

In a shifting  
landscape, do  
you stand your  
ground or leap  
forward?

Global oil and gas  
transactions review 2019



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# Introduction

2019 was a year of exploration in the oil and gas industry, but much of it didn't involve oil or gas. Instead, the industry and its investors searched to define the industry's role and the value of its assets in the face of the coming transition to low-carbon and no-carbon energy. The results of that search are still unclear.

At the same time, stagnant commodity prices, disappointing results and low returns left the industry searching for capital. Transaction activity and valuations largely reflected the rebalancing of portfolios away from upstream liquids and toward gas-focused and downstream assets. Volumes and values were both down from 2018. Still, we see signs of confidence in the marketplace. A substantial part of the drop stemmed from the absence of big-ticket deals in the midstream sector, but that drop-off is hardly indicative of overall market conditions. Two of the five biggest deals of the past five years were done in 2019, and the world's most profitable company completed an initial public offering at a valuation that was consistent with expectations.

Global oil and gas transactions value

2018

\$434.6b

2019

\$387.5b



decrease in number of global transactions compared with 2018

Deals more than \$1 billion decline

59

deals in 2019

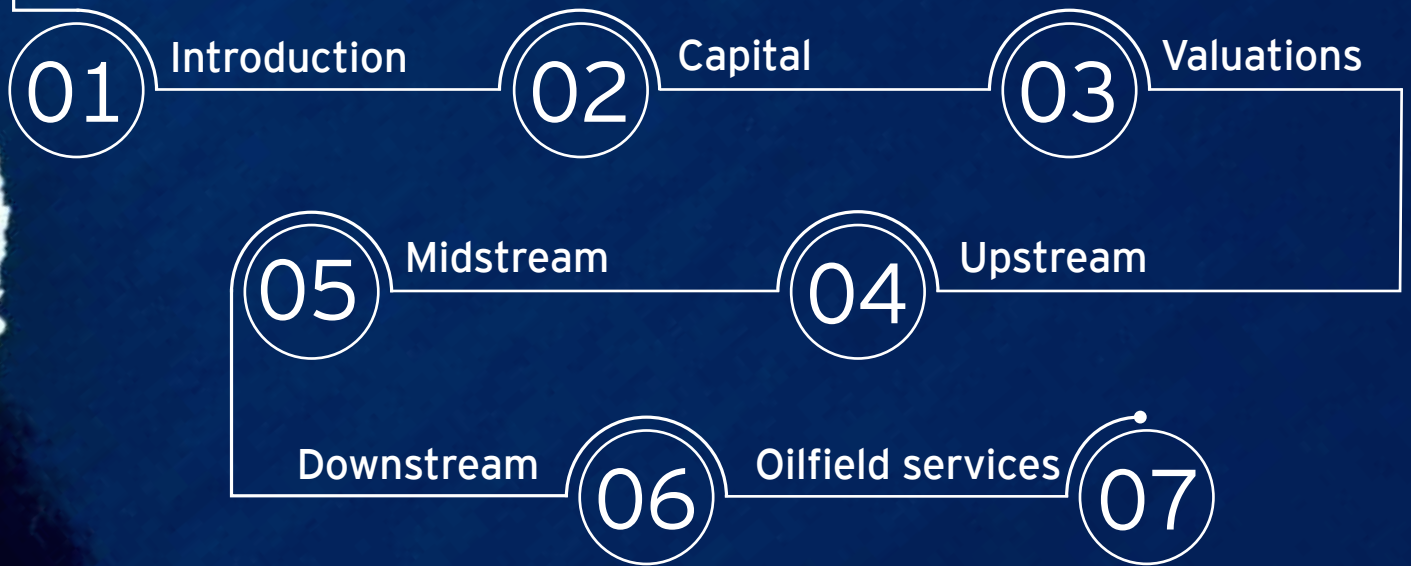
79

deals in 2018

82

deals in 2017

# Contents



Overall, commodity prices were not helpful. Persistent growth in North American supplies balanced against OPEC supply restraint continues to be the dominant theme. Oil prices were down 11% year over year, while natural gas fell 18%. Stability reigned, with oil markets trading in a narrow range; the monthly average fluctuated between \$52 and \$64 for West Texas

Intermediate (WTI) crude. A remarkable feature emerging in the oil market is price stability in the face of potentially catastrophic supply disruption. In early September, a large oil processing facility in the Middle East sustained damage in a drone attack, and 5% of the world's oil supply was temporarily off-line – yet there was minimal sustained impact on oil prices.



Source: CapitalIQ

Note: This report presents EY analysis of transaction data largely compiled by Enverus. Throughout this report, disclosed or reported transaction values are reported in US dollars.



In natural gas markets, the trend was almost straight down. Associated gas from the Permian Basin continues to push North American prices lower, and gas-to-LNG spreads continue to hover at unsustainable levels. Profits were down about 25% through the first three quarters, and market capitalization for the oil majors was down slightly in an economy that saw stock prices in the broader market increase 29%.

Pressure to decarbonize energy is pervasive and prominent, and it comes from governments and citizens around the world. Global temperatures in 2019 were the second-highest in recorded history, and the last six years have been the six warmest.<sup>1</sup> Teen climate activist Greta Thunberg was named Time magazine's Person of the Year for 2019. Rhetorical pressure has yet to manifest in the form of reduced oil consumption. Oil demand increased by 1.0 million barrels per day in 2019 and is expected to increase by another 1.2 million barrels per day in 2020.

All of this could point toward either higher transaction activity – as companies rebalance their portfolios and exit what could be stranded assets – or lower transaction activity, as uncertainties muddy the valuations. At first glance, we see the latter scenario playing out – overall deal volume and deal value were down 17.7% and 10.8%, respectively, in 2019.

Excluding megadeals (those over \$10 billion), the drop-off was even more pronounced – 33.1%, from \$314 billion to \$210 billion. But details and nuances should be noted.

Upstream, deal value was up 17.6%, driven primarily by the \$57 billion acquisition of Anadarko by Occidental Petroleum and the \$17.5 billion sale of properties by the Brazilian Government to Petrobras, CNOOC and CNPC. Excluding those deals, value fell 37% from 2018 to 2019 and volume fell 21%.

This is the continuation of a downward trend in deal value and deal volume that began in 2017, when the interest in what were then thought to be undervalued properties peaked following the 2014 downturn. In 2019, interest in US assets fell dramatically, with deal value dropping from \$74 billion to \$39 billion, accounting for almost all the value reduction globally.

In midstream, large corporate deals in the US have dominated the deal landscape for some time now. Deal volume has been remarkably stable (the biggest year had 135 deals, and the smallest had 105 deals), and the year-to-year variation in deal value has hinged on whether the big corporate deals happen. In 2019, they didn't happen. The biggest deal in 2019 – the acquisition of Andeavor Logistics by MPLX – was no better than the ninth-biggest deal of the last five years, and overall deal value fell about 55%.

<sup>1</sup> "Earth Had Its Second Warmest Year in Recorded History in 2019," *Scientific American website*, <https://blogs.scientificamerican.com/eye-of-the-storm/earth-had-its-second-warmest-year-in-recorded-history-in-2019/>, accessed 20 January 2020.



Downstream, deal value was up about 43%. Two of the three biggest deals in the last five years (Aramco's \$69.1 billion acquisition of SABIC and its \$15 billion investment in Reliance Industries) were done in 2019. Excluding megadeals, deal value fell 32%. The US was the driver there, with deal value falling from \$27 billion to \$11 billion, accounting for almost all the reduction globally.

The oilfield services sector has been particularly hard-hit in the extended cycle that we find ourselves in. It's been oversupplied since the 2014 downturn began and has a history of fragmentation. Pricing has been severely discounted, and returns have plummeted. An initial wave of interest in midsized (\$1 billion to \$10 billion) deals, engineered to consolidate assets at what were believed to be favorable valuations, peaked in 2017 and continued to subside in 2019. Deal value fell by almost 27% from 2018 to 2019. Deal volume was equally depressed, falling by almost 20%.

We're confident that a sustainable equilibrium will be found, although there is much uncertainty about where it will be found. Our Fueling the Future framework looks at oil and gas demand and asset returns in four energy transition scenarios: The Long Goodbye, Meet Me in Paris, Slow Peak and Critical Gas. Those scenarios reflect a wide range of

outcomes with respect to vehicle electrification and conversion of the power system to wind and solar energy, and away from fossil fuels. Peak oil can occur anywhere between 2022 (in the Meet me in Paris scenario) and 2047 (in the Slow Peak scenario). Global natural gas demand can grow anywhere from 42 BCF/day (in the Meet Me in Paris scenario) to 613 BCF/day (in the Critical Gas scenario). Notwithstanding the uncertainty, we see an environment in which asset attrition outruns whatever reductions there might be in demand across all of the scenarios. That means that the industry will need to attract capital and offer returns that support continued investment in the sector and healthy M&A activity.

