

Oil & Gas Practice

# Key considerations for CEOs in the oil and gas sector

The oil and gas industry has recently seen strong financial performance and is refocusing on its core, but it still needs to find answers to drive growth post-2030.

*This article is a collaborative effort by Christian Therkelsen, Dara Olufon, Namit Sharma, and Nikhil Ati, with Francesco Parente, representing views from McKinsey's Oil & Gas Practice.*



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**The demand for oil and gas** has returned to prepandemic levels; however, the energy transition is expected to change the demand trajectory for the industry over the medium to long term.

For oil, under all bottom-up scenarios modeled in our recent *Global Energy Perspective 2024* report, demand is projected to continue to grow in the short term before plateauing over the next five to seven years and then declining due to increased electric vehicle (EV) uptake, continued plastic recycling, and growth in the demand for sustainable fuels.<sup>1</sup> However, new oil supply would still be required to meet expected demand given that the predicted decline in existing oil fields would exceed the decline in oil demand to 2040.

In the case of natural gas, demand is projected to rise in the medium term across all scenarios, primarily driven by growing demand for power, blue hydrogen, and its essential role in high-heat industrial applications. Liquefied natural gas (LNG) has already played a crucial role in addressing recent demand spikes—its growth has been eight times faster than total gas demand. While sufficient LNG supply is expected to come online this decade, tightness is projected to emerge in the early 2030s.<sup>2</sup>

Given the overall demand and supply picture, both oil and gas are expected to remain critical components of the energy landscape over the next decade and the industry will be instrumental in achieving an orderly energy transition. However, recent geopolitical developments have heightened the focus on affordability and energy security, with sustainability remaining a key imperative. This raises the question: What role can the oil and gas industry play in balancing energy affordability, security of supply, competitiveness, and sustainability?<sup>3</sup>

When looking at how the industry can achieve this balance, we see five trends emerging from current industry players: upstream growth and consolidation, reshaping the downstream sector, diverging new energy bets, an observed performance push in the industry, and a more focused sustainability agenda.

In this article, we explore the current financial state of the oil and gas industry, the key trends, challenges, and opportunities, as well as questions CEOs will need to resolve to succeed in this decisive decade and beyond.

## **Current financial performance sees strong shareholder returns**

The past few years have seen strong financial performance in the oil and gas industry, with operating cash flows higher than at any point in the past decade and sufficient confidence to increase capital expenditure expectations for 2024 (Exhibit 1). The expected operating cash flow and free cash flow for 2024 across the top 100 public oil and gas companies is expected to remain similar to 2021–23 levels.

Across the industry, medium-term commodity price consensus, such as for Brent crude oil and refining margins, have stabilized and are even higher than pre-COVID-19 levels.<sup>4</sup>

This recent financial performance has led to shareholder returns roughly in line with global equities. We analyzed the total shareholder returns (TSR) of the top 100 publicly listed companies over the past five years (Exhibit 2). Exploration and production (E&P) companies have outperformed global equities and have the highest TSR in the sector, with an average of 15 percent since December 2019.

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<sup>1</sup> *The Global Energy Perspective 2024* offers a detailed energy demand outlook for 68 sectors and 78 fuels on a 1.5° pathway, as set out in the Paris Agreement, as well as three bottom-up energy transition scenarios: the Sustainable Transformation scenario, the Continued Momentum scenario, and the Slow Evolution scenario. These three scenarios span a temperature increase of 1.8 to 2.6°C.

<sup>2</sup> *Global Energy Perspective 2024*, McKinsey, September 17, 2024.

<sup>3</sup> *An affordable, reliable, competitive path to net zero*, McKinsey, November 30, 2023; **Oil and Gas Blog**, "The energy transition is happening: What role can the oil and gas industry play?," blog entry by Micah Smith, McKinsey, July 12, 2024.

