

MOODY'S
RATINGS

Outlook for Oil and Gas Industry

Financial Executives International - Dallas Chapter

APRIL 2024

Speakers

Pete Speer is an Associate Managing Director in Moody's Corporate Finance Group, with responsibility for the Oil and Gas Team.

Prior to his current role, Pete was a Senior Vice President in the Oil and Gas Team, covering a portfolio of investment grade and high yield energy companies. His portfolio included integrated oil, exploration and production, drilling, oilfield services and midstream companies. He joined Moody's in 2003 in the Accounting Specialists Group, working alongside energy rating analysts and helping them to assess the reliability and quality of issuers' financial reporting and controls.

Before joining Moody's, Pete was a senior manager in the national office of PricewaterhouseCoopers LLP. For two years he consulted with audit engagement teams on a variety of complex financial accounting and reporting issues. Prior to his assignment in the national office, Pete was resident in the Houston office and served as the audit engagement senior manager for several multi-national energy industry clients.

Pete is a Certified Public Accountant and is licensed in Texas and Michigan. He graduated from the University of Michigan with a Bachelor of Business Administration.



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Sajjad Alam is a Vice President – Senior Credit Officer in the Corporate Finance Group at Moody's Investors Service in New York. As a member of the Oil & Gas Team, he currently covers a portfolio of investment grade and high yield E&P, midstream, drilling and oilfield services companies.

Sajjad joined Moody's in 2006 and spent the first two years analyzing companies in the North American Metals and Mining and Paper and Forest Product industries as an Associate Analyst. Prior to joining Moody's, Sajjad was a Senior Manager at Scotiabank's Global Risk Management Group in Toronto responsible for evaluating and improving the bank's internal credit risk framework for different industry groups. Previous to that, he held various analytical, accounting and management reporting positions at Deutsche Bank, The Bank of New York and Morgan Stanley.

Sajjad has an MBA in Finance from York University in Toronto, and a B.S. in Accounting and Economics from The University of Tennessee at Knoxville. He is also a CFA charterholder, a Certified Public Accountant and a Financial Risk Manager.



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Agenda

- 1 Oil and Natural Gas Prices**
- 2 Industry Sectors Outlooks**
- 3 Oil and Gas Rating Actions**
- 4 Drivers for E&P and Midstream Credit Improvement**
- 5 ESG in Credit Ratings**

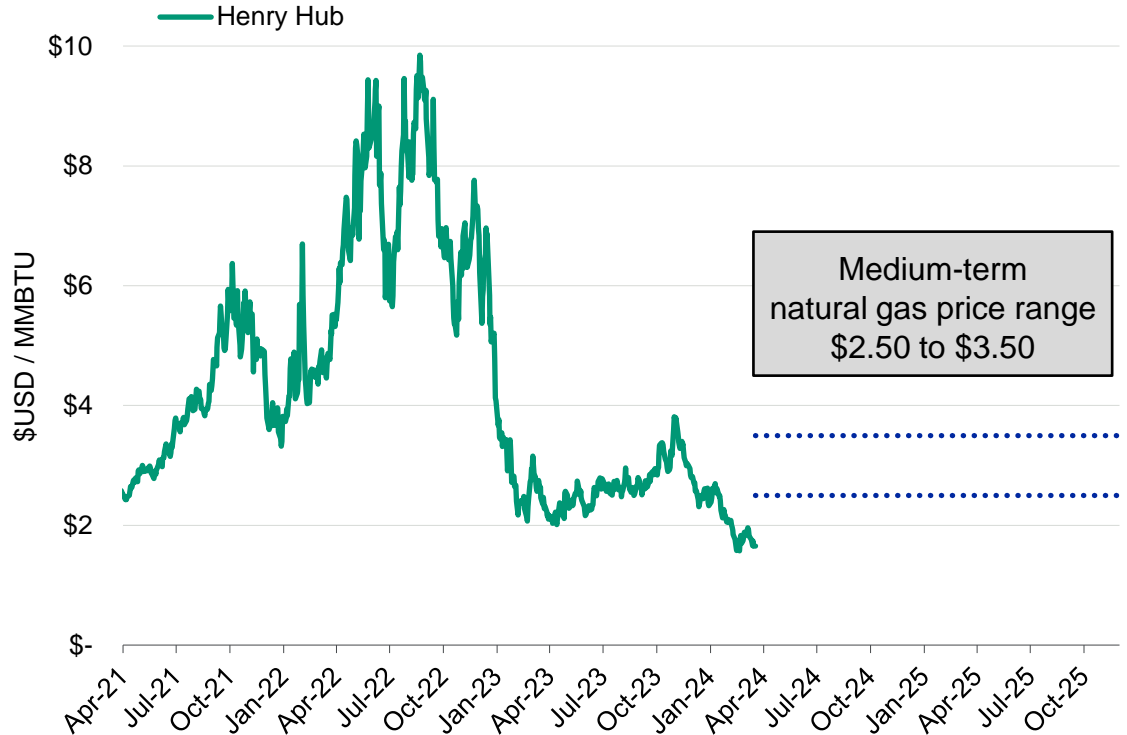
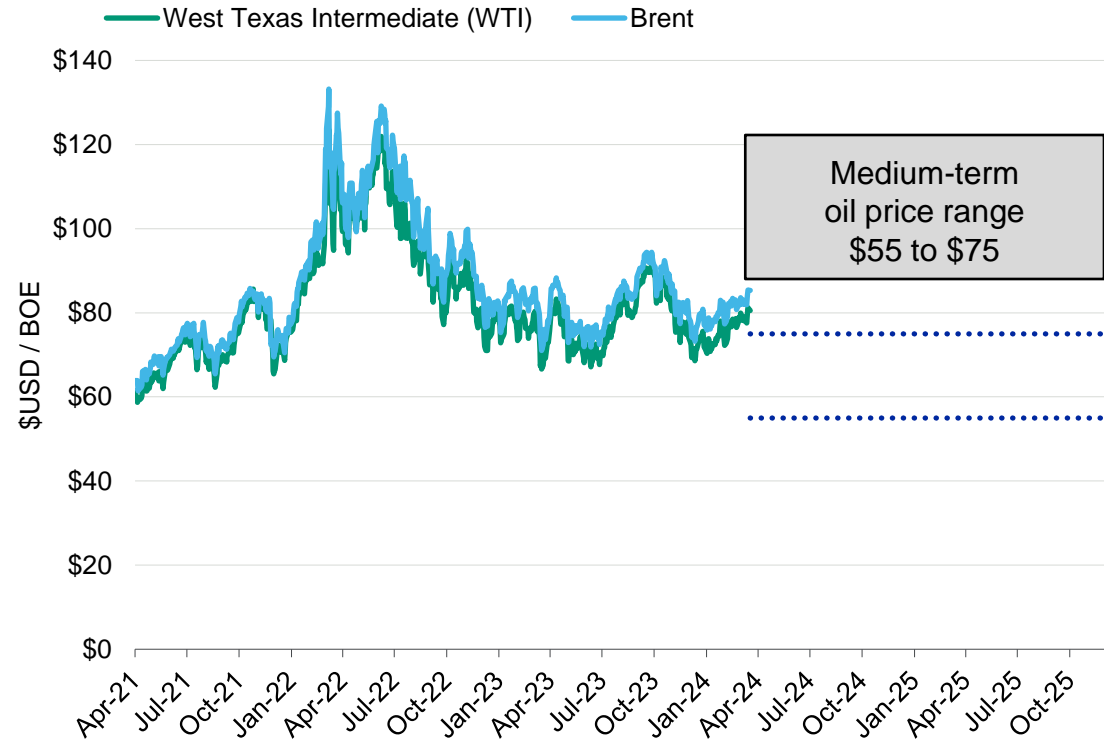
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1

Oil and Natural Gas Prices

Oil Prices Firming Up While Gas Prices Languish

Medium-term (MT) commodity prices



Source: FactSet, Data as of 18 March 2024

Source: FactSet, Data as of 18 March 2024

OPEC+ Production Cuts Move Market into Balance



Growth in oil demand back on GDP-led trend and modestly better than expected

- Oil demand growth follows growth in global GDP, supported by no recession in the US and growth in Asia and the Middle East
- Global inventory levels are low at the start of the summer season



Inflation in production costs declined

- Inflation in production and reinvestment costs slows down, supporting our estimates of **medium-term oil price range to \$55-\$75/bbl**
- Financial costs, including cost of capital, continue to increase



OPEC+ production cuts keep the market balanced, support prices, reduce volatility

