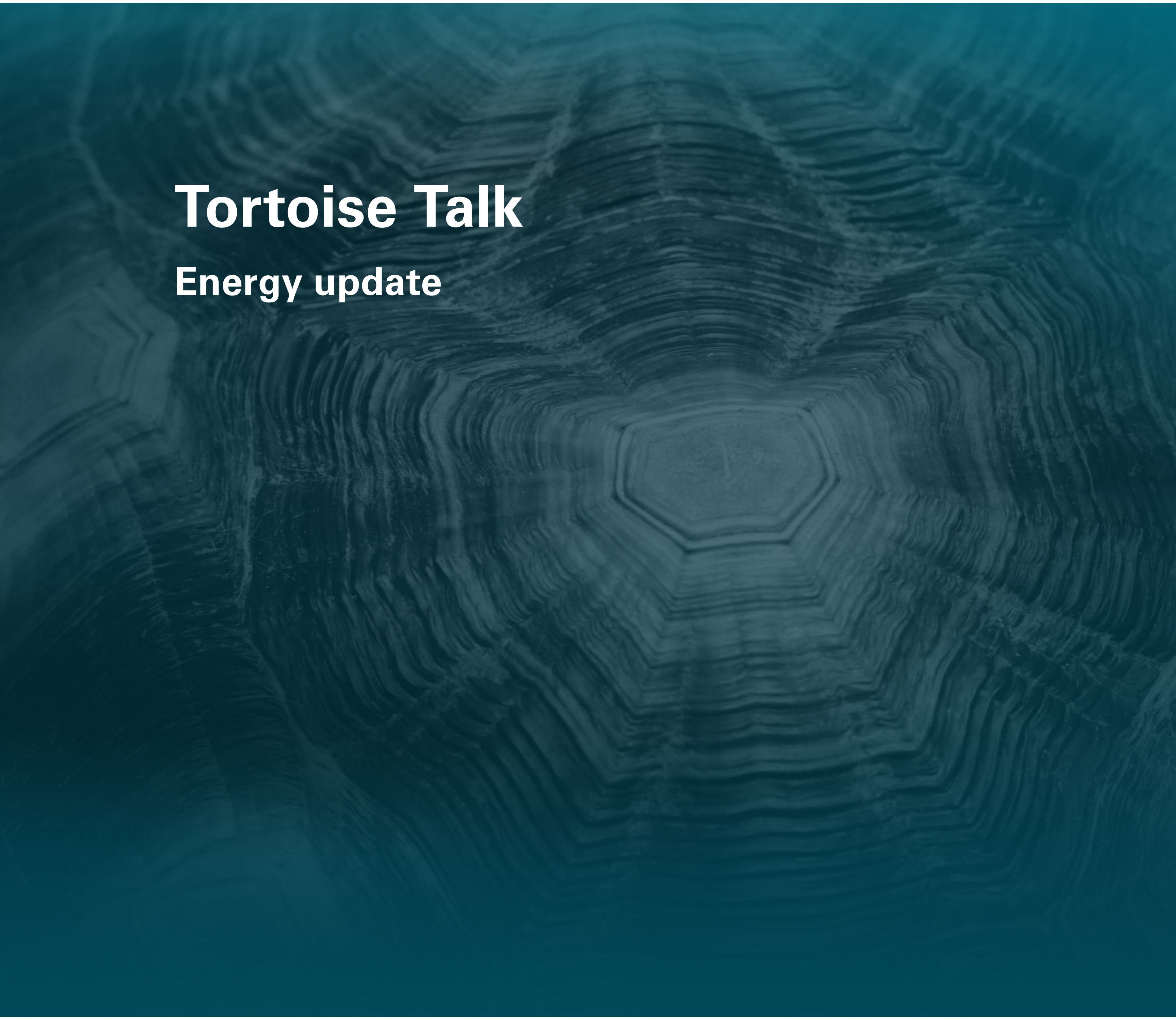
Essential assets and income

Fourth quarter 2017



Tortoise Talk

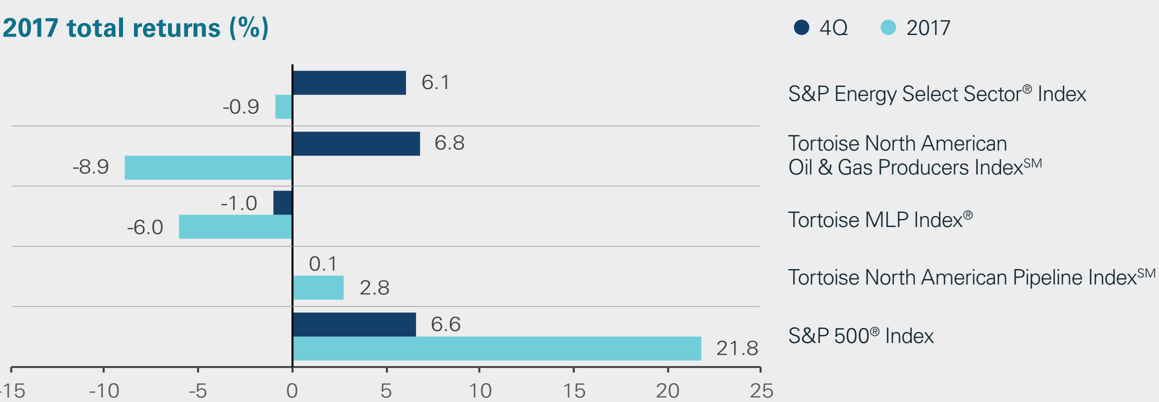
Energy update

Tortoise Talk Fourth Quarter 2017

The energy sector ended 2017 on a high note with several tailwinds heading into 2018. Key drivers included a decline in global crude oil inventories, OPEC's and Russia's extension of the agreement to curtail crude oil production through the end of 2018, U.S. producers' greater capital discipline and continued production growth in 2018, as well as the signing of tax reform legislation at the end of the year. The broad energy sector returned 6.1% for the quarter.

The broader equity market had another solid quarter returning 6.6%. Fixed income performance was essentially flat returning 0.4%. MLPs slightly underperformed other income-oriented asset classes, with a return of -1.0% for the quarter compared to REITs, which returned 1.9% and utilities, with a return of 0.2%. The TMLP yield at the end of the quarter was 7.6%.

2017 total returns (%)



As of 12/31/2017. 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.