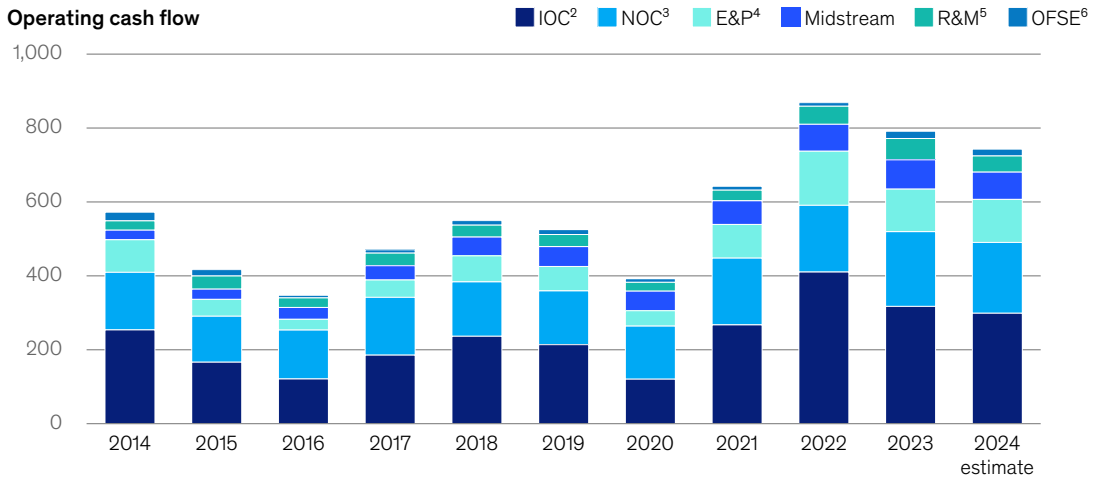
<sup>4</sup> "Spot prices for crude oil and petroleum products," Energy Information Administration, April 5, 2024.

Exhibit 1

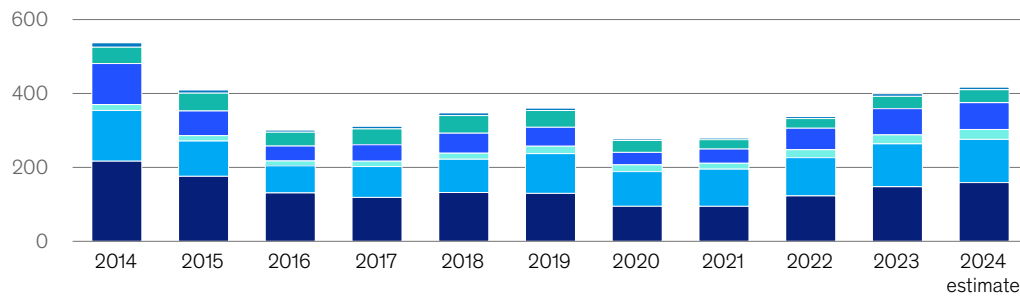
## The industry's strong financial performance continues in 2024.

Financial performance, based on top 100 oil and gas companies,<sup>1</sup> \$ billion

