

# PDV *OBSERVATIONS*

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## Why Oil Prices Will Rise in 2016

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Since early December 2015, Brent crude oil has been trading below \$40 per barrel. At the current price, oil has dropped more than 65% from the June 2014 peak and is more than \$100 below the 2008 pre-financial crisis peak.<sup>1</sup> The prevailing, widespread view is that oil prices will stay depressed for a long time. In this article, we explain why we expect oil prices will rise in 2016.

Oil prices are determined over time by the following factors: supply/demand dynamics; geopolitical developments; and financial markets. We address each of these factors below.

### **Demand is not the problem**

Contrary to what the media has perpetuated, the current oil price carnage is not demand-driven (i.e. not due to a lack of demand). Despite slowing global economies (most notably China), global oil demand continues to grow. In its 2015 December Oil Market Report, the International Energy Agency (IEA) estimated that global oil demand will rise at an annual rate of 2% (1.8 million barrels per day) for 2015 and 1.3% (1.2 million barrels per day) during 2016, both of which are in line with the annual growth range of 0.9% to 1.4% recorded between 2011 and 2014.<sup>2</sup> It is noteworthy that the IEA initially forecast demand growth for 2015 at 0.9 million barrels per day, which turned out to be 100% too low!<sup>3</sup> Impressively, global demand has grown in the past year despite the strong US dollar, which typically limits foreign demand for oil priced in U.S. dollars.

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Why has global oil demand continued to rise despite moribund economies around the world? We note at least two reasons. First, consumers around the world have rationally taken advantage of declining oil prices by buying more and bigger automobiles, driving up demand for refined oil products. In fact, global demand is now at a 5-year high as motorists in the U.S., China, and India consume more oil.<sup>4</sup> The U.S. is on track to achieve record car sales in 2015 while Chinese consumers have fallen in love with gas-guzzling SUVs.<sup>5</sup>

A second reason is that China has been buying oil to bulk up its strategic reserves. Between November 2014 and mid-2015, China's strategic oil reserves more than doubled from 91 million barrels to 191 million barrels.<sup>6</sup>

### **Supply is the problem**

Even as global demand for oil continues to grow, excess supply has decimated oil prices over the past 18 months.

### **US oversupply**

Over the past several years, the U.S. has increasingly contributed to the global oil glut. Thanks to technological advances such as horizontal drilling and multi-stage hydraulic fracturing, U.S. oil producers have gotten better and more efficient at extracting

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oil from shale rocks. As a result of this shale revolution, U.S. oil production has jumped from 5+ million barrels a day in 2010 to 9+ million barrels a day currently.<sup>7</sup> While this trend has created many well-paying domestic jobs, boosted the economies in multiple states and moved the U.S. closer to energy independence, it has also decimated oil prices.

Economics 101 predicts that rational industry players should cut back supply in response to collapsing commodity pricing. But only recently has U.S. supply been reduced. There are several reasons for this. First, U.S. oil producers did not immediately cut production because it was unclear whether the price declines were temporary or more long-lasting. Now that oil prices have dropped for 18 months and stayed down at decade lows, many U.S. producers have been cutting supply.

Second, even those U.S. producers who were early to cut production did not see their supplies drop right away. These U.S. producers first stopped drilling new wells or completing partially drilled wells. This first step is already well underway, evidenced by the 60+% decline in the U.S. total oil rig count between fall 2014 and late 2015.<sup>8</sup> While new drilling activity has been greatly curtailed, existing active wells and the activation of drilled, but dormant, wells continued producing throughout 2015.

Third, some U.S. producers were able to delay production cuts by achieving technological advances that boosted efficiency and lowered breakeven prices. Some parts of the Bakken Shale in North Dakota reportedly have breakeven prices as low as \$24 per barrel, though breakeven prices are much higher for most other U.S. producers.<sup>9</sup>

Fourth, U.S. producers have so far managed to mitigate the negative effects from plummeting oil prices by successfully hedging a significant amount of production at much higher prices. According to an analysis by Reuters, at the time when oil started falling in mid-2014, many U.S. producers had hedges to sell oil at around \$90 a barrel.<sup>10</sup>

Despite the foregoing, we think the reduction in oil supply will accelerate during 2016 for the following reasons. First, the natural decline in oil output from an aging well is about 4-5% a year for conventional wells but a much faster 30-40% for shale oil wells.<sup>11</sup> With the passage of time and many fewer new wells to replenish the rapidly declining production of existing shale wells, U.S. oil supply will drop sharply in the coming months.

Second, oil prices have dropped so much that current prices are now way below breakeven points for most U.S. producers. A 2015 study from Moody's showed that North American independent producers, most of whom have shale operations, can survive with oil at about \$42 per barrel.<sup>12</sup> Now that oil prices are way under that level, many producers are incurring huge losses and simply cannot sustain their production.

Third, many of the hedges that protected 2015 U.S. oil revenues will roll off in early 2016. Reuters analyzed the 30 largest U.S. oil producers and found that only 5 actually expanded their hedging program in the third quarter of 2015, 5 others did not expand their hedging program at all, and the remaining 20 saw their hedges decline by 72 million barrels from the previous quarter. Reuters also found that 8 of the 30 producers will have no hedges after the end of 2015.<sup>13</sup> As hedges roll off, U.S. producers will be under immense pressure to cut back supplies more aggressively.

Fourth, U.S. oil producers are having increasing difficulty accessing the capital markets to finance production. Banks already cut back some credit lines in 2015, and will likely cut more during the spring 2016 reassessment period.<sup>14</sup> Many U.S. oil producers are highly leveraged from issuing massive amounts of debt to fund their operations during the boom times. With tightening credit and declining asset valuation, many debt-laden U.S. producers will not be able to service their debt for much longer and are at serious risk of going bankrupt.

