March 2020

Assessing oil's price rout and its impact on energy credits

What happened?

The energy market received a "gut punch" when OPEC and Russia could not reach an agreement on an oil production cut at a meeting in Vienna on March 6, 2020.

In the days before the meeting, OPEC had proposed production cuts of around 750,000/bpd. The day before the meeting, OPEC pushed for an even larger cut of 1.5 million/bpd until the end of 2020.

Russia has historically pushed back on production cuts, but eventually agrees. However, at the March 6, 2020 meeting, Russia refused to agree to the cut, which caused OPEC to trigger the "nuclear" option. Rather than continue shouldering the bulk of the cuts, Saudi Arabia announced that it would increase production to 12.3 million/bpd (from what had previously been 9.7 million/bpd) and Saudi Aramco announced significant discounts to its crude oil price.

This created a perfect storm for an already negatively impacted energy market: 1) a fragile global economy threatening demand, 2) the Coronavirus further threatening demand, 3) concerns about oil inventory builds, and 4) the reality of unconstrained OPEC supply.

The result was a 33% drop in oil prices from $45.90 on March 6, 2020 to a level of $30.93 on March 9, 2020.

Oil price limbo -- how low can it go?

Using historical context, over the past 30-years, there have been two major oil shocks: 1) the 2008 Great Financial Crisis (GFC) and 2) the 2015-2016 energy crisis. During the GFC, oil prices only dipped below $40 three times for a total of 36 days—13 days from March 18, 2008 to December 18, 2008; 8 days from January 12, 2009 to January 20, 2009; and 15 days from February 9, 2009 to February 24, 2009--reaching a low of $33.87 on December 19, 2008. During the energy crisis, oil dipped below $40 only twice, but for a total of 129 days—one day from August 25, 2015 to August 26, 2015 and 128 days from December 2, 2015 to April 8, 2016--reaching a 15-year low of $26.21 on February 11, 2016.

Using more current data, breakeven prices are a highly effective benchmark for forecasting the low inflection point when production stops and prices eventually start to rebound. In late 2019, Bank of America published an Oil & Gas Producers Comparative Credit Statistic based on 15 investment-grade independent energy companies in the coverage universe; the average breakeven price was $42.00. To further support this view, an October 10, 2019 report from BloombergNEF titled "U.S. Oil Insight: Estimating a Price Floor and Ceiling" states: "At prices below $45, [we] expect producers would significantly scale back drilling, thereby eventually balancing the market by reducing supplies." The report further illustrates various break-evens with a 15% IRR in various U.S. oil regions, which average $51.27 (see Figure 1 on following page).

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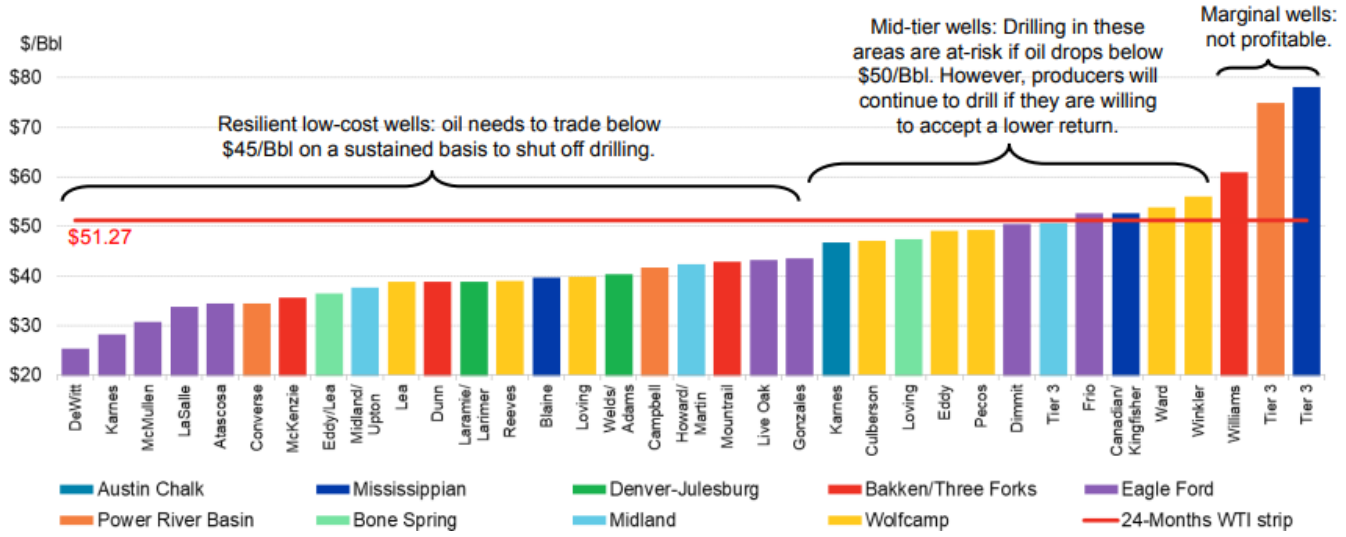
FIGURE 1: BLOOMBERGNEF ESTIMATED U.S. OIL PLAY BREAK-EVENS (1.5% IRR), $Bbl



