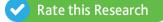
MOODY'S INVESTORS SERVICE

SECTOR COMMENT

30 July 2020



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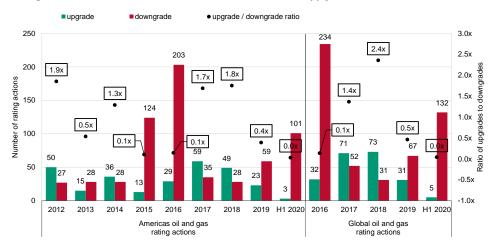
Oil and Gas — Global

Downgrades dominate in first half 2020 as COVID crushes oil demand and prices

Downgrades soared for global oil and gas companies in the first half of 2020, nearly doubling the total for all of 2019 and on pace with last industry downturn in 2016 (see Exhibit 1). The economic shut downs in response to the coronavirus pandemic led to an unprecedented collapse in global oil demand. Add to that the shocking but short-lived OPEC-plus price war in March 2020 and oil prices fell to record lows. Not surprisingly there was only a handful of upgrades during the period, leaving the ratio of upgrades to downgrades at effectively zero during the first six months of 2020, both globally and in the Americas.

Exhibit 1

Downgrades abound in H1 2020 amid dual oil demand and supply shocks



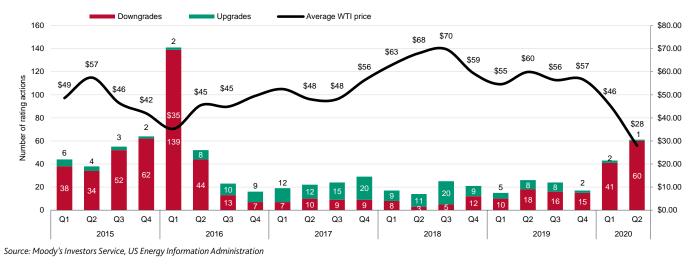
Source: Moody's Investors Service

The rapid spread of the coronavirus, the severe decline in global economic activity and a sharp decline in oil prices all created a severe, extensive credit shock across all oil and gas sectors in early 2020. In line with our approach to <u>managing ratings in turbulent times</u>, we have <u>coordinated globally</u> to identify and rank rated issuers' susceptibility to current and future risks from the coronavirus outbreak, liquidity and refinancing difficulties, and the collapse in oil prices. The substantial majority of downgrades were of speculative-grade rated companies, as investment-grade oil and gas companies have demonstrated solid resilience in the face of such a rough period for the industry. Still, financial risk has risen and is likely to remain very high for all but the highest-rated oil and gas issuers for the remainder of 2020.

Downgrades accelerated in the first quarter of 2020 as the coronavirus pandemic took hold in March 2020, and then peaked in April and May of the second quarter. This extended the streak of oil and gas downgrades exceeding upgrades in the Americas to seven consecutive quarters (see Exhibit 2). Upgrades were understandably sparse given the hazards facing the industry.

Exhibit 2

Downgrades have outpaced upgrades since Q4 2018, greatly accelerating in H1 2020 Americas oil and gas company upgrades and downgrades



The broader measure of rating actions was just as bleak, with 39 negative outlook changes in the Americas in addition to the downgrades in the first half of 2020 (see Exhibit 3). Globally we took 56 downgrade actions in the exploration and production (E&P) sector, the highest number globally (see Exhibit 4), as the drop in oil prices and already low natural gas prices directly reduced cash flow for the producers. The E&P companies slashed their capital spending in response, causing the drilling rig count and other activity to plummet and driving a collapse in revenue for oilfield service and drilling (OFS) companies. We took 35 OFS downgrade actions in the first half of 2020. The oil-price collapse led to contagion even in the relatively stable midstream sector, where we took 25 downgrade actions on speculative-grade companies, reflecting their smaller scale and heightened basin and customer concentration, leaving them more vulnerable to declining production volumes.

Exhibit 3

Broader measure of rating actions also very negative Americas oil and gas rating actions, H1 2020

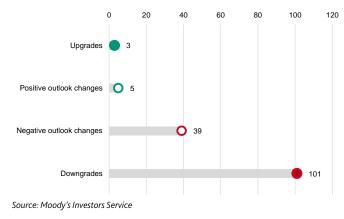
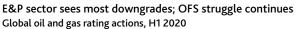
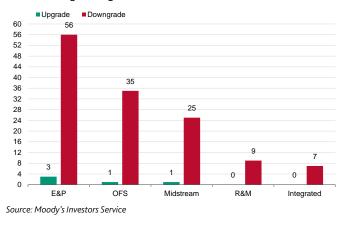


Exhibit 4

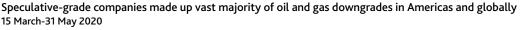


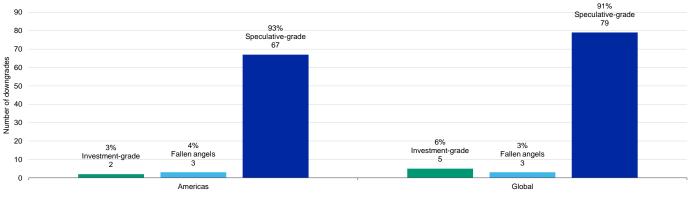


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The substantial majority of the downgrades occurred between 15 March and 31 May, following the onset of the coronavirus pandemic and collapse in oil prices. Both in the Americas and globally, more than 90% of the oil and gas downgrades during the period were for speculative-grade issuers (see Exhibit 5). About 30% of the rated oil and gas company population was downgraded. There were several speculative-grade companies downgraded more than once during the period, and for purposes of the following exhibits they have only been counted once.

