

## SECTOR ANALYSIS: THE GREAT US MIDSTREAM RUSH

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**Booming oil exports across the US and a thirst from midstream companies for a new financing model has opened the door to infrastructure funds. With deal value exceeding USD 20bn in 2018, are growth expectations starting to pull away from reality? Andrew Vitelli and Colin Leopold report**

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### USA & Canada

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If 2018 was a banner year for North American midstream deals, 2019 is on track to top it. The trend over the past 18 months has been a dramatic turn towards midstream assets for infrastructure investors, where – unlike in core transportation – opportunities abound. Deal value in 2018 topped USD 20bn, and 2019 has already seen a handful of large deals including Blackstone’s USD 3.3bn buyout of Tallgrass Energy.

“It was a record year for us,” says Mark Appelman, the head of energy for ING Americas. “And for many others as well.”

The triumph of the US shale revolution of the past decade, when American drillers dug deeper and longer than the Russia and Saudi-led OPEC cartel, means the US is likely to be the world’s biggest oil producer by the end of 2019. With this production boom has come a massive build-out of transport and storage infrastructure. In the last few years infrastructure and private equity funds have been taking positions, as midstream firms have looked to simplify ownership structures away from the failing master limited partnership (MLP) model.

“All the deals that are happening today in the midstream space are being done by private equity and infrastructure funds,” said Brandon Freiman, KKR’s head of North American infrastructure, at *Inframation*’s annual Infrastructure Investors Forum: Americas in New York City last month.

“The capital markets have generally been minimized for MLPs,” says Kevin Crews, a partner at the Dallas office of Kirkland & Ellis. “You are seeing MLPs exploring sales of no

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assets or preferred equity PIPEs from sponsors, whereas in the past they would have gone to the capital markets.”

But behind this rush of activity some of the projections underpinning investments are ambitious, even unrealistic, according to people with knowledge of the sector. EBITDA multiples in some cases have climbed into the high teens, opening the door for disappointing returns should these projections fall short. The same people also point to investments happening now which, in the past, would have been considered high-risk private equity plays.

