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Crude Oil Market Dynamic Challenges

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Since mid-March, our states, nation, business owners, and employees have had their world turned upside-down because of a virus.

The economy has been engaged in a slow recovery from the worst of the coronavirus, and the accompanying improvement in energy demand has been evident in crude oil prices. Kansas crude oil prices topped $53/bbl in early January and then dipped below $11/bbl in March and below $1/bbl in April. Crude oil prices began to recover thereafter, surpassing $25/bbl in May before pushing above $30/bbl in late June. Kansas crude oil prices were $32/bbl in early August.

Signs of improving market conditions come against the backdrop of rising COVID-19 cases and chatter anew about implementing restrictions on economic activity, raising concerns about the sustainability of higher prices and rising demand. Fear exists on both sides of the oil ledger with concerns about slowing demand and swelling supplies. Until there is a resolution to the COVID-19 pandemic, crude oil prices will likely remain bearish. The crude oil market is fraught with uncertainty that creates volatility in crude oil prices. Volatile crude oil prices have a significant impact on the small businesses that make up the Kansas oil and gas industry.

The Kansas Independent Oil & Gas Association (KIOGA) represents thousands of independent oil and natural gas explorers and producers, as well as the service and supply industries that are significantly affected by crude oil prices. In Kansas, small independent producers account for 92% of the oil and 63% of the natural gas produced. The oil and natural gas industry is an important part of the livelihoods of Kansans throughout the state. Nationally, independent producers drill about 90% of American oil and natural gas wells; produce about 54% of American oil, and more than 85% of American natural gas. With nearly 3,500 members, KIOGA is the lead state and national advocate for the Kansas oil and natural gas industry.

Global Crude Oil Supply/Demand Dynamics

COVID-19 pandemic has destroyed about 30% of crude oil demand worldwide. The 20 countries of OPEC+ agreed to an historic production cut on April 9th to address the crude oil demand destruction of COVID-19. They cut production by about 10 million b/d. OPEC+ met again on July 16th and agreed to extend output cuts through the end of July 2020, and then reduce those cuts (otherwise known as raising production) by 2 million bpd to a cut of 7.7 million bpd from pre-COVID levels through the end of the year. According to the plan, the cuts would be further tapered to 5.8 million bpd from January 2021 – April 2021.

Saudi Arabia and Russia, the de-facto leaders of the OPEC+ coalition, lost patience with the errant behavior of the next biggest member, Iraq. Iraq had been cheating on its oil cut quota by about 600 Mbbl/d. The next largest offender is Nigeria who is almost 300 MBbl/d over its promised reduction. Russia and Saudi Arabia worked out their differences with Iraq.

If Brent prices exceeds $50 per barrel, Russia will likely raise production. The Saudis would prefer something closer to $70 per barrel. The tug of war between Russian and Saudi Arabia will likely become more pronounced as demand and prices increase.

According to a July 31st U.S. Energy Information Administration (EIA) report, U.S. crude oil production plummeted in May 2020, falling a record 2 million barrels per day to 10 million bpd. Gasoline demand was down 23.5% and diesel demand was down 12.6% from year-ago levels. Natural gas production in the U.S. dropped 5.7 billion cubic feet per day (bcfpd) in May 2020 to 97.4 bcfpd. U.S. natural gas output hit an all-time high of 107 bcfpd in November 2019.

The global and domestic supply/demand balance is cleaning up, with shut-ins, OPEC+ cuts, and the return of demand. Signs of improving market conditions come against the backdrop of rising COVID-19 cases and chatter anew about implementing restrictions on economic activity, raising concerns about the sustainability of higher prices and rising demand.

Crude Oil Market Structure

The crude oil market is a global oligopolistic market mostly influenced by the OPEC cartel. The OPEC+ cartel is made up of 20+ oil producing nations. The OPEC cartel control about 1/3 of the world's oil supplies and collude to control global crude oil prices. The U.S. is the largest oil producing nation in the world. Kansas oil and gas producers are perfect competitors in an oligopolistic market. That is to say, we are price takers, not price makers.

Kansas oil and gas producers have no control of crude oil prices, but can only manage their internal costs. For Kansas oil and gas producers, optimizing internal operating efficiencies is paramount in order to hedge against volatile crude oil price swings.

IHS recently completed a study on upstream drilling and production costs and found that upstream costs in 2019 for onshore plays were 25% to 30% below their 2012 levels and 16% to 20% lower than the average of the past five years. This cost analysis does not, however, factor in the market value of oil and gas produced from these wells, which is important for calculating net present value of profit or loss.