- OPEC and Russia extended production cuts into 2024, likely delivering a small deficit in 2H 2024, reduction in inventory
- US producers facing rising capital intensity and rising cost of capital, leading to moderate production growth as oil prices rise and sharp cuts to production if prices decline



Global oil market adjusts to changing terms of global trade and new regulations

- Global physical flows and futures markets adjust to trade restrictions, reducing arbitrage opportunities
- Market is focused on geopolitical tensions in the Middle East

Oversupply Looms as Global Demand for Natural Gas Grows



Decline in natural gas prices support recovery in demand in emerging markets

- SE Asia and China will drive most of demand growth in the medium term
- Restart of nuclear facilities in Japan and rising competitiveness of coal in SE Asia limit the strength of recovery in gas demand
- European demand is poised for flat recovery due to structural shift in industrial demand and rising efficiency in residential use of natural gas



US production exceeds demand until 2026

- Production of associated gas outpaces expected rise in export capacities and demand
- Rising competition in global LNG will cap improvement in domestic prices from 2026/27



LNG supply glut appears on 2026 horizon

- US supply/demand balance depends on increase in demand for US LNG projected in 2025 and even more so in 2026 onwards
- Global LNG market is projected to move into substantial oversupply in 2026/2027 capping improvement in domestic prices
- Asian buyers' focus on security of supply and affordability will likely delay coal-to-gas switch in major economies



US producers maintain highly competitive positions amid rising associated gas output

- Medium-term Henry Hub price range of \$2.50-\$3.50 / MMBtu reflects full reinvestment costs and dividend
- Associated gas production depends on oil economics and allows overproduction even if prices decline below cost of production (as in 2023/24)

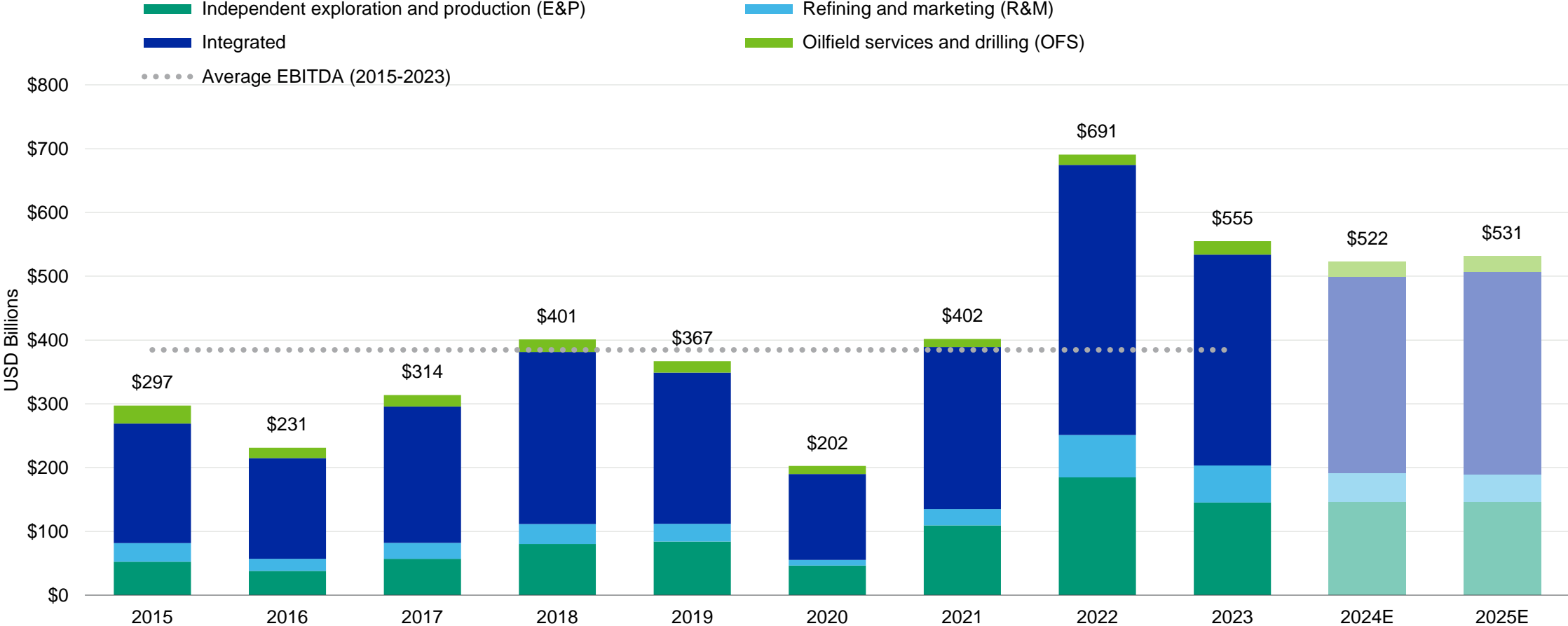
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2

Industry Sector Outlooks

Global Energy Outlook

Curtailed supply upholds oil prices and elevated industry earnings



Source: Moody's Ratings

Global Energy Outlook

Outlook: Stable

Exploration & Production

Direction: FLAT

- Oil prices are elevated, while depressed natural gas prices mount a slow recovery
- Sustained focus on capital discipline and shareholder returns restricts volume growth
- Solid balance sheets and free cash flow provide financial flexibility
- Medium-term demand fundamentals for oil and gas globally provide support



Refining & Marketing

Direction: FLAT

- Margins above mid-cycle level will continue downward trend but still offer solid earnings into 2025
- Global growth for fuels will taper as GDP growth slows in 2024
- Global refining capacity will increase over the next several years, following a decrease during the pandemic



Integrated

Direction: FLAT

- Earnings will ease but remain at historically high levels
- Companies will sustain discipline in investment amid high levels of shareholder distributions
- Companies will stay focused on efficiency, moderate production growth, and continued energy transition



Oilfield Services

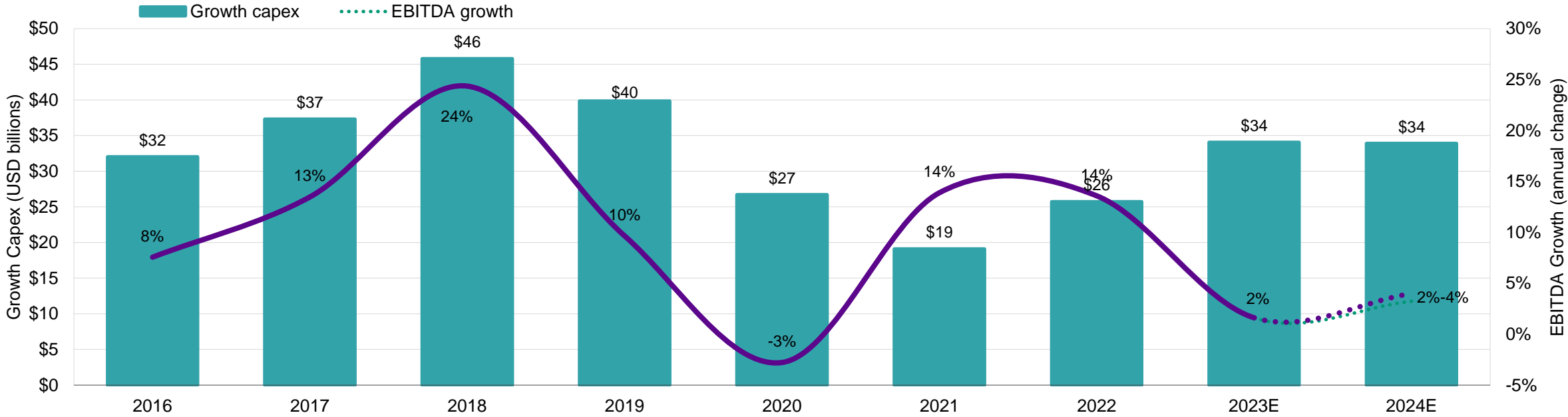
Direction: IMPROVING

- Momentum will be significant for international operations and offshore projects
- Earnings improvement will be less certain for US operators, with reduced natural gas drilling
- Upcycle has longer potential lasting power following years of E&P underinvestment



Global Midstream Energy Outlook

Midstream growth capital spending will remain flat in 2024 and meaningfully below peak



Source: Moody's Ratings

Global Midstream Energy Outlook

Outlook: Stable

- Midstream EBITDA will expand by 2%-4% in 2024, with significantly faster growth unlikely in 2025.
- Exploration and production (E&P) capital discipline restrains volumes and limits demand for new midstream infrastructure
- Liquefied natural gas' (LNG) rapid growth will slow, with major projects completing in 2024-25 and a near-term regulatory pause
- Capital access remains robust with manageable debt maturities
- Midstream M&A should continue, focused on operational synergies



