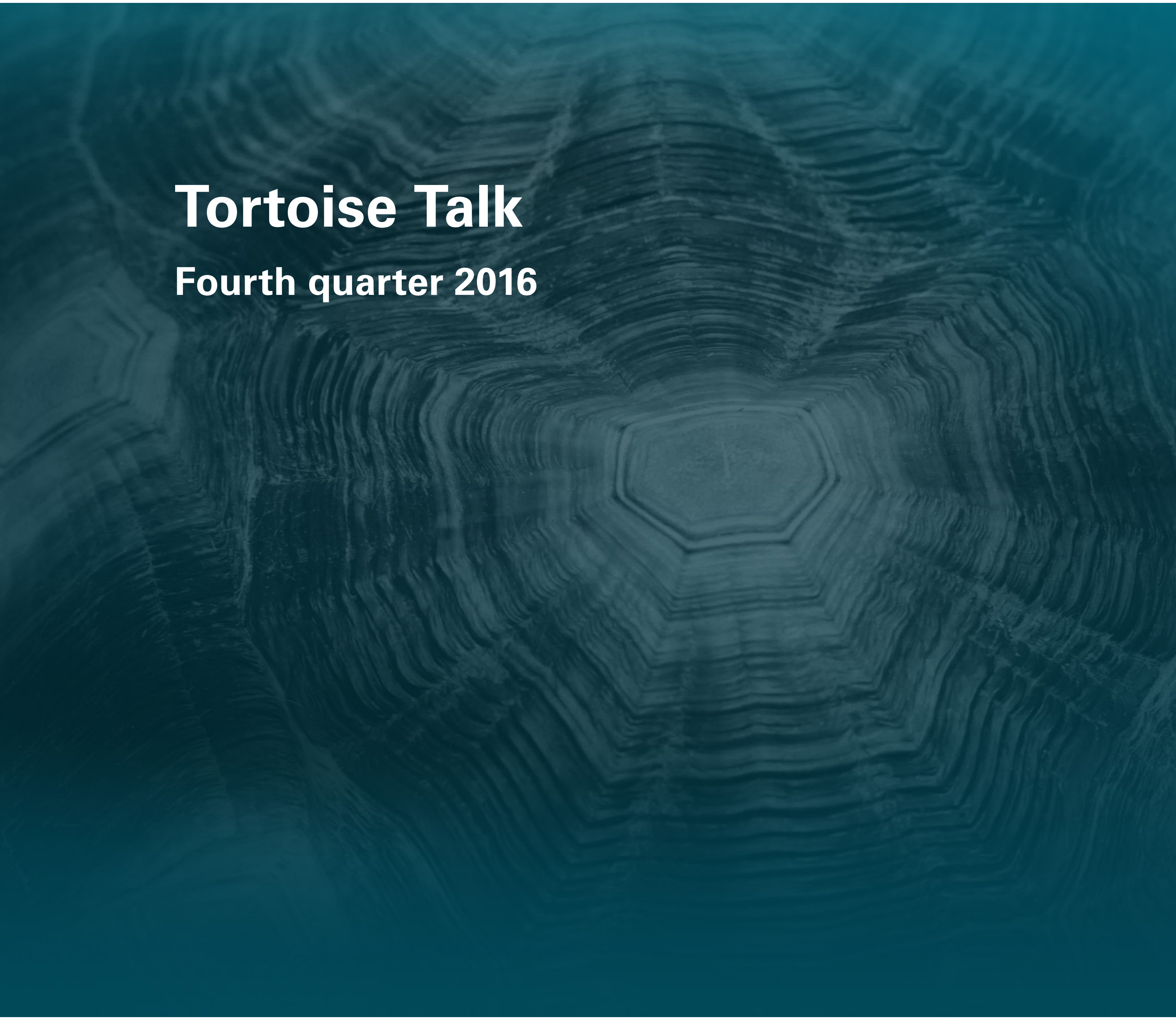
Tortoise℠



Tortoise Talk

Fourth quarter 2016

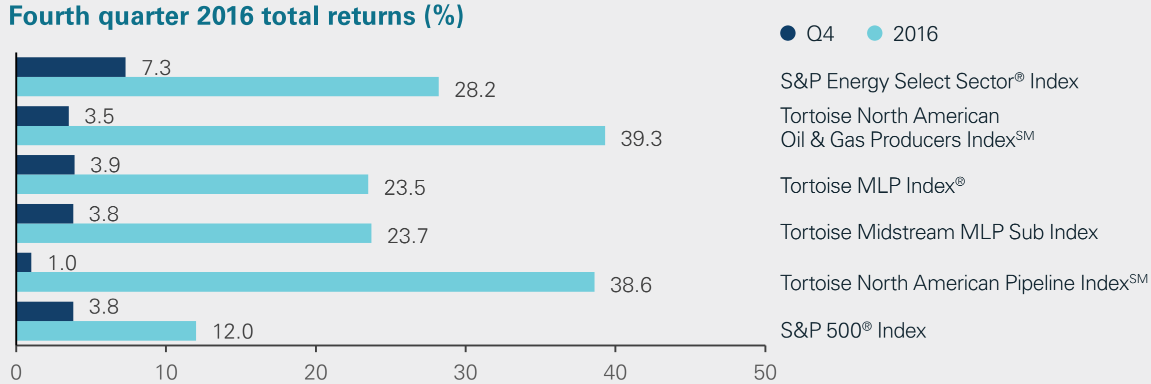
Tortoise Talk Fourth Quarter 2016

2016 had both highs and lows, including crude oil prices hitting their lowest point since 2003 in February of 2016. The subsequent recovery drove positive performance across the broad energy sector for the quarter and year with the S&P Energy Select Sector® Index returning 7.3% and 28.2%, respectively, a reversal from the double digit negative return for 2015. While positive, energy fixed income lagged energy equities for the year, due to the lower risk of being higher in the capital structure.

The main drivers across the energy value chain included: higher crude oil prices following a decline in U.S. crude oil production and an agreement from the Organization of Petroleum Exporting Countries (OPEC) to reduce production, improvement in midstream fundamentals despite project delays, greater export of energy commodities and the more energy friendly candidate, Donald Trump, being elected as the next President.

The broader equity market was also positive with the S&P 500® Index returning 12.0% and 3.8% for the year and quarter, respectively. Fixed income performance retreated in the fourth quarter, with the Bloomberg Barclays U.S. Aggregate Bond Index returning -3.0%, bringing the total return for 2016 to 2.6%.

Fourth quarter 2016 total returns (%)



Q4 period reflects 9/30/2016 – 12/31/2016. 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 & Gas Producers IndexSM, returned 39.3% in 2016 and 3.5% in the fourth quarter as compared to -35.5% in 2015. This dramatic year-over-year improvement was driven by higher crude oil prices following lower production. U.S. crude oil production is estimated to average 8.9 million barrels per day (MMbbl/d) in 2016, down from an average of 9.4 MMbbl/d in 2015.[1]

Crude oil

2016 was one of the most volatile crude oil price environments in recent years, though prices seemed to find more stabilization in the fourth quarter. West Texas Intermediate (WTI) started the quarter at $48.24 per barrel and ended the year near the high at $53.72 per barrel.