Exhibit 5



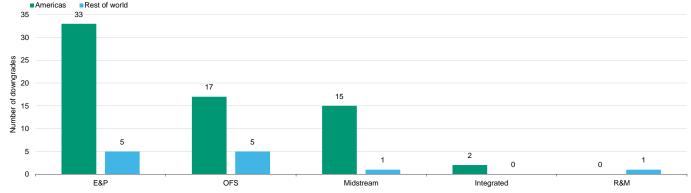


Source: Moody's Investors Service

Three investment-grade companies, all based in the Americas, became "fallen angels"—crossed over to speculative-grade—during the first half: <u>Apache</u> (Ba1 negative), <u>Occidental Petroleum</u> (OXY, Ba2 negative) and <u>Petroleos Mexicanos</u> (PEMEX, Ba2 negative). Other noteworthy investment-grade downgrades included <u>ExxonMobil</u> (Aa1 negative), <u>Schlumberger</u> (A2 negative), <u>Repsol</u> (Baa2 negative) and <u>Oil and Natural Gas Corporation</u> (Baa3 negative).

Most of the speculative-grade issuers that we downgraded in the first half were in the E&P, OFS and midstream sectors (see Exhibit 6). A high percentage of the speculative-grade oil and gas companies are based in the Americas, and therefore so were a high proportion of the downgrades. Most of these companies were low-rated entering the crisis, with 15 rated B1, 11 rated B2, and 27 rated B3 or lower before their downgrades. Only 12 were Ba rated. The downgrades were often severe, with 33 of the companies cut by two notches and 15 by three or more. While we downgraded 17 companies by only one notch, nearly all had negative outlooks following those downgrades.

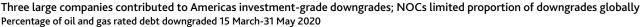
Exhibit 6 E&P, OFS and Midstream companies made up nearly all of speculative-grade downgrades Downgrades by sector, 15 March-31 May 2020

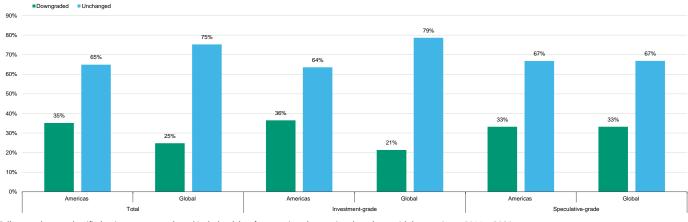


Source: Moody's Investors Service

While we downgraded few investment-grade companies, including fallen angels, those companies debt made up a sizable proportion of total investment-grade debt (see Exhibit 7). Three particular companies based in the Americas made up much of the investment-grade rated debt downgraded: ExxonMobil (\$42 billion), OXY (\$35 billion) and PEMEX (almost \$100 billion). Globally the proportion of investment-grade debt downgraded was smaller, since rated oil and gas companies outside of the Americas tend to be national oil companies (NOCs), which benefit from government support.

Exhibit 7

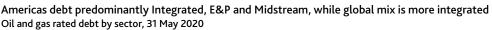


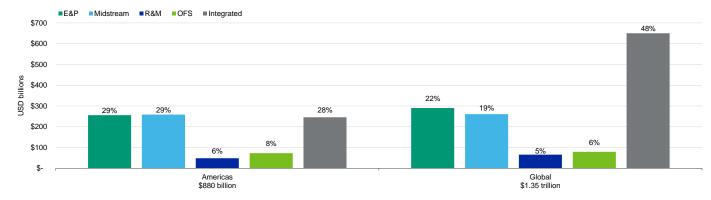


Fallen angels were classified as investment grade and includes debt of companies where ratings have been withdrawn prior to 31 May 2020 Source: Moody's Investors Service

Integrated, E&P and midstream companies issue the vast majority of rated debt in the oil and gas industry. The integrated and E&P companies own the proved reserves that represent the industry's core tangible asset. Midstream companies own critical infrastructure that moves hydrocarbons from upstream (production) to downstream (processing and refining and to end users), giving them the least volatile cash flow profile in the industry. The large number of independent E&P companies based in the Americas effectively splits the debt evenly across the integrated, E&P and midstream sectors. The global mix of rated debt tilts toward integrated companies globally, with NOCs dominating oil and gas debt outside the Americas (see Exhibit 8).

