

Feb. 27, 2020

Welcome to the Tortoise podcast. Thank you for joining us. Today, Tortoise provides a timely update on trending topics in the market.

Thank you all for taking the time to join us, I'm James Mick and I'm joined today by fellow Senior Portfolio Manager Brian Kessens. We wanted to provide a relatively quick update on recent market volatility within not only midstream, but broader energy.

To set the table, let's establish the benchmarks that we will be discussing:

- I'm going to utilize the Alerian MLP Index, ticker AMZ, to refer to midstream MLPs
- I'm going to utilize the Alerian Midstream Energy Index, ticker AMNA, to refer to all midstream companies, including c-corps
- I'm going to utilize the S&P Energy Sector Index to refer to broad energy
- I will use the S&P 500 for the broad market
- Finally, I'll utilize WTI crude oil to refer to crude prices

So let's take a look at some numbers:

- For the first two weeks of January, here were the returns of the various indices:
 - The AMZ was up 4.5%
 - The AMNA was up 2.7%
 - Energy was down 1%
 - The S&P 500 was up 2.7%
 - Crude oil was down 4.1%

The following Monday was MLK Day and markets in the U.S. were closed. However, the first travel-related case of the coronavirus was reported in the U.S. The ultimate threat of the virus spreading outside of China certainly stoked fears in markets and risk off became the theme.

From the 16th of January to last Friday, energy markets were hit hard.

Performance during that time period:

- The AMZ was down 11.7%
- The AMNA was down 3.9%
- Energy was down 9.3%
- The S&P was volatile, but up about 80 bps after bouncing
- Crude oil was down 8.9%

The recent down draft for this week has been driven by accelerated fears of the virus spreading beyond China, with geographical concentrations of higher virus activity popping up in spots such as Northern Italy and Iran. Clearly this has stoked fears of a global pandemic.

For this week alone, through Thursday morning, here are the performance numbers:

- The AMZ is down 14.2%
- The AMNA is down 11.6%
- Energy is down 15.5%
- The S&P 500 is down 8.6%

- And, crude oil is down 12.1%

While percentages are one thing, it also just helps to think about the absolute impact. On that front, midstream energy has lost over \$70 billion of market cap so far this year.

Now that we have set the stage of where we are at, let's start addressing some questions and concerns.

Brian Kessens: Thanks James, first and foremost, in a perverse way this proves the essential nature of energy as an asset class. The economy simply doesn't function without the ability to move people and goods, provide electricity to consumers, such as hospitals and disseminate timely and important information. With that, let's jump into some questions.

Brian Kessens: The first question is why did energy stocks sell off so hard at the outset, starting in mid-January?

James Mick: The primary focus from an energy perspective centered on Chinese demand, specifically related to crude oil as they are the second largest user in the world, behind only the United States. The estimates are all over the board in terms of impact, but it's fair to say that the temporary hit has been pretty substantial. Additionally, with OPEC+ already reducing supply to combat a surplus situation, the lower overall demand simply exacerbates the issue globally.

As a result, crude oil prices took a hit and energy stocks were also hit.

To provide some context of what this could mean for demand, the worldwide market for crude and natural gas liquids is approximately 100 million barrels per day. It was expected we would see growth in 2020 of about 1.2-1.4M bpd depending on the reporting agency. Hypothetically, let's assume that Chinese demand was down 4 million bpd for an entire quarter. Additionally, let's assume that the other three quarters of the year grow only what was expected, in other words there is no sharp recovery above original estimates. If that all happens, worldwide demand will still show a slight growth in 2020 of about 200,000 barrels per day.

Brian Kessens: So that makes sense. So looking into your crystal ball, how long will this last?

James Mick: To be clear, we are not doctors or infectious disease specialists, so this is just us utilizing data provided, but the first cases in China were reported the end of December. Per research from Evercore, ISI's Chinese research team, utilizing National Health Commission of China data, cases in China peaked in mid-February, less than a month after the initial cases really started getting reported on January 21st. Additionally, cured cases started exceeding confirmed new cases on about February 18th. The number of new cases has also declined substantially from previous reportings, while deaths have also dropped.