Disruption and transactions go hand in hand as companies define their place in a new market landscape and adjust their portfolios and their capital allocations. 2019 was a year in which that landscape was largely undefined – valuations were murky and transaction activity muted. A global consensus is forming among world leaders that climate action is necessary. As that action takes shape, the timing and extent of peak oil demand and the ongoing role for natural gas should become better defined. Time will tell if that's the case – and what it means for capital allocation, asset valuation and the transaction environment.



# Capital

The oil and gas industry continues to attract significant investment even as the energy transition gains pace. Capital raised by oil and gas companies grew 7% annually to \$617.4 billion in 2019. This is 3% higher than the five-year average of \$597 billion. Debt (loans and bonds) continues to account for a large portion (92%) of the capital raised, with companies more typically generating equity through internal cash flows.

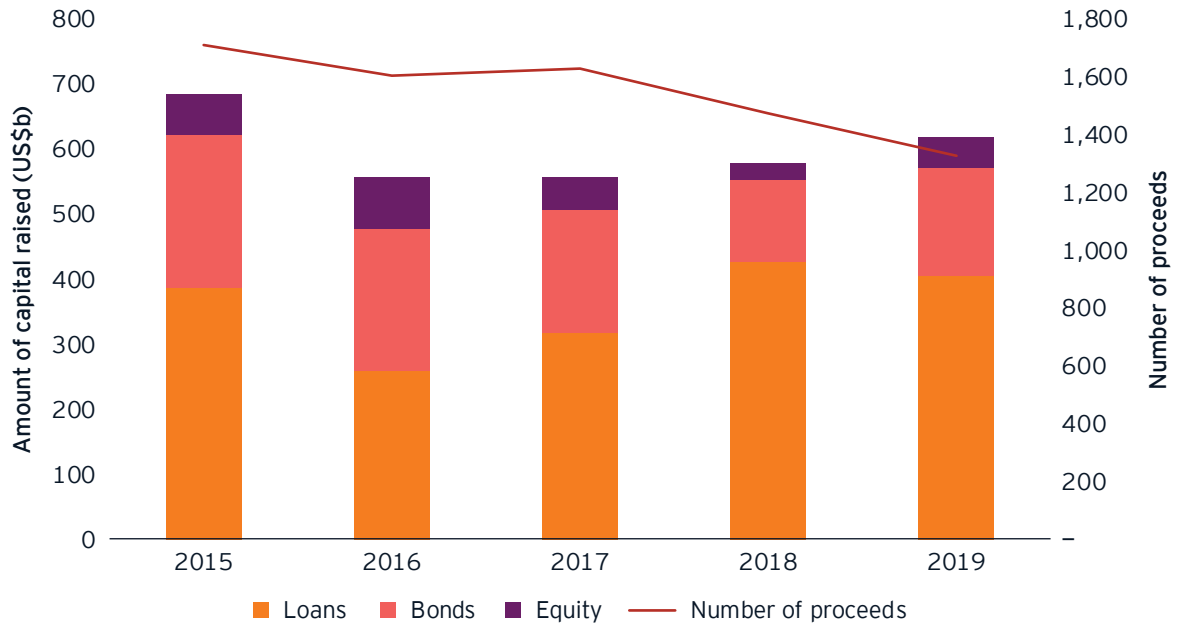
2019 saw some of the largest financing deals ever, including Occidental's \$45.6 billion of debt secured to fund its acquisition of Anadarko and Saudi Aramco's \$29.4 billion IPO, reportedly the largest ever. Confidence in public markets was underscored as the value of bonds and equity issued increased 34% and 83%, respectively, although the Middle East NOC's big-ticket IPO accounted for more than half of the total equity raised in 2019. Loan packages larger

than \$5 billion made up 26% of total bank loans by value in 2019, which was higher than the average (17%) over the past five years.

While the value of capital raised was at a five-year high, the volume of fundraisings (1,324) was down 10% annually, continuing the downward trend of recent years. Despite the positive aggregate capital activities, this highlights that conditions are much more challenging for some companies and in some segments of the oil and gas market. Financial stress in the US upstream is growing, as evidenced by rising bankruptcies, defaults and asset write-downs. Forty-six oil and gas companies in the US filed for bankruptcy in 2019, up from 31 in 2018. Total liabilities at the time of filing were estimated at \$10.1 billion. An expectation that US gas prices will remain at or near current levels for the foreseeable future resulted in significant

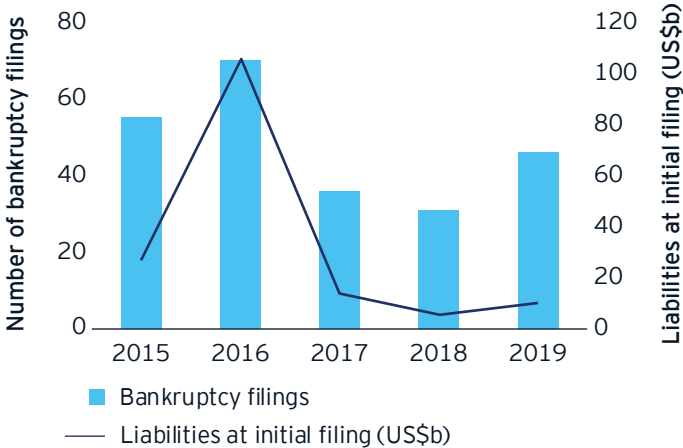


### Capital raised – Jan 2015 to Dec 2019 (US\$b)



Source: EY analysis of data from Capital IQ

### US oil and gas: bankruptcy filings



Source: Capital IQ, EY analysis

impairments in 2019. More bankruptcies may follow as companies face mounting debt maturities. According to Moody's Investors Service, oil and gas companies in North America have more than \$200 billion of debt maturing over the 2020-2023 period<sup>2</sup>, with more than \$40 billion expected to mature in 2020. North American shale investors are focused on weak returns and cash flows rather than surging output. Tightening access to bank loans and a rising cost of capital, especially for high-yield energy bonds, are expected, and banks have cut credit lines to oil and gas producers as reserves have lost value. Oil and gas investors are onboard the flight to quality and are increasingly choosing investment-grade bonds.

Similarly, low profitability and high debt continue to constrain the capital of many oilfield services (OFS) companies. OFS players are moving away from capacity building to asset-light and technology-driven models to create more value and greater returns for shareholders.

The need for new capital is driving consolidation in the oil and gas industry, and alternative funding sources are gaining prominence. Private equity (PE) and infrastructure funds are becoming important sources of capital, with PE-backed players in recent years acquiring upstream assets in US shale and tight oil plays and mature upstream assets, such as those in the North Sea. In addition, financial players and infrastructure funds continue to invest in pipelines and infrastructure assets. There has been a strategic shift in PE players' focus: while many are mulling multiple exit routes because of anticipated weak equity market conditions, some are ready to hold on to assets, if profitable, for longer periods – or even for their entire life-span.

Oil and gas producers are exploring creative ways to raise capital, such as asset-backed securities related to wells or joint ventures, including farmouts and "DrillCo" transactions. DrillCo is a drilling joint venture arrangement in which an investor funds drilling costs in exchange for a share in a lease or well. For instance, PE firm Blackstone invests in DrillCos through its credit arm, GSO Capital Partners. Raisa Energy, a PE-backed oil and gas company in the US, closed a well-backed offering in September 2019. Appropriate risk mitigation measures, such as mechanisms to reliably predict long-term oil output, will be necessary to boost investor confidence and make such products work.

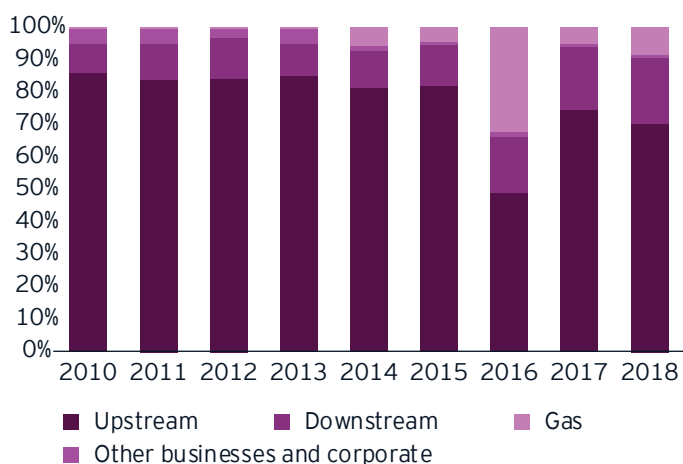
<sup>2</sup> Energy Producers' New Year's Resolution: Pay the Tab for the Shale Drilling Bonanza," Wall Street Journal, 1 Jan 2020.

Companies are also exploring innovative mechanisms to facilitate capital investment in renewable energy from a broader group of investors. For instance, Lightsource BP and an Indian PE fund, Everstone Group, have jointly created a fund management platform to raise funds from institutional investors globally. These funds will be used to finance clean energy in India and exemplify a broader change in many of the majors' approach to finance new projects without necessarily deploying 100% of their own capital.