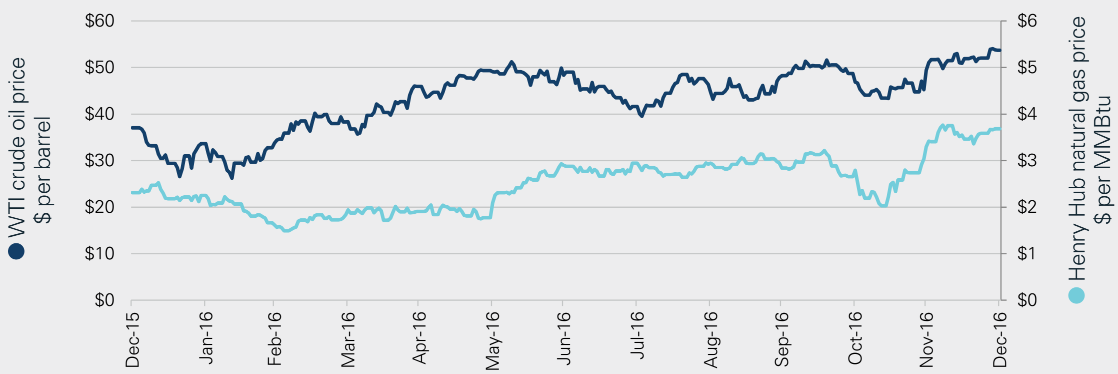
The year ended on a positive note with price stability partially driven by the November 30, 2016 OPEC meeting, where members reached an agreement to set a production ceiling of 32.5 MMbbl/d, representing an estimated 1.2 MMbbl/d production cut, effective January 1, 2017. In addition, an understanding was reached with key non-OPEC countries, including Russia, which should result in a production decrease of 600,000 barrels per day. From a fundamental perspective, we expect that OPEC's production cut will help bring global oil inventories back to a more normal level sooner and bring more stability to oil prices.

There have been two overarching themes for U.S. oil producers throughout the recent energy downturn. The first is drilling efficiency. Many producers have been successful in lowering drilling costs while increasing drilling intensity, leading to greater production volumes. The second is management teams' continued focus on improving capital efficiency by concentrating on drilling core acreage. Due to this emphasis, production is expected to increase slightly in 2017 and grow to 9.3 MMbbl/d in 2018.[1] The expected growth is attributed to anticipated increases in federal offshore Gulf of Mexico production as well as rising shale oil production driven by more drilling activity coupled with greater rig efficiency and well-level productivity.[1]

Natural gas

Natural gas prices were fairly volatile in the fourth quarter. They opened the quarter at $2.84 per million British thermal units (MMBtu), dipped to a low for the quarter at $2.03 on November 11 and ended the year near the peak at $3.68 as forecasts for colder weather prompted higher demand expectations. Regarding demand, for the first time in history, natural gas is estimated to generate more electricity than coal on an annual basis in 2016.[1] Natural gas production is projected to decline 2.4% in 2016 compared to 2015, which would be the first annual production decline since 2005, though production is expected to increase in 2017 and 2018.[1]

Crude oil & natural gas prices



As of 12/31/2016. Source: Bloomberg. Note: MMBtu = million British thermal units

Midstream

Pipeline companies recovered along with the rest of the energy sector with the Tortoise North American Pipeline Index® returning 38.6% for the year, including 1.0% in the fourth quarter. MLPs, represented by the Tortoise MLP Index®, experienced some technical pressure from fickle capital markets and underperformed c-corp pipeline companies during the year, returning 23.5% for 2016, but had a strong fourth quarter returning 3.9%. MLPs continued to outpace both REITs and utilities through the end of the fourth quarter as represented by the FTSE NAREIT Equity REIT Index and the S&P Utilities Select Sector® Index. The average MLP yield declined slightly to 7.1%.

Like producers, many midstream companies prioritized balance sheet strength over growth. Companies retained more cash to reduce debt, sought support from a parent company, sold assets and/or deferred or canceled projects where prudent.

Companies continued to face regulatory challenges in building new pipelines, particularly over the latter half of 2016. Generally, those requiring federal government approval and/or those in heavily populated areas faced significant headwinds, although we believe these headwinds will ease with the upcoming U.S. administration changes. Even with these challenges, our long-term outlook for the midstream sector remains positive. Our projection for capital investments in MLPs, pipeline and related organic projects remains at approximately $120 billion for 2016 to 2018, though we expect it to decrease when 2016 rolls off and 2019 is added.

