ESG Research

ESG Materiality Map
Oil And Gas

May 18, 2022

Climate transition risks are highly material for the oil and gas industry and its value chain, from both the stakeholder and credit perspectives. Efforts to decarbonize transportation and industrial activity, primarily through regulation, may affect the industry's long-term profitability and reduce oil and gas demand.

This report does not constitute a rating action

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In line with the research report "Materiality Mapping: Providing Insights Into The Relative Materiality Of ESG Factors," published on May 18, 2022, S&P Global Ratings is publishing research on the ESG materiality map for the oil and gas sector. We provide an illustration, at a point in time, of our findings on the relative materiality of certain environmental and social (E&S) factors, from both the stakeholder and credit perspectives, for the sector. The materiality map research does not represent any new analytical approach to the treatment of E&S factors in our credit ratings. See our ESG criteria for more information on how we incorporate the impact of ESG credit factors into our credit ratings analysis.

Oil And Gas Sector

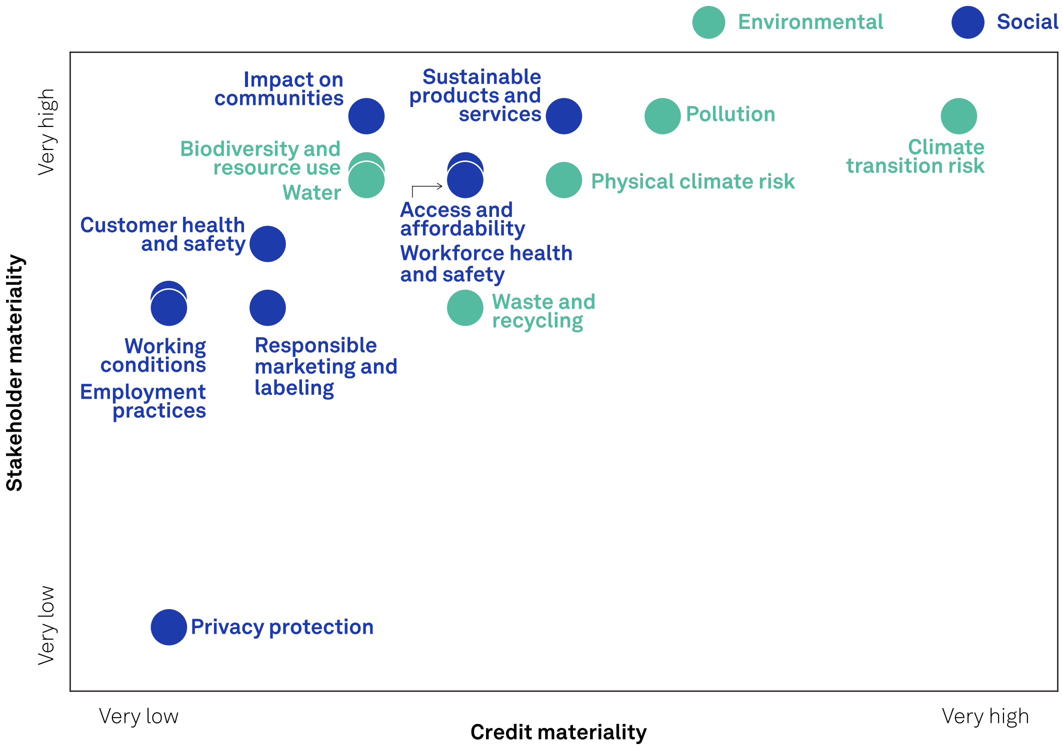
The oil and gas sector includes both integrated companies and independent firms focusing on either upstream exploration and production of crude oil and natural gas, or downstream through refining and marketing. Drilling and oilfield services companies also serve the industry.

Key Takeaways

- Climate transition risks are highly material for the oil and gas industry and its value chain, from both the stakeholder and credit perspectives. Efforts to decarbonize transportation and industrial activity, primarily through regulation, may affect the industry's long-term profitability and reduce oil and gas demand.
- Operational risks are high in the sector, especially related to pollution and climate physical risks, which can disrupt production and expose companies to potential public opposition, large penalties, and reputational damage that can affect their credit profiles.
- Other key considerations highly material for stakeholders but less material to credit are impact on communities, access to affordable and sustainable fuels, biodiversity, and employee health and safety. While these factors are material for stakeholders due to the need for energy access, as well as the public health and environmental impacts, the associated credit impact should be more limited given companies' strong safety track records, the economic benefits for communities, and more available biofuels.

See materiality map on the following page.

ESG Materiality Map For The Oil And Gas Sector



The materiality map provides an illustration at a point in time, of our findings on the relative materiality of certain environmental and social (E&S) factors, from both the stakeholder and credit perspectives, for the sector. It does not represent any new analytical approach to the treatment of E&S factors in our credit ratings. See our ESG Criteria for more information on how we incorporate the impact of ESG credit factors into our credit ratings analysis. Source: S&P Global Ratings.

How To Read The ESG Materiality Map

The stakeholder materiality (Y axis) reflects our assessment of the relative level of impacts and dependencies of the sector on the environment, society, and economy.

The credit materiality (X axis) reflects our assessment of the relative level of potential and actual credit impact for the sector. The credit implications for the factors positioned on the left side to the middle of the X-axis would be more limited and absorbable. On the right side, there is higher potential for these implications to be more disruptive. We assess credit implications for an entity based on its individual characteristics.

Assessing E&S factors' materiality: We consider both the likelihood of the impact from a given factor, as well as the magnitude of the impact. The materiality of the factors varies depending on the perspective (stakeholder or credit) as well as the evolving and dynamic interactions between these two dimensions.

