not enough to make a case for gas*" (p. 42)[36]

Natural gas lock-in delays the transition to renewables

- Natural gas pipelines, LNG terminals and gas-fired power plants have a technical life span of several decades.
- Tong and al. 2019[37] show that if current infrastructure (as of 2018) operates as it has historically, the entire remaining carbon budget to limit warming to 1.5°C would be exceeded.
- Carbon lock-in also arises from institutional mechanisms (e.g. legal protection of private property): decommissioning natural gas infrastructure after only a fraction of its lifetime is very difficult. See Serkin C. (2018)[38].

Investments in gas infrastructure carry economic and financial risks

- The stranding of energy assets is a major risk, although the economic losses associated with stranded gas assets remain a source of great uncertainty. Methane leakage regulations and the consequences of the COP 26[39] global methane commitment could result in additional assets.
- The two main consequences of stranded energy assets are (i) a misallocation of capital to emissions-intensive technologies and (ii) a cascading effect on coupled sectors, including the financial sector (see Godin et al. (2017) on stranded asset networks)[40].

Figure 7 - Summary of the article by Kemfert et al. 2022 by the authors

The rationale and approach to non-conventional fossil fuels in the recommendations published by the SEC in September 2021 remain relevant [41]. In this sense, the SEC wishes to clarify some of these recommendations - and the associated indicators - in order to extend them to the whole industry. This is all the more relevant given the current context of limited investment in renewable energy

[36] *The Role of Gas in Today's Energy Transitions*, IEA, 2019, https://iea.blob.core.windows.net/assets/cc35f20f-7a94-44dc-a750-41c117517e93/TheRoleofGas.pdf
[37] Dan Tong & al, *Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target*, NLM, july 2019, https://pubmed.ncbi.nlm.nih.gov/31261374/
[38] Christopher Serkin, Prospective Grandfathering: Anticipating the Energy Transition Problem, University of Minnesota, 2018, https://scholarship.law.umn.edu/cgi/viewcontent.cgi?article=1098&context=mlr
[39] Fast action on methane to keep a 1.5°C future within reach, GMP, 2021, https://www.globalmethanepledge.org/
[40] Antoine GODIN and al, Network of stranded assets, AFD, october 2017, https://www.afd.fr/en/ressources/networks-stranded-assets-case-balance-sheet-approach
[41] Report published on 22 September 2021, online: https://observatoiredelafinancedurable.com/en/the-scientific-and-expert-committee-en/advisory-and-recommendations/

(compared to the targets set in the carbon neutrality scenarios) and continued expansion of fossil fuel infrastructure.

Therefore, the SEC has focused at this stage on the need to measure the overall flows and amounts of exposure to the industry, as well as to publish the use (or otherwise) of transition plans for their oil sector counterparts. These recommendations will be the focus of attention in the coming months with a view to publishing a set of enhanced indicators relevant to the industrial, economic and environmental reality of the sector ***during 2023.***

ii. Recommendations

Part I. Weakness of existing data on the Observatory

The information published to date on the Observatory lacks detail, particularly on the following points:

- On engagement, the distinction between engagement practices, their modalities, their results, according to the types of financial institutions (management companies, commercial banks, investment banks...), is not made. The descriptive section would benefit from including the state of the existing academic literature, notably on the effectiveness of "engagement" vs. "disinvestment".
- The section on "new projects" does not make it possible to isolate the exclusion thresholds (necessarily distinct according to the policies), nor to understand the exact perimeter of development in the oil and gas industry (thresholds and criteria currently at the discretion of market players, without transparency, with the relative exception of those provided at this stage by the banks).
- The Observatory lacks data for all categories of financial actors (with nevertheless more data published by banks), notably on the perimeter of financial activities covered by existing sectoral policies; on the perimeter of the oil industry itself, on the databases used; and on current exposures (flow and stock). In addition, the consistency with any published oil and gas sectoral policies and any transition support elements are not made explicit.

Part II. Suggested recommendations

Section #1 – Request the publication of exposure figures on the oil and gas industry

Findings

In view of the above, the credibility of the indicators published on the Observatory depends on their ability to cover as precisely as possible the financing provided to the oil and gas industry.

Goal of the SEC

To provide transparency on the overall flows and amounts of exposure to the oil and gas industries, with a focus on expansion activities and non-conventional fossil resources.