Risks on the Horizon

Near-term to long-term risks

Taxation of “windfall profits” and other taxes

Regulatory changes affecting resource access and cost

Infrastructure constraints limiting opportunities to grow

Cyber risks

Access to capital markets and cost of capital

Litigation related to climate change

Environmental and social risks, particularly energy transition



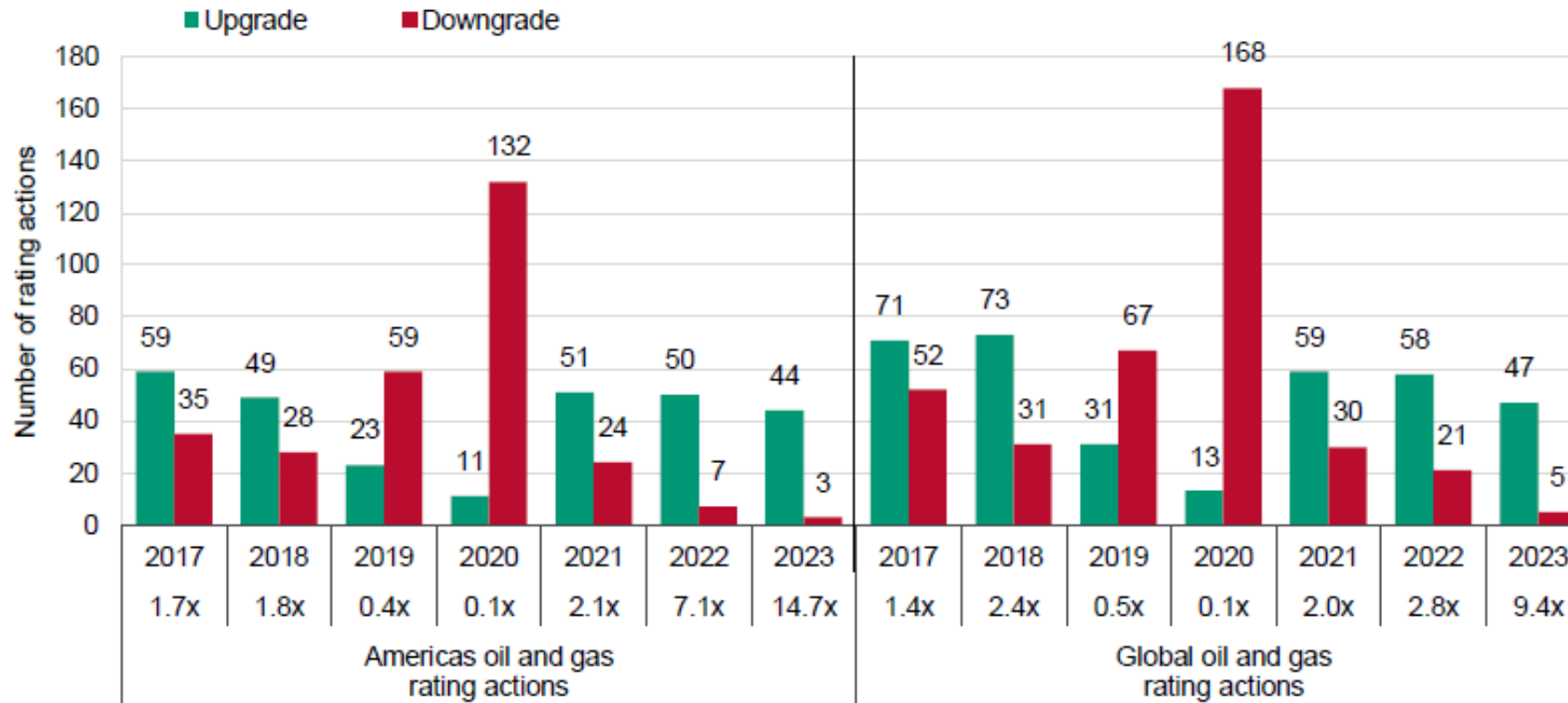


3

Oil and Gas Rating Actions

Upgrades Outpace Downgrades at Increasing Pace

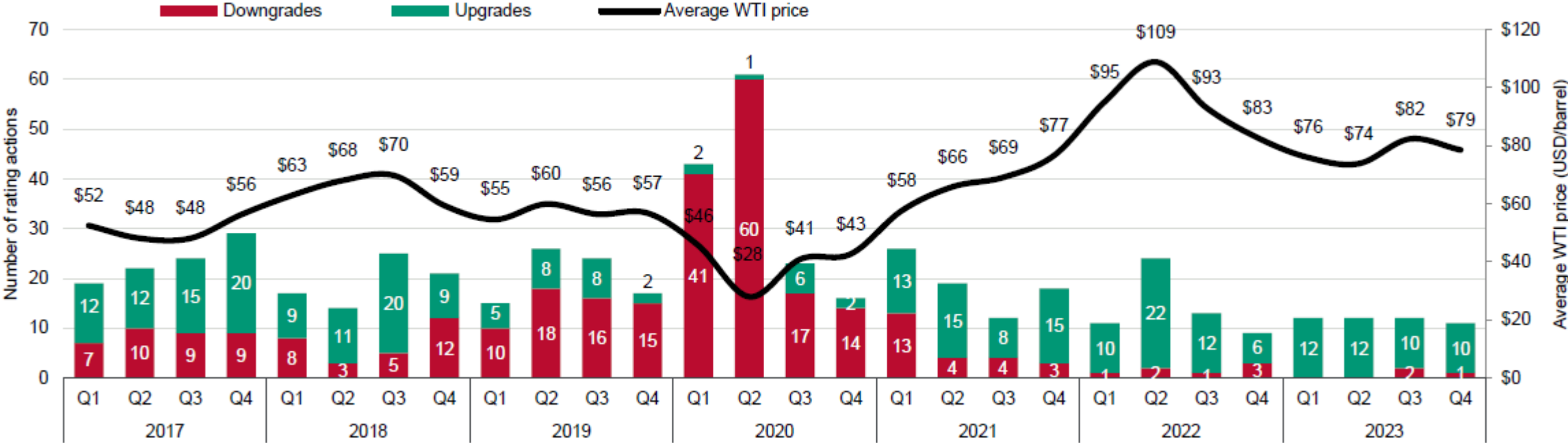
- Since 2021, upgrades have been steady while downgrades have become rare
- Companies used record cash flow to reduce debt, while continuing to lower their breakeven costs and enhance the ability to generate free cash flow at lower commodity prices



Source: Moody's Ratings

Vast Majority of Upgrades Involved Companies in Americas

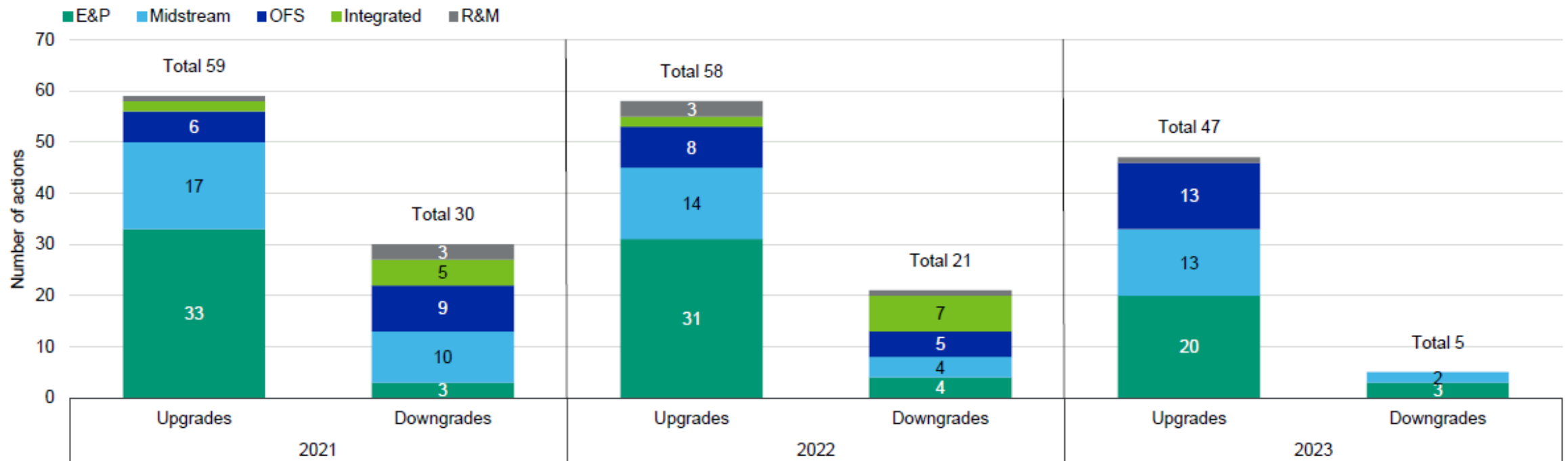
→ There were 94 upgrades and only 10 downgrades in 2022-2023



