

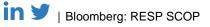
Integrated Oil & Gas Outlook 2021

The credit outlook for the integrated oil & gas sector has improved to stable from negative on improved price assumptions and companies' decisive action to shore up their balance sheets last year.

Oil & Gas, Scope Ratings GmbH, 26 January 2021



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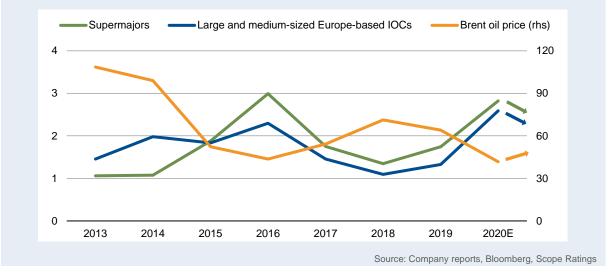
Executive summary

The credit outlook for the integrated oil & gas sector has improved to stable from negative on improved price assumptions and companies' decisive action to shore up their balance sheets last year. However, a weaker-than-expected economic recovery from the recession brought on by the Covid-19 pandemic and strategic challenges, such as tougher environmental regulation and peaking oil demand, are potential threats to credit quality.

The main trends we expect integrated oil and gas companies (IOCs)¹ to face in 2021 are:

- A significant recovery in oil and gas prices with Brent averaging around USD 50/barrel and Dutch TTF at around EUR 15/MWh; on average, we expect a moderate increase in refining and petrochemical margins.
- Following significant cuts in operating and capital expenditure in 2020, companies are more resilient to lower oil and gas prices than before the pandemic.
- IOCs in general have lost their appetite for heavy investment spending, while levels of shareholder remuneration will continue to vary across the sector.
- Leverage ratios will improve, but a full recovery to pre-pandemic levels is unlikely before 2022-23.
- Unlike previous downturns, the industry experienced falling oil and gas prices last year and a significant drop in oil consumption and in refining margins – all at the same time. This combination of forces will transform the industry – from a tighter focus on low-cost and higher value-added activities to investments beyond legacy fossil-fuel businesses.
- The industry faces accelerating investor and regulatory pressures, not least with the change of government in the US, with the Biden administration returning to the Paris Agreement on climate change.
- More IOCs will set ambitious targets, leading to faster and deeper transformations of their operations, after many followed Repsol's example in 2020 in announcing pledges to reduce net carbon emissions. The impact on credit quality will depend on the individual business and financial strategies.

Figure 1: Sector leverage (median Scope-adjusted debt/Scope-adjusted EBITDA ratios among IOCs analysed by Scope; Brent crude oil price (USD/barrel)



¹ Scope analysed the five supermajors – BP PLC, Chevron Corp, Exxon Mobil Corp, Royal Dutch Shell PLC, Total SA – and the large and mediumsized Europe-based integrated producers: Eni SpA, Equinor ASA, Galp Energia SGPS SA, MOL Hungarian Oil and Gas plc, OMV AG, and Repsol SA.



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Key trends for 2021

Improving price, margin assumptions

Our main 2021 forecasts are for:

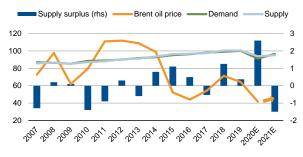
- Significant recovery in oil prices, with Brent averaging around USD 50 a barrel compared with USD 42/barrel in 2020
- Similar recovery in gas prices, with Dutch TTF² at around EUR 15/MWh
- Moderate increases in refining and petrochemical margins, on average
- Volatile prices and margins

Volatility remains the norm in oil and gas markets given the uncertainty surrounding a variety of economic and geopolitical issues: the roll-out of vaccines; new lockdowns; monetary and fiscal policies (for further macroeconomic assumptions including downside risks please refer to Scope's 2021 Sovereign Outlook); the US-China trade dispute; and changes in OPEC+³ countries' oil output. These difficult-to-predict factors will determine the supply-demand balance in the oil market and oil prices in the medium term.