Recommendation #1: **Global oil and gas exposures**

The SEC recommends that financial actors publish their overall exposure to the oil and gas industries, covering and breaking down their main business lines exposed to these sectors, using existing nomenclatures and databases.

A "Further information" section is published at the end of this document to complete this first recommendation; the details of the reporting perimeters are given by type of player, in the lines below.

Methodological clarification:

Where it is possible to distinguish the share of turnover specifically derived from oil and gas within oil and gas companies, financial actors can apply this pro rata to their exposures to these companies. Alternatively, the entire exposure to oil and gas companies should be reported.

The reporting indicators should track as closely as possible the share of financial and insurance products and services actually dedicated to the oil and gas sectors along their value chain. In particular, the SEC recommends including exposures and indicators within the following business lines:

Banking activities

- Business line coverage: loans and advances (including revolving), project finance, trade finance, export finance, equity and bond advisory, guarantees and other off-balance sheet activities
- Indicator used: Amount of gross exposure to the oil and gas sector, in absolute terms and relative to total exposure, and distinguishing between new financing lines in the reporting year and the stock of historical exposure. For securities issuance advisory activities: amount of securities issuance in absolute terms and relative to total issuance in the reporting year.

Credit institutions will be able to rely on the Basel Committee's Pillar III requirements, which promote the harmonisation and publication of prudential data for these players. These requirements include a sectoral breakdown of the gross book value of loans and advances granted to non-financial corporations, according to the NACE classification. It is therefore recommended that a distinction be made between exposures categorised in sector B - Mining and quarrying, the share of exposures to oil and gas extraction (NACE code 06) and support activities for oil and gas extraction (NACE code 09.1). It is also recommended to isolate exposures associated with NACE code 19. Coking and refining (19.2 Petroleum refining).

Investment activities (including asset owners and managers)

- Scope of coverage: Equities, bonds, commodity trading, infrastructure, equity participation, debt instruments
- Indicators: Amount of gross oil and gas exposures, both absolute and relative to total exposures.

Market activities may also use relevant classifications, including NACE, GICS[42], ICB[43] and BICS[44], for which the SEC provides the oil and gas sector codes and headings in the annex to this document.

Insurance activities

- Scope of coverage: total insurance premiums for companies in the sector, to be detailed according to the different branches of non-life insurance.
- Indicators used: Amount of insurance premiums incurred by non-life insurance branches in absolute terms and in relation to the total of these non-life premiums.

Insurers will be able to use national and European activity classifications to identify companies in the oil and gas sector. In particular, a list of NACE codes associated with the oil and gas sector is given in the annex to this document. They can also draw on the work done under Regulation 2020/852 on the European taxonomy of environmentally sustainable activities[45]. This regulation requires insurance activities eligible for climate change adaptation to exclude those that cover "the extraction, storage, transport or manufacture of fossil fuels, or cover the use of vehicles, real estate or other assets for such purposes" under the "do no significant harm" criterion for the climate change mitigation objective. The reporting requirements under Article 8 of the Regulation (see Delegated Act of July 2021[46]) will allow access to this exposure information.

The investment activities of insurers are covered under the heading "Investment activities".

These recommendations are in line with those of the Autorité de contrôle prudentiel and the Autorité des marchés financiers (AMF) in their third joint report on the monitoring and evaluation of the climate commitments of Paris financial center participants[47]. In particular, all of these exposure measurements must be associated with the publication of the methodology used to carry out this work and the scope of the activities finally selected, clearly indicating the activities excluded from the scope of this analysis.

Recommendation #2: **Focus on controversial activities**

The SEC specifies definitions and recommended indicators for monitoring controversial activities in the oil and gas sector.

[42] *Global industry Classification System*
[43] *Industry Classification Benchmark*
[44] *Bloomberg industry Classification System*
[45] Regulation (EU) 2020/852 of 18 June 2020 on establishing a framework for sustainable investment and amending Regulation (EU) 2019/2088, Official Journal of the European Union, June 2020 https://eur-lex.europa.eu/legalcontent/FR/TXT/PDF/?uri=CELEX:32020R0852&from
[46] Delegated Act under Article 8 of the so-called "Taxonomy" Regulation, published in July 2021 : https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-4987_en.pdf
[47] Joint evaluation report by the AMF and the ACPR, October 2022: https://acpr.banque-france.fr/sites/default/files/medias/documents/20221219_rapport_2022_acpr_amf_anglais.pdf

In particular, it recommends the publication of detailed information on exposures by financial products and by business lines related to the following activities

- New oil and gas production projects and expansion of existing projects
- New liquefied natural gas terminal projects
- New oil and gas pipeline projects
- Arctic oil and gas exploration and production
- Shale oil and gas exploration and production
- Oil sands exploration and production
- Ultra-deepwater oil and gas exploration and production

External databases can assist with this information. In particular, the Global Oil & Gas Exit List (GOGEL) provides all the information necessary to complete the indicators recommended in the above insert.