Source: Moody's Ratings

Upgrades Moderated for E&P and Midstream Companies, but Increased for OFS Companies Between 2021 and 2023

- Increased free cash flow, debt reduction, and M&A were principal drivers for upgrades
- E&Ps quickly benefitted from higher commodity prices, while OFS cash flow responded with a lag



Source: Moody's Ratings

Rising Stars and Falling Angels

→ In 2023, six companies crossed over to investment grade, but none downgraded to speculative-grade

Company	Sector	Date of last change in rating/outlook	Current rating/outlook	Previous rating/outlook
Occidental Petroleum Corporation	E&P	10-Mar-23	Baa3 stable	Ba1 positive
Western Midstream Operating, LP	Midstream	10-Mar-23	Baa3 stable	Ba1 positive
DCP Midstream, LLC	Midstream	6-Apr-23	Baa3 positive	Ba1 positive
Apache Corporation	E&P	12-Jun-23	Baa3 stable	Ba1 positive
EQT Corporation	E&P	24-Aug-23	Baa3 stable	Ba1 positive
Cheniere Energy, Inc.	Midstream	24-Aug-23	Baa3 stable	Ba1 review for upgrade

→ Five companies achieved rising star status in 2024 with one becoming a potential fallen angel

Company	Sector	Date of last change in rating/outlook	Current rating/outlook	Previous rating/outlook
Chesapeake Energy Corporation	E&P	11-Jan-24	Ba1 positive	Ba1 stable
Southwestern Energy Company	E&P	11-Jan-24	Ba1 positive	Ba1 stable
Endeavor Energy Resources, L.P.	E&P	12-Feb-24	Ba1 RUR-Upgrade	Ba1 stable
TenchnipFMC plc	Oilfield Services	26-Feb-24	Ba1 positive	Ba1 stable
Cheniere Energy Partners, L.P.	Midstream	26-Feb-24	Ba1 positive	Ba1 stable
EQT Corporation	E&P	11-Mar-24	Baa3 negative	Baa3 stable

Source: Moody's Ratings

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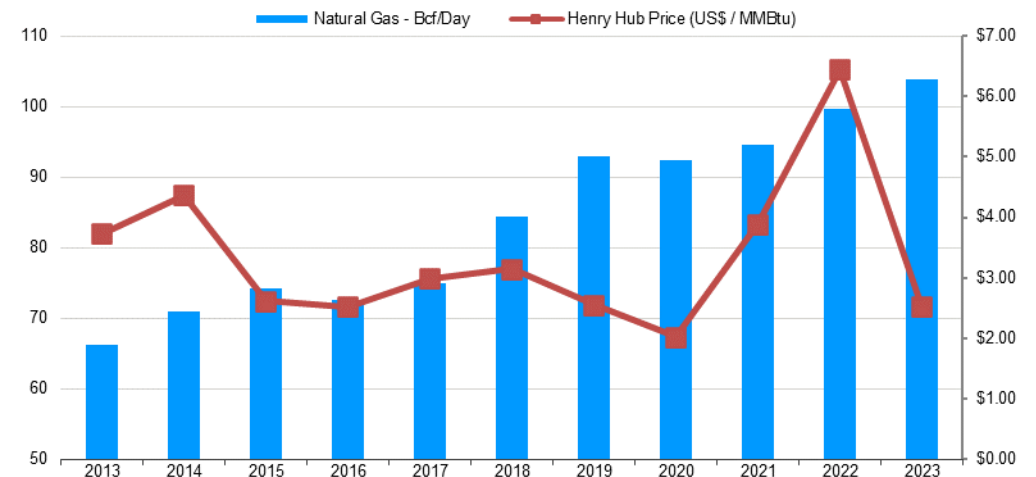
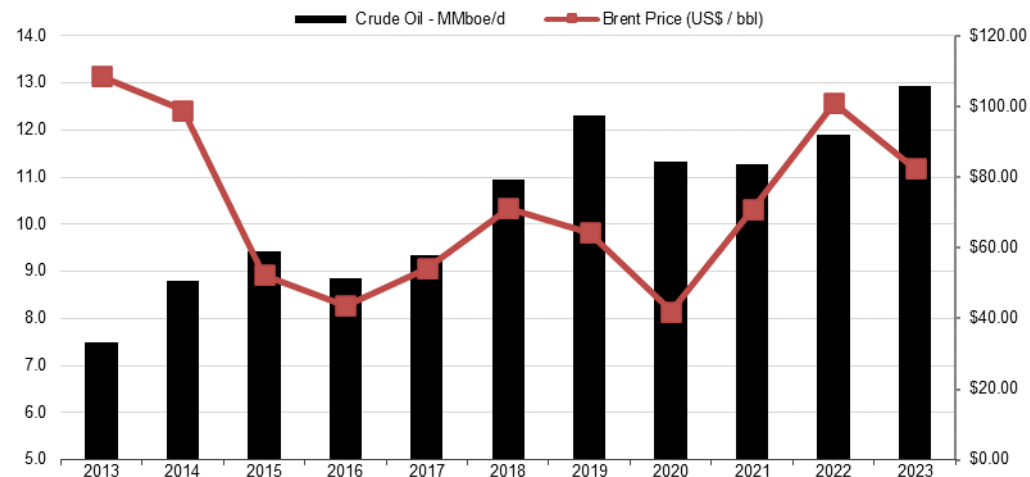
Drivers for E&P and Midstream Credit Improvement

E&Ps Embraced Capital Discipline and FCF Focus

- Geological risk has greatly declined
- Focus on operational and capital efficiency, supply-chain management, and scale
- Growth for growth's sake is shunned by investors
- Measured increases in capex and dividends leading to more sustainable FCF
- Demand for increased cash returns to shareholders

US Oil and Gas Production Grew Despite High Price Volatility

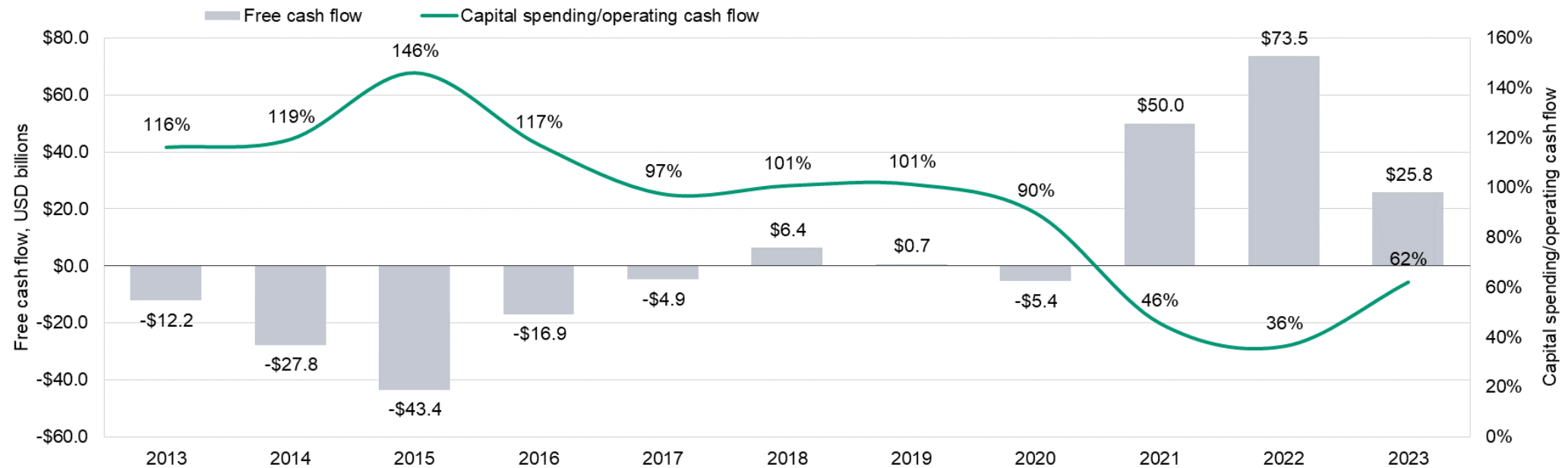
→ Annual US crude oil production jumped by 73% and dry gas by 57% between 2013 and 2023



Source: The EIA

E&P Key Driver, Moving to FCF Generation...