Oil and gas companies are facing dual pressure from investors to deliver superior returns and future-proof their businesses amid the energy transition. Despite growing consensus on the need for urgent and bold steps to mitigate climate change, new technologies are not mature or scalable enough to immediately displace the oil and gas volumes that are consumed today. As a result, there is a great deal of uncertainty regarding the pace of the energy transition and the long-term demand outlook for oil and gas. The equity markets are rewarding companies' preparedness for energy transition and/or optionality in portfolios. EY analysis indicates that international oil company (IOC) equity returns have lagged the overall market, even when accounting for oil price effects, because of concerns over the companies' abilities to transition to a low-carbon world.

Companies have responded to the changing energy landscape by shifting their capital allocation strategies; in particular, they have increased investment in downstream businesses (such as chemicals and power) to secure demand and boost returns. Notably, oil majors reduced the share of the upstream segment in their overall capital spending from 86% in 2010 to 71% in 2018. On the contrary, the share of downstream has doubled from 9% to 20%, and gas has increased from 0.2% to 8.0% over the same period. Oil majors are also investing in cleaner energy forms, such as natural gas and renewable energy.

### IOC capital expenditure: breakdown by segment



Source: Capital IQ, EY analysis

Sizable potential returns in oil and gas have kept capital flowing in. This trend is expected to continue, as returns on oil and gas projects are likely to be competitive with returns on alternative energy investments for some time. However, there is growing pressure on investment banks and PE players to make climate-conscious lending or investment decisions. Moreover, energy transition readiness is also closely tied to equity returns in oil and gas. Therefore, it is becoming increasingly important for oil and gas companies to position their story to the investment community in the context of the energy transition. Upstream producers, in particular, may find this more challenging, given their business model is not as readily flexed into other energy segments. The sources and media to raise capital will evolve as the energy landscape and associated risks change.

### Valuations

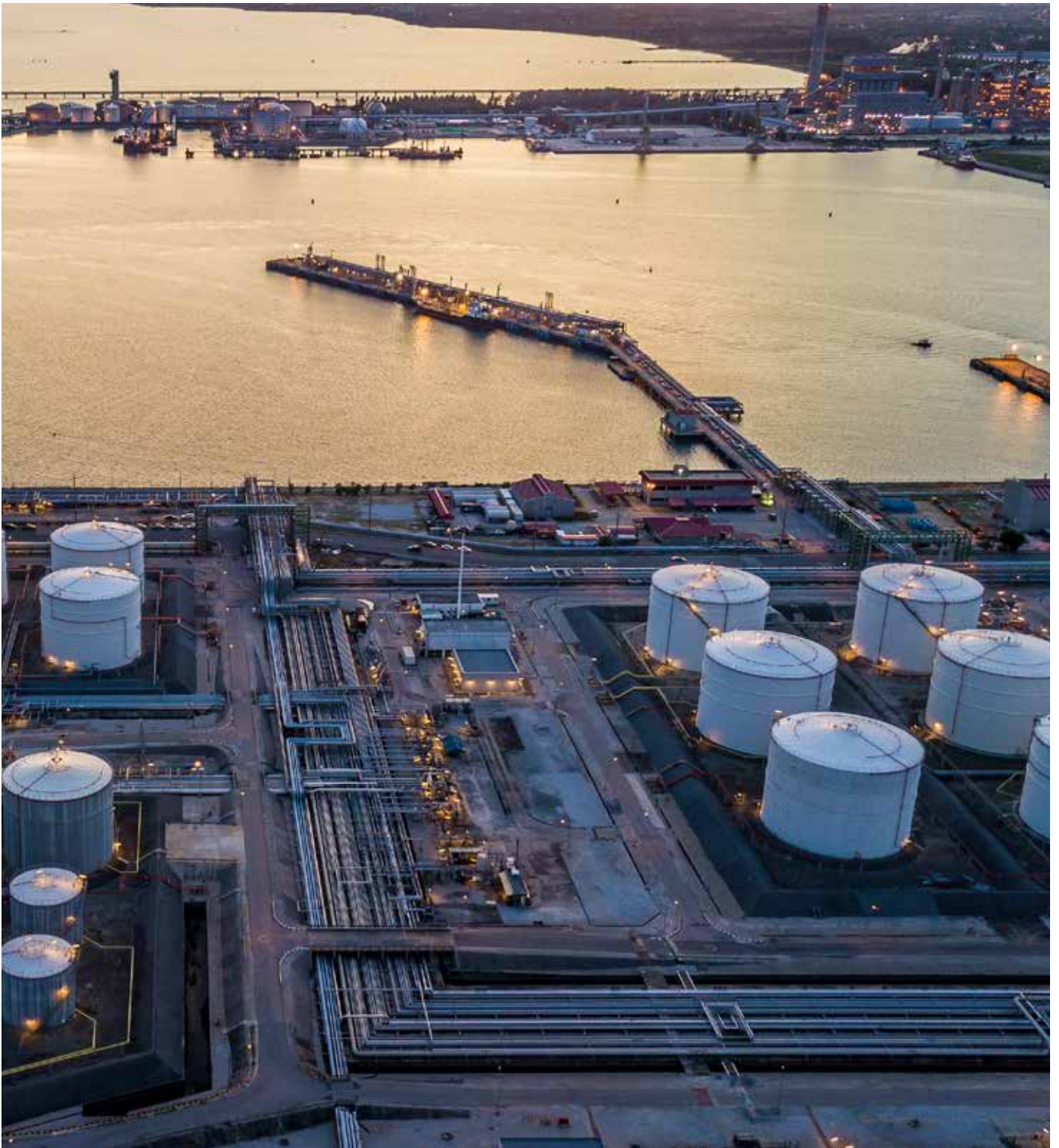
Although commodity prices (and upstream valuations) were lower in 2019 than they were in 2018, the industry has enjoyed relative price stability (in the \$60 to \$70 per barrel range) compared with the volatility seen from 2014 to 2016. Although oil prices are lower than investors would like for the time being, there's a broad sense of confidence that stability, a key driver of valuations, will continue to reign. According to the EY *Global Capital Confidence Barometer* (November 2019), over 90% of oil and gas executives believe that the global and sector economy is stable or growing. This is reflected in the continuing trend in the upstream sector of mid-market corporates buying assets from the oil majors in the mature basins and implementing buy-and-build strategies. The value proposition is to reduce costs while extending field production life. Given the typically mid- to late-life nature of these asset portfolios, buyers are taking a detailed look at decommissioning estimates and factoring this uncertainty into their valuations. Willing buyers typically are available for good packages of assets, and balanced views of production and reserves, costs, discount rates and commodity prices are required to arrive at a competitive bid price.

Against the backdrop of reasonably stable oil prices, the oil industry is facing the relatively new challenge of ever-increasing stakeholder pressure on carbon emissions. Gas is the transitional fuel of choice but comes with increased investment risk, since more infrastructure typically is required to deliver gas into localized markets exposed to price uncertainty and demand risk. Beyond gas, the oil majors in particular are grappling with investments in renewables, electric vehicles and battery technology. They are considering if and how they transition from being oil companies to energy companies and what it would mean for their allocation of capital. They must balance the relative scale, risk and returns of their investments and acquisitions across their entire portfolio.



We have seen the continued drive for integration with companies expanding further downstream into refining and chemicals to diversify risk. The national oil companies (NOCs), supported by their host governments, are continuing to diversify away from upstream production by investing further down the hydrocarbon value chain. The NOCs often do this in joint ventures with the international oil companies

(IOCs). The IOCs also see downstream integration as a way of securing positions in end markets while reducing risk and earnings volatility and potentially increasing the value of their businesses as the sum of the integrated parts. Maximizing the uses of hydrocarbons – using chemical processing rather than just burning them – is one step on the path to reduce carbon emissions.





**US\$160.5b**

Total upstream deal value increases **17.6%** year over year

**881**

Total upstream deal volume down **20.7%**

**41.4%**

Upstream share of total global deal value

# Upstream

Moving into 2019, we projected that commodity markets would move unpredictably due to trade disputes, interest fluctuations, economic growth, political violence and OPEC's reaction to the market, but that overarching economic fundamentals would remain robust. This proved to be the case with US-China trade conflicts, US-Iran political tensions and oil prices (WTI and Brent) showing an \$11-per-barrel variance over the year.