For each type of financing and investment in companies in this sector (credit, debt, equity), it is thus possible and recommended to publish the amount of exposure to the various non-conventional oil and gas mentioned above, by multiplying the outstanding amounts in each company by the percentage of total primary energy production for these companies on each type of non-conventional fossil energy.

The methodology underlying the exposure estimate should be made explicit, as well as the assumptions used (e.g., allocation keys, etc.). The SEC recommends that the Paris financial centre harmonise its reporting on the basis of these indicators and a common database.

A summary table of expected indicators by type of financial activity and part of the oil and gas value chain is provided in the annex to this document.

For more details on unconventional oil and gas, direct reference can be made to the details provided in the SEC's September 2021 guidance document.[48].

Section #2 – Renforcer la transparence sur les plans de transition de l'industrie pétrolière et gazière doit être au cœur de la stratégie de la Place sur les fossiles

Constat

The SEC recognizes the fundamental role that the financial sector must play in supporting the transition of the oil and gas sector. Indeed, in addition to the incentive to reduce exposure to fossil fuels, an incentive to increase investment in low-carbon activities for these same players is part of the role of financial players, and this point deserves to be the subject of transparent indicators, whereas there is limited attention paid to this subject in the relations between financial institutions and their counterparts in the sector.

Goal of the SEC

Allow greater transparency on the measures actually implemented to accompany the transition of the industry at a pace approaching that defined by the scientific recommendations.

Recommendation #3 : **Plan de transition des entreprises des secteurs pétrolier et gazier**

[48] *Ibid.* https://observatoiredelafinancedurable.com/en/the-scientific-and-expert-committee-en/role-and-functioning/

The SEC recommends indicating the proportion of oil and gas counterparties that have communicated elements of their low-carbon transition, i.e. on the one hand GHG emission reduction targets and on the other hand targets for increasing their activities that allow for climate change mitigation as defined by the criteria of the European taxonomy of sustainable activities.

A section "to go further" is provided at the end of this document to complete this recommendation.

For the companies identified among the sector's exposures, the SEC recommends identifying the proportion of these companies that have respectively defined:

- plans to reduce their carbon footprint with a trajectory compatible with the Paris Agreement, specifying the scenarios adopted;
- medium-term (2030) fossil fuel production reduction targets;
- plans to reduce methane leakage and flaring within their infrastructure, where relevant;
- absolute and intensity targets for reducing GHG emissions from their scopes 1 and 2;
- GHG emission reduction targets, in absolute measure and intensity, for the entire scope (scopes 1 and 2, as well as upstream and downstream scope 3);
- targets for increasing their revenue, capital expenditure (Capex) and operational expenditure (Opex) in line with the EU taxonomy criteria on environmentally sustainable activities in relation to the energy sector under Article 8 of the so-called "taxonomy" regulation and its July 2021 delegated act (sections 4.1 to 4.31 of the delegated act on climate change mitigation) and carbon capture and storage (sections 5.11 and 5.12 of the same delegated act).

Recommendation #4: **Transition plan for financial actors**

The SEC recommends that financial actors publish, in a harmonised manner for each business line, their transition plans, i.e. their objectives for reducing exposure to oil and gas extraction and production activities and projects, specifying

- The scope of their activities included and excluded from this transition plan;

- A target for reducing their exposure in the short term (between 2025 and 2030) and in the long term (between 2040 and 2050)

- An exit target for unconventional and expansion projects;

- The scenario or baseline that guided these reduction plans, if available.

This recommendation will be complemented by the future work of the SEC as outlined below in this document.

c. Going further

Exposure to the oil and gas sector

For financial actors wishing to be ahead of the curve in the publication of oil and gas exposures, the SEC proposes in this section that financial actors measure and distinguish exposures within the oil and gas sectors in the following manner:

1. Distinguishing exposures between the oil and gas sector
2. Distinguishing exposures according to their position in the value chain.