- Around mid-2018, E&P companies began to abandon growth and embrace capital discipline
- Lower capital spending, through efficiencies and growth downshift, positioned companies to generate enormous free cash flow when commodity prices recovered after pandemic

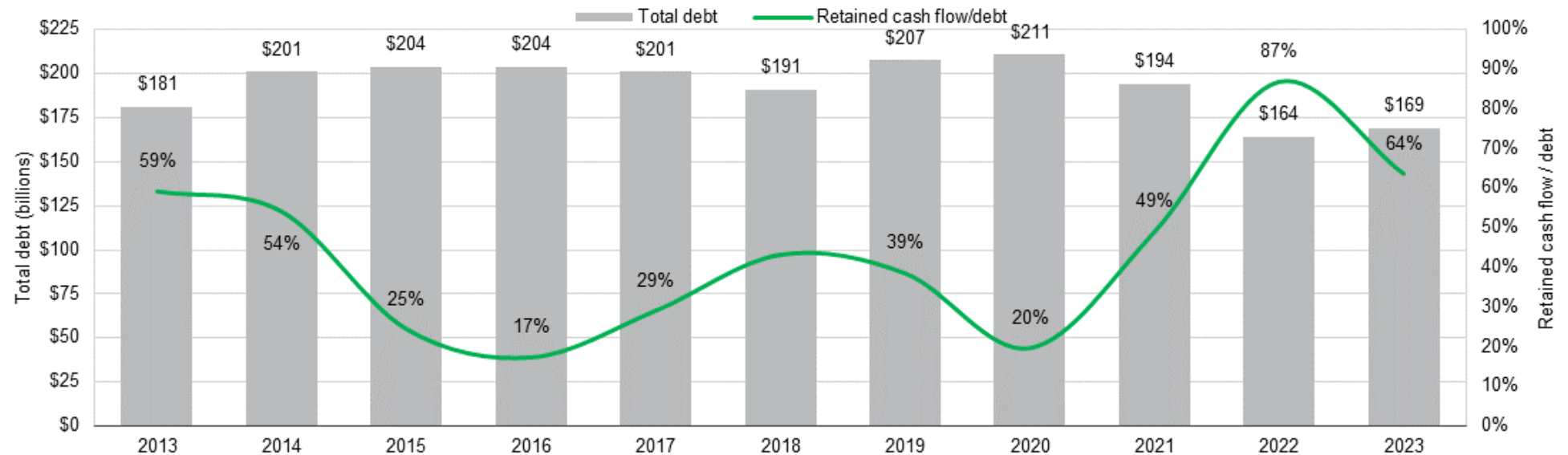


Representative peer group of the 31 largest rated E&P companies in 2013, of which 25 remained independent as of 31 December 2023

Source: Moody's Financial Metrics

... Helped Fund Substantial Debt Reduction

- Debt dropped by 20% from 2020 to end of 2023
- Oxy's acquisition of Anadarko added \$17B of debt in 2019 and another \$11B in 2023; debt still fell by 10% from 2018 to 2023 with strong production and reserves growth

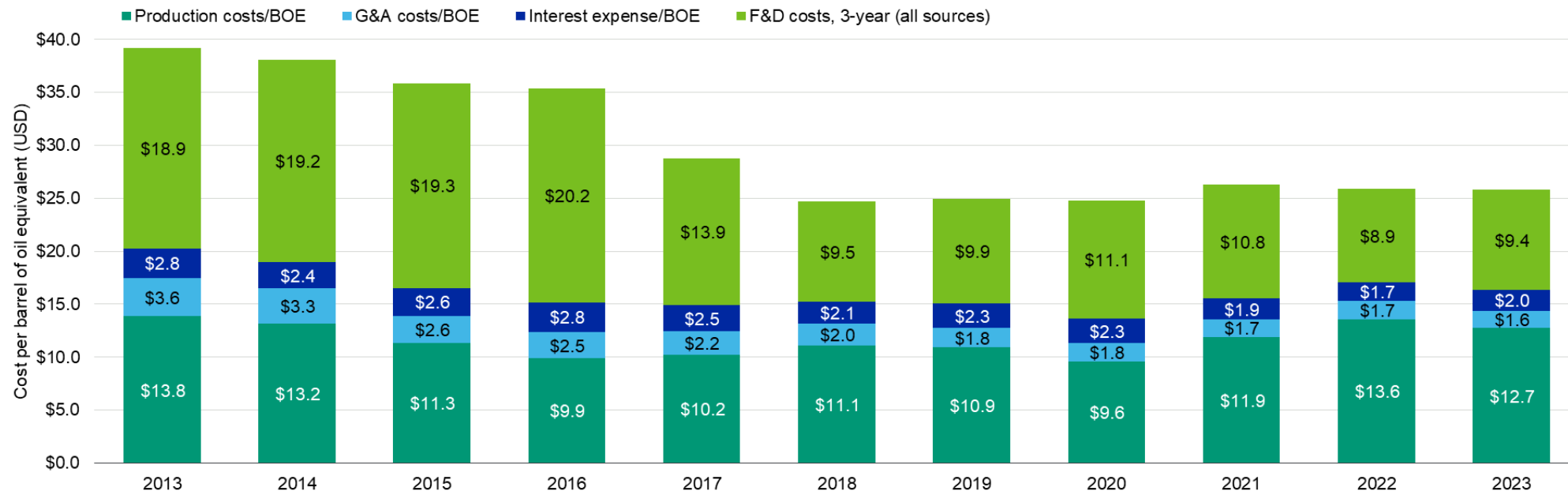


Representative peer group of the 31 largest rated E&P companies in 2013, of which 25 remained independent as of 31 December 2023

Source: Moody's Financial Metrics

Lower Debt and Full-Cycle Costs Boosts Resilience

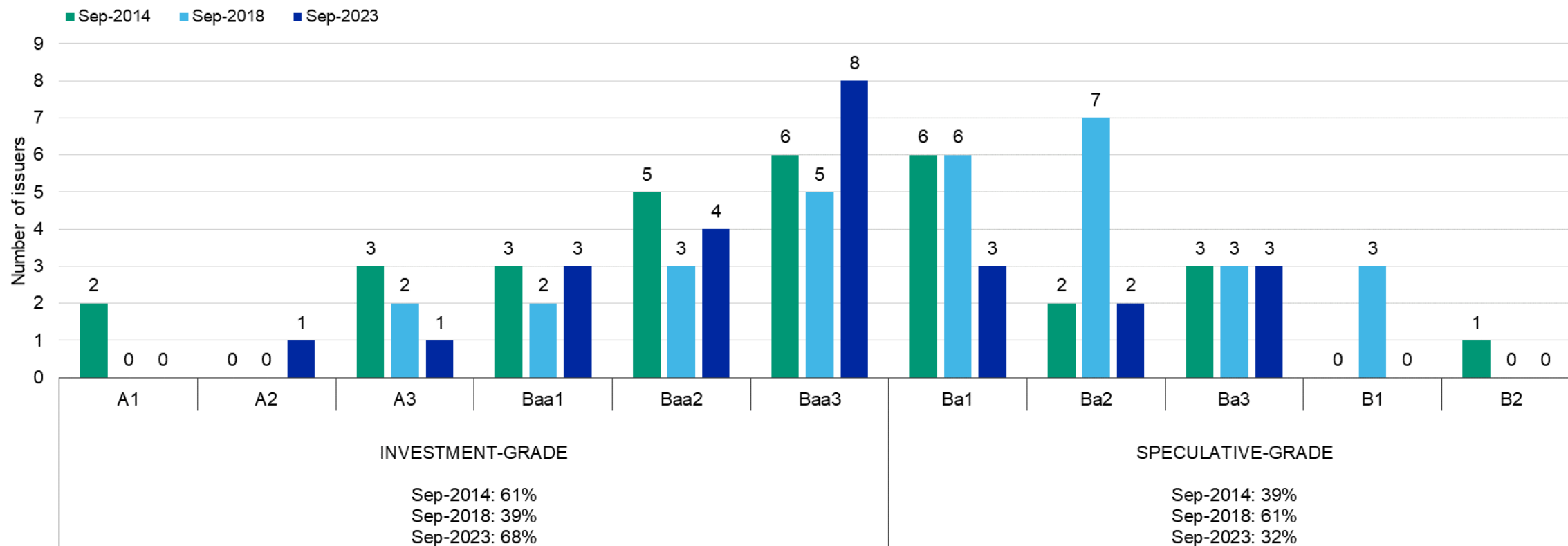
- Drilling and completion efficiencies have greatly reduced reinvestment cost (F&D)
- G&A cut by more than half and interest expense fell due to lower debt and higher production
- Companies have much lower break-evens; can generate good returns at lower prices