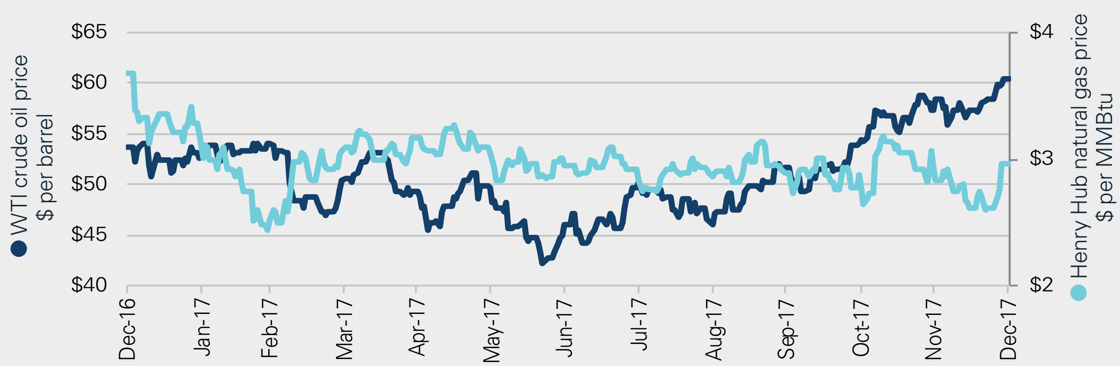
Upstream

Upstream oil and gas producers turned in a second consecutive positive quarter returning 6.8%, bringing 2017 performance to -8.9%. Commodity price volatility and an uncertain 2018 OPEC policy weighed on performance earlier in the year. Crude oil prices opened the year with West Texas Intermediate (WTI) at $53.72 per barrel before hitting a low of $42.31 in June and ended the year higher at $60.42 per barrel. OPEC confirmed its 2018 policy at its November meeting, which provided some stability after shifting statements throughout the year. Natural gas prices opened the year at their peak of $3.68 per million British thermal units (MMBtu), sunk to a low of $2.44 in February and closed the year at $2.96.

Equity market = S&P 500® Index
Fixed income = Bloomberg Barclays U.S. Aggregate Bond Index
Broad energy = S&P Energy Select Sector® Index
MLPs = Tortoise MLP Index® (TMLP)
REITS = FTSE NAREIT Equity REIT Index
Utilities = S&P Utilities Select Sector Index
Oil and gas producers = Tortoise North American Oil and Gas Producers Index℠

In 2018, we expect crude oil and natural gas production to grow, even as producers focus more on capital spending within cash flow. U.S. crude oil production is expected to average 9.3 million barrels per day (MMbbl/d) in 2017[1]. The 2018 forecast is for 10.3 MMbbl/d[1]. If reached, it would surpass the record high of 9.6 MMbbl/d set in 1970[1]. These production numbers put the U.S. on the path of surpassing Saudi Arabia to become the largest oil producer in the world[3]. Natural gas production is expected to average 72.6 billion cubic feet per day (bcf/d) in 2017, and 79.3 in 2018[2], supported by a rise in both natural gas exports and domestic consumption in 2018. The U.S. is currently the world's largest natural gas producer and is expected to grow production more than any other country over the next five years[4].

Crude oil & natural gas prices



As of 12/31/2017. Source: Bloomberg. Note: MMBtu = million British thermal units

Midstream

Midstream fundamentals remained steady throughout the year, supported by consistently strong quarterly earnings reports. However, these solid fundamental results did not always translate to positive stock performance. Pipeline companies were flat in the final quarter returning 0.1%, resulting in a 2017 return of 2.8%. MLPs didn't fare as well for the full year, returning -6.0%, with a fourth quarter return of -1.0%.

While midstream fundamentals were healthy throughout the year, there was uncertainty about some MLPs due to simplification and incentive distribution rights (IDR) restructuring transactions and the trend towards self-funding (see spotlight). Sometimes these actions also resulted in lower distribution rates. An added boost of certainty did arrive at the end of the year when President Trump signed tax reform legislation that resulted in lower corporate tax rates, an unchanged definition of qualifying income for MLPs, and improved pass-through rates for partnerships like MLPs. Notably, the lower corporate tax rate directly benefits MLP closed-end funds structured as C-Corporations.

Performance across pipeline segments varied during the year. Local gas distribution companies were by far the strongest performers throughout the year as they perform like utilities and tend to thrive in a low interest rate environment. Gathering and processing companies finished with a strong fourth quarter and natural gas pipelines also turned in positive performance. Our long-term outlook for the midstream sector remains positive as the need for greater pipeline capacity remains. We project capital investments in MLPs, pipelines and related organic projects at approximately $145 billion for 2017 to 2019.

Pipeline companies = Tortoise North American Pipeline Index℠

The evolving MLP business model

Historically, capital expenditure funding was split evenly between equity and debt issuance. The prolonged energy downturn and associated challenged equity capital markets has resulted in a change in the mix of capital sources management teams target to fund growth projects. In recent years, there has been a shift toward alternative funding, such as private investment in public equity (PIPE) deals and preferred issuance or reducing new equity needs altogether and relying more on retained cash flow for capital investments.