It's hard to say how long this ultimately lasts, but if China is any indication, perhaps we are looking at less than a month to reach a peak impact prior to the fall in new cases.

Of course that will always be dependent on how quickly and effectively a locale deals with the spread. But it would seem logical that the first instance would be the worst and hardest to contain as it was simply unknown at time of initial outbreak.

Brian Kessens: So I guess China is ahead of the game. Has activity in China rebounded at all?

James Mick: Yes, per Energy Aspects, a commodity research provider that we receive information from, real-time data that they follow in China has shown a pickup in domestic activity related to consumption of oil and gas. However, it should be noted this is coming off of a very low base. But green shoots of any kind are certainly positive and worth bringing up as again, we are only about one month past the initial ramp in reported cases in China. Of note, highway traffic across the country rose by about 100% week over week. On a related note, Caterpillar and Airbus stated they were reopening plants in China.

Brian Kessens: So, what's led to the latest downdraft in markets?

James Mick: Quite simply the spread beyond China's borders in a material way. What was somewhat contained with limited cases outside of China initially, has clearly changed with areas such as Italy, Japan and Singapore reporting several cases. This raises the risk that the ramifications that China has experienced will spread to other parts of the world, impacting not only energy markets, but broader markets as well. Interestingly, some research by Cornerstone Macro highlighted that of companies that have released 10-Ks or Qs, information technology had the most mentions on coronavirus or covid-19 at well over 60 companies. Energy was about smack in the middle at just under 20.

Brian Kessens: So we always talk about the essential nature of energy, what are the impacts to energy companies broadly?

James Mick: If we focus on upstream producer companies, the impact is primarily driven by a risk of a lower commodity price due to less demand for the commodity driving down the associated price. As noted, crude oil prices have fallen quite a bit in regards to this, about 24% year-to-date. Additionally, production may need to slow in response for at least a period of time. Notably OPEC is likely to deepen production cuts already in place to help balance the market. In fact, news just arrived that Saudi will reduce shipments to China of crude oil to help lessen the impact. We would expect OPEC to announce further cuts at its early March meeting to support prices.

Brian Kessens: To get a little more specific, what about the impacts to midstream companies?

James Mick: This is frankly more difficult and the crux of why we wanted to provide this podcast because the impacts are not nearly as obvious or severe.

Directly speaking, the impacts are very minor. Some midstream companies have export facilities that help facilitate shipments of crude oil, natural gas in the form of LNG, and natural gas liquids such as propane to various parts of the world. It's possible some of those could be impacted, but this would be a small portion of cash flows for almost all midstream companies and a portion of that cash flow is generally based partially on take or pay contracts, not just volumes. So the direct impact to midstream companies if the virus stays generally outside of the U.S. would be pretty minimal. As a frame of reference, export data for crude oil out of U.S. ports remains robust. In fact, in the fourth quarter of 2019, the U.S. exported on average about 3,323,000 barrels per day. So far in the first quarter of 2020, the equivalent number is approximately 3,384,000 barrels per day, so slightly more. Interestingly, the highest weekly total for 2020 was just last week at over 3.6M bpd.

There would be some indirect impacts related to lower commodity prices placing some pressure on counterparties, assuming some of those counterparties are upstream producers, which they are. Additionally, there may be a slight risk to volumes if U.S. producers cut back on production as well. We don't anticipate this being the case initially, but if prices dropped enough, it would lead to lowered volume growth and potentially even some declines. Recall, we saw some declines in 2016 crude oil production domestically, yet barely a blip on pipeline volumes as they were essentially flat and cash flows for most midstream companies continued to grow.

Brian Kessens: What then happens to midstream if the virus spreads more to the U.S.?

