



Tortoise Talk
Energy update

Second quarter 2019

Tortoise Talk Second Quarter 2019

As we turn the page on the first half of the year, the energy sector has been pulled in many directions and commodity prices have been in a tug of war. While the calendar year had a strong start, substantial uncertainties surfaced with U.S. and China trade talks and the potential for a slowing economy weighed on market performance. The S&P Energy Select Sector[®] Index returned -2.8% in the second quarter, bringing year-to-date performance to 13.1%.

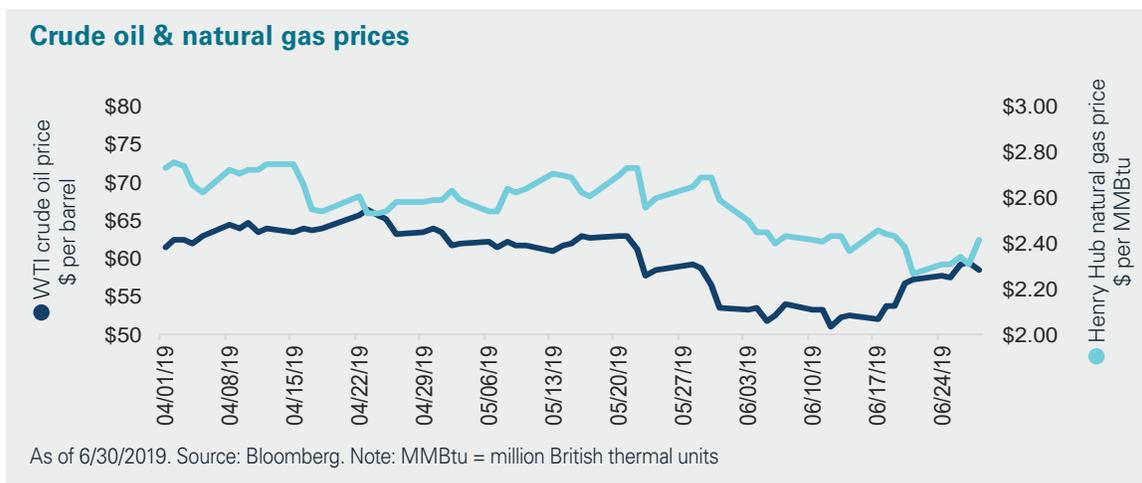


Upstream

The downward trend in upstream performance during the second quarter mirrored the decline in crude oil prices. Poor market sentiment was driven by recessionary fears, building inventories coupled with downward revisions to demand growth estimates by the Organization for Economic Co-operation and Development (OECD), elevated geopolitical risk considerations and mounting worldwide supply outages. The Tortoise North American Oil and Gas Producers IndexSM returned -5.8%, bringing year-to-date performance to 10.0%. Crude oil prices, represented by West Texas Intermediate (WTI), began the quarter at \$61.59, peaking at \$66.40 in late April, before steadily declining to a low of \$51.14 on June 12, 2019, despite multiple tanker incidents in the Gulf of Oman between mid-May and mid-June. Prices rallied in late June, to end the quarter at \$58.47. The shooting down of a U.S. drone, and the threat of a direct military confrontation between Iran and the U.S. was finally enough to support an upward price response.

2019 U.S. crude oil production is expected to be strong in the second half of the year with numerous Permian basin pipeline projects in the Gulf Coast coming online in the latter part of the year. Production is projected to average 12.4 MMbbl/d in 2019 and 13.3 MMbbl/d in 2020¹. This continued growth is predicted to transform the U.S. into a net exporter of oil and petroleum products by the end of 2020, according to the U.S. Energy Information Administration.

Natural gas prices remained under pressure during the second quarter, opening the period at \$2.73 per million British thermal units (MMBtu) before closing the quarter at \$2.42. Prices peaked at \$2.76 on April 2nd, 2019 and troughed at \$2.27 on June 21, 2019. Moderating demand due to mild weather resulted in an elevated pace of inventory builds. With natural gas production expected to grow again and average 90.1 billion cubic feet per day (bcf/d) in 2019 and 92.9 bcf/d in 2020², we believe production may be poised to outgrow domestic demand and LNG export needs, with prices likely to remain pressured in the medium term as a result. The U.S. became a net exporter of natural gas in 2017, the trend continued in 2018 and with more LNG liquefaction additions this year and next, net exports are set to increase further.