Representative peer group of the 31 largest rated E&P companies in 2013, of which 25 remained independent as of 31 December 2023

Source: Moody's Financial Metrics

Ratings Distribution for the Selected E&P Group: 2014 - 2023



Representative peer group of the 31 largest rated E&P companies in 2013, of which 25 remained independent as of 31 December 2023

Source: Moody's Financial Metrics

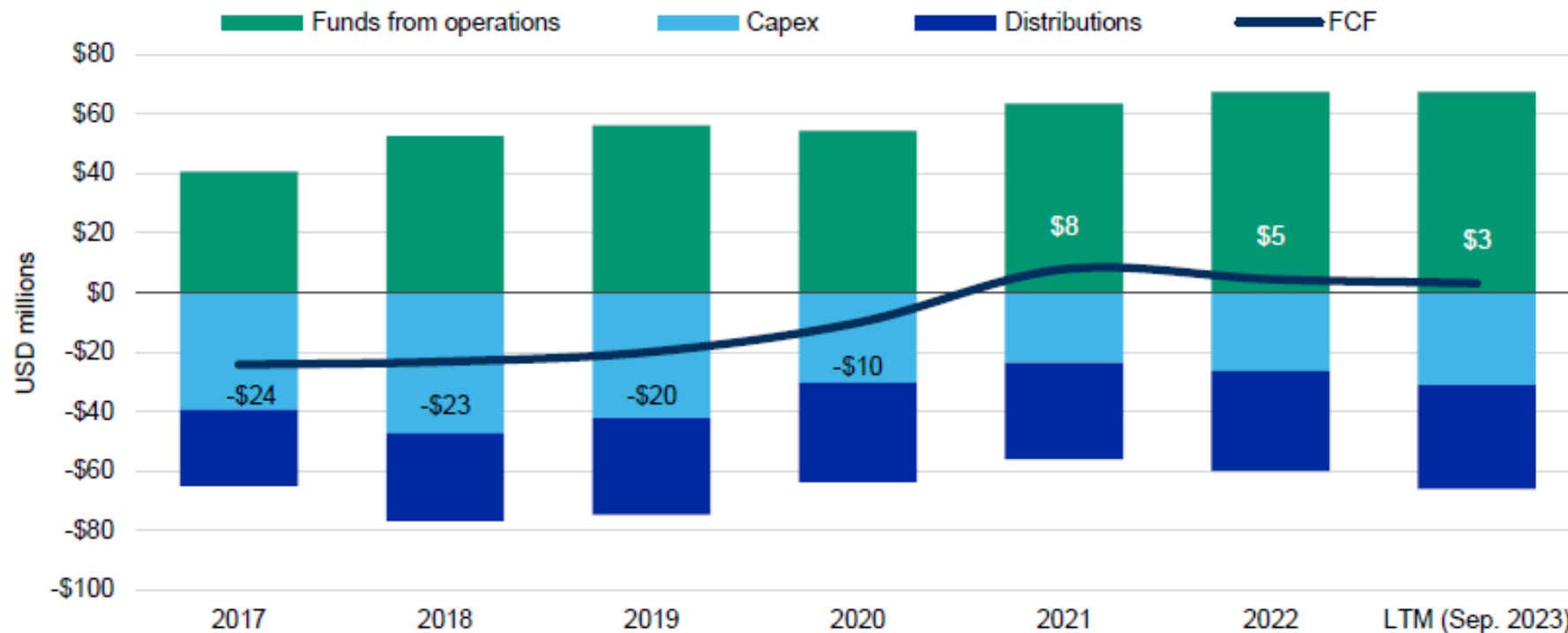
The Midstream Business Model has Similarly Evolved

These changes have been good for credit

- Solid EBITDA growth outlook underpinned by ongoing investment
- Reduced distributions increase flexibility to reinvest
- Trending towards lower external funding needs
- Improving counterparty credit exposure
- Market rewards disciplined approach to investment and strong balance sheet

Midstream Key Driver, Companies Turn FCF Positive...

→ Rising cash flow, reset distributions and lower capex reverses sector's perennial negative FCF

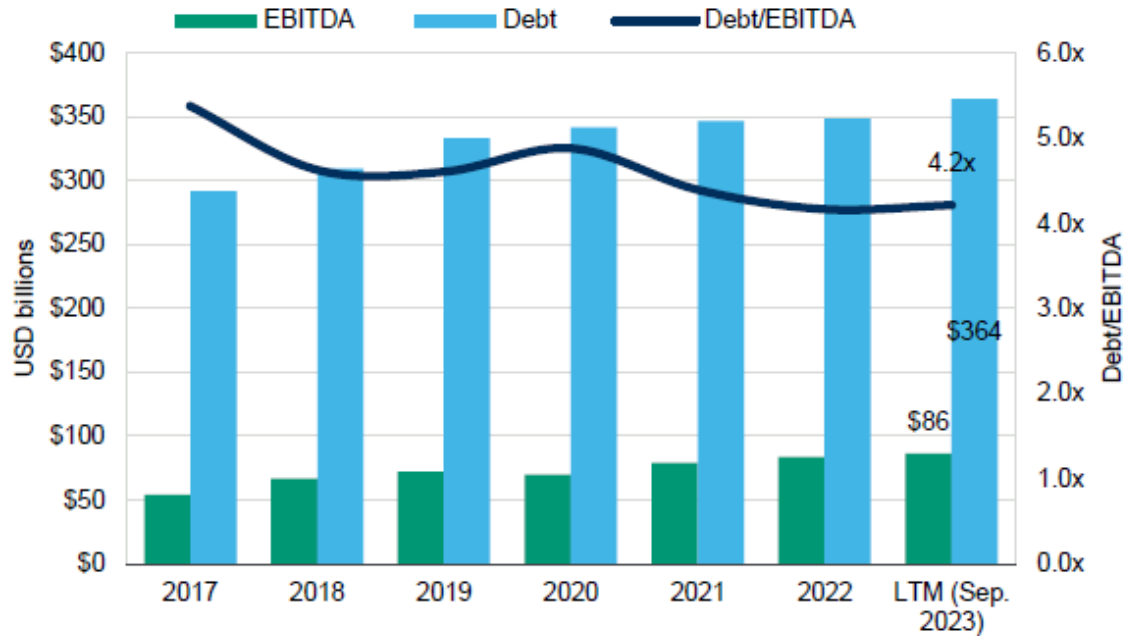


Representative peer group of the 20 largest rated midstream companies

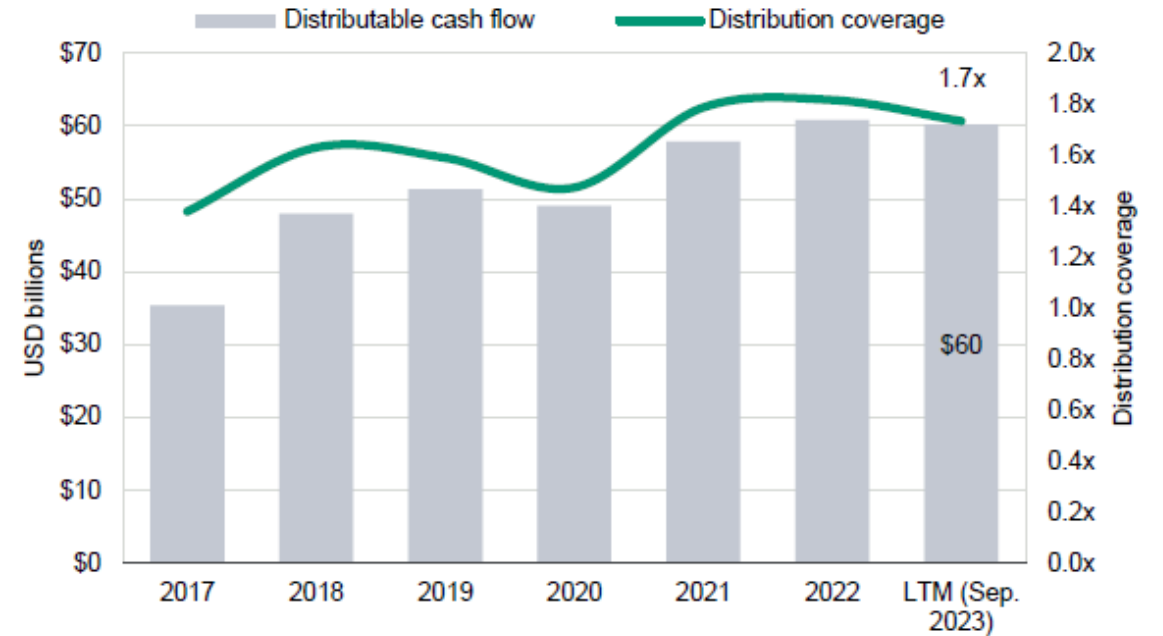
Source: Moody's Financial Metrics

...Funding Growth Internally while Debt Plateaus

→ Rising earnings and cash flow driving declining leverage and higher distribution coverage



Aggregate for 20 of the largest rated midstream companies
Source: Moody's Financial Metrics™



Aggregate for 20 of the largest rated midstream companies
Source: Moody's Financial Metrics™

Representative peer group of the 20 largest rated midstream companies

Source: Moody's Financial Metrics



5

ESG in Credit Ratings

Four Components to Integration of ESG

ESG scores will assist in transparently and systematically demonstrating the impact of ESG on credit ratings



Credit Ratings & Research

How is ESG integrated into credit ratings?