The distinction between oil and gas is motivated by their different respective roles in a low-carbon transition. In particular, the IEA[49] specifies in its "Net Zero for 2050" scenario that gas production should decrease by 55% between 2020 and 2050, compared to 75% for oil over the same period.

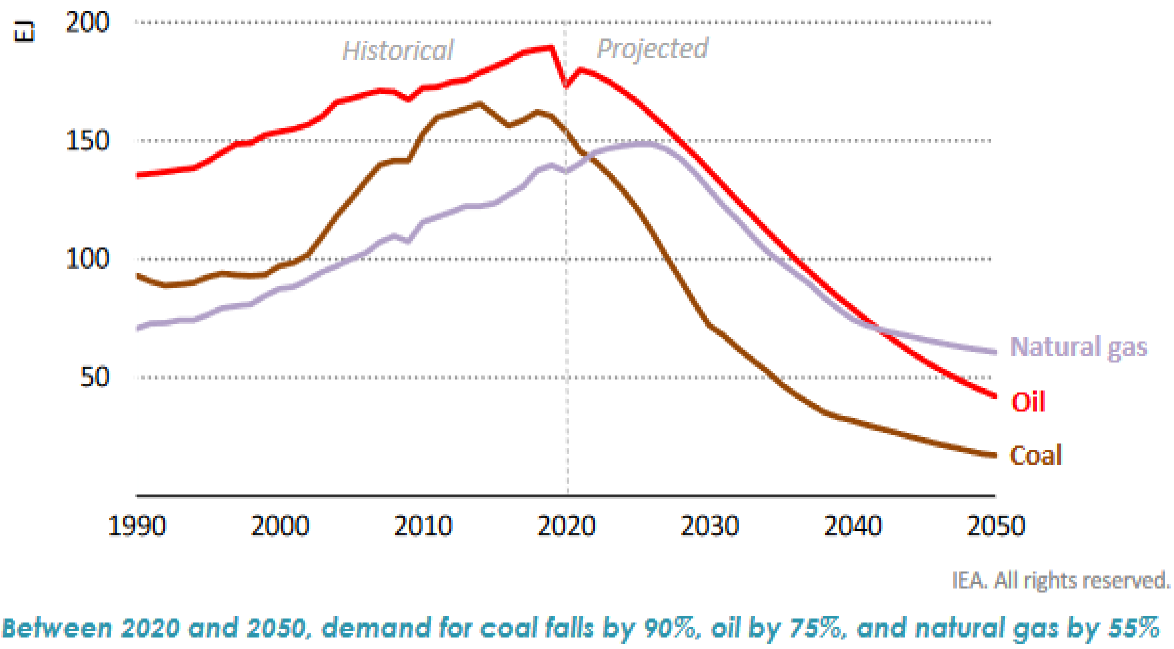

Figure 8 - Production of different fossil fuels in an IEA Net Zero for 2050 scenario [50]

The distinction made in point 2 between upstream and midstream exposures is motivated by the volume of locked-in emissions related to the financing of upstream projects, as opposed to midstream assets which have a greater potential for transition, notably through the gradual integration of biofuels into the input mix.

Indicators for the transition plan of oil and gas companies

In order to refine the understanding of the transition dynamics of oil and gas companies to which financial institutions are exposed, and thus clarify the decarbonisation potential of portfolios, it is relevant to collect the share of activities in favour of climate change mitigation, and to publish this aggregated ratio specific to companies in this sector.

[49] *Net Zero for 2050*, IEA, may 2021 https://www.iea.org/reports/net-zero-by-2050
[50] *Ibid.*

d. Future work of the SEC

As the oil sector is increasingly subject to sector-specific regulations in light of the climate emergency, the SEC is already proposing to work on additional recommendations for transition plans for financial actors in this sector (see executive summary).

Proposal: **Strategies for financial actors to reduce their exposure to the oil sector and exit controversial activities**

Given the lack of a methodology and harmonised indicators for all financial businesses in the Paris financial centre to report on the reduction and exit strategies of financial players, the SEC will carry out work in 2023 to propose harmonised indicators.

More and more financial players are integrating strategies to align their portfolios with low-carbon trajectories by 2050. This work is carried out in particular within the framework of so-called net-zero alliances[51]. However, several monitoring reports[52] have highlighted the lack of harmony among market players between all these commitments, making it difficult to compare them.