Total deal value was up by 17.6% to reach \$160.5 billion for the year, but the increase was a result of Occidental's acquisition of Anadarko for \$57 billion. Excluding that transaction, total global deal value decreased 24.2%. The total deal count declined by more than 20%, while average deal value for 2019 was similar to the prior year (\$122 million). As has been the case for the last four years, the US led the way in deals, with 60% of

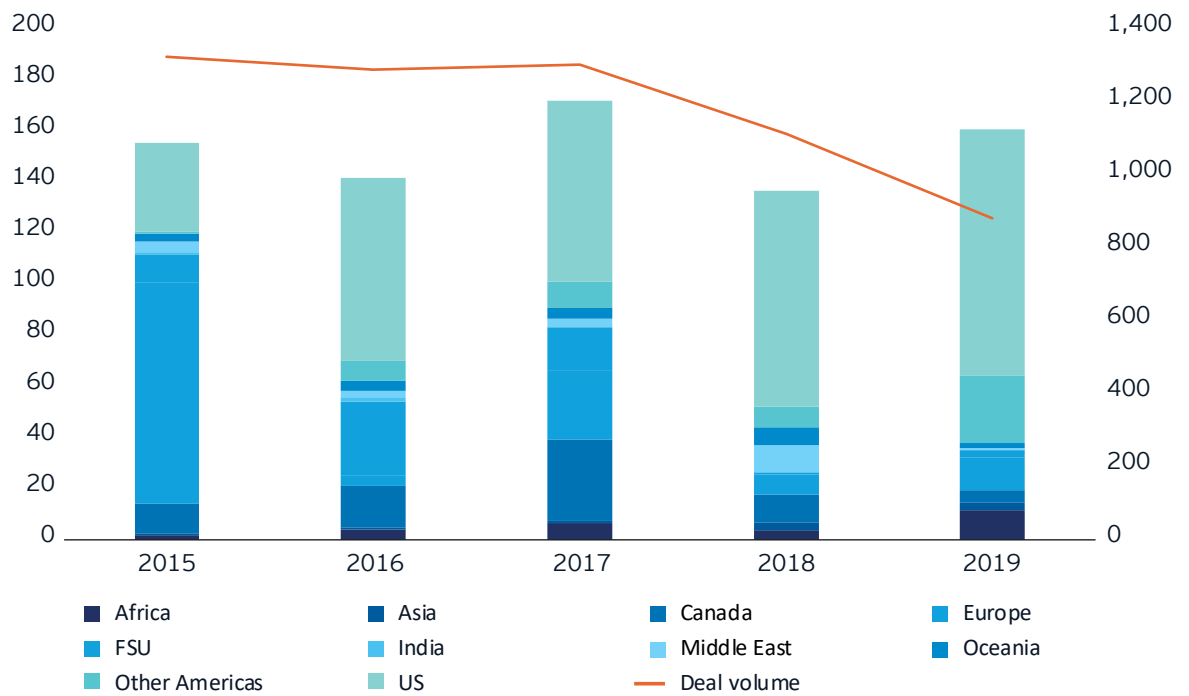
total global deal value. Portfolio adjustment was a theme as pockets of activity were seen in the North Sea and Asia, driven by majors and large independents continuing to divest non-core assets to return cash to shareholders and to recycle capital into high-growth development projects. Management teams focused their efforts to increase cash flow, reduce leverage and acquire synergistic-producing assets at attractive valuations.

## Long-term oil and gas outlook concerning operators and investors

Concerns over the long-term demand outlook and the increased focus on environmental, social and governance (ESG) considerations has limited upstream M&A activity and depressed equity and asset valuations. US exploration and production companies saw a year-over-year decline of greater

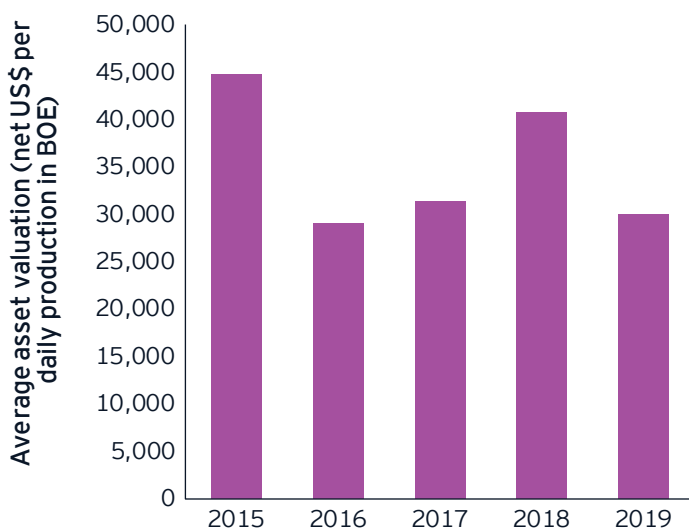


Upstream oil and gas transaction activity (reported deal value by region and global volume)



Source: Enverus

than 25% in equity valuations, which was exacerbated by widening credit spreads and difficult (if not nonexistent) debt financing, leading to increased bankruptcy and restructuring activity. Highly leveraged companies raised capital by selling assets at lower valuations, with the average net deal value per daily production in BOE decreasing by 26%. This has created opportunities for more resilient players to acquire assets at attractive valuations.



Source: Enverus

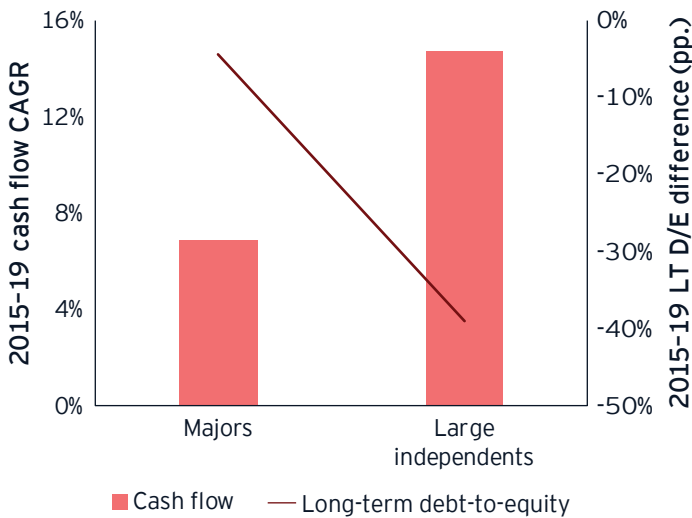
Note: The plot includes deals with value greater than \$107.8 million, which is the third quartile.

### Majors and large independents focusing on increasing cash flow and strengthening the balance sheet

Large independents and majors are continuing to realign portfolios by divesting non-core assets across the globe, which has driven activity in the North Sea, Asia and Africa. This resulted in \$40 billion more in acquisition activity than divestitures from 2015 to 2019 globally for large independents (those with a market cap exceeding \$5 billion). For example, ExxonMobil announced a multibillion-dollar divestment program in upstream assets while focusing on capital growth plans in Guyana, US-Permian and Mozambique. Similarly, BP is divesting upstream assets in Alaska, the North Sea and US onshore.

Divestments have improved debt profiles, with long-term debt-to-equity ratios decreasing by 5 and 39 percentage points from 2015 to 2019 globally for majors and large independents. At the same time, high-grading acreage, opex reduction, capital discipline and favorable oil prices yielded a 7% and 15% compound annual growth rate (CAGR) increase in average cash flows from 2015 to 2019 for the same majors and large independents. These asset sales have provided an opportunity for smaller independents, including PE-backed players, to gain scale in previously unobtainable portfolios. Examples include Var Energi's acquisition of Exxon's Norway assets, Chrysaor's acquisition of ConocoPhillips' North Sea assets and Delek's acquisition of Chevron's North Sea assets. This trend continued further

within Southeast Asia and Oceania in the fourth quarter, with Chevron, Total and ConocoPhillips all exiting non-core assets. Further divestments from majors are on the horizon.

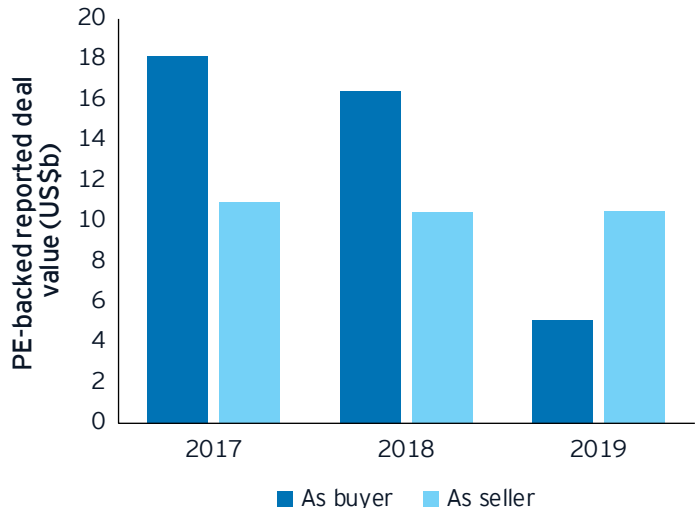


Source: Capital IQ  
Note: The plot includes companies with greater than \$5 billion in market cap.

### PEs continue to show interest, but mindful about exit strategies

While PE firms invested over \$39.6 billion and divested over \$31.9 billion globally from 2017 to 2019, management teams struggled to generate growth by either providing cash returns and dividends or an exit option. In the US, PE explored nontraditional financing methods through DrillCo transactions for guaranteed returns, and operators preferred those methods to preserve cash flow and avoid balance sheet liabilities. Outside the US, Europe continued to see a trend of PE-backed independents (such as Chrysaor, and Hitecvision) acquiring portfolios primarily from majors and large independents divesting non-core assets. PE-backed transactions in Europe accounted for 58% of European transactions. Going forward, we expect to see several PE firms that held on to North Sea investments through the recovery period explore opportunities to exit as they look to return capital to investors. PE-backed players will need to

consider exit options carefully; market sentiment for exit via IPOs is challenging, with headwinds from the longer-term oil and gas outlook and increasing public pressures to tackle climate change.