ESG factors taken into consideration for all credit ratings. Greater transparency in PRs, as well as Credit opinions. Credit Impact Score (CIS) is an output of the rating process that indicates the extent, if any, to which ESG factors impact the rating of an issuer or transaction.



ESG Scores

How is a specific issuer exposed to ESG risks/benefits?

Issuer Profile Scores (IPS) are issuer-specific scores that assess an entity's exposure to the categories of risks in the ESG classification from a credit perspective. IPSs, where available, are inputs to credit ratings.



ESG Classification

What is ESG?



Our classification reports describe how we define and categorize E, S and G considerations that are material to credit quality. New environmental classification sharpens focus on physical climate risks.

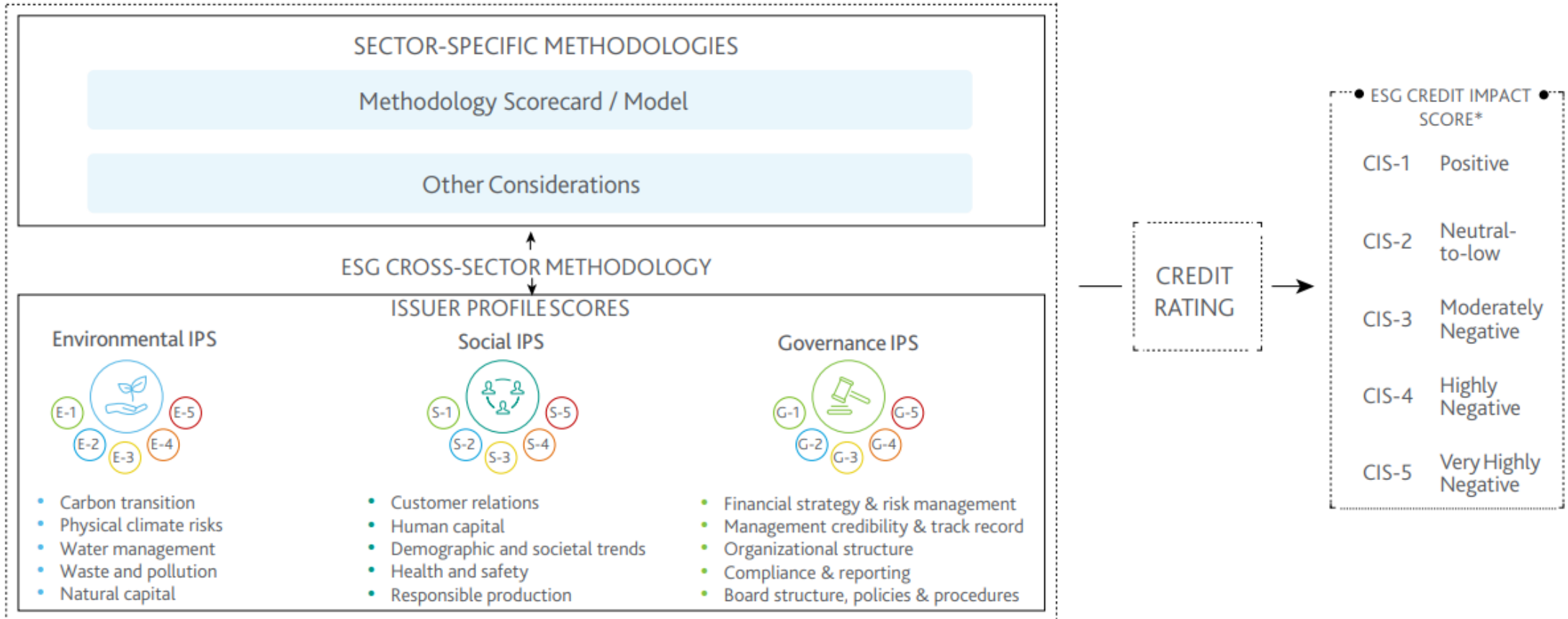
Heat Maps

Is ESG material to credit quality?



Heat maps provide relative ranking of various sectors along the E and S classification of risks.

ESG Considerations in Credit Ratings

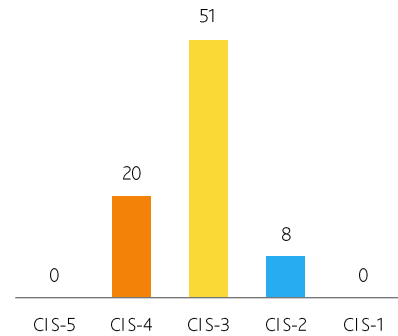


The ESG credit impact score (CIS) is an output of the rating process that more transparently communicates the impact of ESG considerations on the credit rating of an issuer or transaction.

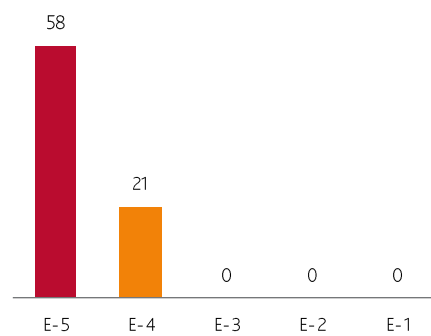
Risk Category Distribution by IPS and CIS

Independent Exploration and Production

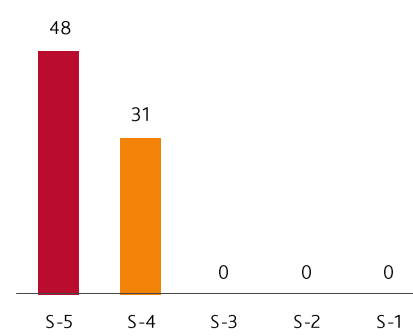
Credit Impact Score (CIS)



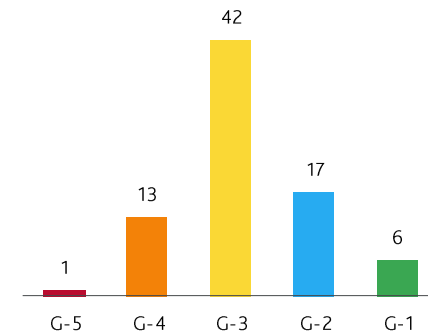
Environmental Issuer Profile Score



Social Issuer Profile Score

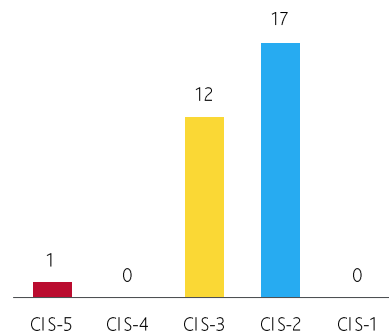


Governance Issuer Profile Score

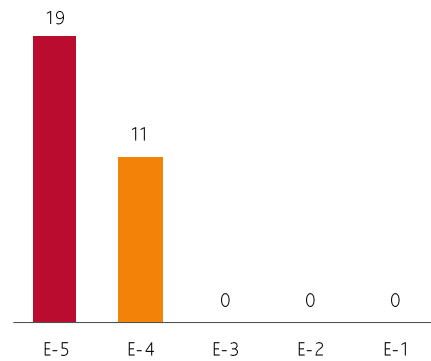


Integrated Oil & Gas

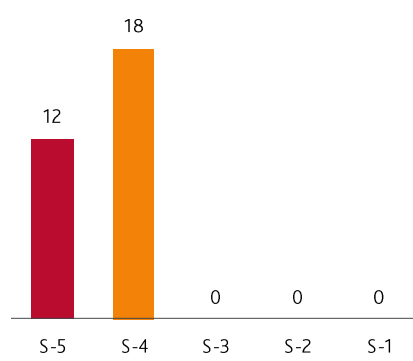
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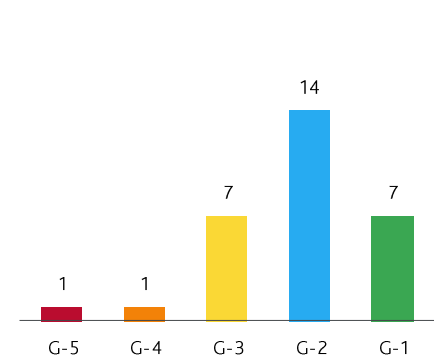
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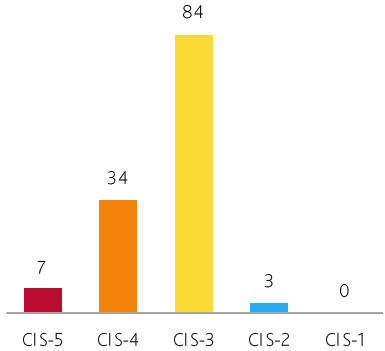