The International Energy Agency (IEA) estimates growth in global oil demand at around 5.5 million barrels a day in 2021, recovering somewhat from the slump seen in 2020. Compared with 2019, demand will likely be 3.3mb/d weaker, with 80% of the shortfall driven by lower demand for jet fuel and kerosene.

Global oil supplies are closely managed. OPEC+ decided in early January 2021 to increase output by only a quarter of the initially agreed volume as demand fell short of levels to warrant the initial plan for an increase of 2mb/d. Demand could exceed supply, assuming OPEC+ countries stick to promised production cuts, thereby helping to reduce inventories which would underpin a recovery in oil prices.

Figure 2: Global oil demand-supply balance (million barrels/day) and Brent oil price (USD/barrel)



Source: International Energy Agency, Bloomberg, Scope Ratings

We expect gas prices to recover considerably in 2021 but remain relatively low in comparison with multi-year

averages considering ample supply in the most important markets worldwide and high stocks.

We assume moderately increasing refining and petrochemical margins supported by recovering demand and reduced supply, given the refining capacity taken out of the market in the past year (please also see Scope's 2021 Chemicals Outlook).

In medium and long term, peak oil demand is approaching. Indeed, some industry players say demand peaked in 2019 (BP). Others believe peak oil demand is expected by the end of this decade (IEA, Total). Even assuming a full economic recovery from the Covid-19 shock, tougher environmental regulations might ensure demand for oil remains soft in the years ahead as governments seek to reduce greenhouse gas emissions.

Legacy business adaptation

Faced with weak oil and gas (O&G) demand and lower prices than in recent years, at least in the short- to medium term, IOC management has focused on optimisation of legacy businesses: stripping out more costs and high-grading asset portfolios (as mentioned in our 2020 outlook). Here are some of the important industry trends we see:

Upstream

The outlook for O&G exploration is cloudy as new discoveries are expected to generate cash in a remote future, with diminishing returns on investment due to expected lower demand and weak commodity prices. Other headwinds include environmental concerns: for example, many majors have dropped plans for drilling in the Arctic.

O&G producers with large proportion of developed reserves are better positioned than their exploration-focused peers, though they also face significant challenges from secular trends.

We expect to see IOCs focus more on developing O&G reserves which are low cost and have low greenhouse-gas (GHG) intensity.

The industry wrote down assets in the first half of 2020 by USD 170bn. However, even more severe writedowns could be in the offing. According to Carbon Tracker, the world's listed O&G majors would need to cut combined production by 35% on average by 2040 to hold carbon emissions within climate targets. Such a drastic shift would strand many of the IOCs' assets by forcing them to write them down or write them off entirely before their full economic lifespan. Another consequence might be earlier- and larger-thanexpected, clean-up liabilities, to be borne in part by investors and taxpayers.

² Title Transfer Facility or TTF is a virtual trading point for natural gas in the Netherlands. TTF gas price is one of the main international benchmarks for natural gas prices.

³ OPEC+ includes members of OPEC in addition to 10 other oilexporting countries led by Russia



Downstream

IOCs will focus on capacity optimisation and only selective investments in growth areas. Shutdowns in more developed economies "increase refineries' exposure to the highly competitive product export market," BP said in its outlook, released in September.

Financial flexibility to the fore

Financial leverage in 2020, measured by Scopeadjusted debt/Scope-adjusted EBITDA, rose to levels not seen since 2016 for supermajors and exceeded them for large and medium-sized Europe-based IOCs, which are more downstream-focused on average. Unlike the previous downturn, oil and gas prices fell last year at the same time as oil consumption plummeted and refining margins narrowed. Much of the rest of the broader oil and gas industry is in an even weaker position.