Downstream

Though still attractive, refiners' and petrochemical companies' margins narrowed as crude oil prices rose in 2016. Nevertheless, refiners performed well due to stronger demand for gasoline. Petrochemical companies saw compressed margins throughout the year, though we believe new facilities coming on-line in the near future could enhance cash flows. Utilities retreated as interest rates increased at year end. Renewable energy sources continued to gain traction, and in tandem with natural gas, brought cleaner, economically competitive energy sources.

As we expected, 2016 was a milestone year for energy exports. For the first time in 40 years, U.S. crude oil was exported. In early 2016, the first liquefied natural gas (LNG) shipment was also exported as two LNG trains came on-line this year, and ethane was shipped for the first time in March. Finally, liquefied petroleum gas (LPG) exports year-to-date through October were up an average of 22% compared to 2015.[1]

Spotlight: Post-election policy expectations

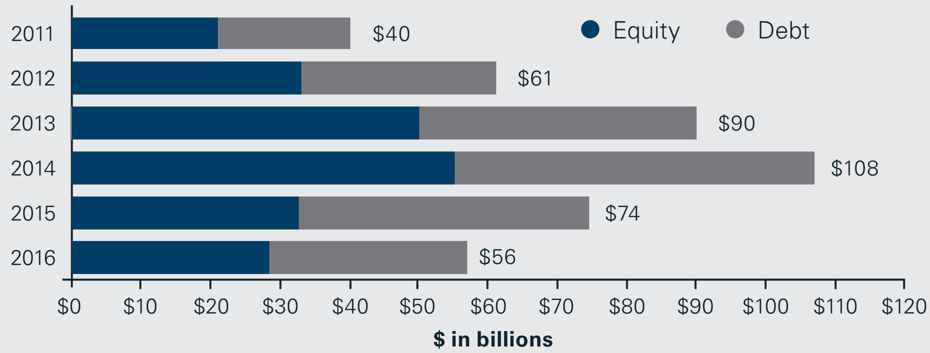
With the election now behind us, investors are focused on the impact the new administration's energy policies will have on the sector. Overall, we expect a more favorable regulatory environment. The following points highlight our expectations for the administration:

- Upstream: Plans to expand the availability of federal lands and offshore continental shelf for drilling and mining while eliminating regulations which impose costs
- Midstream: Supports reducing regulatory permitting process for pipeline infrastructure projects, including the Keystone XL pipeline project and Dakota Access Pipeline, evidenced by the executive orders issued in late January
- Downstream: Likely to challenge the Clean Power Plan and stated the potential to rescind the coal leasing moratorium on federal lands
- From a taxation perspective, we believe the probability of MLP-related tax reform is very low

Capital markets

Capital markets became more active as the year progressed. MLP and other pipeline companies raised more than $50 billion during the calendar year, split fairly evenly between equity and debt. During the fourth quarter, more than $14 billion was raised, with nearly $5 billion in equity and more than $9 billion in debt. Exploration and production companies also continued to raise capital throughout 2016, totaling close to $50 billion with more than $10 billion during the last quarter of the year. There were no IPOs in the energy sector during the fourth quarter.