Source: Moody's Ratings; Data as of 4 March 2024

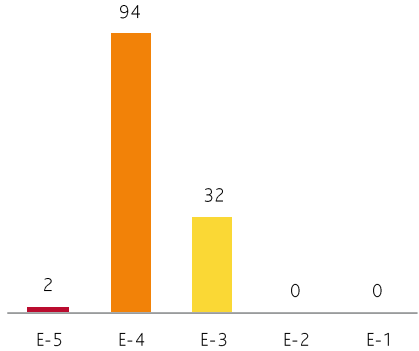
Risk Category Distribution by IPS and CIS

Midstream

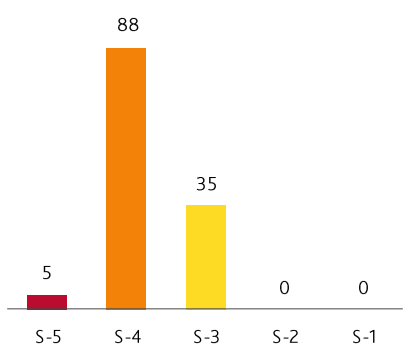
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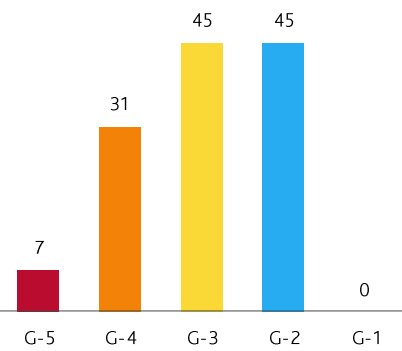
Environmental Issuer Profile Score



Social Issuer Profile Score

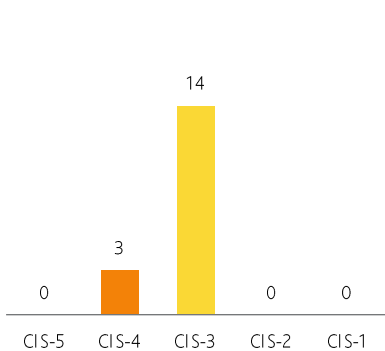


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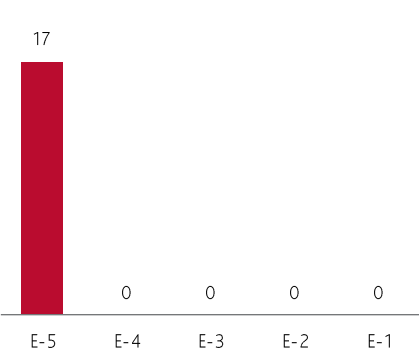


Refining & Marketing

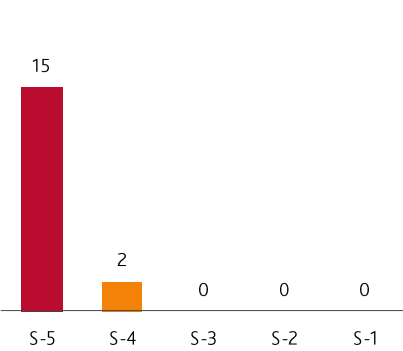
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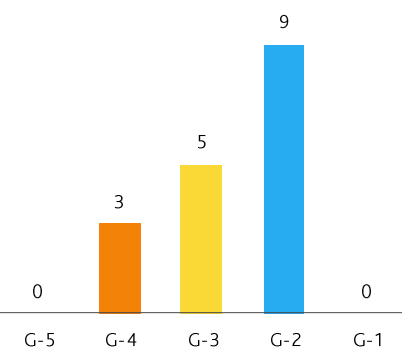
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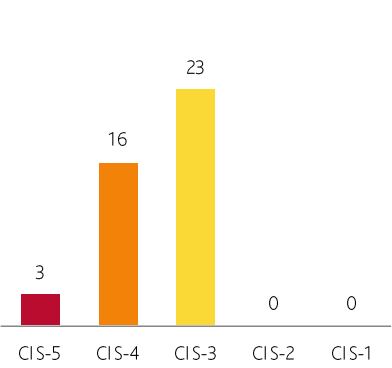


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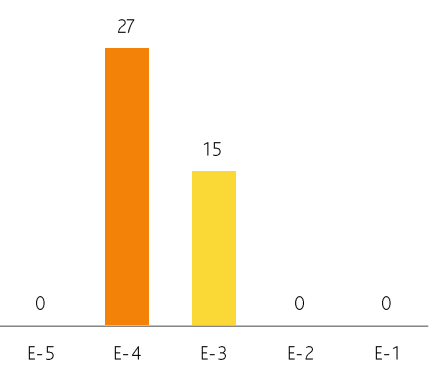
Risk Category Distribution by IPS and CIS

Oilfield Services and Drilling

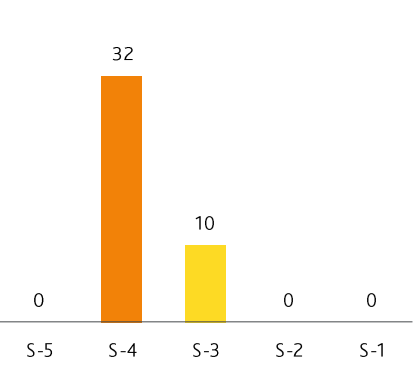
Credit Impact Score (CIS)



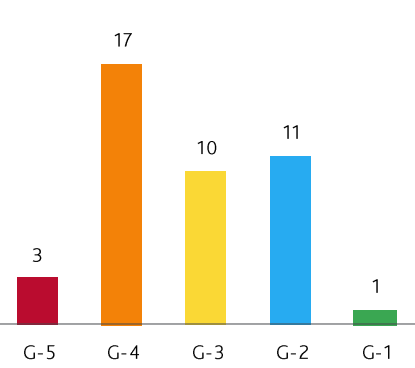
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Question and Answer

Moody's award winning expertise in credit ratings, research and risk analysis



MOODY'S INVESTORS SERVICE

Multi-award winner: 2015–2022 including Best Rating Agency for Corporate Bonds, Financial Institution Bonds, Emerging Markets Bonds, US and European Securitization



Ratings Agency 2023



Best Rating Agency for US CLO Investors: 2021–2022



Best Rating Agency for EURO CLO Investors: 2021



Best Rating Agency in Islamic Finance: 2015, 2017, 2021–2022



Multi-award winner: 2015–2022
Green Rating Agency of the Year: 2017–2021
Project Finance Rating Agency of the Year: 2016–2017, 2020–2022

Best Credit Rating Agency: 2019–2022
#1 US Credit Rating Agency: 2012–2018



Best Credit Risk Analysis LATAM 2023



#1 US Rating Agency: 1999–2021
The Top Team and No.1 Rating Agency: 2021



Australian Structured Finance Rating Agency of the Year: 2022
Australian Rating Agency of the Year: 2014–2020
Australian Credit Sector Rating Agency of the Year: 2019–2020



Market Leadership Award, Islamic Finance Intelligence & Ratings: 2016–2022
Best Islamic Finance Rating Agency: 2015



CLO Rating Agency of the Year: Highly commended



Best Rating Agency: 2020



Credit Rating Agency of the Year: 2021
Best Ratings Agency: 2018



Best Credit Ratings Agency - House Award Service Provider APAC: 2021–2022

For more information, visit: awards.moody.io



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