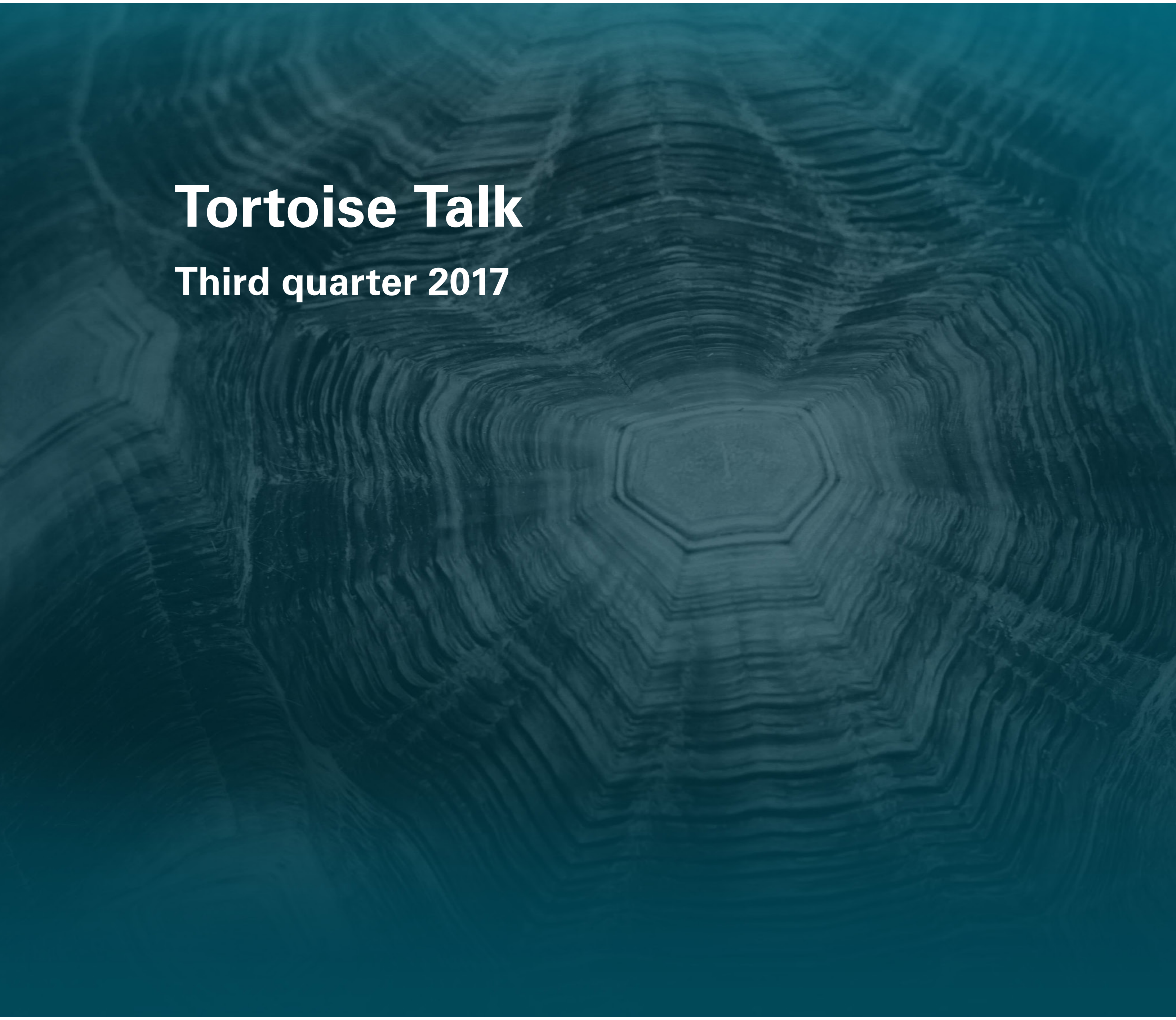
Tortoise



Tortoise Talk

Third quarter 2017

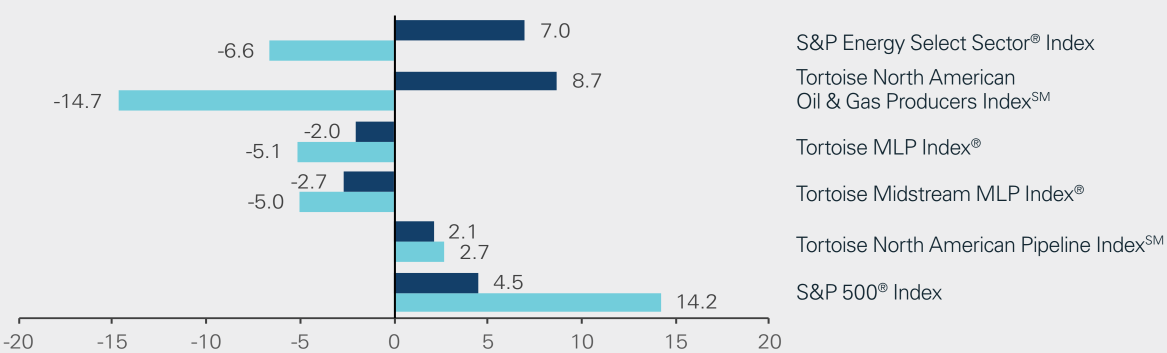
Tortoise℠

Tortoise Talk Third Quarter 2017

Crude oil prices stabilized throughout the third quarter as inventories meaningfully declined during the period. On the supply side, production curtailment compliance among the Organization of Petroleum Exporting Countries (OPEC) was high and U.S. rig counts leveled off. The summer driving season resulted in strong demand for refined products. The broad energy sector, as measured by the S&P Energy Select Sector® Index, returned 7.0% for the quarter as broad energy sentiment improved. While Hurricane Harvey wreaked havoc on the Houston area at the end of August resulting in community devastation, energy assets proved remarkably durable during the storm, incurring minimal downtime and little physical damage.

The broader equity market, represented by the S&P 500® Index, had a solid quarter returning 4.5%. Fixed income performance was up modestly from last quarter with the Bloomberg Barclays U.S. Aggregate Bond Index returning 0.8%. MLPs underperformed other income-oriented asset classes, returning -2.0% in the quarter compared to REITs, which returned 1.1% and utilities which returned 2.9%, as represented by the FTSE NAREIT Equity Index and the S&P Utilities Select Sector Index, respectively. At the end of the quarter, the average MLP yield was 7.7%.

Third quarter 2017 total returns (%)



3Q period reflects 6/30/2017-9/30/2017. Source: Bloomberg. It is not possible to invest directly in an index. Please see index definitions on disclaimer page. **Past performance is no guarantee of future results.**

Upstream