Source: WellDB, DrillingInfor, companies data, BloombergNEF estimates.
Note: Break-even estimates assume a 15% IRR. 24th-months calendar strip for West Texas intermediary (WTI) oil prices as of October 9, 2019. Mississipian Tier 3 counties: Grady, Dewey, Major. Mindland Tier 3 counties: Borden, Andrews, Irion, Crockett, Reagan, Powder River Basin Tier 3 counties: Niobrara, Johnson, Crook, Sheridan, Weston.

Spigots on or off for how long?

Given the state of the market, our current analysis can be a timeframe similar to the 2015-2016 energy crisis, which was also driven by booming U.S. production, declining break-even prices, a supply glut, and slowing economic growth. Whether the current situation turns out to be shorter or longer than 129 days is hard to forecast. An argument can be made to justify both sides:

- On the longer side, one could point to the improved operating efficiencies and focus on cost reductions, which could allow companies to produce longer at lower prices.
- On the shorter side, one could point to the companies being much more conscious of the credit implications of overproducing after experiencing 2015-2016 conditions and showing more restraint.

Additionally, a number of investment-grade energy companies have been focused on “living within cash flow” as opposed to focusing on growth, which could lead to fast reductions in growth capital.

In the case of OPEC and Russia, these countries are more “skewed” toward being petro-dollar economies and suffer disproportionately from low oil prices. However, as S&P noted in their March 9, 2020, update: ”In the event of a market share grab, we believe Russia has a breakeven oil price of approximately $51 per barrel, although Saudi Arabia has a much higher price of $83 per barrel and is in the midst of an economic transformation (Vision 2030) to reduce its reliance on oil**.** Also, Russia, Saudi Arabia, and several Gulf Cooperation Council (GCC) nations, have vast financial resources and can sustain a low oil prices for some time.”

Therefore it is fair to assume this current oil crisis could drag on for several months. Russia, however, in a March 10, 2020 CNBC report said that it was not ruling out further negotiations with OPEC. To further support that view, DWS participated in a call hosted by a sell-side organization to discuss the current energy situation. On the call, it was mentioned that there was “chatter” in the market that some

"back-channel" negotiations could be underway, indicating that representatives from Saudi Arabia might be traveling to Moscow to continue discussions. Working under this possible assumption, it would therefore not be a surprise to see a resolution in a relatively short time frame. With that being said, it is unlikely that oil prices would fully recover to pre-crisis levels since OPEC's credibility will now be called into question.

What is the potential IG credit impact?

DWS conducted a sensitivity analysis on the larger independent energy companies within our coverage universe, selected because of their direct exposure to commodity prices. Using each company's FY 2019 production numbers, DWS used a $30.00 oil and $1.75 natural gas price level to determine the impact on each company's credit metrics. We also compared those "stressed" credit metrics to the ratings triggers by S&P and Moody's. While there are some rating agency adjustments that could make their numbers slightly different, we think this still provides a good general view of the companies with the highest risk. We also highlighted the low-BBB ratings since those could have a risk of falling below investment-grade. (see Figures 2 and 3 on following page).