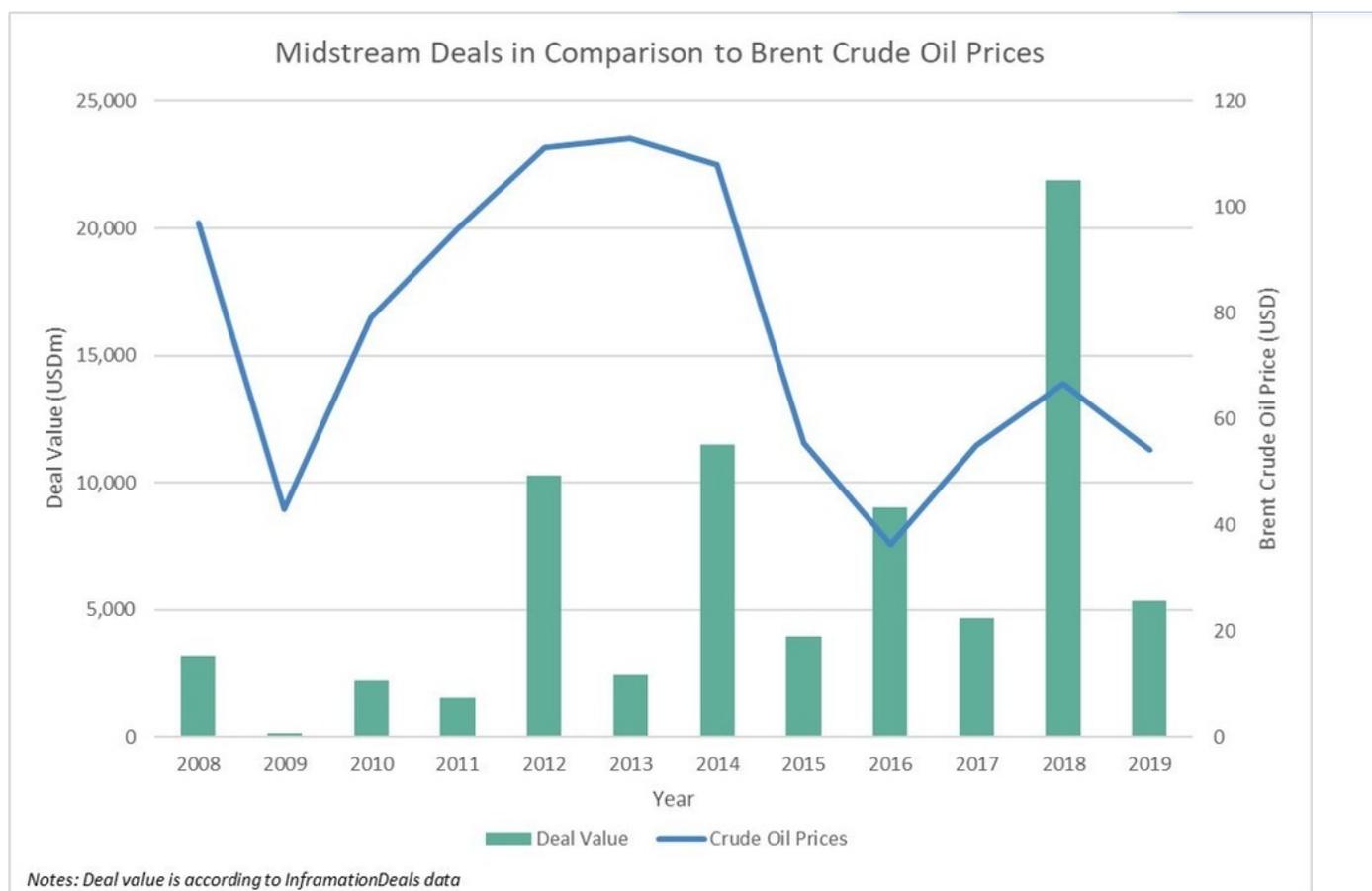
## Exports boom

Horizontal drilling technology has made the US the world leader in oil and gas production. Crude oil output nearly doubled from 5m barrels per day (BPD) in 2008 to 9.3m BPD in 2017, according to data from the US Energy Information Administration. Natural gas production rose from under 19 trillion cubic feet (Tcf) in 2005 to more than 29 Tcf in 2017. Canada’s production has also risen, though less dramatically. Meanwhile, US exports of crude have skyrocketed following the lifting of a 40-year ban in December 2015, from just 71,000 BPD in December 2012 to more than 2.5m BPD in December 2018.

Naturally, the region has needed pipelines, storage facilities and processing terminals to move this product internally and to export. The midstream MLP model emerged as the favored structure, in part because of a favorable tax treatment that typically avoids double taxation. Growth was impressive: between 2003 and 2013 the Alerian MLP Index, a composite of energy infrastructure MLPs, advanced at twice the rate of the S&P 500 Index, according to a study by the University of Houston.

But there was a catch. The MLP structure relied on aggressive growth – a “grow-or-go” model, says Kathleen Connelly, a director at Fitch Ratings.

“Once they came up with a growth business model, the only way they could keep up with it was to go back into the market to get more equity and more debt. So that is what they did,” says Chris Ross, a retired professor at the CT Bauer College of Business at the University of Houston. “I think that they went overboard, but the companies that didn’t grow distributable cash flow basically didn’t produce much of a gain to the investors.”



When oil prices crashed in 2014 and capital markets tightened, the MLP growth model was laid bare. “Analysts concluded that publicly-traded transportation and storage MLP companies were overvalued, or their growth trajectory did not make sense in light of commodity prices,” says Ned Crady, a partner at Baker Botts. “I think the market overreacted, but nevertheless it had a real effect on the issuers being able to raise funds in the capital markets.” Trump’s subsequent reduction of the US corporate tax rate – from 35% to 21% – made the MLP tax-advantaged structure even less appealing, say people with knowledge of sector during that time.

By 2016, infrastructure funds with lower return expectations and simpler governance structures had moved in. While 2015 saw only six midstream brownfield deals involving infrastructure funds, according to *Inframation* data, by 2016 that number had risen to 16. Last year, *Inframation* tracked 26 deals worth around USD 22bn.

## Going anti-slump

Headline deals in the last six months include Blackstone’s Tallgrass acquisition, KKR’s joint venture with SemGroup, Stonepeak’s investment in [Discovery Midstream Holdings II](#), and Carlyle’s investment in [Crimson Midstream](#). Last month, ArcLight Capital Partners closed its USD 526m take-private of Denver-based TransMontaigne Partners. Can these new infra-backed vehicles thrive where the MLPs before them have failed?

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"[Infrastructure funds] see the long-term value of these midstream companies," says Mollie Duckworth, also a partner at Baker Botts. "Having a more patient capital structure makes sense in the current market."

Crucially almost all the new infra fund owners have protected themselves from commodity price risk – targeting pipeline investments where they move the product for oil companies and using take-or-pay contracts which pivot between a minimum amount of offtake at the contract price (take) or the customer pays a price for the same quantity even if it is not taken (pay). Natural gas pipelines are mostly backed by 15- to 20-year take-or-pay contracts for at least a portion of their offtake, according to a Fitch Ratings 2019 outlook for the sector.