The SEC therefore proposes to study and define the key elements of a robust transition strategy for financial players, specifying in particular the scope of coverage, the necessary indicators and metrics, the intermediate and final objectives and the reference scenarios to be recommended.

[51] In particular : Net Zero Banking Alliance (NZBA), Net Zero Asset Owner Alliance (NZAOA), Net Zero Asset Manager Initiative (NZAIA), Net Zero Insurance Alliance (NZIA).
[52] See in particular AMF/ACPR (2022) et de la Net Zero Banking Alliance (2022).

III. Annexes

1/ GLOSSARY

- Arctic: the area extending from the High Arctic to the sub-Arctic areas of Canada, the Kingdom of Denmark (Greenland and Faroe Islands), Finland, Iceland, Norway, the Russian Federation, Sweden and the United States, including associated marine areas[53] . A fuller definition and associated diagram is available in Recommendation 1 of the September 2021 SEC publication[54].
- Final investment decision (FID): the point in the investment project planning process where the decision to make significant financial commitments is made. At the time of the FID, major equipment orders are placed and contracts are signed for engineering, procurement and construction.
- Flows: new credit lines added during the reporting year, new insurance contracts, or new exposures during the reporting year.
- Fracking: is an extraction method used to access gas and oil trapped in deep rock formations. Oil and gas producers drill wells and pump fracking fluid into the ground to crack the rock and release trapped oil and gas resources. 83% of global fracking takes place in the US (Rystad Energy.
- Brownfield investment: new investment in existing coal projects at any point in the value chain.
- Greenfield investment: investment in new coal projects, at any point in the value chain.
- Midstream includes transportation (by pipeline, rail, barge, tanker, LNG terminal or truck), storage, refining, purification and wholesale marketing of oil and gas products.
- Ultra-deepwater oil and gas: ultra-deepwater wells are located at least 1,500 metres below sea level.
- Oil sands: oil sands are a mixture of tar, clay, sand and bitumen. Bitumen is a very dense and viscous form of oil that cannot be pumped like conventional oil.
- Stock: Total gross amount of exposures or outstanding amounts at the reporting year or non-life insurance premiums.
- Upstream: includes the search for potential underground or subsea deposits of crude oil and natural gas, the drilling of exploration wells, and then the operation of the wells that recover and bring the crude oil or natural gas to the surface.

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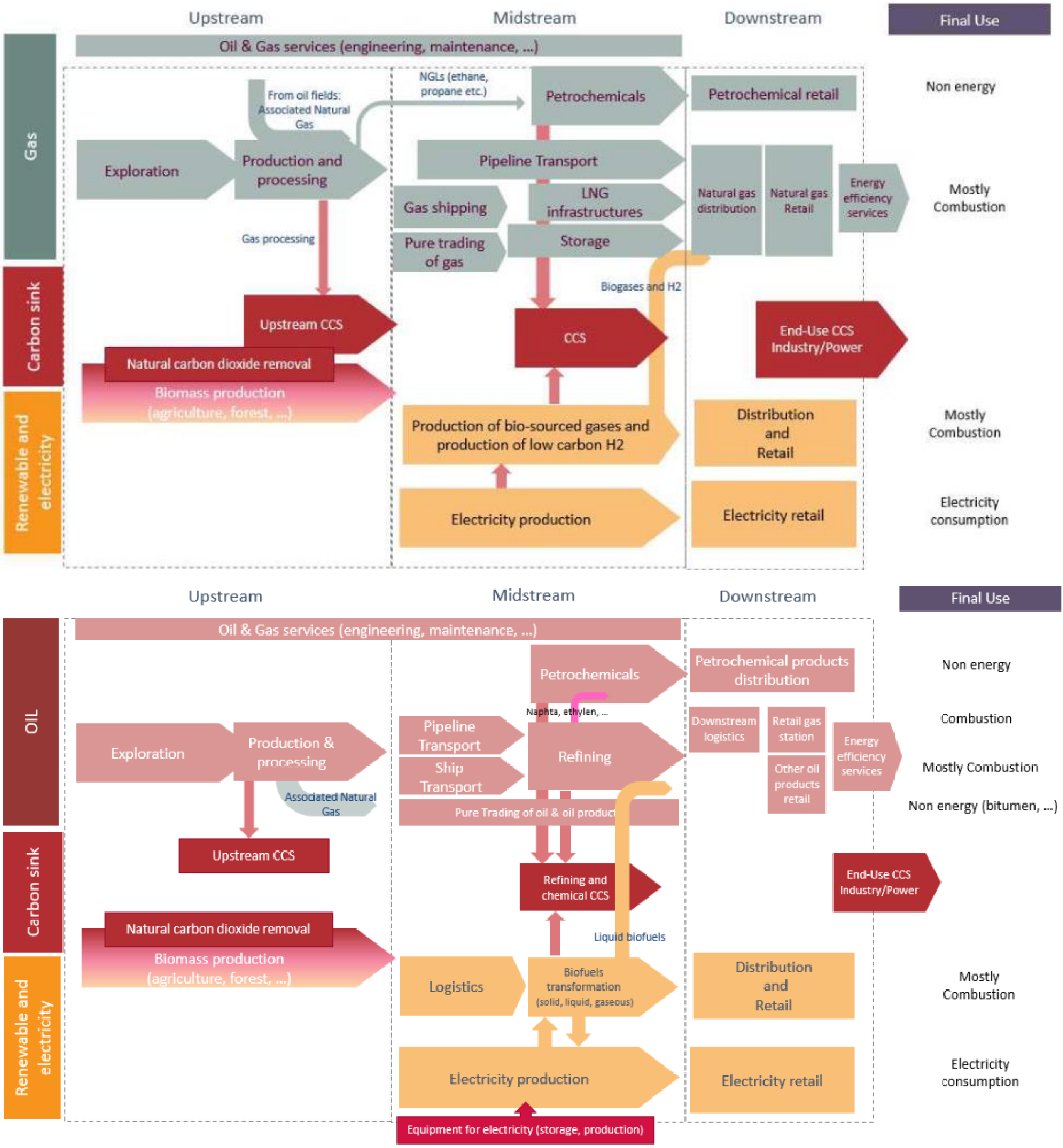
[53] See in particular the definition given by the Artic Monitoring & Assessment Programme (AMAP) : https://www.amap.no/about/geographical-coverage