Low-cost oil producers across the U.S. establish a fair price for oil based on how low they can get production costs. Kansas oil and gas production will likely remain a conventional, small business operation that will be tweaked with technology. The bottom-line is the low-cost producer will stay in business.

Kansas Oil & Gas Summary

The fallout from COVID-19 and concurrent crude oil supply shock continues and has had a profound impact on the Kansas oil and gas industry. Oil and gas exploration and production activity in Kansas and across the nation has slowed dramatically. Operators across Kansas and the nation have responded quickly by laying down rigs, shutting in production, and cutting capex by as much as 60%.

Oil production in Kansas during calendar year 2019 was about 32.9 million barrels (90,137 barrels per day). Kansas oil production in January - April 2020 was about 81,400 barrels per day – down about 9.7%. However, the January-April 2020 data provides a misleading projection for the future. After talking with crude oil purchasers in Kansas, industry anticipates Kansas oil production will be down to about 50,000 - 60,000 barrels per day in May and June before recovering to around 60,000 - 70,000 by the end of 2020. Hopefully, we will see production improvement in 2021 if prices recover adequately, but it will be some time before we get back to the 90,000 - 100,000 barrels per day level.

Kansas oil production fell by 32.9% from 2014 to 2019. As the market balanced and oil prices stabilized in 2018 and 2019, Kansas oil production stabilized. Oil production in Kansas fell by 4.4% in 2019 after falling 3.1% in 2018, 5.5% in 2017, and 16.7% in 2016.

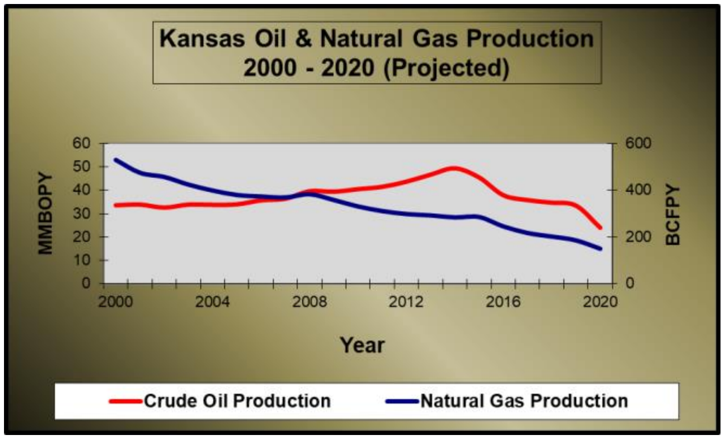

Figure 1

Figure 1 illustrates the trend in Kansas oil and natural gas production over the last 20 years.

As a result of low oil prices, tax collections to the State of Kansas and Kansas counties have also declined dramatically. Oil and gas severance tax collections by the State of Kansas in 2019 declined by 72% since 2014. Property tax collections by counties in 2019 declined by over 61% since 2014.

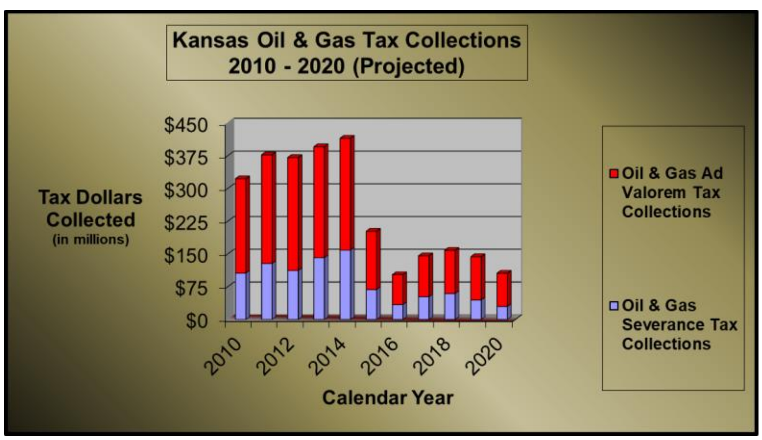

Figure 2

Figure 2 illustrates the impact of falling prices on oil/gas severance & property tax collections in Kansas.