### **Oversupply from OPEC countries**

As OPEC countries currently supply about 30% of global oil demand, their production targets have significant impact on oil prices.<sup>15</sup> Normally when oil prices fall, the cartel will cut supply to support prices. But that did not happen in fall 2014, when oil prices slumped to a then 2-year low and some OPEC members called for action to support prices. Instead, Saudi Arabia—the largest OPEC producer—cut prices for its biggest customers and the cartel decided to leave production levels unchanged.<sup>16</sup> At its recent December 2015 meeting, the cartel continued to maintain elevated production levels.<sup>17</sup>

OPEC has maintained supply in the face of collapsing oil prices to take back market share from U.S. producers, which collectively became the largest global oil producer in 2014.<sup>18</sup> Since OPEC countries are lower-cost suppliers, they are better able to withstand a price war than the U.S. producers with higher production costs. Saudi Arabia has not been shy in explicitly stating it wants to bankrupt U.S. producers and reclaim global market share.

But Saudi Arabia's take-no-prisoners strategy is not leaving its own country unscathed. Keeping production at near record high levels while oil prices have plummeted to decade lows means that OPEC countries, including its most important member Saudi Arabia, are suffering from much lower oil revenues. Since many OPEC countries rely heavily on oil revenues to fund their government spending, these countries will not be able to continue this strategy for a prolonged period. In a 2015 report, the International Monetary Fund (IMF) estimated that most countries in the Middle East will run out of cash in fewer than 5 years if oil stays down at around \$50 per barrel.<sup>19</sup> This is why at the OPEC meeting last month, some OPEC members were unusually vocal in urging Saudi Arabia to cut production, but to no avail for now.

While Saudi Arabia has not blinked yet, its resources and resolve are not limitless. It is true that Saudi Arabia has the lowest production cost at around \$21 per barrel, but its fiscal break-even price is at a much higher \$106 per barrel.<sup>20</sup> Added to production costs are those for transportation and distribution. With oil revenue accounting for 80% of its government revenues, Saudi Arabia is estimated to have a fiscal deficit of \$100+ billion in 2015 and is burning through its reserves to maintain social and government spending. In 2015, the country not only issued local bonds for the first time in 8 years, but it also pulled more than \$70 billion from global fund managers to raise cash for domestic spending. The OPEC leader might even have to turn to international debt markets in the future since domestic banks will only be able to lend the government up to \$100 billion.<sup>21</sup> An extended period of low oil prices will make it extremely challenging for Saudi Arabia to keep up its massive social welfare programs, which are intended to keep social unrest under control. Given the political and social problems at home, Saudi Arabia cannot sustain supply at unduly high levels indefinitely. Further pressuring the Saudis is the country's pegged currency to the U.S. dollar. Saudi Arabia is now being hit with rising interest rates (and higher financing costs) in reaction to the U.S. Fed's recent rate hike. Rising financing costs, declining oil revenues and a slowing domestic economy are a toxic cocktail for Saudi Arabia. We think the Saudis will blink sooner rather than later.

In addition to Saudi Arabia's refusal to cut supply, oil prices have also been hit by the prospect that upon the removal of sanctions Iran will flood the market with rapidly escalating amounts of oil throughout 2016. We think this concern is overblown. Due to years of crushing sanctions, much of Iran's oil reserves are not yet developed. Its production infrastructure is outdated and needs substantial renovation and upgrading before the country can ramp up its production.<sup>22</sup>

### **Geopolitics**

Regional violence and political unrest also pose challenges to OPEC producers, potentially interrupting current production or delaying investment in oil infrastructure to sustain needed future supplies. Just four days before Christmas 2015, Saudi Arabia intercepted a ballistic missile fired by the Yemeni army towards certain oil installations in its southern region.<sup>23</sup> Such events, if they continue to escalate, would have an immediate and potentially lasting effect on lifting oil prices.

### **Low prices are the best fix for low prices**

If oil prices continue dropping from here, supply cutbacks will simply be accelerated. More short-term pain will lead to a faster price rebound. In other words, low prices are the best fix for low prices. Prolonged prices at current or lower levels will push many U.S. producers over the brink and seriously threaten OPEC countries outside of Saudi Arabia. At some point during 2016 the United Arab Emirates and other gulf allies will likely cut their own production, which will encourage the Saudis to follow suit. The same dynamic played out in 1998, when Saudi Arabia agreed to cut production along with Venezuela and Mexico after the 1997 oil slump, with other OPEC producers and non-OPEC producers falling in line subsequently.<sup>24</sup>

### **Financial market impact**

Aside from fundamental factors of demand and supply, the actions of financial market participants have also influenced oil prices via the derivatives markets. In a difficult market for many investors and asset classes, one winning bet this year has been to sell oil derivatives short, which produces profits if oil prices fall. Increasingly, hedge funds have been crowding into this same trade, pressing their bets and shorting oil prices ever more aggressively; they have in fact accumulated a record short position in oil.<sup>25</sup> It has been reported that the oil future and option markets are filled with shorts to a degree not seen in several years.<sup>26</sup> Since these hedge funds are pro price-momentum, they have no allegiance to the short or long side. When the downtrend is convincingly broken by economic fundamentals, the shorts will cover and push prices up, converting a downward spiral into an upward spiral.

The carnage in the energy markets in the past 18 months has decimated the stock prices of many companies that are directly or indirectly related to the energy industry. If we are correct in predicting rising oil prices in 2016, now is a good time to research attractive investments in the energy sector that is selling at multi-year lows. As always, it is important and prudent to focus on those companies that have adequate financial strength to survive the current downcycle and benefit from the eventual upcycle.

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