Exhibit 8



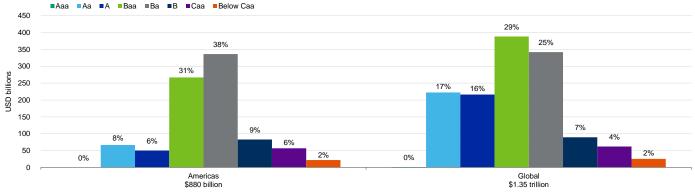


Source: Moody's Investors Service

Following the pandemic-related downgrades, the rated debt mix for the Americas was majority speculative-grade by the end of May 2020, mainly because of the downgrades of new fallen angels Apache, OXY and PEMEX. Globally well over half of debt remained investment-grade, largely because of government support for the NOCs (see Exhibit 9).

Exhibit 9

Fallen angels shift Americas debt mix to 55% speculative-grade; 62% of global debt investment-grade largely because of NOCs Oil and gas rated debt by category, 31 May 2020

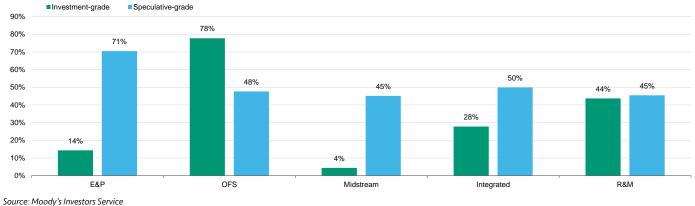


Source: Moody's Investors Service

While the worst effects of the pandemic on oil demand and prices appear to have passed, the oil and gas industry remains at elevated risk for further downgrades. Across the sectors, between 45% and 71% of speculative-grade companies have negative outlooks or were on review for downgrade at the end of May (see Exhibit 10). The risk is generally lower among investment-grade companies, except that the relatively few investment-grade OFS companies predominantly have negative outlooks.

Exhibit 10

Speculative-grade companies at risk for further downgrades across sectors, while investment-grade OFS particularly at risk Global percentage of issuers with negative outlook or on review for downgrade by sector, 31 May 2020



source. Moody's investors service

The rapid spread of the coronavirus outbreak, deteriorating global economic outlook, low oil prices, and high asset price volatility have created an unprecedented credit shock across a range of sectors and regions. We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. For more information on research on and ratings affected by the coronavirus outbreak, please see <u>moodys.com/coronavirus</u>.

Moody's related publications

Outlooks:

- » Midstream Energy Global: Outlook turns negative as E&P sector's volumetric declines weigh on EBITDA, 10 June 2020
- » Exploration and Production Global: Unprecedented drop in crude price and demand will severely stress producers, 26 March 2020
- » Midstream Energy Global: Outlook changes to stable as stressed E&P sector's production slows, 26 March 2020
- » Oilfield Services and Drilling Global: Cash flow will be crushed as oil and gas producers slash their capital budgets, 26 March 2020
- » <u>Refining and Marketing Global: Weak demand for refined products will weigh on earnings through at least 2020, 26 March 2020</u>
- » Integrated Oil and Gas Global: Outlook turns negative as low oil prices, coronavirus will hit 2020 earnings, 26 March 2020

Sector comments:

- » Integrated Oil & Gas Europe: Lower long-term price forecasts lead to impairments, a credit negative, 8 July 2020
- » Oil and Gas North America: Dakota Access ruling will strain revenue for midstream owners and Bakken producers, 7 July 2020
- » Oil & Gas Cross Region: Medium term oil prices trend lower as industry focuses on lowest-cost reserves, 27 May 2020
- » Oil & Gas Global: Recession and uncertain demand recovery weigh on oil prices in 2020-21, 28 April 2020
- » Oil and Gas North America: Limits of physical market deepen oil-price decline, accelerating production shut-ins, 21 April 2020
- » Credit Conditions Global: Coronavirus and oil price shocks: managing ratings in turbulent times, 17 March 2020

Sector in-depth reports:

- » Oil and Gas Latin America & Caribbean: Corporate measures to protect liquidity have not all proven completely successful, 13 July 2020
- » Oil and Gas Cross Region: Frequently asked investor questions, 10 June 2020
- » Exploration & Production US: Weak oil and natural gas prices will lead to lower borrowing bases, reducing liquidity, 28 May 2020
- » Nonfinancial corporates North America: Heat map: Worsening coronavirus outbreak means broader negative credit effects, 3 April 2020
- » Oilfield Services and Drilling North America: Stressed sector faces high refinancing risk with \$32 billion maturing during 2020-24, 18 March 2020
- » <u>Corporates Latin America & Caribbean: Coronavirus will most hurt airlines, lodging, and any companies with weak liquidity, 17</u> <u>March 2020</u>
- » Oil & Gas Cross Region: Commodity prices, access to capital, regulation rank among top risks for 2020, 6 January 2020

Sector profile:

» Oil and Gas – North America: May-June 2020 newsletter, 13 July 2020

Rating methodologies:

- » Integrated Oil and Gas Methodology, September 2019
- » Midstream Energy, December 2018

- » Independent Exploration and Production, May 2017
- » Global Oilfield Services, May 2017
- » Refining and Marketing, November 2016

Moodys.com topic page:

» Coronavirus Effects: Monitoring the effects of the outbreak on credit markets & the economy, moodys.com/coronavirus

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