Upstream oil and gas producers, as represented by the Tortoise North American Oil and Gas Producers Index℠, returned 8.7% for the quarter. Crude oil prices improved; however, there were basin-specific headwinds early in the quarter. For example, some Permian producers reported a lower-than-expected crude oil production percentage relative to natural gas production percentage. Stability was the market expectation, and this decline surprised investors. We think the change in percentage resulted from an increase in the absolute level of natural gas production and not from a decline in crude oil production, and believe fears of a sharp decline in the crude oil 'cut' are unfounded. Some fears have since abated, improving market sentiment for producers during the quarter.

Crude oil

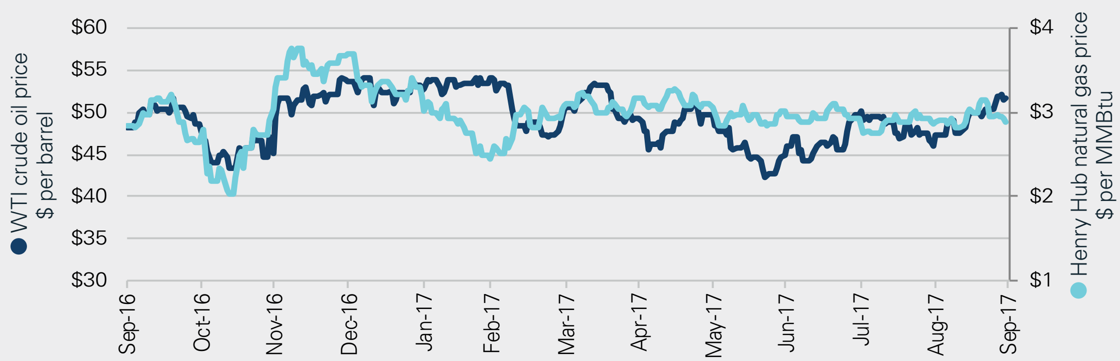
We believe that the Permian basin will remain a key, growing oil supply basin. In fact, 50% of the U.S. oil rig count is operating in the Permian basin. The Energy Information Administration forecasts 2018 production to grow by 700,000 barrels per day[1] with the largest contribution of growth coming from the Permian. Longer term, we believe the Permian will remain the lowest cost oil basin in the U.S. Some parts of the Permian can even produce oil at a lower cost than some OPEC countries, which positions it as one of the low cost suppliers of crude oil to the rest of the world. We expect higher absolute volumes of oil, natural gas and natural gas liquids, driving a need for additional energy infrastructure to gather, process and transport the higher volumes. More broadly, U.S. crude oil production is expected to average 9.2 million barrels per day (MMbbl/d) in 2017. The 2018 forecast is for 9.9 MMbbl/d. If reached, it would be a record high[1].