What about the high-yield part of the energy market?

The high-yield market has followed the equity markets and experienced significant spread widening and price movement over the past few weeks. Recent volatility started after the initial oil sell-off and has been driven by the higher probability of a tail event or recession.

One of the major differences within high-yield comparing the GFC and the current environment is the use of new issuance proceeds. Prior to the financial crisis, new issuance was focused on leveraged buyouts (LBOs), which has higher risk. Many of the LBO deals were on banks' balance sheets and, given the problems that banks faced, resulted in a considerable amount of forced selling. Inventory was coming to market at discounted prices and therefore resulted in a considerable amount of downward pressure. However, post-financial crisis, high-yield has been held in investor accounts instead of on bank balance sheets and in leveraged structures. Specifically during the past six to seven years, new issuance has been focused on refinancing which is viewed as having lower risk and, in some instances, is a positive for credit given companies extending maturities.

Through early March, the high-yield energy sector has underperformed significantly relative to the broader high-yield market. On a sub-sector basis, Exploration & Production (E&P) and Oil Field Services have underperformed significantly relative to the Midstream and Oil Refining sectors. Due to this underperformance, the composition of the high-yield index (Bank of America U.S. High Yield Constrained Index) has changed fairly significantly, with E&P weighting down to 3.3% from 5.1% at the beginning of the year. Oil Field Services have also dropped to 1.6% from 2.5% and Midstream has decreased to 4% from 4.4%.

The drivers of underperformance will differ by sector. While the market and DWS waits to see if there is a resolution to the situation with Russia and Saudi Arabia, companies need to maintain a certain level of cash flow. The cost for drillers to remove oil or gas from the ground is higher than where oil is currently priced (as of March 16, Est Texas Intermediate Crude was trading around $28-$29 a barrel, and Brent crude was between $29-$30 a barrel). As a result companies are trying to maintain liquidity by cutting capex and dividends, given there is a limited supply of buyers to support asset sales.

Companies within the E&P sector have been the most liquidity-constrained, and those with maturities coming due in the next 12 to 24 months, have experienced the most negative impact as the market is questioning their ability to refinance debt.

The Oil Service sector has also underperformed significantly. The cut in capex to maintain liquidity has hit these companies particularly hard as well, given the swiftness with which the top-line is negatively impacted for these drillers.

FIGURE 2: S&P LEVERAGE AND COVERAGE TRIGGERS

	ND/EBITDA			FFO/Debt			2020	Rating and Outlook		
2019E	S&P trigger	2020E–S&P	Our model–$30 WTI	S&P trigger	2020E–S&P	Our model–$30 WTI	Oil Hedges	Moody's	S&P	Fitch
APA	>4.0x	2.5x–3.0x	5.88x	<20%	25%–30%	11%	0%	Baa3 Stable	BBB Stable	BBB Stable
CNQCN	NA	1.9x–2.2x	2.71x	<30%	40%–43%	32%	0%	Baa2 Stable	BBB+ Stable	NR
CVECN	NA	2.3x–2.6x	1.56x	<20%	30%–33%	38%	0%	Ba1 Positive	BBB Stable	BBB- Stable
DVN	NA	1.5x–2.0x	1.32x	20%	35%–45%	40%	35%	Ba1 Positive	BBB- Stable	BBB Stable
OVV	NA	2.0x–2.5x	5.21x	<30%	30%–40%	13%	72%	Ba1 Positive	BBB Stable	BBB Stable
HES	NA	2.5x–3.0x	4.80x	20%	30%	15%	72%	Ba1 Stable	BBB- Stable	BBB- Stable
MRO	NA	NA	2.81x	<45%	>50%	29%	37%	Baa3 Stable	BBB Stable	BBB Stable
NBL	>3.0x	2.0x–2.5x	6.09x	<30%	30%–35%	12%	57%	Baa3 Stable	BBB Stable	BBB Stable
OXY	>4.0x	3.5x	5.22x	<20%	20%	13%	46%	Baa3 Stable	BBB Stable	BBB+ Stable