Previously, what was distributable was mostly distributed. Now many MLPs are using growth in cash flow to fund growth projects with less reliance on capital markets and higher distribution coverage. The result to investors is lower distribution growth, but greater distributable cash flow on a per unit basis. The bottom line is while investors receive less upfront distribution growth they receive an offsetting benefit in the form of fewer total units outstanding with increasing coverage and cash flow accretion.

This shift is not an immediate change, but it is a step toward less reliance on outside capital. One added potential impact from decreased equity market needs and lower debt levels is reduced unit price volatility. Going forward, we anticipate greater demand for equity than supply over the next several years – a potential technical tailwind.

Another noteworthy trend in the MLP market is the elimination of incentive distribution rights (IDRs). IDRs traditionally served the purpose of incenting general partners to drop-down assets into the limited partnership and accelerate distribution growth. Initially, this healthy alignment benefited both the limited partner (LP) and general partner (GP). However, the increased cash flow taken by the GP as the LP moves into higher split levels increases the cost of capital. This eventually impairs growth and renders the MLP uncompetitive as the difference between project returns and the cost of capital shrinks. IDR elimination lowers the LP's cost of capital, improving the prospect for growth.

Elimination can also improve alignment between the limited partner and management as the cost and benefits of growth are shared more equally. In our view, removing IDRs results in a more sustainable MLP model as the cost of capital decreases and corporate governance improves. Currently, seven of the 10 largest MLPs have no IDRs and we expect the trend toward elimination to continue. We believe these changes to the MLP business model will attract additional capital to the sector.

Downstream

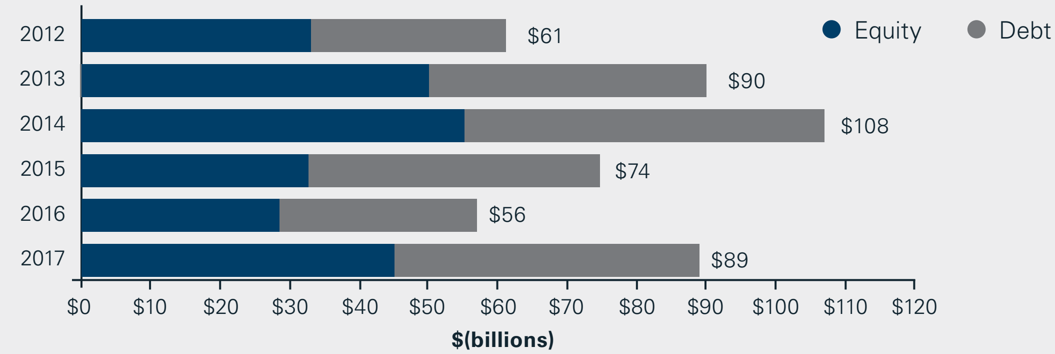
U.S. natural gas exports are competitive due to low natural gas prices. For many countries, specifically in Europe and Asia, it is cheaper to import U.S. natural gas than to produce it domestically if even available. In particular, 2017 was the strongest year for U.S. natural gas exports. According to the EIA, natural gas exports to Mexico were 10% higher on average in 2017 compared to 2016. With several additional liquefied natural gas (LNG) facilities expected to come online in 2018 and 2019, we believe growth will continue. This creates a significant opportunity for many U.S. companies along the energy value chain, including U.S. natural gas producers, natural gas pipeline operators, as well as LNG facilities operators.

We continue to see our thesis regarding renewables play out as they continue to grow share in electricity generation, although the percentage of total generation remains small. U.S. large-scale wind electricity generation totaled 81 gigawatts (GW) at the end of 2016. The 2017 total is estimated at 88 GW and is expected to grow to 96 GW by the end of 2018 and 104 GW in 2019[1], an increase of nearly 30% over three years. U.S. large-scale solar generation at the end of 2016 was 22 GW[1]. With expected capacity additions, 2017 capacity is estimated at 27 GW and is expected to increase to 30 GW by the end of 2018 and 42 GW in 2019[1], nearly doubling in three years.