Source: Enverus

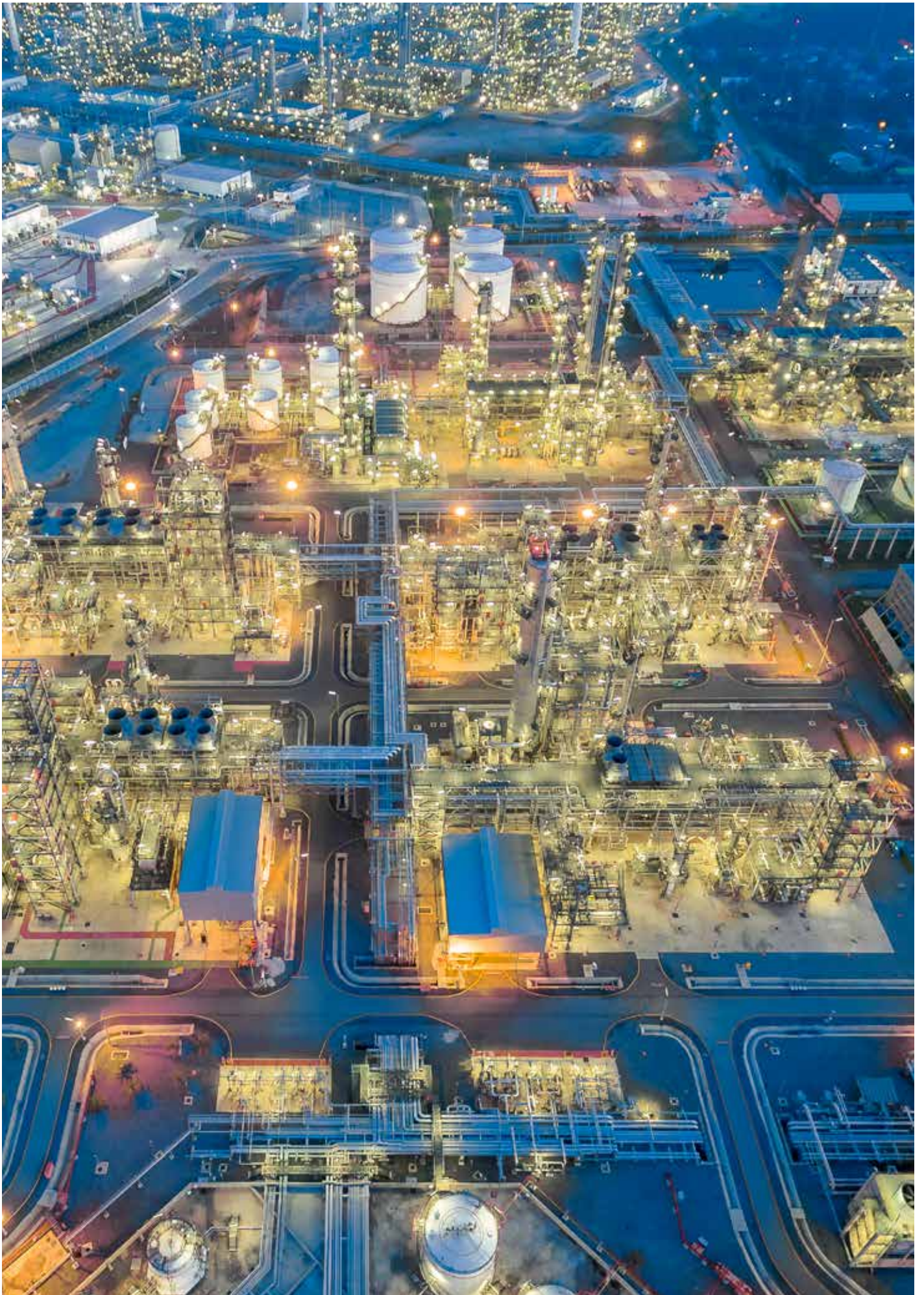
### Operators and joint ventures acquiring complementary producing assets

Large independents and joint ventures (JVs) focused on building scale, reducing their cost base and expanding reserves in 2019. After Spirit Energy JV in 2018, one of the largest JVs in recent times emerged in 2019 – Wintershall DEA. Large independents and JVs historically have focused on acquiring discovery phase resources to avoid paying a premium for expanding the reserve base. However, cash-intensive exploration and development projects with longer investment horizons have led large independents to replace reserves by acquiring producing resources. The transaction value of producing assets increased 148% year over year, while the transaction value of assets in the discovery phase decreased 62%. This allowed investors to acquire fields currently under development and profit by hedging against longer-term price and demand uncertainty.

## 2020 upstream outlook

2019 brought a greater focus on ESG and energy transition, which will continue to be a key investor theme for how capital is deployed in 2020. Continued portfolio rationalization for majors will lead to opportunities for smaller indigenous independents and

PE-backed entities to make deals to exit, as well as to access new asset portfolios. The Saudi Aramco IPO of 2019 could push other NOCs to adapt to the changing market as they seek to protect production and domestic supply.





**US\$83.2b**

Total midstream deal value declines **54.8%** year over year

**127**

Total midstream deal volume up **1.6%**

**21.5%**

Midstream share of total global deal value

# Midstream

As predicted in the EY 2018 oil and gas transactions review, midstream transaction value and volume cooled off in 2019, as a major wave of corporate simplifications was completed in 2018. Transactions driven by a master limited partnership (MLP) capital structure in the US were fewer and had significantly lower value in 2019. Midstream transactions peaked in the second quarter of 2019 in both deal value and volume; nearly 60% of 2019 deal value was transacted prior to the end of the second quarter.

Globally, only one midstream transaction was valued at greater than \$10 billion, and only 20 transactions were valued above \$1 billion.

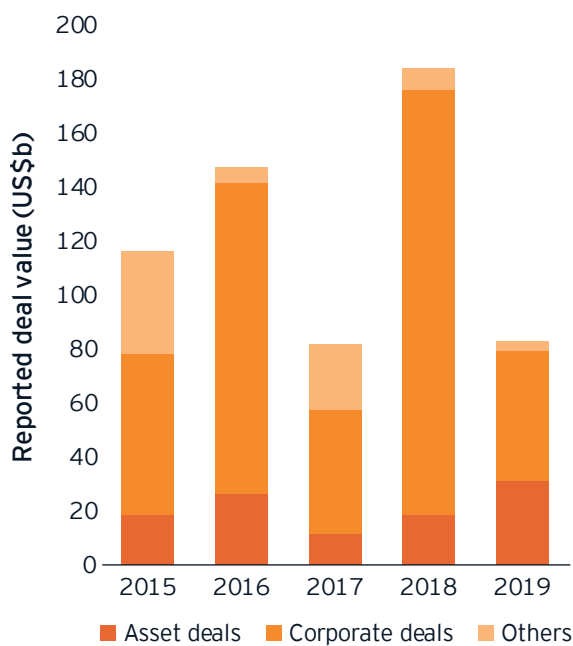
One of the largest midstream transactions of the year was not a stand-alone transaction: Occidental's acquisition of Anadarko included Western Midstream Partners, which had a market cap of approximately \$12 billion<sup>3</sup> as of the transaction close.

North America continued to dominate midstream transactions: 75% of total deal value and 16 of the top 20 transactions by value were in the US and Canada. Globally, asset transactions and JVs recorded a significant increase of 88% year over year in deal value, whereas corporate deals had a decline in deal value of 69%.

<sup>3</sup> Capital IQ.

