

Midstream energy catalysts

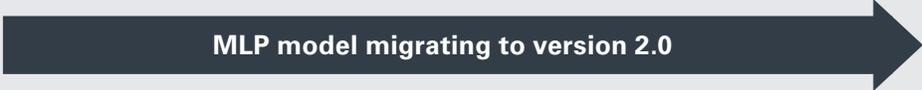
The midstream energy sector has hurdled a number of challenges over the past five years, and despite many detractors, has powered through and maintained strong fundamentals. Additionally, valuations have been at depressed levels, reminiscent of the financial crisis in 2008. There are three key themes and catalysts, beyond fundamentals and valuations, that are driving a turnaround in performance: structure, return of capital to shareholders and asset flows.

Structure

The prolonged energy downturn that started in mid-2014 led to a closure of equity capital markets for MLPs. Historically speaking, MLPs paid out almost all their cash flow and utilized both debt and equity capital markets to fund growth capex. With the tightening of the equity capital markets, companies had to decide how to fund growth projects. Companies had two options. They could improve cost of capital through the elimination of incentive distribution rights (IDRs) or right size payouts and balance sheets through asset sales and distribution reductions to facilitate self-funding. Hence, the move to MLP version 2.0.

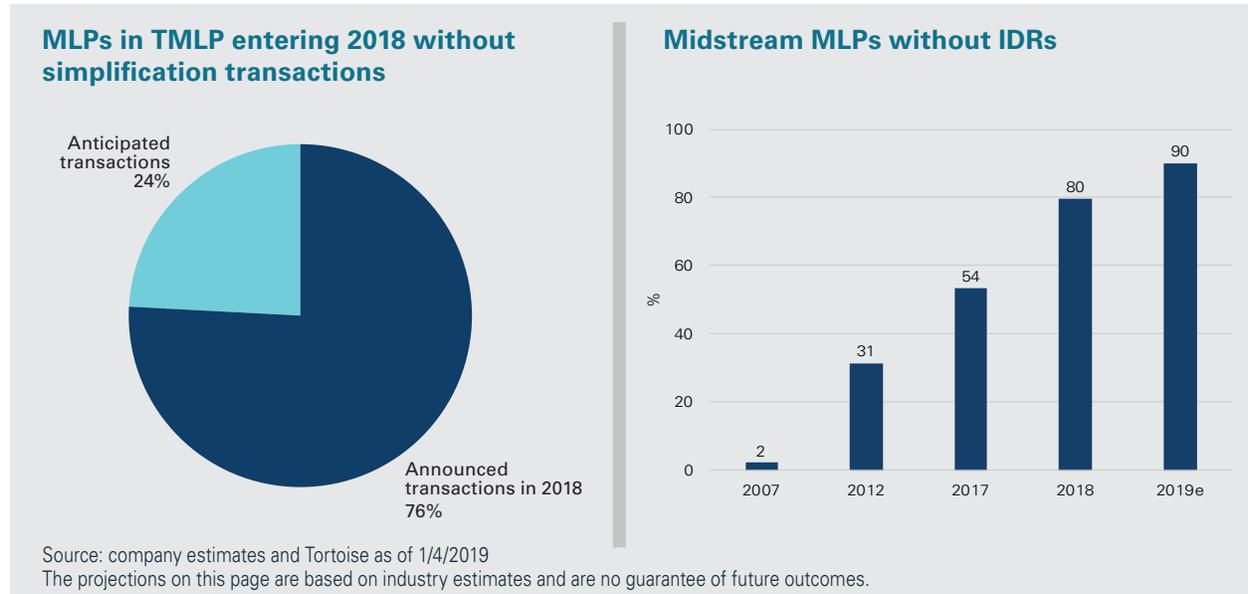
Prolonged energy downturn led to poor equity capital markets