[54] Report published on 22 September 2021, available online: https://observatoiredelafinancedurable.com/en/the-scientific-and-expert-committee-en/advisory-and-recommendations/

2/ OIL AND GAS SECTOR VALUE CHAIN OIL AND GAS SECTOR VALUE CHAIN



Source : ADEME, “ACT Oil and Gas”methodology[55]

[55] Methodology available here : https://actinitiative.org/

3/ COAL SECTOR VALUE CHAIN

Source : GCEL, 2022 (Neu_Methodology | Global Coal Exit List)[56]

[56] Link towards the picture : https://www.coalexit.org/methodology

4/ List of Codes and Titles Associated With the Oil and Gas Sector In the existing Market Nomenclatures

Global Industry Classification System	Industry Classification Benchmark	Bloomberg Industry Classification System	Nomenclature statistique des activités économiques[57]
10101010 Oil and Gas Drilling	60101000 Integrated Oil and Gas	1310111010 Crude Oil Production	NACE 05 : Extraction de houille et de lignite
10101020 Oil and Gas Equiment and Services	60101010 Oil : Crude Producers	1310111011 pétrole Sands Production	NACE 06 : Extraction d'hydrocarbures
10102010 Integrated Oil and Gas	60101015 Offshore Drilling and Other Services	1310111012 Natural Gas Liquids Production	NACE 09.1 : Activités de soutien à l'extraction d'hydrocarbures
10102020 Oil and Gas Exploration and Production	60101020 Oil Refining and Marketing	1310111013 Natural Gas Production	NACE 09.9 : Autres activités de soutien aux industries extractives
10102030 Oil and Gas Refining and Marketing	60101030 Oil Equipment and Services	13101510 Drilling & Drilling Support	NACE 19. : Cokéfaction et raffinage
10102040 Oil and Gas Storage and Transportation	60101035 Pipelines	13101511 Oilfield Services & Equipment	NACE 19.1. : Cokéfaction
10102050 Coal and Consumable Fuels	60101040 Coal	13101212 Liquefied Natural Gas (LNG)	NACE 19.2. : Raffinage du pétrole
		131014 Refining & Marketing	NACE 35.2. : Production et distribution de combustibles gazeux
		13101610 Coal Mining	NACE 49.5 : Transport via pipeline
		1310161010 Coal - Surface & Underground	
		131016101010 Bitum Coal & Lignite Surface	
		131016101011 Bituminous Coal Underground	
		13101611 Other Petroleum & Coal Prods	
		1310161110 Anthracite Mining	
		131016 Coal Operations	