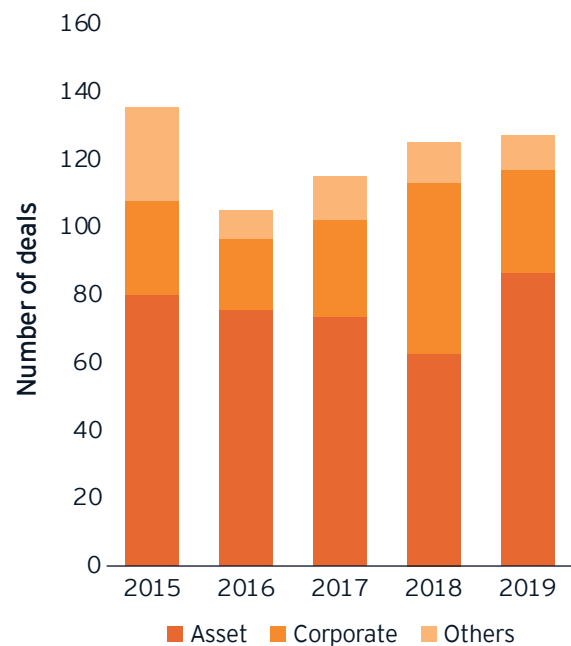


Midstream deal value – by deal type



\*Others include JV and parent/sponsor dropdown deals.  
Source: Enverus

Midstream deal volume – by deal type



Source: Enverus

Two themes from midstream transactions in 2019 were:

- ▶ Continued PE and infrastructure fund (IFF) investment, albeit with more capital discipline
- ▶ Declining LNG transactions amid a changing environment

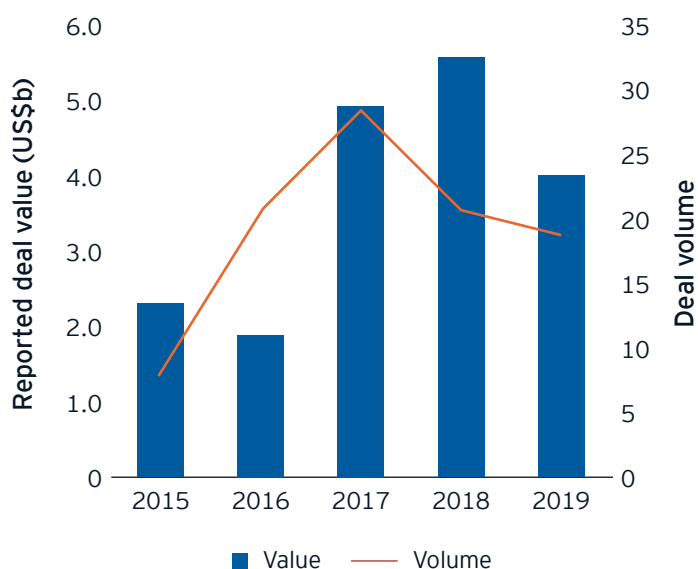
### PE and IFF investment

PE and IFFs continue to invest in midstream assets around the world; half of the top 10 deals had PE or IFF buyers. Debt reduction remains a key priority for midstream players, and PE and IFF buyers can provide needed capital while seeking stable, reliable returns.

Outside the US, IFF buyers, as well as pension funds, continue to invest in natural gas infrastructure in emerging countries, such as India and Brazil. An example is India Infrastructure Trust's \$1.9 billion acquisition of the East West Pipeline from Reliance Industries.

Globally, the value of PE and other financier-backed asset deals (as opposed to corporate deals) increased 369% in 2019. This could be attributed to a variety of factors, including the nature of the assets (e.g., "bolt-on transactions"), increasing costs of capital and the exit strategies of the buyers.

### Declining LNG transactions amid a changing environment



Source: Enverus

Over the past three years, an upsurge in LNG transactions has helped existing players consolidate their positions. Strong growth in LNG demand renewed interest in sanctioning LNG projects globally, leading to record sanctions in 2019 (led by newly sanctioned projects in Africa).

Significant transformations in the LNG business included:

- ▶ **A diversifying mix of buyers and sellers:** The LNG exporter and buyer mix started to diversify as new sources of supply and import markets gained prominence. About 40% of all long-term LNG contracts are expected to expire over the next decade, and new LNG projects are competing with legacy LNG projects to gain market share.
- ▶ **Changing contract terms:** LNG buyers are now demanding shorter contracts, greater volume and destination flexibility.

- ▶ **Changing demand drivers:** These include the evolving role of gas in power generation, growing industrial demand and flexible needs of growth markets.

The significant transformation in the LNG markets has disrupted the traditional business model of long-term, oil-linked, take-or-pay contracts with large, creditworthy buyers supporting final investment decisions (FIDs) on LNG export projects. Ambiguity about the future commercial models was reflected in 2019's LNG transactions, which declined 28% and 10% in value and volume, respectively.

## 2020 midstream outlook

Midstream companies are expected to remain focused on disciplined capital allocation, and any deviation from this path will depend on access to capital. Globally, PE and IFFs are likely to continue to be the driving force in M&A. Companies will be on the lookout for low-cost capital as they continue to restructure their businesses and focus on completing large existing projects to improve cash flows to fund new projects or execute buybacks.

As recently completed midstream projects start generating revenue, the sector's earnings before interest, taxes, depreciation and amortization (EBITDA) are expected to increase 5% to 7% through the second half of 2020. This could help companies deleverage and return to debt financing to fund strategic expansions. According to Moody's, capital spending across midstream could drop 15% to 20% in 2020.

Despite capital discipline, we believe that investments in debottlenecking projects, coupled with last-mile capex, will be welcomed in areas such as Bakken, where the increasing production volume is expected to surpass the existing processing and transportation systems. As of July 2019, about 18% of the gas from Bakken was being flared due to a shortage of takeaway and processing capability.

We expect that future new project LNG FIDs may be challenged by a soft gas market, depressed commodity prices (2019 natural gas prices in the US were the

lowest in the past three years), an increasingly competitive international gas market and concerns surrounding significant cost overruns during construction. However, with the LNG trade expected to increase 4% per year and new gas markets, such as Bangladesh and Panama, providing additional opportunity, capital is expected to flow in the form of equity investment in planned LNG projects and via partnerships seeking access to the growing gas markets.

Discussions on the future of energy and its effect on project returns will play a key role in capital decisions, including transaction activity. If natural gas follows our baseline demand growth of 285bcf per day over the next two decades, returns for LNG liquefaction are expected to be about 12.1% in North America. If the world transitions to gas-based economies (gas demand growing at 613bcf per day during the next two decades), then LNG liquefaction returns are projected to grow to about 17% in North America. However, if countries increase their focus on meeting their Paris Agreement goals and this leads to significant decarbonization (gas demand growth of 42bcf per day during the next two decades), the returns are expected to decline to 9.5% in North America.<sup>4</sup>

<sup>4</sup> Reference the *EY Fueling the Future* document.  
[https://www.ey.com/en\\_gl/oil-gas/should-oil-and-gas-invest-in-what-it-knows-or-what-it-thinks-will-be](https://www.ey.com/en_gl/oil-gas/should-oil-and-gas-invest-in-what-it-knows-or-what-it-thinks-will-be)







**US\$123.8b**

Total downstream deal value increases 42.7% year over year

**170**

Total downstream deal volume down 9.6%

**32%**

Downstream share of total global deal value

# Downstream

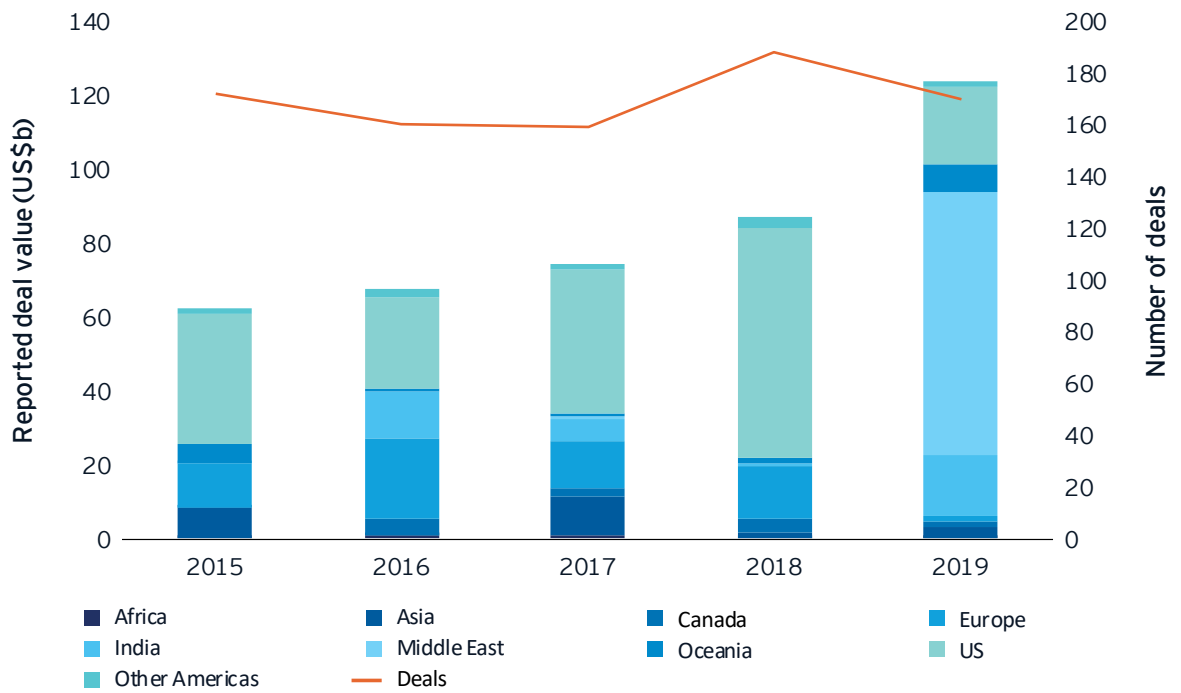
Outside of Saudi Aramco's acquisition of SABIC, valued at \$69.1 billion, downstream deal activity was relatively quiet in 2019. Pending International Maritime Organization (IMO) regulations and other volatile margin drivers, including infrastructure constraints, geopolitics and additional regulations, further expanded bid-ask spreads beyond reconciliation. In the few deals that were announced, creative transaction structures were often required. PBF's announced acquisition of Shell's Martinez refinery, for example, required a highly complex earn-out agreement based on future earnings, while the SABIC deal included assurances in the form of contractual offtaker arrangements.