MLP model migrating to version 2.0

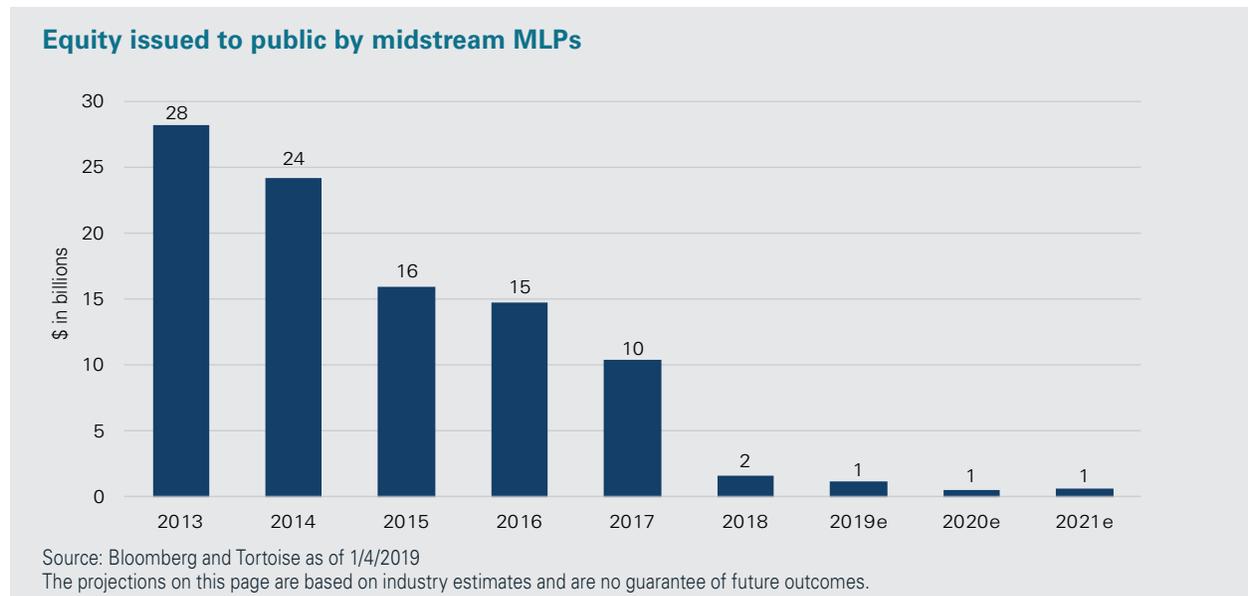


MLPs	MLPs Version 1.0	MLPs Version 2.0
Return components	<ul style="list-style-type: none"> • Distribution yield • Distribution per unit growth • Change in market multiple 	<ul style="list-style-type: none"> • Distribution yield • Distributable cash flow (DCF) per unit growth • Change in market multiple
Qualities	<ul style="list-style-type: none"> • Distribution coverage 1.0x - 1.3x • Shareholder return primarily through distribution • Utilized equity and debt markets to fund projects • Incentive distribution rights (IDRs) prevalent 	<ul style="list-style-type: none"> • Distribution coverage 1.2x - 1.5x • Shareholder return through distribution, debt reduction and unit repurchases • Utilizes self funding and debt markets to fund projects • No IDRs

A big component of the simplification process was the elimination of IDRs. 2018 proved to be the year of the transaction. The year began with 49 securities in the Tortoise MLP Midstream Index[®]. After removing the companies that had already completed some form of simplification in the past from the index, 76% of the remaining market cap by weight, announced a transaction in 2018. That substantial number of transactions was certainly disruptive to the market. However, on a positive note, by the end of 2019, we anticipate that approximately 90% of the securities in the midstream index will be IDR-free, lowering the cost of capital and improving corporate governance.



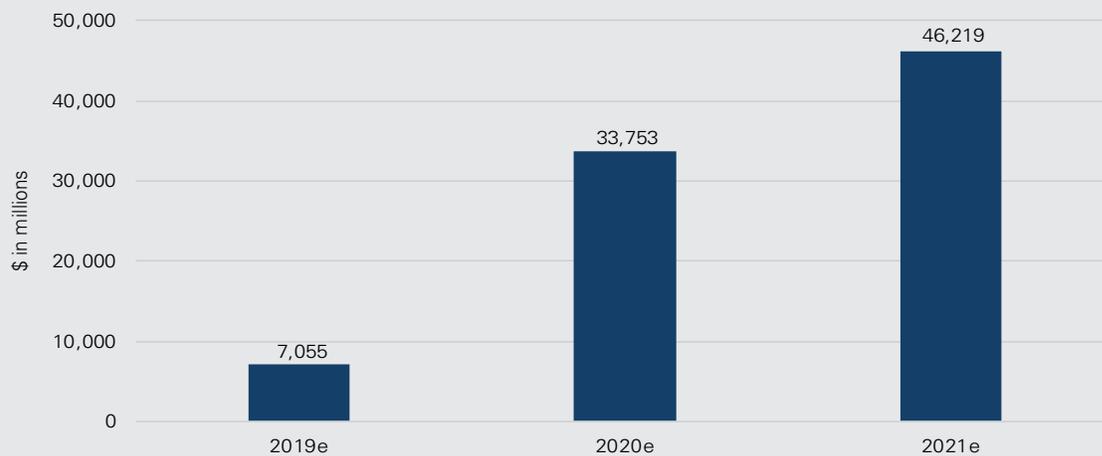
The self-funding model is best shown visually by the chart below, which exhibits the amount of equity issued within the midstream MLP sector over the past six years. The change has been dramatic and signifies the shift to MLP version 2.0. Looking forward, we anticipate minimal equity issuance during the forecasted period.



Return of capital to shareholders

The second catalyst is return of capital to shareholders, which can be accomplished in various forms. According to our projections, derived directly from cash flow statements of companies in the midstream universe, the midstream sector generates substantial cash from operations. And cash is growing each year over the forecasted period through 2021. In addition, capital expenditures are expected to decline, with 2019 reaching close to a high water mark for investment, as a result of the recent increased production growth. It is our view that the elevated capex levels of the last several years will start to trend lower, yet will remain robust enough to support future growth in cash flows. The net effect of cash from operations, less cash from investment, generates the free cash flow shown in the chart below. Note the simultaneous effect of growing cash from operations along with lower capex spending. It creates significant free cash in 2020 and 2021.