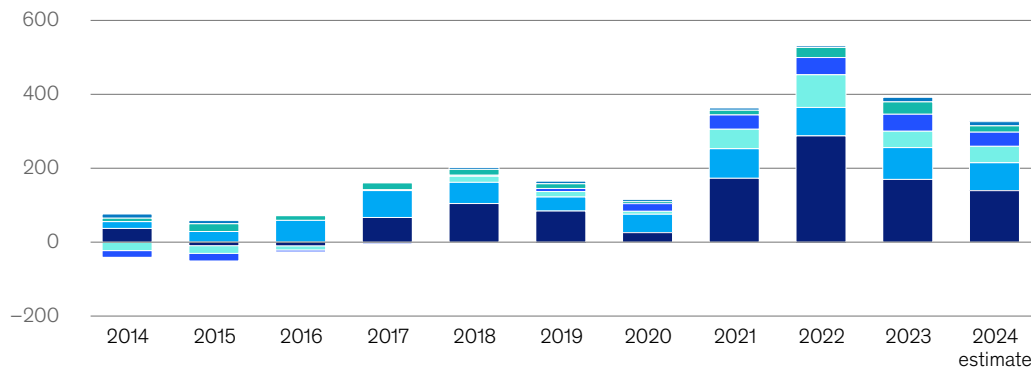
### Operating cash flow



### Capital expenditures (capex)



### Free cash flow<sup>7</sup> (before dividends)



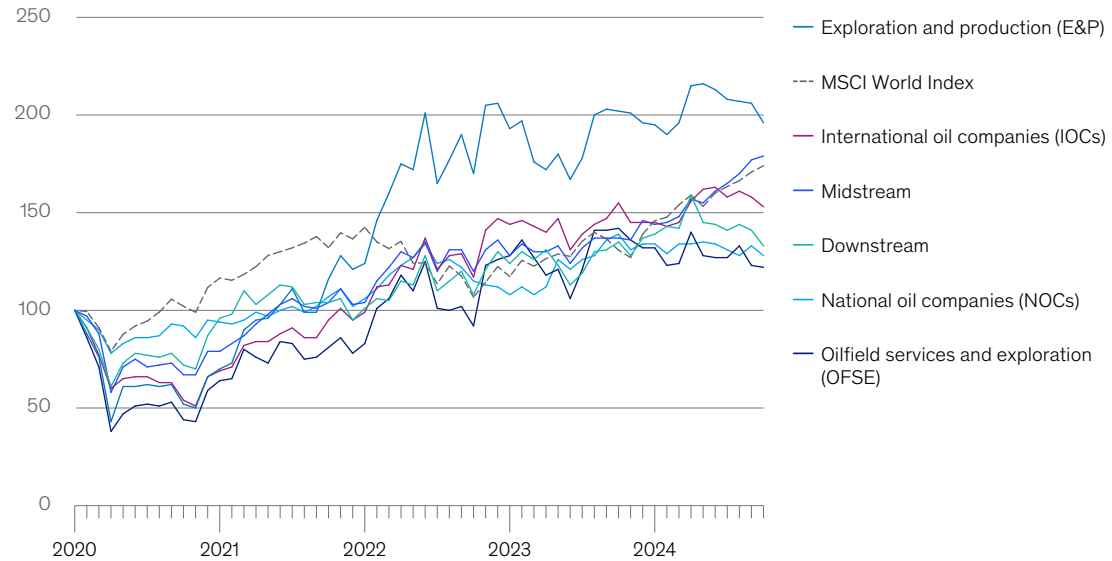
<sup>1</sup>Out of the top 100 companies, only 83 have all the available data since 2014; based on consensus analyst estimates as of Sept 30, 2024. <sup>2</sup>International oil companies. <sup>3</sup>National oil companies. <sup>4</sup>Exploration and production. <sup>5</sup>Refining and marketing. <sup>6</sup>Oilfield services and exploration. <sup>7</sup>Sum of operating cash flow and capital expenditure; data doesn't match due to sample set changes.  
Source: S&P Global market intelligence; McKinsey analysis

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## Exhibit 2

### Total shareholder returns are in line with global equities.

Total shareholder returns (TSR),<sup>1</sup> index (100 = Jan 1, 2020)



| TSR CAGR, %          | Dec 2019–Jan 2022 | Jan 2022–Sept 2024 <sup>2</sup> | Overall |
|----------------------|-------------------|---------------------------------|---------|
| — E&P                | 20                | 11                              | 15      |
| — Midstream          | 7                 | 18                              | 13      |
| --- MSCI World Index | 15                | 10                              | 12      |
| — IOCs               | 6                 | 12                              | 9       |
| — Downstream         | 3                 | 9                               | 6       |
| — NOCs               | 5                 | 5                               | 5       |
| — OFSE               | 0                 | 7                               | 4       |

<sup>1</sup>Sample of largest 100 oil and gas companies by market cap.

<sup>2</sup>As of Sept 30, 2024.

Source: S&P Global market intelligence; McKinsey analysis

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From a regional perspective, on average, US companies have outperformed other regions; the TSR average for US companies was 14 percent, whereas the average for the rest of the world was 6 percent.<sup>5</sup> This is influenced not only by the large share of E&Ps in the United States but also by some differences between European and US international oil companies (IOCs).

When looking across the performance quartiles, the top quartile companies were mostly made up of North American independents; the second quartile featured a strong showing of US downstream companies and US IOCs; the third quartile saw more European IOCs; and the bottom quartile was mostly made up of national oil companies (NOCs) without an advantaged upstream business or other structural challenges.

<sup>5</sup> "Capital IQ," S&P Global, accessed May 27, 2024.

## Five trends (re)shaping the industry

Within this context, we see five emerging trends in how oil and gas companies are responding: upstream growth and consolidation, reshaping the downstream sector, diverging new energy bets, the observed performance push in the industry, and a more focused effort on reducing emissions.

### Upstream growth and consolidation

We see greater diversification in company portfolios, with players doubling down on selected upstream, downstream, and new energy plays (Exhibit 3).