Downstream deal value was up 43% to nearly \$124 billion in 2019; however, excluding the Saudi Aramco-SABIC deal, deal value was down 31% and

volume fell by 10%. Deal activity in North America and Europe fell 70%, from nearly \$80 billion in 2018 to \$24 billion in 2019. Deal volume fell 12%, from 137 in 2018 to 121 in 2019.

In the US refining space, only one asset – the Pasadena Refining System sold by Petrobras to Chevron – was transacted. That contrasts with previous years, which featured large combinations such as Marathon-Andeavor, Tesoro-Western Refining and Delek-Alon. The lull in 2019 was certainly not due to a lack of effort: seven different assets, or nearly 5% of US capacity, were publicly announced as available for sale.

Challenges to bid-ask spreads in the refining sector are not new, given the volatility of the sector and typical reluctance on the part of sellers



Source: Enverus

to release assets that on balance produce healthy cash flows but trade at low multiples. However, a lack of consensus on the magnitude and longevity of IMO tailwinds added further division in 2019. Additionally, the increasing role of ESG considerations for traditional sources of capital, trade disputes, geopolitics and infrastructure challenges further exacerbated the divide between buyers and sellers.

Going forward, the following factors could lead to a more robust M&A environment in refining:

1. The earnings uplift from IMO is expected to be a significant but short-term phenomenon. Once they realize an earnings uplift from IMO, operators will need to identify additional sources of immediate growth that can maintain momentum in the near term and medium term and offset margin normalization once shippers widely adopt scrubbers and other technologies.
2. Infrastructure challenges, geopolitics, trade disputes and other nonmarket forces that distorted the relative fair values of crudes should dissipate, or at least allow buyers and sellers to converge on how to adjust risk.
3. Added transparency on ESG will force operators to clearly define their strategies and adjust their portfolios accordingly.
4. Better visibility on IMO should mitigate the division on pricing tailwinds; however, market participants have shown a propensity to disagree on the longevity and tail impact to individual assets.

5. Petrobras has been aggressive in its marketing of eight refineries in Brazil.
6. Interest in Asian assets will likely continue, as deal value rose from \$2.3 billion in 2018 to \$19.9 billion in 2019.
7. Eni's and OMV's acquisition of a 35% stake in ADNOC Refining reflects the growth potential in this area, as long as investors are able to see a path toward managing risk.

The petrochemical segment accounted for the two largest downstream transactions during 2019. Saudi Aramco acquired a 70% stake in SABIC (\$69.1 billion) and a 20% interest in Reliance's O2C division (\$15 billion) as part of its downstream crude-to-chemicals strategy. Interest in petrochemical opportunities in key developing regions is likely to remain strong during 2020 as oil companies look to maximize downstream margins. For example, SOCAR and BP are exploring a possible petrochemicals JV in Turkey. However, the risk of global overcapacity and slower demand growth was top of mind in 2019. In the current fragmented market, operators will need to clearly define the strategy and verticals they want to participate in and optimize their portfolios accordingly.

In last year's edition of this publication, we noted that major oil companies would continue to focus investments in the retail segment of key developing regions, such as India, to take advantage of growth in oil product demand. This was illustrated by the JVs established in 2019 between Reliance

and BP in India and Total and Saudi Aramco in Saudi Arabia. We expect the major oil companies to continue to invest in the key developing regions during 2020, with JVs becoming more common. We also expect continuing interest from large independents, trading houses and convenience retail specialists to acquire and consolidate the non-core retail assets of the major oil companies and smaller independents.

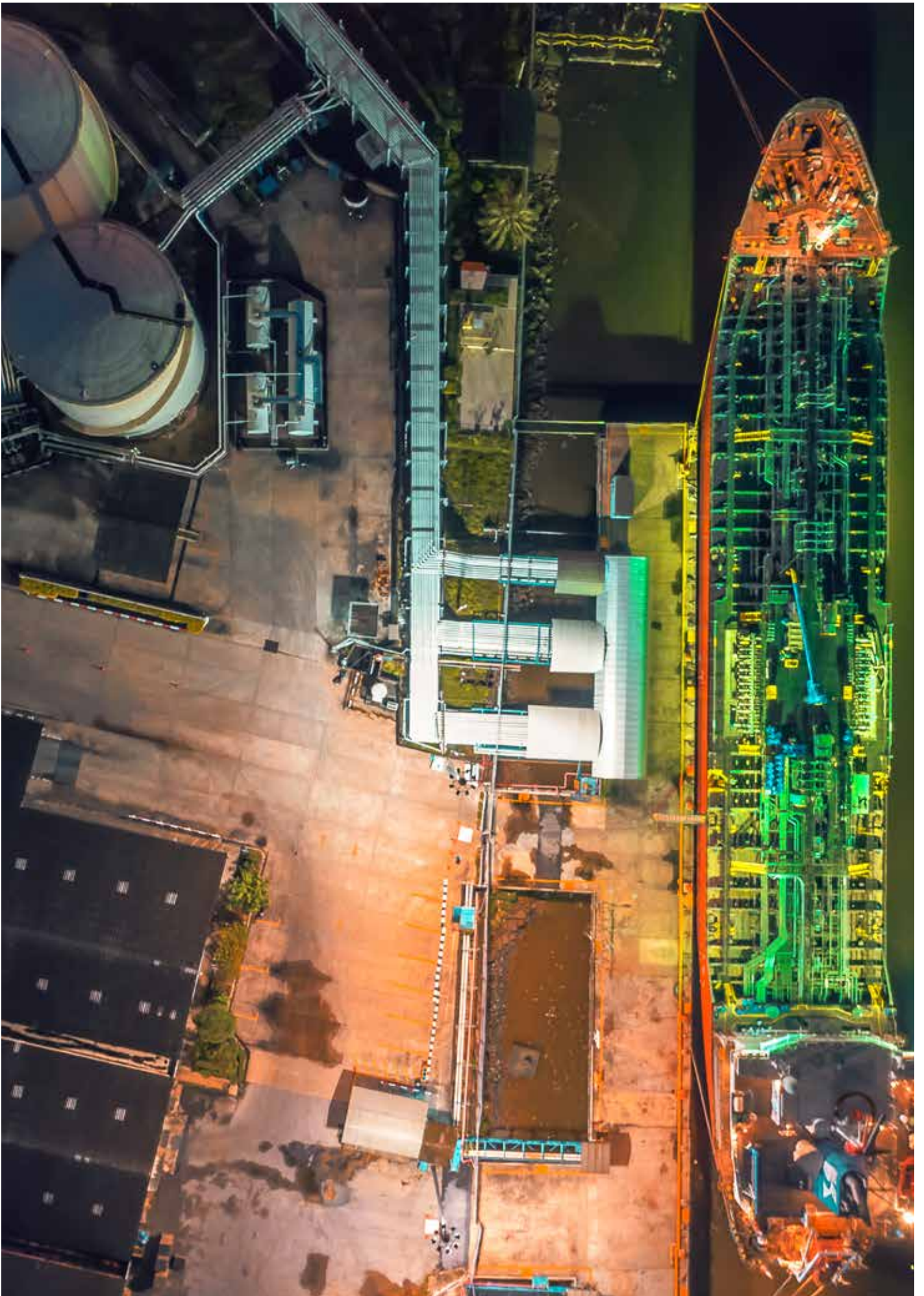
This trend is consistent with the widely divergent regional paths for liquid fuel demand in the EY Fueling the Future framework. In the Long Goodbye scenario, demand for liquid fuels in Europe begins a steady decline almost immediately. In North America, liquid fuel demand is essentially flat until the mid-2030s, when it begins to decline. In the Asia-Pacific region, it doesn't peak until the middle of the century.

There were a few notable trends in M&A activity involving storage terminals during 2019. For example, storage operators are continuing to rebalance their portfolios. This was illustrated by Vopak's divestment of its terminals in Algeciras, Amsterdam and Hamburg to First State Investments and ADNOC's acquisition of a 10% stake in VTTI. Also, infrastructure funds are showing continued interest in storage terminals. In addition to First State Investments, Aberdeen Standard Investments acquired Unitank and Oikos Storage (from Challenger Life). There were some significant investments by infrastructure funds between 2014 to 2016 on storage terminals that we anticipate will reach the end of fund life over the next 12 to 24 months. In terms of PE interest, Carlyle acquired a minority stake in Cepsa from Mubadala during 2019, and Buckeye Partners was taken private in a deal valued at over \$10 billion.

