



In Pursuit of Value

May, 2018

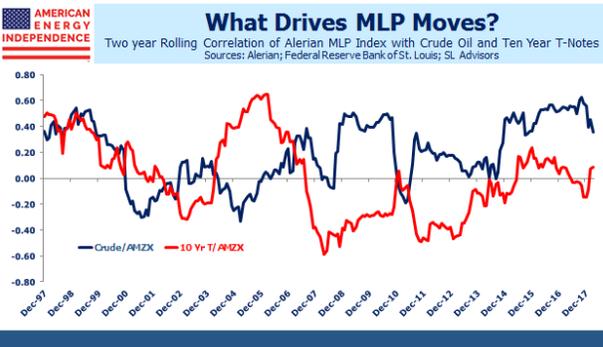
Interest Rates, Crude Prices and MLPs

Since ten year treasury yields recently broke above 3%, a common question from clients has been how we think rising interest rates will affect energy infrastructure valuations. Regardless of the historic relationship, when rates rise it matters whether they're rising with inflation, or without it. If rates rise but inflation is stable, the increase in the real rate (nominal minus inflation) should reduce the present value of any future cashflow, regardless of from where it's derived. However, if inflation is rising at the same time, it's likely that economic activity is also strong which creates demand for myriad products and services including the hydrocarbons handled by MLPs.

Over the past twenty years, interest rates have no visible connection with energy infrastructure. Rising rates offer income-seeking investors more investment choices, and MLPs were once a plausible substitute for high yield bonds. REITs and Utilities traditionally experience weakness when bond prices are falling, and in the past that has included MLPs for short periods of time. But the two

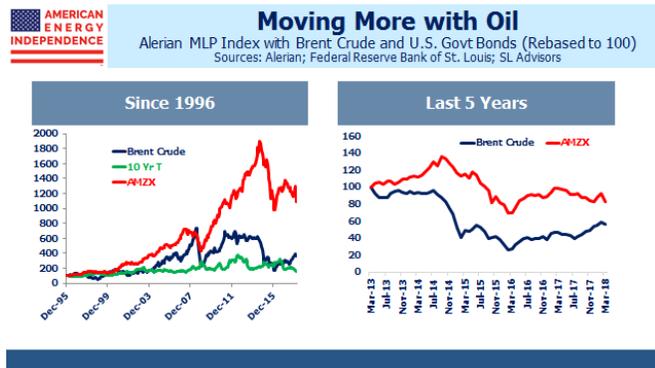
year rolling correlation of monthly returns shows that there's no discernible relationship.

As we've noted regularly, the Shale Revolution has changed the MLP business model by creating growth opportunities that require financing. Balance sheet leverage has been coming down as management companies absorbed



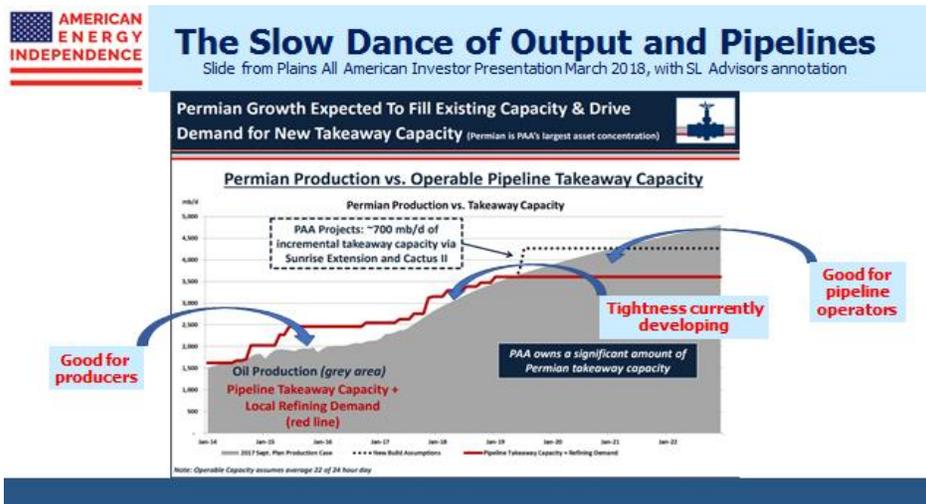
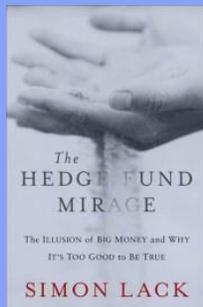
how poorly this was received – but it's not clear that this should have altered the relationship between the sector and the bond market. Our conclusion on this issue continues to be that energy infrastructure is broadly correlated with economic activity, so modestly rising rates driven by faster growth ought not to matter that much. In an inflation shock, the sector should be no more sensitive than equities broadly. Moreover, many pipeline contracts include regular repricing at a spread over the Producer Price Index, providing some additional inflation protection.

The relationship with crude oil has been the subject of regular dialogue in recent years and has been more frustrating. Many investors were attracted to energy infrastructure because they understood the companies move, process and store hydrocarbons but don't



produce them. This “toll” model, whereby volumes rather than commodity prices drove earnings, was attractive. The 2014-15 collapse in prices for crude oil and MLPs caused a reassessment. Perhaps most disappointing was the latter part of 2017, when rising crude didn’t drive MLPs higher.

Over the past decade, the two big drops in the Alerian index have coincided with lower crude oil but for different reasons. The 2008 Financial Crisis led to the Great Recession, when everything was down. The 2014-15 downturn was even more severe than in 2008, although the non-energy economy did fine. Subsequent developments confirmed altered sensitivity to crude oil prices. The growth in energy infrastructure investments induced by the Shale Revolution led to concerns about underused facilities for an industry that had modestly increased leverage. The speed at which new pipeline capacity gets used continues to be an important consideration today.



Plains All American (PAA) is the largest crude oil pipeline operator in the Permian. The above chart from their recent investor presentation highlights the issue. Permian oil production is growing rapidly, and new pipeline availability will become operational next year (not soon enough for some, see [Dwindling Pipeline Capacity Causes FOMO](#)). Takeaway capacity arrives in discrete steps. A pipeline that’s 90% completed between A and B still isn’t much use until it’s finished, at which point it’s fully available. Oil and gas production tends to increase (or decrease) more smoothly, as countless tactical decisions feed through to production. The gap between capacity and production drives the marginal cost of transportation. Currently, there’s more oil produced than can either leave the Permian by pipeline or be consumed by local refineries. This is bad for oil producers, since moving crude by rail or truck costs more, and is good for pipeline operators. Too much pipeline capacity causes the reverse. The sensitivity in energy infrastructure relates in part to the rate at which the two lines in the chart move. Both sides work hard to maintain approximate alignment, but the biggest external factor is price, which can quickly alter production plans, while infrastructure projects are multi-year endeavors.

Since the Shale Revolution has driven expansion in our energy infrastructure network, the increased sensitivity to commodity prices will likely continue. If higher prices are expected to stimulate production, midstream operators should benefit. While MLPs don’t produce oil or natural gas, their fortunes are more closely linked with prices than in the past. It’s a consequence of the move to American Energy Independence.