As mentioned previously, prices were steadier as inventories declined. Specifically, crude oil prices started the quarter with West Texas Intermediate (WTI) at $46.04 per barrel and steadily increased to end the period at $51.67.

Natural gas

Natural gas prices were fairly flat during the quarter, opening at $2.94 per million British thermal units (MMBtu) and closing at $2.89. Because of new export capabilities largely through liquefied natural gas (LNG) as well as an increase in domestic consumption, we believe the demand outlook is strong. On the supply side, we think increased takeaway capacity coming online over the next year will enable significant production growth, with expected production to average 72.3 billion cubic feet per day in 2017, rising to 78.7 in 2018[2].

Crude oil & natural gas prices



As of 9/30/2017. Source: Bloomberg. Note: MMBtu = million British thermal units

Midstream

Midstream fundamentals remained steady during the third quarter, supported by strong second quarter earnings reports. More than half of the companies in the Tortoise North American Pipeline Index℠ surpassed expectations. In addition, average EBITDA growth on a year-over-year basis was 21% for midstream companies[3]. We believe these positive fundamental results from second quarter earnings reports were misrepresented in the markets as stock performance for some companies lagged in the third quarter.

Pipeline companies returned 2.1% over the quarter, as measured by the Tortoise North American Pipeline Index℠. MLPs were more restrained, returning -2.0% for the quarter, as represented by the Tortoise MLP Index®. Weak equity capital markets and company-specific issues weighed on MLPs casting doubt on the entire midstream segment. Most notable to the market, Plains All American Pipeline, L.P. (PAA) revised down 2017 and 2018 guidance despite an inline quarter. In conjunction, Plains announced a reevaluation of its distribution policy to enhance distribution coverage and leverage metrics. In capital markets, Energy Transfer Partners raised approximately $1 billion of equity. Not only was it the largest deal during the quarter, but it was also an amount that proved challenging for the market to digest.

Despite the aforementioned, performance varied among pipeline companies based on the commodities transported. Local gas distribution companies were strong performers during the period as interest rates remained low. Our long-term outlook for the midstream sector remains positive with a projection for capital investments in MLPs, pipeline and related organic projects at approximately $125 billion for 2017 to 2019.

Spotlight on electric vehicles

There is clearly a movement to electric vehicles (EVs). Yet we think it's helpful to put EVs into perspective as it relates to total oil demand and the need for energy infrastructure. We expect continued modest demand growth for oil, net of current transportation trends, based on population and economic growth and the development of emerging economies. We also expect significant growth in natural gas demand partially driven by the additional electricity generation required to support electric vehicles.

International EV rhetoric and adoption forecasts increased recently. In July, Volvo and France announced plans to shift towards greater use of electric vehicles and an updated Bloomberg New Energy Finance report ramped up their forecast for the adoption of electric vehicles. Volvo's plan includes new models that will have some element of engine electrification which includes hybrids and what are called "light hybrids". These cars still rely on a traditional engine for primary power but get some assistance powering the motor from a battery, more in the case of hybrids, less in the case of light hybrids.

The France announcement pledged to phase out all gasoline and diesel engines by 2040. (Note, France's transportation fuel consumption currently makes up less than 1% of global oil demand).

According to Bloomberg, EVs will account for more than half of all new light-duty vehicle sales globally by 2040, up significantly from their 2016 forecast. In this scenario, EVs would displace 8 million barrels per day of crude oil in 2040. Currently, crude oil demand is 97 million barrels, growing in excess of 1.5 million barrels per day annually. If annual growth is just 1 million barrels per day over the next 23 years, offset by EVs displacing 8 million barrels per day, 2040 demand equates to 112 million barrels per day. This is 15% higher than today's demand. Importantly, even with the heightened potential adoption of electric vehicles, demand for refined product is still expected to grow.

We believe electric vehicles will likely lead to greater natural gas demand without materially displacing refined product demand in the near future.