Midstream

Performance in the midstream sector deviated from broader energy as represented by the Tortoise North American Pipeline IndexSM return of 1.3% and the Tortoise MLP Index[®] return of 1.4% for the second quarter, bringing year-to-date performance to 23.3% and 19.3%, respectively. Divergence in performance from the overall energy market highlighted strong midstream fundamentals indicative of growing production volumes, stable cash flows, healthy coverage and balance sheets and a near completion of the simplification trend.

Private equity interest in midstream continues to be an evolving theme emphasizing the strategic value and attractive valuation of midstream assets. IFM Investors, an Australian global institutional funds manager, announced plans to acquire Buckeye Partners in an all-cash transaction at a 27.5% premium to the May 9, 2019 closing price. The transaction, valued at an approximate 12x cash flow multiple, illustrates the higher valuations private equity is ascribing to energy infrastructure companies compared to public investors.

Looking forward, in large part due to a greater need to debottleneck productive basins and to export crude oil and natural gas, the organic growth opportunity for midstream companies is healthy. Our outlook for capital investments remains at approximately \$130 billion for 2019 to 2021 in MLPs, pipelines and related organic projects.

Downstream

Refiner performance retreated during the second quarter driven by numerous planned and unplanned refinery outages, decreased crude supply due to sanctions on Iran and Venezuela and refined products demand concerns tied to the U.S. and China trade war. The upcoming Jan. 1, 2020 International Maritime Organization's initiative (IMO 2020) requiring sulfur reduction regulations on the shipping industry, a large upheaval in the global refining industry, is quickly approaching. U.S. refiners are well positioned to take advantage of higher distillate pricing and more heavily discounted medium-heavy sour crudes, thanks in large part to their more complex nature and ability to use a wide range of crude feedstocks. As a result, refiner performance is expected to improve into the second half of next year. New petrochemical facilities are due to come online later in the year, which should improve NGL prices.

Power/renewables

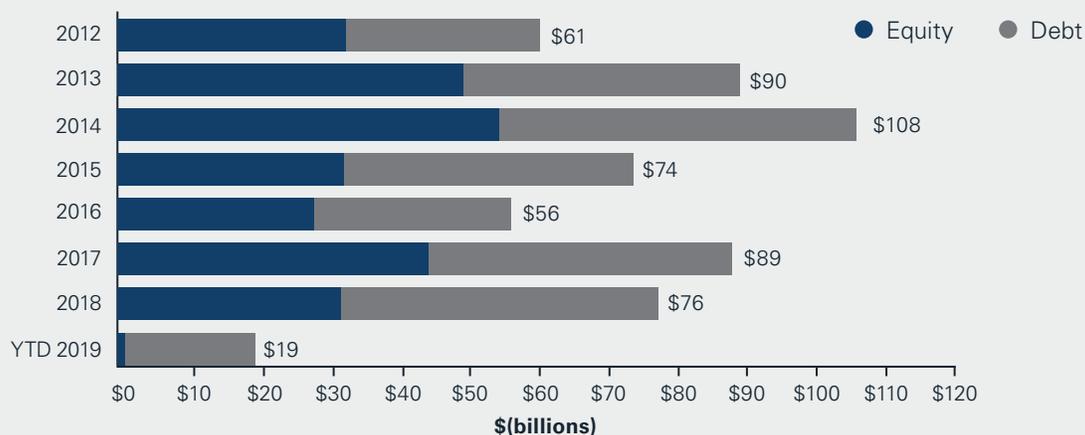
Cleaner energy solutions are changing the energy landscape and electricity generation in the U.S. continues to evolve. In addition, with the displacement of coal, renewable energy sources are forecasted to gain market share. The U.S. solar industry continues to experience high growth from a low starting point. In 2018, solar contributed a modest 2.3% of electricity generation¹. According to Wood Mackenzie, this will continue in 2019 with an expected 13 gigawatts (GWs) installed, representing 25% year-over-year growth and the second highest annual installations on record. By geography, Florida, California and Nevada installed the most solar in the first quarter of 2019. As solar penetration grows, we expect solar projects to increasingly include a storage component. As an example, NV Energy announced plans in June 2019 to install 1,200 megawatts (MWs) of solar and 590 MWs of battery storage by the end of 2023, representing enough power to supply a city the size of Newark, N.J. Over the long term, storage remains a critical component to enabling higher levels of renewable penetration.