## 2020 downstream outlook

PE, particularly in storage and transportation, may see a flurry of activity as firms are forced to rebalance their portfolios and more clearly articulate their views and strategies on the energy transition versus the attractive economics and risk profile associated with infrastructure assets. For example, Blackrock, the world's largest asset manager, recently announced that it will put environmental sustainability at the core of its investment strategy, pledging to take steps such as lowering its exposure to fossil fuel companies. On the

other hand, operators appear to be optimistic about the amount of available capital, the level of patience of this capital and the multiples that transacted in the private markets in 2019. Ultimately, the restoration of normal yield levels in the public markets will require resurrecting investor confidence levels on the predictability of consistent tax-efficient distributions. This will go a long way toward 1) converging valuation multiples in the public markets to historical levels and 2) closing bid-ask spreads in the transaction market.





**US\$20b**  
Total OFS deal value declines 26.8% year over year

**267**  
Total OFS deal volume down 19.6%

**5.2%**  
OFS share of total global deal value

# Oilfield services

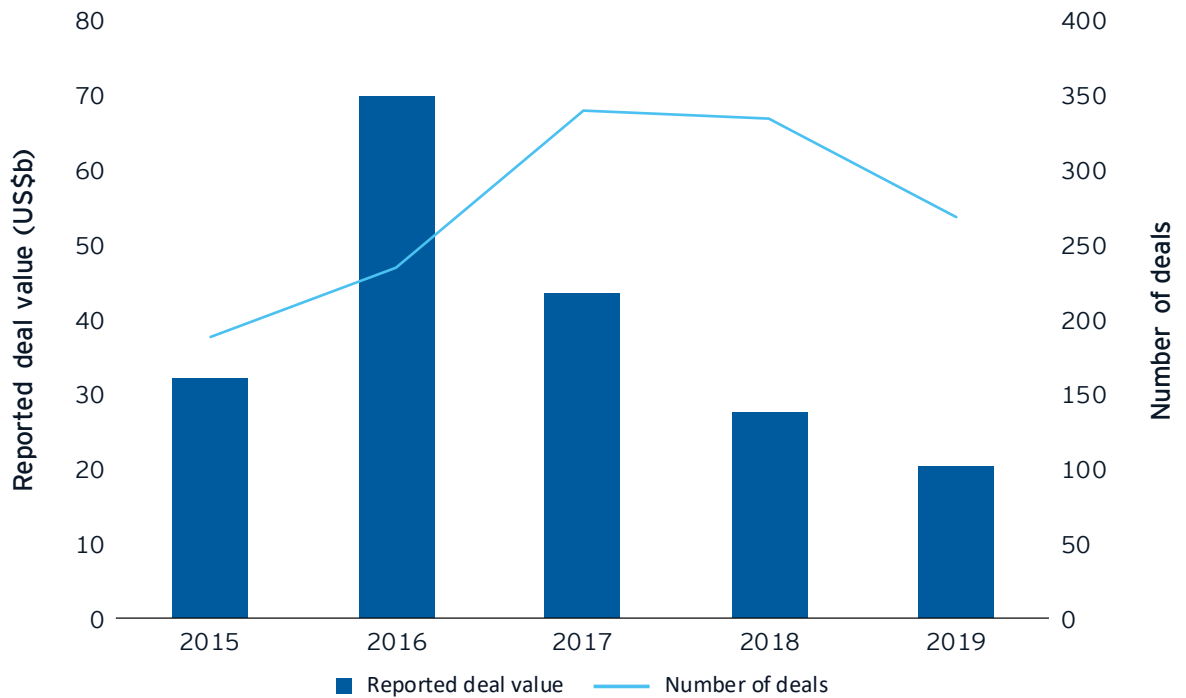
OFS companies continued to grapple with stagnant demand for services, oversupply and the legacy of a fragmented marketplace as oil producers became more efficient and shifted capital downstream. Revenues, profits and returns for the year disappointed again. Not surprisingly, OFS deal activity remained subdued in 2019, as gaining access to capital and agreeing on asset valuations remained challenging. 2019 was the third consecutive year when the number of deals declined. Deal volume was 267, 20% lower than in 2018. Deal value declined for the fourth consecutive year, reaching only \$20 billion. Interestingly, while the volume and value of transactions above \$1 billion largely remained the same as in 2018, the lower-value transactions

suffered a greater decline. This again highlights a continued dearth of activity at the lower end of the market, despite the need to reduce overcapacity and improve the financial position of the industry.

In 2019, 267 transactions were announced, a decline of 20% from the 332 in 2018 and approximately half the number of deals pre-crisis. Deal value (\$20 billion) was down 27% compared with 2018 (\$27 billion). This decrease was due to the limited number of large transactions above \$1 billion (only four) and the continued absence of transformational transactions (those above \$10 billion).



### Oilfield services transactions



Source: Enverus

	2015	2016	2017	2018	2019
Value (\$b)	32.0	69.3	43.3	27.3	20.0
Number of deals	187	233	338	332	267
Average deal value (\$m)	336	770	274	196	208

OFS companies continued to adjust their portfolios to align with customer portfolio rationalizations. Nearly one-third of 2019 transactions entailed divestments of non-core assets aimed at deleveraging and rationalizing portfolios. Some of the large and mid-sized companies are beginning to scrutinize their portfolios from the “returns” lens and are ready to shed assets that do not meet threshold returns. This is a marked shift from their traditional focus on expanding market share even at the cost of reduced pricing power and returns. This shift is expected to become more prevalent in the years to come.

Such transactions have included the following:

- ▶ GE’s secondary sale of its stake in Baker Hughes
- ▶ Sandvik’s divestment of the majority of its drilling and completion business (Varel)
- ▶ Superior Energy’s divestment of its drilling services assets

The US onshore services market, in particular, witnessed significant consolidation and exchange of assets amid constrained capital spending by the exploration and production companies and significant overcapacity in the services business.

Many OFS companies are adding complementary products and services to expand the breadth of their offerings and/or strengthen their capability to offer integrated solutions. An example of this trend, the merger of Apergy and Ecolab’s ChampionX business, valued at \$4.4 billion, was the largest transaction in 2019. Similarly, Tenaris’s acquisition of IPSCO Tubulars from PAO TMK for \$1.2 billion marked a further step in its journey as a domestic producer and supplier to the US oil and gas industry.

Financially sound companies also took advantage of reasonably priced assets, especially capital-intensive ones, that distressed companies were looking to offload to reduce their debt. We believe this trend will continue as companies refocus their portfolios.

We expect the OFS sector to become more consolidated as the largest players build capabilities to offer integrated or bundled products and services via inorganic growth, while smaller and mid-cap players merge to create economies of scale and become more competitive in the marketplace.

Cost pressure and demand from customers have pushed OFS companies to digitize. OFS transactions in 2019 reflected that push, and several large and mid-sized OFS companies across the value chain strengthened their digital capabilities via a mix of JVs, partnerships and acquisitions. These transactions were mainly aimed at improving efficiencies in their product and service delivery, as well as creating stronger and more resilient relationships with their customers through differentiated offerings.

An example was Newpark's 2019 acquisition of Cleansorb Limited, an innovative reservoir chemistry company. Cleansorb develops and applies oilfield chemical technologies that care for the reservoir, simplify wellsite treatments and improve recovery rates in new and mature fields.

The trend is likely to accelerate in the coming years as companies reshape their business models with technology at the center. OFS companies are focusing on partnering with established technology companies; but, over time, it is expected that they will acquire small startup technology, as well as crossovers from other industries, and then work to integrate and adapt their technology to the oil and gas industry. Many companies are already setting up energy venture funds or buying startups, investing in technologies for the oil and gas sector that also have applications to other industries.

A likely future transaction theme for the OFS sector will be energy transition. OFS companies are likely to take gradual steps to adjust their portfolios, following the footsteps of existing customers and balancing risks and rewards in a capital-constrained environment. Companies are likely to consider venturing into businesses that leverage their core capabilities. For instance, offshore service providers have won some level of relief in mature basing, providing services to developers of wind projects.

The OFS sector is facing an unprecedented disruption from technological revolution, along with changes in customers practices and landscapes. Energy transition is adding another dimension to this complexity. The sector is being disrupted at a time when companies face immense pressure to enhance shareholder value and returns. These factors will reshape M&A transactions over the next few years.







## Contact details

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### John Hartung

+1 713 751 2114

john.hartung@parthenon.ey.com

### Jon Clark

+44 20 7951 7352

jclark5@uk.ey.com

### Celine Delacroix

+44 20 7806 9204

cdelacroix@uk.ey.com

### Kristofer Anderson

+1 713 750 1325

kristofer.anderson@ey.com

### Sanjeev Gupta

+65 6309 8688

sanjeev-a.gupta@sg.ey.com

### Evgeny Khrustalev

+61 8 9429 2416

evgeny.khrustalev@au.ey.com

### Dilip Khanna

+91 11 4731 8700

dilip.khanna@in.ey.com

### Kunihiko Taniyama

+81 3 4582 6548

kunihiko.taniyama@jp.ey.com

### Tabrez Khan

+44 20 7951 4674

tkhan@uk.ey.com

### Lance Mortlock

+1 403 206 5277

lance.mortlock@ca.ey.com

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