[57] Online: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_(NACE)/fr&action=statexp-seat&lang=fr

5/ Summary Tables of Expected Exposure Indicators By Financial Business And Sector

I - Global exposure to the coal sector, to be published from 2023

<table>
<tr><th></th><th colspan="3">Financing</th><th rowspan="2">Consulting services on issuing securities</th><th colspan="3">Investment</th><th>Insurance</th></tr>
<tr><th></th><th>Corporate finance</th><th>Project Finance</th><th>Trade</th><th>Equity (listed / unlisted)</th><th>Bonds</th><th>Infras incl. SPV</th><th>Non-life</th></tr>
<tr><td>Entreprises & projects</td><td rowspan="2">Gross exposure to the coal sector
- in € billions
- as % of total exposure including a sub-category for companies active in development

Breakdown by product type

Corporate credit lines
Guarantees given and other off-balance sheet activities
Securities issuance advice

Publication on the stock of existing and new credit lines during the reporting year.</td><td>Gross exposure to the coal sector
- in € billions
- as % of total exposure including a sub-category for companies active in development</td><td></td><td>Amount of securities issuance in absolute terms and relative to total securities issuance in the reporting year, including a subcategory for companies active in development</td><td>Share of exposure to companies active in the coal sector, in absolute terms and as a percentage of total exposure, including a subcategory for companies active in development</td><td>Share of exposure to companies active in the coal sector, in absolute terms and as a percentage of total exposure, including a subcategory for companies active in development</td><td>Total amount outstanding on coal sector projects, distinguishing between greenfield and brownfield</td><td>Share of insurance premiums associated with coal companies, broken down by insurance branch:
- In € billion
- As % of total non-life insurance premiums including a subcategory for companies active in development</td></tr>
<tr><td>Commodities</td><td></td><td>Amount of gross exposure to the coal sector, absolute and relative to total exposure, including a sub-category for companies active in development</td><td></td><td></td><td></td><td></td><td>Share of insurance premiums on transport and storage of coal commodities insurance on total insurance premium</td></tr>
</table>

II - Indicators of overall exposure to the oil sector, to be published from 2023

	Financing			Consulting services on issuing securities	Investment			Insurance
	Corporate Finance	Project Finance	Trade		Equity (listed / unlisted)	Bonds	Infras incl. SPV	Non-life
Entreprises & projects	Gross exposure to the oil & gas sectors - in € billions - as % of total exposure including a sub-category for companies active in development Breakdown by product type Corporate credit lines Guarantees given and other off-balance sheet activities Securities issuance advice Publication on the stock of existing and new credit lines during the reporting year.	Gross exposure to the oil & gas sectors - in € billions - as % of total exposure - including a sub-category for companies active in development		Amount of securities issuance in absolute terms and relative to total securities issuance in the reporting year, including a subcategory for companies active in development	Share of exposure to companies active in the oil & gas sectors, in absolute terms and as a percentage of total exposure, including a subcategory for companies active in development.	Share of exposure to companies active in the oil & gas sectors, in absolute terms and as a percentage of total exposure, including a subcategory for companies active in development.	Total amount outstanding on oil & gas sector projects	Share of insurance premiums associated with oil & gas companies, broken down by insurance branch: - In € billion - As % of total non-life insurance premiums - including a subcategory for companies active in development
Commodities			Amount of gross exposure to the oil & gas sectors, absolute and relative to total exposure, including a sub-category for companies active in development.					Share of insurance premiums on transport and storage of oil & gas commodities insurance on total insurance premium