In upstream, we see investment growth and an increase in consolidation and M&A.<sup>6</sup> Buoyed by accelerated growth and consolidation (for example, the completed Pioneer acquisition by ExxonMobil and the announced acquisition of Hess by Chevron), we notice that players are also growing their positions, with a particular focus on tight oil, deepwater, and LNG.<sup>7</sup> Deepwater, especially, has seen more of a focus on scaling and opening new plays (such as in Namibia).<sup>8</sup>

### Reshaping the downstream sector

Investors in the downstream sector are rationalizing their refining portfolios to include more sustainable projects, such as biofuels, and some companies are increasingly integrating further into chemicals, especially those with solid fundamentals in the chemicals sector.<sup>9</sup>

The downstream sector has also seen an increase in trading, especially in gas and power, with a growing focus across IOCs and NOCs,

following record trading results in 2022 and 2023.<sup>10</sup>

### Diverging new energy bets

According to our analysis, there is a mixed picture of new energy bets.

On sustainable fuels, although there was some increased focus last year largely driven by M&A-led growth in biofuels and biogas, more recently, there have been some project delays and cancellations. Carbon capture, utilization, and storage (CCUS) has seen increased strategic focus, with more players highlighting CCUS in capital markets and some recent M&A deals occurring in North America.

However, we have seen a decreased focus on renewable power, hydrogen, nature-based solutions, and EV charging.<sup>11</sup>

It should be noted that there is a degree of divergence, as some players are still placing their bets on integrated power.<sup>12</sup>

There are also early signs of IOCs building options in critical materials such as lithium.<sup>13</sup>

### Performance push

Industry players are driving performance and focusing on improved capital expenditures and cost efficiency.

To achieve these goals, players are embracing new technology, including AI. For example, industry players are using predictive maintenance to analyze vast amounts of real-time operational data alongside historical

<sup>6</sup> Robert Belanger, Jeremy Brown, and Tom Grace, "Success in the M&A rebound: Riding the coming wave of upstream deals," McKinsey, February 24, 2023; "Connect transaction analysis," S&P Global, April 5, 2024.

<sup>7</sup> "ExxonMobil completes acquisition of Pioneer Natural Resources," ExxonMobil, May 3, 2024; "Chevron announces agreement to acquire Hess," Chevron, October 23, 2023.

<sup>8</sup> Tom Wilson, "Could Namibia be the next oil frontier?," *Financial Times*, August 27, 2023; "Global energy perspective 2023: Oil outlook," McKinsey, January 24, 2024.

<sup>9</sup> Cherry Ding, Tim Fitzgibbon, Hari Govindahari, and Brian Roth, "The near-term outlook for refining: Where to now?," McKinsey, May 22, 2023.

<sup>10</sup> Roland Rechtsteiner, Joscha Schabram, and Arun Thomas, "The future of commodity trading," McKinsey, January 29, 2023.

<sup>11</sup> "Connect transaction analysis," S&P Global, April 5, 2024.

<sup>12</sup> Clemens Kienzler, Alexandre Lichy, Humayun Tai, and Fransje van der Marel, "How oil and gas companies can be successful in renewable power," McKinsey, February 27, 2023.