James Mick: In this case the direct impact on volumes would likely be higher. For reference, during the financial crisis of 2008/2009, we found that the volumes and hence the cash flows are very resilient.

Clearly the great recession and the coronavirus outbreak would be two entirely different cases, yet both had or have concerns regarding end user demand and specifically around volumes as the issue for energy companies.

During 2008/2009, we saw less than a 5% decline in volumes on our pipeline companies on the liquids side and basically zero impact to natural gas pipeline volumes.

The main takeaway for midstream is simple, the resiliency of the cash flows is very high, underpinned by contracted volumes in many cases. In particular if we are talking about a shorter duration time frame, the ability of the cash flows to hold up are very strong. To further delineate contracts, natural gas pipeline contracts hold up the best as most are structured as capacity charges, i.e. a customer pays to simply reserve space on the line and pays whether they ship a single molecule or not.

Brian Kessens: That's great. So the cash flows hold up well, but what about the stock prices of midstream?

James Mick: Clearly that's a much harder forecast to make as sentiment has been negative for energy stocks and midstream has been no exception. That said, midstream companies are transitioning to a new phase of their life cycle, underpinned by free cash flow and returning capital to shareholders. 2020 is an inflection year in this progression that really starts to ramp in 2021.

A move lower in the stocks due to a transient event such as the coronavirus does not change this path or the trajectory.

For some perspective, if you look at the price only index of the Alerian MLP Index, we are below levels from February 2016 when crude oil was trading at approximately \$26. And not just below, but 14% below those levels from early 2016. In fact, you have to go all the way back to March of 2009 to find a time when the price index of the AMZ was at these levels. And needless to say, I think we are a long ways from that time period from a company perspective and also a current environment perspective. It would imply that markets are pricing in some pretty doomsday type scenarios of ultra-low crude prices and a financial market collapse.

We know just talking about this and providing a lot of data doesn't soften the blow of the market downturn, but the underlying companies within midstream remain solid companies that are finishing up a pretty darn good earnings season. Fear is driving the market, irrational fear that is taking us back to levels that seem well, in our case very draconian.

To be clear, we don't know how this plays out, but we do know what history has shown us and when the indices were last at these types of levels.

For reference, the broader energy market is similarly at levels not seen since 2009.

Brian Kessens: What other responses do you expect?

Well, globally, central banks have been accommodative and we would expect the Fed to react swiftly to any type of impact of the virus domestically. That should help soften the blow economically if it spreads here in a meaningful way and also speed up an anticipated recovery.

Brian Kessens: Great, with that, why don't we wrap up. Any last thoughts?

James Mick: We would be remiss if we didn't point out a single stat that sums up the resiliency of the global market, and that is the fact that energy demand has grown in 37 of the last 38 years. This is in spite of previous health concerns surrounding SARS, MERS, Zika and Ebola.

In summary, we hope investors stay the course and remain confident in the cash flows of the companies, which will ultimately we believe be what drives stock prices over the longer term.

We will continue to update and cover this topic in more detail in our weekly podcasts, which can be found on our website.

Thanks for your time and we look forward to speaking to you soon.

Thank you for joining us. And stay tuned for our next cast. Have topics you want covered or other feedback to share? Write us at info@tortoiseadvisors.com.

Midstream = The Alerian MLP Index is the leading gauge of energy Master Limited Partnerships (MLPs). The float-adjusted, capitalization-weighted index, whose 50 constituents represent approximately 75% of total market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX).

Midstream including C-Corps = Alerian Midstream Energy Index is the capped, float-adjusted, capitalization-weighted index, whose constituents earn the majority of their cash flow from midstream activities involving energy commodities, is disseminated real-time on a price-return basis (AMNA) and on a total-return basis (AMNAX).

Broad Energy = The S&P 500 Energy Sector GICS Level 1 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 index was developed with a base level of 10 for the 1941-43 base period. The parent index is SPXL1. This is a GICS Level 1 Sector group.

The S&P 500® Index is a market-value weighted index of equity securities.

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