The industry avoided the worst through decisive measures that management undertook to protect companies' balance sheets. IOCs made significant opex savings, through redundancies and price negotiations with suppliers of equipment and services. They also cut capex, which fell on average by around 25% compared with initial budgets for 2020 and by 20% compared with 2019. IOCs also suspended share buybacks and, in some cases, cut dividends. Reducing dividends was particularly noteworthy, since some IOCs had resolutely maintained them during previous downturns. As a result, IOCs have become more resilient in the face of low oil prices than before Covid-19, with organic free cash flow break even after dividends falling to around USD 50/barrel or lower.

IOCs tapped bond markets actively in 2020 to shore up their finances, including the hybrid debt market, sometimes for the first time as in the case of BP. We expect the companies to focus on deleveraging in 2021 though they will be ready to tap debt markets again if prices and margins do not live up to expectations and to fund the transition to more sustainable business. We expect IOCs to issue more green bonds.

Cost discipline will remain crucial. Further progress can be made through digitisation and process automation, with the use of advanced analytics, AI, remote operations and monitoring, and robotics.

With the brighter short and medium-term outlook, the industry will modestly increase capex from the pandemic-trough of 2020 but keep it well below of already optimised pre-pandemic levels of 2019.

We also expect similar trends regarding shareholder remuneration, with IOCs only cautiously growing dividend pay-outs.

Asset sales are another option for IOCs as they face an uncertain future and more intense pressure to optimise the business mix. Many companies plan to dispose of non-core assets to reduce debt and high-grade portfolios. After a temporary slowdown, M&A is back on the agenda to increase scale and improve efficiency: ConocoPhillips completed USD 9.7bn acquisition of Concho Resources in January as did Pioneer Natural Resources in a USD 4.5bn deal for Parsley Energy.

Overall, as prices improve, we expect significant deleveraging in 2021. Nevertheless, the full recovery in credit metrics will have to wait until 2022-23.

Sustainability: growing regulatory and investor pressure

The global pandemic had a drastic impact on the oil & gas sector. Oil demand plunged by an estimated 29mb/d to around 70mb/d in the initial chock from the pandemic - the lowest level since 1995 according to the IEA. - from 99mb/d before the Covid-19 outbreak.

IOCs are also facing growing pressure from investors and from governments to fully assess the sustainability of their business, as regulations tighten in Europe, US and other regions – all bringing forward the potential impact of environmental issues on credit quality from the long term to the medium term.

As the focus turns to how best to restore economic growth from the initial emergency response to the coronavirus shock, policy makers are trying to ensure the recovery will be more sustainable and environmentally friendly than in the past. In Europe, the approach is encapsulated by the EUR 750bn Next Generation EU recovery fund, with much of the planned spending on projects to enhance sustainability and meet climate-change goals. The European Commission envisages a carbon-neutral economy by 2050

Other countries have also made firmer carbonneutrality commitments - China (target year 2060), South Korea, Japan and Canada (2050) – with the result that eight out of the world's 10 largest economies have emission-reduction or net-zero targets.

The big change in climate policy is in the US, one of the world's largest producers and consumers of oil and gas. President Joe Biden has signed an executive order to bring the US back into the Paris Agreement. Biden's "green deal" is more likely to happen with the Democrats in control of Congress. His plan includes a net-zero emission target year of 2050 with policies that will ensure milestone targets by 2025. The Biden administration intends action against fossil- fuel industries and other polluters, including those which ignore the wishes of local communities, and plan tougher sanctions on companies which knowingly pollute or conceal information regarding health risks. Likely measures include setting methane-emission limits for new and existing O&G operations, reduction of GHG emissions from transportation and mandatory corporate disclosure of GHG emissions from a company's own operations and its supply chain.

The COP 26 UN climate change conference scheduled for November 2021 might agree on a new round of



commitments aimed at reductions in GHG emissions with the hope of a less than 2 °C increase in global temperature by 2050 versus the pre-industrial era.