The main areas of the map:

- The upper-right quadrant displays the most material, on a relative basis, E&S factors identified for the sector from both a stakeholder and credit perspective.
- The upper-left quadrant presents factors that are more material from a stakeholder than credit perspective. These factors have the potential to become more material from a credit perspective.
- The bottom-left quadrant shows factors that are less material for both stakeholders and credit. Their materiality may evolve over time and this dynamic may not be linear.

Examples Of Material Factors

Below we provide the rationale of some of the material factors to illustrate the above findings.

Climate transition risk

Climate transition is the most material exposure for the sector for both stakeholders and credit. Stakeholders are increasingly pushing to reduce greenhouse gas (GHG) emissions to fight climate change, shaping the strategic directions of a growing number of oil and gas companies toward less carbon-intensive operations and reducing emissions throughout their value chains. More and more companies are detailing strategies, including for capital allocation, to reduce emissions or reach “net zero.” This transition away from new oil and gas production activities will likely be strongly influenced by government policies favoring electric or low-carbon transportation and renewable energy. Due to the immense social and economic risks climate change poses, sovereign and local governments globally have been enacting stricter policies and regulations while providing industry subsidies aimed at reducing both GHG emissions from burning fossil fuels and methane emissions to limit global warming. The risks associated with a long-term decline in demand for hydrocarbons are massive given the potential impact on profitability and cash generation in what remains a capital-intensive industry. Furthermore, the risks of stranded assets are particularly pronounced for high-cost oil and gas producers and fossil fuel refiners, as well as all the suppliers servicing those assets/companies.

Pollution

Pollution associated with both upstream and downstream oil and gas operations can dramatically affect the environment and society, often leading to important economic consequences for sector participants and the communities in which they operate. This includes air pollution, which the refining industry is particularly exposed to through nitrogen and sulfur oxide emissions, although large investments in the sector have helped reduce emissions intensity. Large-scale pollution catastrophes like Macondo are very rare and unpredictable, but severely affect issuer credit quality due to the significant liabilities incurred from environmental remediation, government fines, and lawsuits from affected industries and consumers, and can lead to reputational damage. Most pollution events are small in scale and financially and operationally manageable by the industry, but still carry the important risk of reputational damage.

Physical climate risk

Oil and gas activities can be an aggravating factor of climate-related physical events such as hurricanes, rising sea levels, or flooding, which directly affect large communities (notably by impeding the ability to work) and businesses around the globe by destroying homes and vital infrastructure. From a credit perspective, we see companies directly exposed to this risk, such as U.S. East or Gulf Coast refiners, suffer operational issues and shutdowns, notably during hurricanes, leading to lost profits and capital requirements for repairs. Impact is, however, limited in time and magnitude. Oil and gas customers are also affected by extreme weather events, which can raise energy prices, at least intermittently.

Impact on communities

The stakeholder materiality of this factor is high because operating oil and gas projects in remote areas or densely populated areas can harm communities given land use requirements that can mean displacing populations, pollution affecting public health, and resource usage. Relationships with communities and governments are important in that a lack of shared benefits frequently creates local opposition. This can delay or raise costs for companies' reserve developments or even render them unviable, constraining growth and returns on capital. At the same time, positive impacts through employment, economic activity, and tax payments can create a more supportive operating environment. Credit materiality is currently relatively low because of this balance of positive and negative impacts that overall should not pressure the sector's credit quality.

Sustainable products and services

The high stakeholder materiality for this factor stems from a growing need to provide sustainable products to gradually replace fossil-based fuels and chemicals in response to increasingly stringent government-led regulations and public awareness of the externalities linked to the extraction and combustion of hydrocarbons. This may mean greater demand for biofuels or other substitutes and less for crude oil and refined products in the long run. Renewable fuels like diesel and sustainable aviation fuel lower emissions compared to traditional fuels, and benefits from regulatory credits, including low carbon fuel standards, biodiesel tax credits, and renewable identification numbers, encourage fossil fuel conversion investments. In certain jurisdictions, the need to address societal demand for affordable fuels can lead to government price caps that can severely hurt oil and gas companies' profitability. The risks of windfall taxes when commodity prices are high should be mitigated by profits stemming from the high prices, but represent a credit risk in terms of the magnitude and duration of such taxes.

What is our approach to research on the ESG materiality map?

Referring to the research report "Materiality Mapping: Providing Insights Into The Relative Materiality Of ESG Factors," published on May 18, 2022, this research is built on the ESG materiality concept that considers ESG issues as material when they could affect stakeholders, potentially leading to material direct or indirect credit impact on entities. It considers that all businesses, through their activities and interactions, impact and depend, directly or indirectly, on stakeholders such as the environment (natural capital), society (human and social capital), and economy (financial capital). Using this ESG materiality concept, S&P Global Ratings has worked toward identifying a common, global, cross-sector set of E&S factors that we believe are material to stakeholders, and either are already, or have the potential to become, credit material for entities. The materiality map we propose provides an illustration at a point in time, of our findings on the relative materiality of those factors, from both the stakeholder and credit perspectives.

How does the sector ESG materiality map relate to credit ratings or ESG evaluations?

The sector materiality map is a visual representation of the factors that we consider impactful to the sector from a stakeholder and credit perspective for the purposes of this research. It does not represent any new analytical approach to the E&S factors in our credit ratings.

The relative materiality of the factors indicated on the materiality maps may inform the E&S Risk Atlas scores and the weights of the E&S factors used in ESG evaluations.

They may also inform our discussions with issuers on those factors' existing or potential credit materiality.

Related Research

- Materiality Mapping: Providing Insights Into The Relative Materiality Of ESG Factors, May 18, 2022
- Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- ESG Evaluation Analytical Approach, Dec. 15, 2020