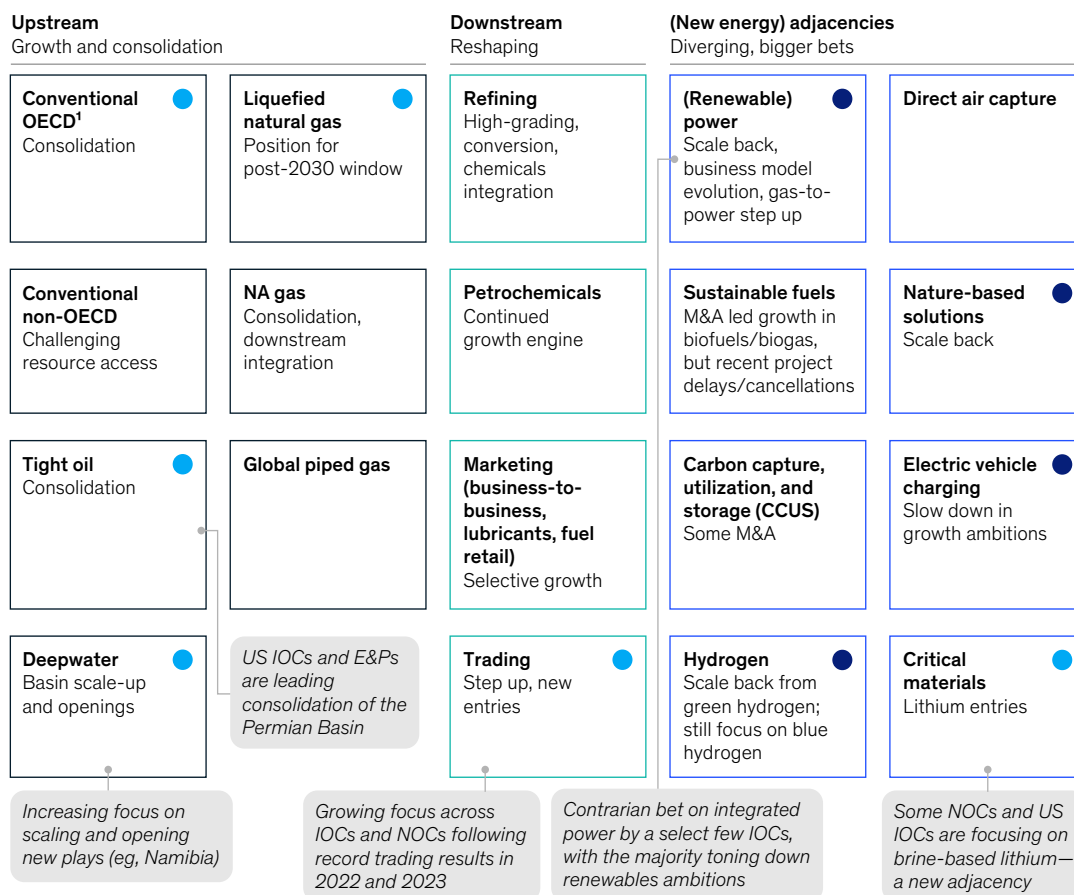
<sup>13</sup> Marcelo Azevedo, Magdalena Baczyńska, Ken Hoffman, and Aleksandra Krauze, "Lithium mining: How new production technologies could fuel the global EV revolution," McKinsey, April 12, 2022.

### Exhibit 3

## Portfolios currently focus on upstream and diverging new energies bets.

### Illustrative portfolios

Change IOC<sup>2</sup> emphasis last 12 months ● Step up ● Step back



<sup>1</sup>Organization of Economic Cooperation and Development.

<sup>2</sup>International oil company.

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performance to predict and avoid equipment failure. They are also using AI in exploration by processing multiple seismic images and geological data to identify areas of highest potential.<sup>14</sup>

To further improve performance, players are embracing modular and leaner capital delivery concepts and simplifying their operating models and general and administrative (G&A) spending,

as discussed in McKinsey's *State of Energy Organizations 2024* report.<sup>15</sup>

### Reducing Scope 1 and 2 emissions

From a decarbonization perspective, the main area of progress amongst oil and gas companies so far is reducing Scope 1 and 2 emissions, including methane, with less focus on Scope 3 emissions.

<sup>14</sup> "Beyond the hype: New opportunities for gen AI in energy and materials," McKinsey, February 5, 2024.

<sup>15</sup> Ignacio Fantaguzzi and Christopher Handscomb, *The state of energy organizations 2024*, McKinsey, January 25, 2024.



Players are executing various decarbonization levers, including the electrification of oil field equipment, improving energy efficiency, and enhancing methane monitoring. Many IOCs have met (or are close to meeting) Scope 1 and 2 emissions-reduction targets for 2025.<sup>16</sup> Further, the recent Oil and Gas Decarbonization Charter launched at COP28 has provided additional momentum by focusing on two commitments: reducing operational Scope 1 and 2 emissions to net zero by 2050 and reducing methane to near zero by 2030. This charter was signed by more than 50 IOCs, state-owned companies, and E&Ps, representing more than 43 percent of global oil production.<sup>17</sup>

## How can oil and gas companies thrive in a post-2030 world?

Balancing sustainability, affordability, security of supply, and (industrial) competitiveness has become increasingly challenging, but it also offers an opportunity to define industry growth post-2030.