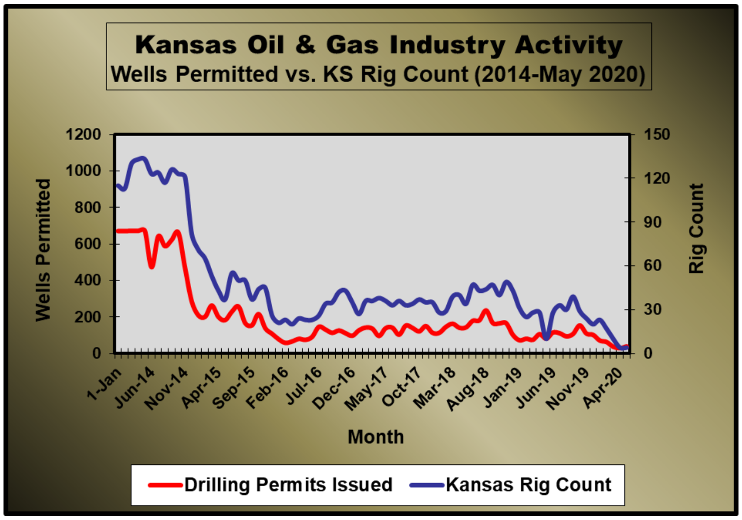

Figure 3

Figure 3 illustrates oil and gas activity in Kansas from 2014-May 2020. The industry experienced a 91% drop in drilling rig count and a 92% drop in drilling permits issued in the 2014-May 2020 period.

What are Kansas oil & gas companies doing?

The Kansas oil and gas industry is currently displaying a lot of discipline after learning some tough lessons from experiences with past low-price markets, from the mid-1980s to the last 1990s and the more recent 2014-2016 downturn.

Many Kansas companies are refocusing capex to strategize their way out of the current downturn. Companies are working to optimize operating cost structures to achieve more efficiency gains and became more specialized regarding their core producing assets. Kansas producers are focusing on the most resilient short-cycle projects and concentrating on their core competencies and smaller producer advantages. Many oil and gas producers across Kansas are working to optimize supply chain relationships, improve operational efficiencies, reduce and refocus capex, and examine acquisition and divestiture opportunities. Operators are high-grading and drilling only the best prospects. In many cases, improved productivity is less about improved technology and more about better application of existing technology.

Expenditures for exploration and development constitute most of a company's upstream capital investment. When calculated on a reserve addition per barrel basis, these expenditures represent the cost of finding and developing a barrel of oil. Studies have indicated finding and development costs declined by $10.23 per barrel since 2014.

Efficiency gains achieved by Kansas oil and gas producers over the last couple of years have proven to be very important for reducing break-even prices. Many Kansas operators have reduced breakeven points to about $25-$30 per barrel. Kansas operators in general are adhering to cash flow neutrality. Currently, exploration and development activity in Kansas is very conservative and muted.

The oil and gas industry and the economy in general can be helped by getting people back to work. The longer this goes on, the deeper you dig the hole; the harder it is to crawl out. The solution for our industry and everybody is to get people back to work.

Once demand and prices return to normal, several things should be considered to help the Kansas oil and gas industry, none of them involving bailouts.

We need to find solutions to high Kansas electric rates - which hurt not just the oil industry, but general economic development as well.

Kansas rates are the highest in our region and Kansas consumers spend more than $1 billion per year more on electricity than just 10 years ago. With electric costs that are 30-50% of expenses, oil wells in rural Kansas could run for many years longer with more competitive electricity prices. Who will be left to absorb the high fixed costs that burden rates? Oklahoma rates can be more than 50% less than in Kansas.

Renewable energy sources like wind need to be carefully considered going forward. The state has adequate renewable energy generation, and careful study is required before allowing more subsidies. Methane and carbon dioxide emissions are significantly down in the U.S. even as oil and gas production has dramatically increased. We must resist unduly penalizing and regulating the fossil fuel industry for political expedience.

The oil and gas industry has lived through several ugly downturns before, and we know that patience, persistence, insight, and innovation pay off. We move forward together to focus on value reconstruction and prepare for brighter days ahead.