"These types of contracted pipelines are very anti-slump, so these are perfect for project finance," says Appelman at ING Americas. "You can really leverage them up and provide financing long-term."

Infrastructure investors have also reduced risk exposure by building up specific types of consortia. Blackstone, for example, brought in Spain's Enagás and Singapore sovereign wealth fund GIC as minority investors in its deal for Tallgrass. SemGroup brought in KKR to take a 49% share in its Canadian midstream business when it acquired Meritage Midstream. "We have seen many players look to reduce their total investment in one project by having a joint venture," Connelly says.

Investors are also using preferred equity strips, which are junior to debt but senior to other forms of equity and, according to a person with knowledge of a recent infra fund transaction deal, if the entry multiple is far lower than the exit multiple there is already a built-in cushion for the infra fund. Is this a safe assumption? Before the oil price downturn in 2014, midstream companies were trading at roughly 14x EBITDA multiples, according to a report published by asset manager Cohen & Steers. By 2017, that number was back up to 13x in private transactions, according to the same report. In the Permian Basin in Texas and New Mexico, one person familiar with the sector says, 18x multiples have now become the norm.

Lender appetite has also driven debt margins below 500bp in many cases. Blackstone's acquisition of Tallgrass energy was backed by a USD 1.1bn term loan B, which priced at 475bp over Libor with a 0% floor and an original issue discount of 99.25. Pricing on TLBs issued last year also depended on the asset, according to [Inframation data](#), but were around the same level or lower. A USD 900m loan backing North Haven Infrastructure Partners' acquisition of Brazos Midstream priced at L+400; a USD 1bn loan supporting Brookfield's Enbridge deal priced at L+375; and a 1bn TLB backing Global Infrastructure Partners' deal for Enlink priced at L+425.

It is difficult, and probably too early, to draw too many conclusions from debt and leverage in these assets. In general, Fitch rates midstream assets in the BBB category. Ent

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TransCanada Corp., for example are levered at more than 5x debt-to-EBITDA, while Transcontinental Gas Pipe Line Company and Northwest Pipeline are both closer to 2.5x, according to Fitch.

## Take or pay, or worry

Midstream assets are appealing in large part because they are insulated from oil price swings. In 2016, for example, after prices dropped, Fitch reported 18 high-yield energy companies with bonds filing Chapter 11. None of them were midstream firms.

Overall, pipelines fit the bill of a textbook infrastructure investment. But some infra funds have moved beyond take-or-pay backed pipelines, and that is where questions are now being raised. According to the same person with knowledge of a recent transaction, while five years ago there may have been 10 take-or-pay contracts in a midstream company being acquired, now there may be none.

Ten years ago anything outside long-haul pipelines was the domain of private equity investors, according to KKR's Freiman. In the last 18 months, it's much less clear.

Investor	Midstream Deal	Financial Close Date	Deal Value (USDm)
Blackstone Infrastructure Partners, GIC, Enagas	Tallgrass Energy Co.	March 2019	3,300
ArcLight Energy Partners Fund VI	TransMontaigne	February 2019	525
KKR Global Infrastructure Investors III (49%), SemGroup (51%)	Meritage Midstream	February 2019	455.45
EQT Infrastructure Fund III	Kodiak Gas Services	February 2019	N/A
InstarAGF Asset Management, PFM Group	Steel Reef Infrastructure Corp	February 2019	68.17
Carlyle Global Infrastructure Opportunity Fund	Crimson Midstream	January 2019	N/A
Stonepeak Infrastructure Partners	Discovery Midstream Holding II	January 2019	1,000
Caisse de dépôt et placement du Québec (CDPQ)	Southern Star Central	December 2018	N/A
InstarAGF Asset Management	Jet Fuel Pipeline	December 2018	450
First Reserve Corp	Blue Racer Midstream	December 2018	1,500

Gathering and processing (G&P) services, which have been making their way into infra portfolios, are typically seen as riskier than pipeline companies. The take-or-pay equivalent for these systems is known as a minimum volume commitment (MVC), which guarantees payment for a minimum volume of the commodity. Acreage dedication contracts, on the other hand, come with greater volume risk. In these agreements, midstream firms recoup their investments by fees tied to production at a given acreage. These types of c

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are common for G&P firms operating in the Permian basin, where MVC agreements are rare.

It is generally acknowledged that gathering systems, especially those without MVCs, are more exposed to gas prices, increasing the risk of these investments. There is less project financing around these investments, Appelman says, with banks providing shorter tenors and lower leverage.