Source: S&P March 2020

FIGURE 3: MOODY'S LEVERAGE AND COVERAGE SUBFACTORS

	E&P Debt/Avg Daily Production				E&P Debt/PD Reserves BOE				EBITDA/Interest			
	Subfactor rating	Range for rating	Moody's model LTM 6/30/19	Our model–$30 WTI	Subfactor rating	Range for rating	Moody's model LTM 6/30/19	Our model–$30 WTI	Subfactor rating	Range for rating	Moody's model LTM 6/30/19	Our model–$30 WTI
APA	Ba	$18000–$23000	$20,472	$21,986	B	$8.00–$11.00	$8.60	$11.63	Ba	6.00x–10.00x	9.40x	4.31x
CNQCN	Baa	$12000–$18000	$20,901	$21,441	Aa	$1.00–$2.00	$2.92	$3.14	Baa	10.00x–15.00x	11.40x	10.49x
CVECN	Baa	$12000–$18000	$15,472	$17,800	Ba	$6.00–$8.00	$7.00	$7.00	Ba	6.00x–10.00x	6.40x	8.51x
DVN	Baa	$12000–$18000	$10,144	$13,658	A	$2.00–$4.00	$3.30	$7.73	Ba	6.00x–10.00x	9.20x	9.64x
OVV	Baa	$12000–$18000	$15,862	$16,301	Caa	$11.00–$14.00	$14.00	$9.13	Ba	6.00x–10.00x	8.30x	5.05x
HES	Ba	$18000–$23000	$21,838	$26,310	B	$8.00–$11.00	$8.80	$12.55	Ba	6.00x–10.00x	7.30x	5.45x
MRO	Baa	$12000–$18000	$14,398	$13,678	B	$8.00–$11.00	$8.10	$7.78	Baa	10.00x–15.00x	13.00x	7.80x
NBL	Ba	$18000–$23000	$22,186	$20,775	Baa	$4.00–$6.00	$5.30	$5.45	Ba	6.00x–10.00x	6.30x	4.08x
OXY	Baa	$12000–$18000	$12,596	$28,648	Baa	$4.00–$6.00	$4.30	$13.48	A	15.00x–25.00x	20.20x	5.20x

Source: Moody's, March 2020

Conclusion: applying active triage to navigate the market

The current situation, which some have classified as a Black Swan event, has been a reversal of OPEC's historical approach to stabilizing the market and came as a complete shock. In DWS's view, the question now becomes, "Who blinks first?" Our analysis is pointing to this current condition continuing for the foreseeable future, and likely getting worse before it gets better in the short-term. Perhaps adopting a triage position is prudent, with a constructive approach being to actively managing credit exposure to minimize potential damage.

Within investment-grade, we believe there will be "pain" across the subsectors, with Independents likely feeling the most immediate impact, followed by Oil Field Service companies and Midstream from the eventual volume reductions. Refiners may feel less pain with lower oil since this in an input cost, which would help preserve margins when gasoline prices drop. Integrated companies tend to be larger, more diversified, higher-rated companies, and therefore could be the outperformers—on a relative basis--in the current environment.

Across high-yield, the Midstream sector has not experienced the same level of underperformance through early March, but the risk still exists. Given their dependence on oil flow, if capex is cut for E&P companies, the supply of oil will be reduced and revenues could be significantly impacted. However, the upside for these companies is that they typically have strong cash flow. Given that the maintenance capex for Midstream companies is fairly low, they are focused on spending their current cash flow on dividends to equity holders and expansionary capex. A reduction in expansionary capex and dividends could allow these companies to focus on outstanding debt and leverage concerns.

The potential for downgrades from investment-grade to high-yield is a threat within the energy companies. Within the E&P sector specifically, there are some large issuers which would have a significant impact if downgraded given the size of this sector has decreased due to recent underperformance.