**Sustainability.** Sustainability imperatives are top of mind in many geographies.<sup>18</sup> Beyond reducing operational Scope 1 and 2 emissions, oil and gas companies have capabilities that may be valuable for parts of a low-carbon energy system, such as access to capital and operational expertise.<sup>19</sup> For example, the industry has valuable knowledge in CCUS, which could play an important role in achieving net zero. The UN's Intergovernmental Panel on Climate Change puts it at 15 to 55 percent of cumulative mitigation by 2100.<sup>20</sup>

**Affordability.** As new energy projects begin to roll out, the high capital costs of these transition investments are gradually emerging.<sup>21</sup>

We are seeing a decline in investment for some low-carbon technologies with weaker business cases. For example, hydrogen is experiencing a decrease in investment momentum due to increased supply chain and financing costs.<sup>22</sup> The same trend is seen for biofuels because the recent market softening has led to multiple cancellations or delays after several years of high investments. Governments are providing support through policy initiatives such as the Inflation Reduction Act (IRA) and the European Green Deal; however, they face weakened fiscal positions and increased competing interests for limited funds.<sup>23</sup>

**Security of supply.** Energy security concerns are continuing to push supply chain resilience to the top of countries' agendas, preferring more diversified supply, longer-term contracts, and more self-sufficiency. Geopolitical challenges could further impact global supply chains and drive focus to energy security. For example, the invasion of Ukraine affected gas supply and prices, forcing some Western European countries to reevaluate their energy supply resilience. Germany was one such country. To mitigate the risk of energy shortages, it temporarily reopened coal plants to support the economy and its people.

**Competitiveness.** Countries and regions are increasingly concerned about remaining competitive and benefitting from opportunities during the transition. For example, if one country's emissions-reduction initiatives push up production costs, its products could become less competitive in global markets, potentially affecting local jobs and communities.<sup>24</sup>

Given the five industry trends and how the four imperatives of sustainability, affordability,

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<sup>16</sup> McKinsey analysis.

<sup>17</sup> "Oil and gas decarbonization charter launched to accelerate climate action," COP28, UAE, December 2, 2023.

<sup>18</sup> *Global Energy Perspective 2024*, September 17, 2024.

<sup>19</sup> *Decarbonizing the world's industries: A net-zero guide for nine key sectors*, McKinsey.

<sup>20</sup> *Carbon dioxide capture and storage*, Intergovernmental Panel on Climate Change, 2005.

<sup>21</sup> *An affordable, reliable, competitive path to net zero*, McKinsey, November 30, 2023.

<sup>22</sup> "Hydrogen insights 2023 December update," Hydrogen Council and McKinsey & Company, December 12, 2023; "The energy transition: Where are we, really?," McKinsey, August 27, 2024.

<sup>23</sup> *The future of wealth and growth hangs in the balance*, McKinsey Global Institute, May 24, 2023.

<sup>24</sup> *An affordable, reliable, competitive path to net zero*, November 30, 2023.