Wind installations totaled 841 MW in the first quarter of 2019 reaching a total installed capacity of 97,223 MW with an additional 39,161 MW of capacity currently under construction or in advanced development. Projects are predominately located in the wind corridor that spans across the central U.S. with new projects being commissioned on both coasts enabled by declining unsubsidized costs that have fallen 69% since 2009. Wind supplied 6.5% of U.S. electricity in 2018 and is forecasted to grow its market share of the generation mix.¹ New to the U.S. are goals in Massachusetts, New Jersey, New York and Virginia that target a combined 17,000 MW of offshore wind by 2030 with developers expecting 2,000 MW of offshore projects to be online by 2023.

Capital markets

Capital markets activity remained slow during the second quarter with MLPs and other pipeline companies raising approximately \$8.5 billion in total capital, with most of the issuance in debt. Rattler Midstream LP raised \$665 million in their initial public offering.

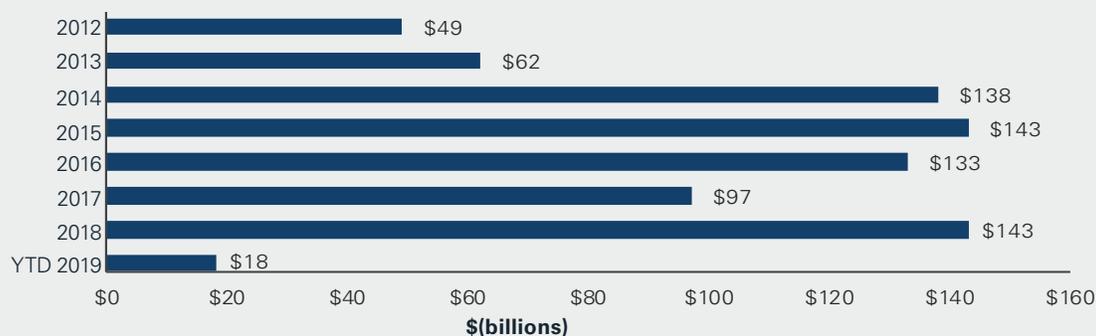
MLP and pipeline company debt & equity offerings



Source: Company filings. As of 6/30/2019. Includes equity issued to sponsors.

Merger and acquisition activity among MLPs and other pipeline companies remained light with the exception of MPLX LP acquiring Andeavor Logistics LP for \$13.5 billion bringing the total for the quarter to approximately \$14.4 billion.

Announced MLP and pipeline company acquisitions



Source: Company filings. As of 6/30/2019. Includes MLP and pipeline corporations, including transactions between MLPs.

Regulatory updates

Colorado's governor signed into law Senate Bill 181 changing the way the state regulates its oil and natural gas industry. Senate Bill 181, also known as *Protect Public Welfare Oil and Gas Operations*, amends the *Oil and Gas Conservation Act* and gives counties and municipalities increased regulatory authority over oil and natural gas development in their jurisdictions. Under the new law, local governments have the authority to regulate local oil and natural gas production. The bill is viewed as a compromise and mostly positive for the industry as it removes a key overhang and includes several concessions that are favorable to the oil and gas industry.

The *Financing Our Energy Future Act* (formally known as the *MLP Parity Act*) was reintroduced in Congress with the goal of allowing clean energy resources access to the tax-advantaged structure of the MLPs that combines the tax benefits of a limited partnership with the liquidity of publicly-traded securities. Specifically, wind, solar, biomass, fuel cells, energy storage and other clean transportation-related fuels would qualify for the MLP structure if the bill passes the legislative process and is signed into law. We believe this could greatly expand the potential MLP universe and be positive for the sector.