III - Indicateurs d'exposition globale au secteur pétrogazier, à publier en 2025

	Financing			Consulting services on issuing securities	Investment			Insurance
	Corporate Finance	Project Finance	Trade		Equity (listed / unlisted)	Bonds	Infras incl. SPV	Non-life
Upstream Oil	Share of oil in the primary energy mix of each portfolio company, multiplied by the corporate exposure to each company	Total amount outstanding on upstream oil projects		Share of oil in the primary energy mix of each advised company, multiplied by the amount of securities issued against these securities	Share of oil in the primary energy mix of each company x amount of investment in each company	Total amount of oil project bonds upstream	Total amount outstanding on oil upstream project	Share of oil in the primary energy mix of each portfolio company, multiplied by the amount of non-life insurance premium for each company, broken down by insurance line
Upstream gas	Share of gas in the primary energy mix of each portfolio company, multiplied by the corporate exposure of each company	Total amount outstanding on gas projects upstream		Share of gas in the primary energy mix of each advised company, multiplied by the amount of securities issued against these securities	Share of gas in the primary energy mix of each company x amount of investments in each company	Total amount of bonds on gas upstream project	Total amount outstanding on gas upstream project	Share of gas in the primary energy mix of each portfolio company, multiplied by the amount of non-life insurance premium for each company, broken down by insurance line
Midstream Oil		Total amount outstanding on midstream oil projects				Total amount of midstream oil project bonds	Total amount outstanding on midstream oil projects	
Midstream gas		Total amount outstanding on midstream gas project				Total amount of bonds on gas midstream project	Total amount outstanding on gas midstream project	
Oil commodities			Outstanding oil commodities					Share of insurance premiums on oil commodity transport insurance in total insurance premium
Gas commodities			Outstanding gas commodities					Share of insurance premiums on commodity transport insurance gas on total insurance premium

IV - Focus on controversial activities in the oil sector

	Financement				Investissement			Insurance
	General purpose	Dedicated purpose	Trade	Corporate services	Equity (listed / unlisted)	Bonds	Infras incl. SPV	
New and expanded oil and gas production projects New liquefied natural gas terminal projects New oil and gas pipeline projects	% exposure to companies developing new projects and expanding existing oil and gas production projects / new oil and gas transportation and storage projects	% outstanding on new projects and expansion of existing oil and gas production projects / new oil and gas transportation and storage projects	[redacted]	Share of turnover with companies developing greenfield oil upstream / oil midstream / gas upstream / gas midstream	Share of investments in companies developing greenfield oil upstream / oil midstream / gas upstream / gas midstream	Share of bonds on companies developing greenfield oil upstream / oil midstream / gas upstream / gas midstream	Share of greenfield related infrastructure oil upstream / oil midstream / gas upstream / gas midstream	Share of insurance premiums on companies developing greenfield oil upstream / oil midstream / gas upstream / gas midstream
[redacted]								
Ultra deep water oil Fracking Oil sands	Share of ultra-deepwater oil / fracking / oil sands / Arctic in primary energy mix by company, multiplied by stock in each company	Percentage of exposure to ultra-deepwater oil / fracking / oil sands / Arctic projects	Trade flows on different types of unconventional oil	[redacted]	Share of ultra-deepwater oil / fracking / oil sands / Arctic in each company's primary energy mix x amount of investment in each company (through GOGEL)	Total bond amount on ultra-deepwater oil / fracking / oil sands / Arctic projects	Total amount outstanding on ultra-deepwater oil / fracking / oil sands / Arctic projects	Share of ultra-deepwater oil: fracking/oil sands/Arctic in the primary energy mix of each portfolio company, multiplied by the insurance premium amount for each company
Arctic								

IV. Presentation of the Scientific and Expert Committee

The Scientific and Expert Committee (SEC) is composed of a chairperson, a secretary and several colleges: two members from NGOs and think tanks, five academic members, two members representing public authorities, and three experts with knowledge of the financial sector and climate finance.

The members are appointed "intuitu personae" by the Finance ClimAct Steering Committee. They therefore speak in their own name and not on behalf of the institutions that employ them (with the exception of the representatives of DG Treasury and the Ministry of Ecological Transition (MTE)), although they bring the expertise and knowledge of their respective organisations. They may also provide a reporting and communication role internally within their respective organisations.

The Secretary of the SEC assists the Chairman and ensures the smooth running of the Committee.

Président : Pierre-Louis Lions - Fields Medal winner in 1994, Professor at the Collège de France, President of the International Scientific Committee of the Louis Bachelier Institute and of the "*Green & Sustainable Finance Transversal Program".*

Secretary: Stéphane Voisin

NGO and Think Tank College :

Lucie Pinson

Michel Cardona

Academic College :

Anna Creti

Delphine Lautier

Augustin Landier

Peter Tankov

Emmanuel Hache

College of experts :

Jérôme Courcier

Guillaume Neveux

Charlottes Gardes-Landolfini

College of public authorities :

Julie Hanot - Ministry of Ecological Transition and Territorial Cohesion

Benjamin Dartevelle – Directorate General of the Treasury

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