Water infrastructure deals linked to the midstream boom have also emerged. “You are also seeing a new focus on those assets, because the midstream industry is recognising a new opportunity with oil producers reaching scale in high water cut production areas, often doing multi-stage horizontal drilling with multiple wells off one pad,” says lawyer Crews at Kirkland & Ellis. “For the project economics to work for the producer, a comprehensive midstream solution is needed to reliably and cost efficiently take away the large volumes of produced water.”

Expanding the midstream investment category certainly increases opportunities. There are fears, though, that straying into less known territory could lead to disappointment for new investors plunging into the sector.

“In these [G&P assets] you see more capex that is needed, construction periods being longer, and there is some amount of volume risk,” says Subha Pasumarti, managing director for midstream oil and gas at ING. “They are probably not as strong from a risk perspective as you would see from a traditional infrastructure asset.”

## In the late innings

There are few signs that the infra fund interest on North American midstream has run its course. Those close to the sector expect it to continue for at least another year or two. After all, there are still new pipelines needed to ease bottlenecks.

A study by the Interstate Natural Gas Association of America Foundation found that an average of USD 44bn in capex would be needed annually to build 41,000 miles of pipeline through 2035. Texas alone will need to add 10,000 miles of pipeline in the next three decades, according to other figures seen by *Inframotion*. And, for the time being, infra funds have the dry powder to support it all.

Can their financing appetite continue along the same lines?

“You will continue to see some simplification transactions among the MLP companies in the industry,” says lawyer Duckworth. KKR's Freiman, though, sees reason for pause.

Each midstream investment is dependent on upstream production meeting expectations. Freiman believe these projections are now incompatibly optimistic. “Not all producers can be growing to 100,000 barrels a day,” Freiman said at the Infrastructure Investor

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month. “The notion that you can create value just jumping on the growth train... we are in the late innings of that.”

In the Permian, Connelly says some expectations have proven to be lofty. “Production has not ramped up as previously anticipated. I do think we will continue to see strong production growth in the Permian but I don't think that it can match prior expectations.”

Slower-than-projected production growth does not necessarily spell disaster, but it may signal a retreat for investors paying a high-teen EBITDA multiple and the expectations that go with it.

## The geography of US midstream

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*\*The transactions have been placed according to asset location or corporate headquarters location. To see the full extent of asset location, hover the cursor above the markers.*

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The American energy revolution, and the corresponding midstream build-out, may have been a **Nationwide** phenomenon but recent infrastructure fund-linked activity has concentrated on some key areas (see above). There are reasons for this.

Texas remains the heart of the US energy world, and not simply because many energy firms are headquartered in Houston. The Permian Basin, an oil-rich area nearly the size of the UK in western Texas and New Mexico, has grown into the second most productive oilfield in the world (after Ghawar in Saudi Arabia). As production in the Permian has increased, the infrastructure to bring product to market has struggled to keep up. Last year, a Moody's report said a lack of takeaway capacity would limit exploration and production and weaken realized prices until new pipelines come only in late 20

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of the oil produced in the Permian will make its way to international markets, which means transporting crude across state to the Gulf of Mexico and natural gas into Mexico.

WhiteWater Midstream, [acquired](#) in February by [First Infrastructure Capital Advisors](#), [has assets](#) in the Permian. [Kodiak Gas Services](#), a gas compression firm bought the same month by EQT Infrastructure, also operates in the basin. And Blackstone Energy Partners portfolio company EagleClaw Midstream Ventures is part of a consortium developing a 430-mile pipeline to bring Permian natural gas to the Gulf and to Mexico.

Yet there are plenty of pipelines being built outside Texas. [Canadian Pension Plan Investment Board \(CPPIB\)](#) and EQM Midstream Partners have both made investments this year in the Utica and Marcellus shale, which underlie parts of Pennsylvania, Ohio, New York and West Virginia. “For midstream companies looking for opportunities where there are fewer players, that is where you see the interest in some of the emerging basins like the D-J Basin [in Colorado] or the Powder River Basin [spanning southeast Montana and Northeast Wyoming],” says Kevin Crews, a partner at the Dallas office of Kirkland & Ellis. The Permian will continue to drive deals in midstream. But the Bakken Shale, which underlies North Dakota and Montana, may attract increased attention this year. The Bakken saw production drop when oil prices fell but now appears to be on the rebound. [Global Infrastructure Partners \(GIP\)](#) reached a deal last year for a [Bakken-focused water midstream firm](#) – there may be many more ahead.