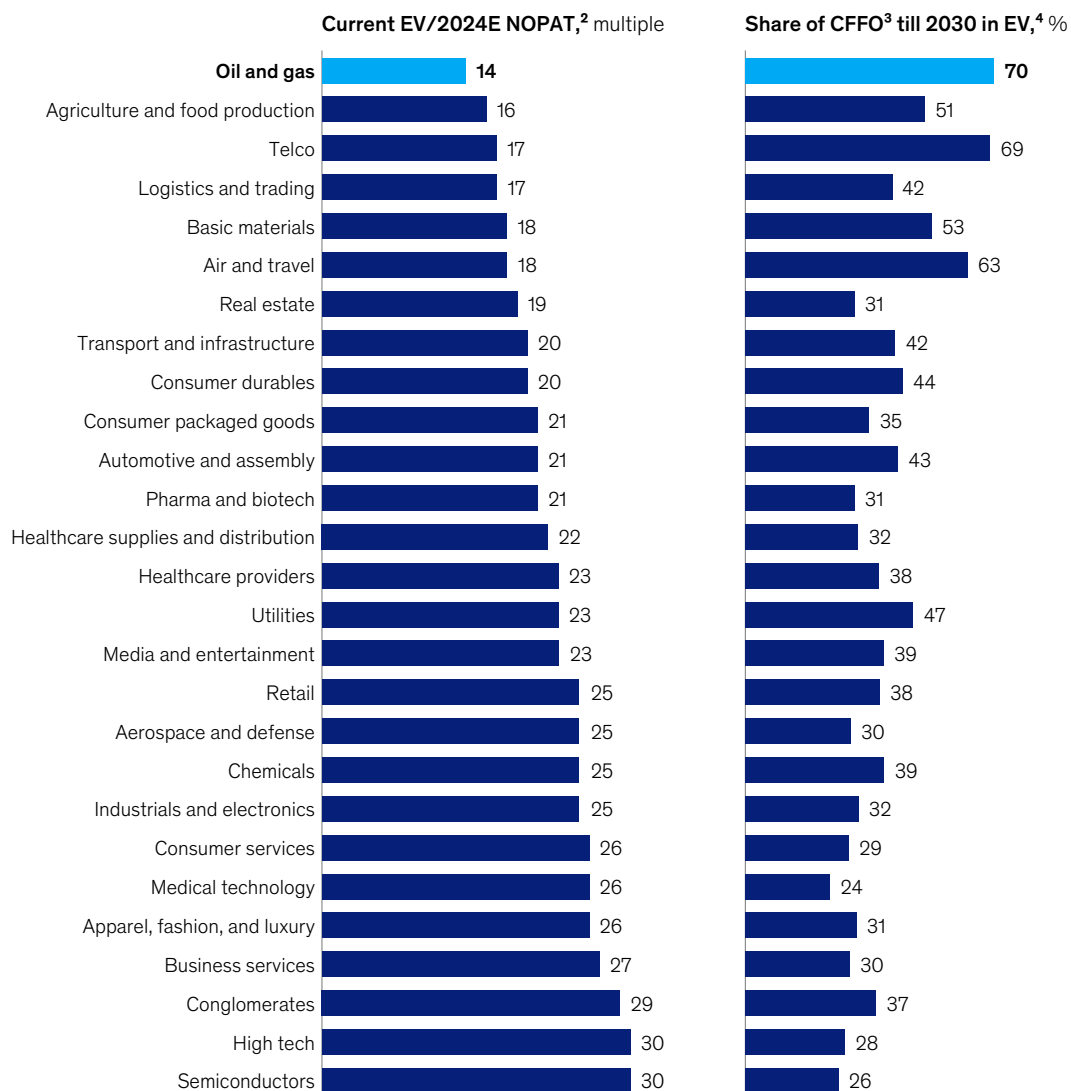
security of supply, and competitiveness are playing out in practice, we observe some market skepticism over the industry's ability to generate value over the long term. For example, the valuation

multiples of the oil and gas industry are the lowest across all industries, and the cash flow from operations to 2030 makes up a relatively large share of enterprise value (Exhibit 4). Hence, many

Exhibit 4

## Markets lack faith in the industry's ability to create long-term value.

### Comparison of oil and gas vs other industries<sup>1</sup>



<sup>1</sup>Excludes banks, insurance, and other financial services; based on a sample of Global Top 5000 companies (excluding China); analysis also excludes companies which do not have analyst coverage and companies which have financing arms.

<sup>2</sup>Enterprise value/2024 estimated net operating profit after tax; current EV and 2024E NOPAT estimates as of Sept 30, 2024.

<sup>3</sup>Cash flow from operations; CFFO until 2023 discounted by respective company weighted average cost of capital; current EV as of Sept 30, 2024.

<sup>4</sup>Enterprise value.

Source: S&P Global; McKinsey Value Intelligence Platform; McKinsey analysis

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analysts and investors are discounting cash flow growth estimates of oil and gas players beyond 2030. This is especially important to address given that oil demand and selected major supply hubs are due to plateau in the medium term (for example, the Permian), and the industry recently stepped back from many new energy plays.

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Against the backdrop of these evolving themes and considerations, CEOs will need to resolve a number of questions to generate value beyond 2030:

- What are the best opportunities to deliver upstream longevity and at-scale profitable positions while minimizing stranded asset risks beyond 2030?
- What conditions or attributes are required to make new energy bets profitable and scalable, and how can they be used best to leverage existing (or future) competitive advantages?
- How can M&A be used to accelerate growth, and how can deals be structured for maximum return on investment?
- How can excellence and innovation in capital projects be driven, particularly in light of new supply chain realities?
- How can the use of AI and new technology be scaled in a way that is truly anchored to delivering business value?
- Are current organizational models still fit for purpose, or is it time to simplify them, for example, by lowering G&A spending, refocusing on asset-centricity, or reinvigorating leadership?
- How can investor expectations be raised for long-term, profitable growth in an era characterized by change and disruption?
- What more can the industry do regarding emissions reductions to help meet the goals of the Paris Agreement?

How the industry will adapt to move with the changing times remains to be seen, but it is clear that companies need a solid strategy to ensure their success beyond the current buoyant market conditions.

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