In Europe, the new EU Taxonomy - setting out overarching conditions that an economic activity has to meet to qualify as environmentally sustainable - will deter investment in exploration and production. In doing so, the taxonomy will help raise the subsector's cost of capital. Only companies which demonstrate that they are best in class in terms of emission levels, with a credible plan towards climate-neutrality, will be able to claim to be transition activities and remain investable.

With the latest update on maximum permissible emission levels, natural gas is also taken out of the equation as a transition technology to produce electricity. However, a mix of low-carbon gases and carbon capture technologies could make it viable.

Regulatory-driven shifts within oil-consuming industries are another challenge for the IOCs. The auto sector is adapting to the new environment by accelerating spending on the development of electric vehicles and achievement of more stringent emission targets. (please refer to Scope's 2021 Automotive Outlook). The rapid growth in use of electric vehicle will increasingly weigh down on oil demand.

The investors are also increasing their scrutiny of the O&G sector's sustainability. Growing numbers of investors are demanding detailed climate-impact disclosure and specific action to combat climate change. Others are avoiding fossil fuel related investments.

The coronavirus crisis has helped accelerate these changes by focusing investors' minds on sustainability. During 2020, the investors supporting the climate Action 100+ initiative increased to 545 from 370, representing USD 52trn in assets under management, up from USD 35trn.

The corporate response: energy transition; business transformation

Regulatory and investor pressure, as well as the prospect of peak oil demand, are combining to transform the oil & gas sector.

As stated in our 2020 Outlook, we expect more IOCs to set ambitious GHG targets. For those that already have pledged to reduce GHG emissions, we expect stronger and deeper commitments, with binding net zero targets replacing vaguer previous ambitions, focused throughout the industry value chain and not just in their home markets.⁴ . IOCs are pursuing different strategies to reduce their GHG footprint. Some are focusing on renewable power and fuels⁵, such as BP, Total or Repsol, other on chemicals (OMV) and carbon dioxide removal (Chevron, Equinor).

We expect a significant scaling up of technologies, which are already commercially viable such as wind and solar power.

Some companies will also invest more in frontier technologies. Carbon capture is increasingly the focus of energy companies. Some are working together on CO2 capture projects (CCPs) to advance technologies that will underpin the deployment of industrial-scale carbon capture and storage (CCS). The aim is to capture and store carbon dioxide deep underground, preventing its release into the atmosphere. In 2019, CCS accounted for approximately 40 million tonnes, according to the Global CCS institute, still a tiny fraction – around 0.1% - of global emissions.

European IOCs have moved earlier and faster than USbased rivals to address sustainability-linked issues, though companies are moving at different speeds. Some have dedicated ever larger share of their investment budgets to low-carbon technologies (Repsol, Total), while others are still discussing the role and the speed of the transformation (Shell).

The US oil majors have started to move more seriously in the same direction. ExxonMobil recently announced plans to significantly reduce its upstream emissions intensity and to disclose its carbon footprint.

The acquisition of low-carbon technologies will remain one of the main drivers of M&A activity in the industry.

Risk factors

Risk	Potential impact on the credit quality
Slow vaccine roll-out / extended hard lockdowns	Moderate to high
Disagreements within / break-up of OPEC+	High
Stricter environmental regulation by major economies	Limited in short term
Return of capex and/or shareholder remuneration to pre-pandemic levels	High

 $^{^{\}rm 4}$ Total has set more ambitions targets for its European operations than for non-European ones

⁵ These include an increase in conversion of facilities to biorefineries, development of green hydrogen projects and growing investments in biomethane or renewable natural gas.



Annex I: Related research

"Integrated oil and gas: sector outlook remains negative; company focus on boosting liquidity", published Aug 2020, available here

"Integrated oil & gas companies cut capex by 25%, tap debt markets in dash for cash amid oil glut", published Apr 2020 available here

"Credit outlook for oil & gas sector changes to negative from stable for 2020", published Mar 2020 available here

"Integrated oil & gas outlook 2020: credit quality stable; ESG-linked issues bearing down on sector", published Feb 2020 available here



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