Concluding thoughts

Our outlook on the U.S. energy sector is compelling. The fundamental backdrop for the sector is strongly supported by rising U.S. energy exports and cash flow growth positioning companies to increase dividends, buyback shares and/or reduce debt. Given an outlook for stable commodity prices for the remainder of the year, we expect investors will begin to reap the rewards tied to the basic fundamental premise that has driven the stock market for years — rising cash flow.

Disclaimer

This commentary contains certain statements that may include “forward-looking statements.” All statements, other than statements of historical fact, included herein are “forward-looking statements.” Although Tortoise believes that the expectations reflected in these forward-looking statements are reasonable, they do involve assumptions, risks and uncertainties, and these expectations may prove to be incorrect. Actual events could differ materially from those anticipated in these forward-looking statements as a result of a variety of factors. You should not place undue reliance on these forward-looking statements, which speak only as of the date of this publication. Tortoise does not assume a duty to update these forward-looking statements. The views and opinions in this commentary are as of the date of publication and are subject to change. This material should not be relied upon as investment or tax advice and is not intended to predict or depict performance of any investment. This publication is provided for information only and shall not constitute an offer to sell or a solicitation of an offer to buy any securities.

The S&P Energy Select Sector[®] Index is a capitalization-weighted index of S&P 500[®] Index companies in the energy sector involved in the development or production of energy products. The Tortoise North American Oil and Gas Producers IndexSM is a float-adjusted, capitalization-weighted index of North American energy companies engaged primarily in the production of crude oil, condensate, natural gas or natural gas liquids (NGLs). The Tortoise North American Pipeline IndexSM is a float adjusted, capitalization-weighted index of energy pipeline companies domiciled in the United States and Canada. The Tortoise MLP Index[®] is a float-adjusted, capitalization-weighted index of energy master limited partnerships.

The Tortoise MLP Index[®] is a float-adjusted, capitalization-weighted index of energy MLPs. The Tortoise Midstream MLP Sub Index is comprised of all constituents included in the following sub sector indices: Crude Oil Pipelines, Gathering & Processing, Natural Gas Pipelines, and Refined Products Pipelines. The Tortoise North American Pipeline IndexSM is a float-adjusted, capitalization-weighted index of pipeline companies (MLPs, corporations, LLCs) domiciled in the U.S. or Canada. The Tortoise North American Oil and Gas Producers IndexSM is a float-adjusted, capitalization weighted index of North American companies engaged primarily in the production of crude oil, condensate, natural gas or NGLs. The S&P 500[®] Index is a market-value weighted index of equity securities. The S&P Energy Select Sector[®] Index is a modified market capitalization-based index of S&P 500 companies in the energy sector involved in the development or production of energy products. The FTSE NAREIT All Equity REITs Index is an unmanaged, capitalization-weighted index of all U.S. equity real estate investment trusts. The S&P Utilities Select Sector Index[®] is a modified market-cap weighted index composed of constituents of the S&P 500[®] Index in the utilities sector. The Barclays US Aggregate Bond Index is an unmanaged index comprised of government securities, mortgage-backed securities, asset-backed securities and corporate securities to simulate the universe of bonds in the market. The maturities of the bonds in the index are over one year.

Tortoise North American Pipeline IndexSM, Tortoise North American Oil and Gas Producers IndexSM, Tortoise MLP Index[®] (the “Indices”) are the property of Tortoise Index Solutions, LLC, which has contracted with S&P Opco, LLC (a subsidiary of S&P Dow Jones Indices) to calculate and maintain the Indices. The Indices are 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.

¹ Energy Information Administration, Short-term Outlook, July 2019

² BTU Analytics, June 2019

About Tortoise

Tortoise invests in essential assets – those assets and services that are indispensable to the economy and society. With a steady wins approach and a long-term perspective, Tortoise strives to make a positive impact on clients and communities. For more information, please visit www.tortoiseadvisors.com.