MLP and pipeline company debt & equity offerings

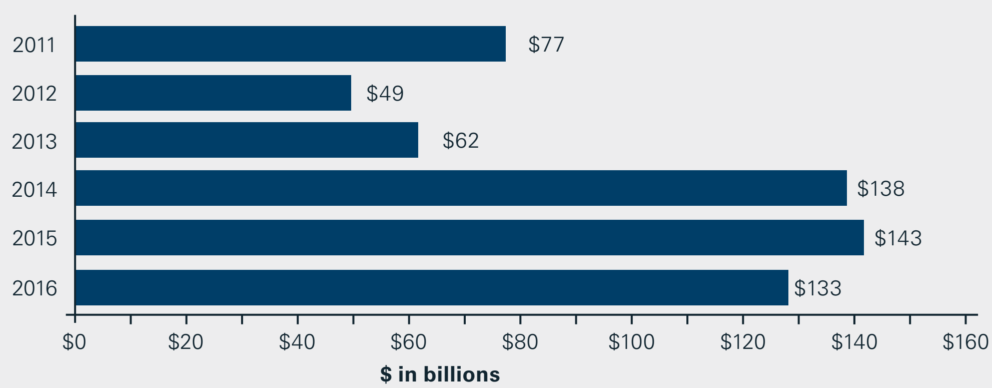


Source: Company filings. Includes equity issued to sponsors.

Merger and acquisition activity

Merger and acquisition activity among MLP and other pipeline companies totaled approximately $130 billion for 2016, with most of the activity occurring during fourth quarter 2016. Sunoco Logistics Partners L.P. had the largest transaction of the year with its acquisition of Energy Transfer Partners, L.P. in a deal valued at about $50 billion.

Announced MLP and pipeline company acquisitions



Source: Company filings. Includes MLP and pipeline corporations, including those transactions between MLPs.

Regulatory corner

Dakota Access Pipeline (DAPL) Update

- Army Corp of Engineers denied easement to cross Lake Oahe and announced intent to prepare an Environmental Impact Statement (EIS) focused on possible re-routes. As mentioned, President Trump signed an executive order to approve the pipeline relying on existing favorable environmental assessment to remove the EIS process laid out by the Obama administration.

Recent Pipeline Approvals

Despite recent hurdles, we have seen a string of pipeline approvals recently, including a couple in the Northeast, which remains one of the most difficult areas to build. The three most recent include:

- Atlantic Sunrise pipeline received final Environmental Impact Statement (EIS) from FERC and expects a final decision on the project in early 2017. The operator expects to begin construction in mid-2017 and place into service mid-2018
- Nexus Pipeline also received final EIS from FERC and expects a final decision in 1Q 2017. The operator expects to place project in-service in 4Q 2017
- Canadian pipeline projects, TransMountain Expansion and Line 3 replacement, were approved in November

FERC Income Tax Allowance Policy

- In its opinion in the *United Airlines, Inc., et al., v. FERC* case, the U.S. D.C. Circuit Court of Appeals concluded FERC had not adequately justified its policy for allowing "partnership pipelines" to include an income tax allowance (ITA) under cost of service ratemaking
- In December, FERC issued a formal Notice of Inquiry seeking comments regarding how to address any double recovery resulting from the FERC's current income tax allowance and rate of return policies. Policy analysts expect it to take at least a year to resolve
- Important to note the issue does not impact all MLP-owned pipelines, only those natural gas pipelines under cost-of-service rate making. Pipelines with negotiated rates (majority of new / expansion pipelines), market based rates, or those that are under-earning are not affected

Concluding thoughts

2016 was a stark reversal from 2015 with improvement across the energy value chain following the bottoming of crude oil prices in February. In addition, the U.S. has become an even more relevant player in the global energy landscape as exports of natural gas, natural gas liquids and crude oil exports grow.

As we look into 2017, we are encouraged by OPEC's recent announcement to support prices, U.S. producers' demonstrated continued ability to earn solid returns in a lower price environment and the U.S. political landscape's support for energy. We remain optimistic on the long-term investment prospects within the energy space.

[1] Energy Information Administration, January 2017

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 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 Bloomberg 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.

It is not possible to invest directly in an index.

About Tortoise

Through its family of companies, Tortoise Investments provides investors access to differentiated active and passive investment solutions and market insights. Tortoise's business is rooted in more than a decade of leadership and expertise in both income and equity investing in energy and essential assets. Over time, Tortoise has enhanced and expanded its innovative product offerings, while staying true to its quality approach and focus. Tortoise Investments, through its family of registered investment advisers, had $20.5 billion assets under advisement as of December 31, 2016.

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