Free cash flow (net effect from operations less cash from investments)



Source: company estimates and Tortoise as of 1/4/2019

The projections on this page are based on industry estimates and are no guarantee of future outcomes.

We expect growing and compelling free cash flow yield from the midstream sector in 2020 and 2021. The midstream sector is expected to generate substantially higher free cash flow yields than the often-defensive utility sector, REITs and the S&P 500. Additionally, we anticipate that 98% of the midstream sector will be free cash flow positive by 2020.

Midstream companies generate substantial cash flow that can be returned to shareholders, with almost 90% expected to be in positive territory in 2021 after both capex and dividends. It is also important to note that we expect leverage to improve throughout the forecasted period, and coverage to stay very strong.

In addition, the midstream sector still generates a high current cash yield, but also has the ability to grow distributions and start buybacks. Asset sales can also provide further upside. We expect sequential distribution growth for the next few years, coming in at approximately 7% per year. Note, this includes the anticipated roll-up transactions as well. This is slightly lighter than we have seen in the recent past, but that's primarily because companies are retaining cash flow earned. More specifically, distributable cash flow per unit is growing more than the distribution that is actually paid out, thus creating options for the excess cash. Based on our forecasts, we believe that more than 50% of the midstream sector has the ability to execute buybacks by 2021.

It is important to highlight the aforementioned asset sales. Currently, private equity has been willing to pay a significant premium over public market multiples for assets, about 3 turns at present.

Therefore, asset sales have been prevalent as a deleveraging and funding tool for midstream companies, averaging about \$5 billion per year, over the last 5 years with an increase in the last 3 of those years to \$8 billion per year.

For example, to assist in substantially meeting its 2019 equity needs, Targa sold a 45% interest in its Bakken energy infrastructure assets to GSO Capital Partners and Blackstone for \$1.6 billion. The transaction was valued at a 15x multiple of cash flow. In our view, this exemplifies how sophisticated private equity investors continue to value the cash flows of energy infrastructure companies at higher multiples than public investors would.

If taking into account a projection of approximately \$8 billion of asset sales, based on the previous 3-year average, and adding those proceeds to the free cash flow numbers generated earlier, there is an incremental upside, including a solid addition to the free cash flow yield. This is another reason we think valuations for publicly listed energy infrastructure companies remain compelling.

Finally, we analyzed what would happen if all the companies in the midstream universe maintain their current assets and do not spend any money on growth capex beyond 2020. The impact is quite impressive. The cumulative cash flow from operations is more than \$900 billion dollars, passing the existing market cap in 2027. We assumed that cash would first be used to reduce leverage to at least a 3.5x level, if necessary, for each company, then to buy back stock. In total, about 50% of the market cap could be repurchased in 10 years, according to our projections.

Asset flows

The third catalyst is flows and new capital entering the space. Already in 2019 new closed end funds have entered the market and private equity firms appear to be looking to find ways to deploy capital, as illustrated by the announcement that affiliates of Blackstone Infrastructure Partners had agreed to acquire 100% of the membership interests in Tallgrass Energy, LP's (TGE) general partner and an approximately 44% economic interest in TGE. A recent report by Blackstone Group showed the dry powder to acquire or build assets in the energy private equity and infrastructure sector at almost \$400 billion dollars. That is a lot of capital that will need to be put to work.

Summary

With discipline and persistence, the midstream energy sector has re-emerged stronger and better positioned to benefit from the 2019 catalysts including structure, return of capital and flows. As we near the end of the simplifications, the structure is vastly improved. The substantial cash generated by midstream companies provides options to reduce leverage further, reward investors with growing distributions and share buybacks as well as attract new capital into the sector from a variety of channels.

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MLPs = Tortoise MLP Index[®], a float-adjusted, capitalization-weighted index of energy MLPs. To be eligible for inclusion in the Tortoise MLP Index[®], a company must be publicly traded, organized as a limited partnership or a limited liability company, and be classified as an "energy MLP" by the Master Limited Partnership Association (MLPA). Tortoise MLP Index[®] is the exclusive property of Tortoise Index Solutions, LLC, which has contracted with S&P Opco, LLC (a subsidiary of S&P Dow Jones Indices LLC) to calculate and maintain the Indices. The Index is not sponsored by S&P Dow Jones Indices or its affiliates or its third party licensors (collectively, "S&P Dow Jones Indices"). S&P Dow Jones Indices will not be liable for any errors or omission in calculating the Indices. "Calculated by S&P Dow Jones Indices" and its related stylized mark(s) are service marks of S&P Dow Jones Indices and have been licensed for use by Tortoise Index Solutions, LLC and its affiliates. S&P[®] is a registered trademark of Standard & Poor's Financial Services LLC ("SPFS"), and Dow Jones[®] is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). It is not possible to invest directly in an index. Index returns and yields shown are presented before management fees and other expenses of Tortoise advisory products and services. Clients or investors in Tortoise products and services will experience returns and yields reduced by advisory fees and other product expenses.

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