

## **Reflecting on Oil Supply 2017: Part I**

*by Jennifer Warren*

These are interesting times for economists charged with predicting oil markets. As the new year begins and the dust somewhat settles from challenging political and geopolitical climates, the question arises: what are the prospects for oil supply in the year ahead? Is the expected tightening of supply really going to manifest? First, OPEC and non-OPEC producers of Russia-plus have pledged to cut production of approximately 1.8 million barrels per day and their ability to comply with the caps is under scrutiny. Second, U.S. exploration and production companies, particularly those with a shale oil focus, are increasing production based on better pricing. Market prices, producer incentives and demand also play their parts on the stage of world oil, and more on that in a follow-up article.

### **OPEC's dilemma**

In late November 2016, OPEC announced it would reduce oil production levels by 1.2 million b/d to a ceiling of 32.5 million, beginning in January. Bloomberg [estimates](#) OPEC produced 33.1 million in December, down over 300,000 barrels since November. Still, [according](#) to the Energy Information Administration (EIA), OPEC crude oil production is expected to average 33.2 million b/d in 2017. USAEE member and oil market economist Anas Alhajji notes, "Some OPEC members, especially Saudi Arabia, are serious about the cut. When it comes to production cuts, Saudi Arabia matters the most." He says OPEC would need to shave off 2 million b/d from December's output to meet its target, but that a cut of 1.2 million b/d is sufficient to increase prices. As for the forces driving prices in 2017, Alhajji cautions that production increases in both Libya and Nigeria, countries that abstained from any cuts, could have an impact as well.

In the past, OPEC production quotas have been predictably unpredictable. It is possible that the latest round will fall prey to an "animal spirits" syndrome in hindsight — "a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities." The urge to action is not spontaneous, but the intentions are good and the real options challenging. According to James Smith, USAEE's immediate past president and financial economist at Southern Methodist University, he expects about 75% of the cuts to occur in the first couple of months, but then production begins expanding again, resulting in a limited and temporary impact on prices. "The agreement among the parties is not "incentive compatible" from the perspective of economics," Smith states.

### **Incompatible incentives**

In the grand scheme of production cuts, this incompatibility, specifically smaller producers ex-Saudi Arabia and Russia, stems from these producers' output comprising a small fraction of world output. "Their production levels have no perceptible impact on the market price," Smith adds. "However, their production levels have a large impact on their own revenues, which rise due to extra sales

gained from departing from the agreement." With no enforcement mechanism, a repeat of violations by OPEC countries is expected to happen again, as in the past.

Then there is the case of the many thousands of U.S. oil and gas producers, beholden to their own company-level economic incentives. As prices for West Texas Intermediate crude oil approached and passed the \$50 per barrel mark, numerous U.S. producers began increasing production. In the Energy Information Administration's [recent](#) forecast, U.S. crude oil production is forecast to average 8.9 million b/d in 2016 and 8.8 million b/d in 2017. Incidentally, about 500,000 barrels per day of crude oil were [exported](#) through October 2016, with more than half arriving at shores other than Canada, the chief U.S. export market. According to Smith, "each shale producer is a price taker. Every barrel of shale oil that can be developed economically will be developed and put on the market," he relays.


In the Permian Basin, for example, a falling rig count began to increase in June of 2016. In the October to November period, rigs increased by 16 to 223 in the region that has seen less production declines (even gains) relative to others.<sup>1</sup> One executive of a top Texas-based independent oil and gas firm expects 100 rigs to be added over a year from a late September [statement](#). With economic incentives similar to the smaller OPEC countries, "Their collective production may drive the price down—to their collective misfortune," Smith surmises. U.S. shale production increases are not expected to reduce prices but limit an increase, according to Alhajji.

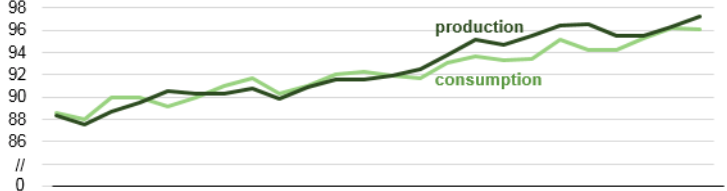
### **The price is right?**

Suffice to say, supply could conceivably be kept in check for 2017, mirroring demand growth. "Shale may dampen longer term price movements, but not short-term volatility," notes Smith. Demand for oil in general and demand growth in particular are difficult to predict in this post-financial crisis world, one in which monetary policy has been playing an outsized role in investment decisions. The jury may still be out regarding the new normal.

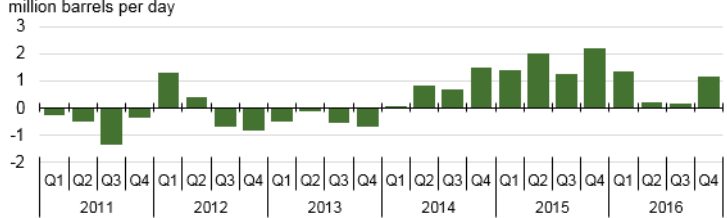
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<sup>1</sup> See December 16, 2016 [report](#) at the Dallas Federal Reserve Bank.

**Global production and consumption of crude oil and other liquids (quarterly, 2011-16)** 



**Implied stock change (quarterly, 2011-16)**



Source: U.S. Energy Information Administration, [Short-Term Energy Outlook](#), December 2016