Capital markets

MLPs and other pipeline companies raised nearly $15 billion during the final quarter of the year, weighing slightly more toward debt than equity. BP Midstream was the sole MLP initial public offering during the quarter.

MLP and pipeline company debt & equity offerings

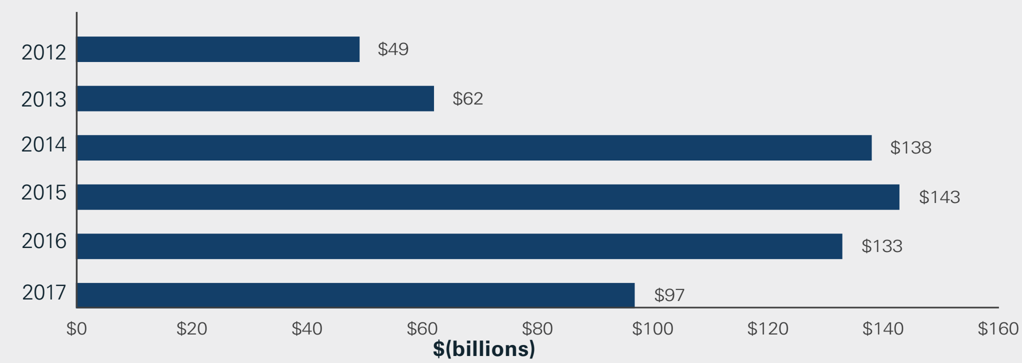


Source: Company filings. As of 12/31/2017. Includes equity issued to sponsors.

Merger and acquisition activity

Merger and acquisition activity among MLPs and other pipeline companies was strong during the fourth quarter totaling approximately $26 billion. Vistra Energy Corp.'s combination with Dynegy Inc. was the largest announced deal during the quarter, valued at more than $10 billion.

Announced MLP and pipeline company acquisitions



Source: Company filings. As of 12/31/2017.
Includes MLP and pipeline corporations, including those transactions between MLPs.

Regulatory corner

Tax reform

After much anticipation, The Tax Cuts and Jobs Act (The Act) was signed into law on December 22, 2017. This new legislation provides sweeping changes across all industries. We believe the three changes that may impact our business are the reduction of the U.S. corporate tax rate, 100% annual expensing on capital investments and 30% interest expense deduction limitation.

The Act reduced the U.S. corporate tax rate from 35% to 21%. This has an immediate impact to funds structured as C-corporations as they must revalue all deferred tax assets and liabilities using the new reduced rate. A reduced tax rate equates to a reduction in the net deferred tax liability and conversely an increase to the NAV. Additionally, any current tax liability will be calculated using a reduced blended rate for the fund's upcoming fiscal year and will be subject to the 21% rate thereafter.

Furthermore, the new legislation allows companies to expense 100% of their annual capital investments for the next five years. This could potentially have a meaningful impact to MLPs. Lastly, The Act provides for an interest expense deduction limitation set at 30% of EBITDA for four years. We believe the wide-spread changes that result from the new legislation will transform the tax landscape.

Concluding thoughts

At Tortoise, we believe the energy sector was underappreciated by investors in 2017. Yet, there are few sectors other than energy where demand has grown in 32 out of the last 33 years[3]. Following a milestone year for U.S. energy, 2017 was a record setting year for U.S. natural gas production and crude oil and refined product export volumes. We expect more records to be broken in 2018 as supply and demand fundamentals in the U.S. remain favorable with commodity prices at levels supportive of further production growth. Exports will likely grow as the U.S. is a low cost energy provider to the rest of the world. Further, the recent favorable changes to corporate tax rates add to a growing list of competitive advantages for U.S. energy. We're optimistic returns will be compelling across the energy value chain in 2018.

[1] Energy Information Administration, January 2018

[2] PIRA Natural Gas, December 2017

[3] BP Energy outlook 2017

[4] IEA

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 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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Tortoise℠

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