Downstream

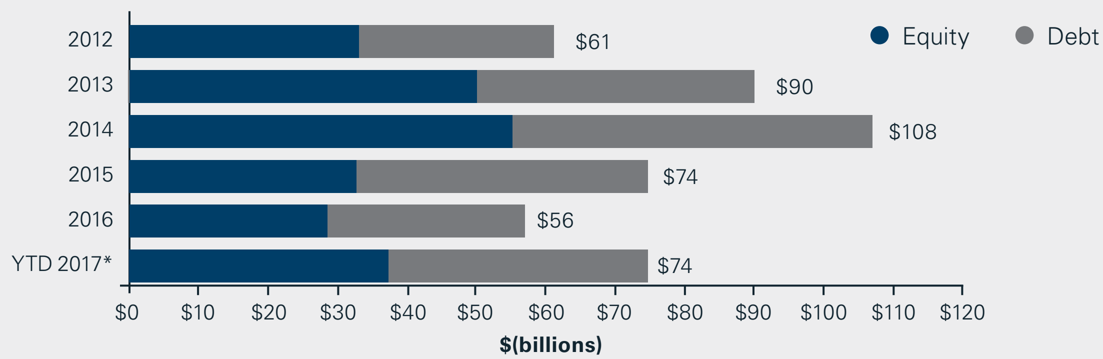
Hurricane Harvey most acutely impacted the refining sector in Houston and Corpus Christi. The expectation was for capacity to potentially remain offline for weeks, yet operational impact on key assets was minimal. As expected, refining margins widened as gasoline prices increased due to production being taken offline.

One item impacting the solar industry is the U.S. International Trade Commission's recommendation to apply a tariff to imported solar modules. The President now has 60 days to approve, modify or reject the recommendation. The expectation is that the Administration will elect for a tariff, but one that is lower than the recommendation, ultimately adding about 20-30% to the cost of solar. If this is the case, we believe it is a net positive to existing projects as power purchase agreement (PPA) pricing will need to move higher and a net negative for solar developers who may have a harder time getting new projects as they become marginally less competitive. We do believe renewables will continue to play an increasing role in electricity generation, as solar generation is expected to have meaningful growth over the next few years.

Capital markets

In general, debt markets were more supportive than equity. This trend was seen as MLPs and other pipeline companies raised more than $18 billion, with about three quarters raised through debt offerings. There was one midstream MLP initial public offering during the quarter.

MLP and pipeline company debt & equity offerings

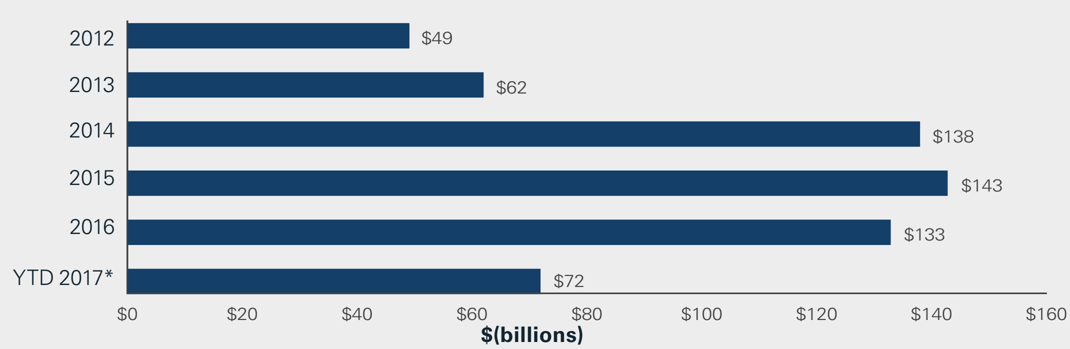


Source: Company filings. *Period reflects 12/31/2016 - 9/30/2017. Includes equity issued to sponsors.

Merger and acquisition activity

Merger and acquisition activity among MLPs and other pipeline companies remained stable totaling approximately $15 billion, though still lower than historical levels. Andeavor Logistics LP had the two largest announced transactions of the quarter, in deals valued at about $2.4 and $3.8 billion.

Announced MLP and pipeline company acquisitions



Source: Company filings. *Period reflects 12/31/2016 - 9/30/2017.
Includes MLP and pipeline corporations, including those transactions between MLPs.

Regulatory corner

Federal Energy Regulatory Commission (FERC) Update:

Since reaching a quorum, FERC rulings have been constructive, while states remain more challenged. Some states have pushed back on new pipelines, particularly in the Northeast. Whereas, we believe other states are simply taking longer to release permits in order to ensure a stronger legal defense in the event permits are subsequently challenged.

Tax reform

Clearly lacking in detail, the tax reform proposal released appears to be favorable for MLPs as it potentially includes immediate expensing of capex and a pass through rate of 25%, well below the highest marginal rate.

Concluding thoughts

The favorable crude oil inventory trend took center stage during the quarter. We think better supply and demand balance and price stability should lead to continued improvement in energy sector investor sentiment. We believe macro improvements, growing U.S. crude oil and natural gas production, and solid midstream fundamentals are leading to compelling investment opportunities across the energy value chain.

[1] Energy Information Administration, October 2017

[2] Bentek, September 2017

[3] Company filings

Disclaimer

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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 Index℠ 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 Index℠ 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 U.S. 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.

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It is not possible to invest directly in an index.

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