Prices

EIA Raises Oil Price Forecast - The U.S. Energy Information Administration (EIA) raised its Brent and West Texas Intermediate (WTI) oil price forecasts again, the organization's July 2020 Short Term Energy Outlook (STEO) report has revealed. According to the latest STEO, the EIA now expects the Brent spot price to average $40.50 per barrel in 2020 and $49.70 per barrel in 2021. In the EIA's June STEO, the Brent spot price was expected to average $38.02 per barrel in 2020 and $47.88 per barrel in 2021. Back in May's STEO, the 2020 and 2021 Brent spot price was projected to average $34.13 and $47.81 per barrel, respectively. In July's STEO, the WTI spot price is expected to average $37.55 per barrel this year and $45.70 per barrel next year. In June these prices were forecasted to hit $35.14 per barrel in 2020 and $43.88 per barrel in 2021 and in May they came in at $30.10 per barrel in 2020 and $43.31 per barrel in 2021.

However, surging coronavirus cases raises concern about demand. Surging infections across major economies is leading to the tightening of restrictions to curb the outbreak, with the virus showing no signs of abating. Oil's rally from its plunge below zero in April slowed in early July after a tumultuous few months sparked by virus-driven demand destruction. Historic output cuts from OPEC and its allies look to be extended through August.

Goldman Sachs Sees Oil Demand Returning to Pre-Coronavirus Levels by 2022 - Goldman Sachs said a pick-up in commuting, a shift to private transportation and government efforts to improve economies with higher infrastructure spending should help global oil demand return to pre-coronavirus levels by 2022. Demand is expected to fall by 8% this year, before rebounding 6% in 2021 and fully recovering to pre-pandemic levels by 2022, the U.S. bank said on July 2nd. The bank expects gasoline to stage the fastest demand recovery among oil products, while jet fuel consumption, which has been hit the most by the pandemic, could suffer more as consumer confidence in air travel is likely to stay low in the absence of a vaccine. While fuel demand is gradually recovering as lockdown measures ease, a second coronavirus wave could quickly undermine the trend. A recent Reuters poll estimated oil prices will consolidate at around $40 a barrel this year, with a recovery gaining steam in the fourth quarter and into 2021 on OPEC-led production cuts and as economies limp back from coronavirus lockdowns.

Saudi Aramco CEO on Oil Markets: The Worst is Behind Us - The worst is behind us in oil markets, says Saudi Aramco President and Chief Executive Officer Amin H. Nasser. Already-recovering demand has him "very optimistic" for the second half of 2020 and countries are now better prepared for a second wave of COVID-19 if and when it occurs. In a conversation with Daniel Yergin, vice chairman, IHS Markit, Nasser talked about the near-term outlook for oil markets. "The worst is behind us. We went from -$40 to +$40 with WTI. In April we were looking at demand of about 75-80 million b/d with significant supply at that time. Currently you are looking at close to 90 million b/d. I'm very optimistic about the second half of this year. We see it in China today—it's almost at 90%. In gasoline it's around 95% in China. Gasoline and diesel are picking up to pre-COVID levels. Jet fuel is still lagging in terms of less air travel. More countries will start opening up. So, we see that reflected in the demand on crude."

Saudis Hike Oil Prices to Key Markets on Rising Energy Demand - Saudi Arabia raised pricing for August oil shipments to Asia, the U.S. and northern Europe amid signs that energy demand is continuing to recover from its coronavirus-triggered collapse. OPEC+ has been reducing crude production since last April to drain stockpiles. The group agreed in June to extend cuts totaling nearly 10 million barrels a day -- roughly 10% of world supply before the pandemic hit -- for a third month until the end of July. They plan to scale them back after that.

Challenges on How to Price U.S. Crude Oil Emerging - Two companies have released price benchmarks for oil in the U.S., challenging West Texas Intermediate (WTI) crude as the standard indicator of the cost of the commodity. The two new benchmarks are measured on the Gulf Coast, where much of the action in the oil market takes place these days. S&P Global Platts created the Platts American GulfCoast Select and Argus Media launched the American Gulfcoast Select. Both were started on June 26th. U.S. oil companies have been producing so much oil in recent years that they have begun shipping nearly a third of it overseas. That's made the Gulf Coast a new central hub of the domestic oil market. But the way that oil is priced in the U.S. depends on a futures contract based at a landlocked hub in Cushing, Oklahoma.

When looking at energy policy it is important to know that our nation is the worldwide leader in energy production. With the right energy policy, we can now move forward and build upon our nation's new era of energy abundance, self-determination, and global energy leadership. We need tax policies that don't compromise our ability to grow the economy and create jobs. We need regulatory reforms that don't add unnecessary layers of compliance burdens on top of existing protections. We encourage everyone to listen to the facts when it comes to energy policy discussions and focus on what's important: American jobs, American energy security, and American global energy leadership.