

Signs of Recovery Emerge in the U.S. Oil Market

Third Quarter 2016

Signs of recovery have appeared in the U.S. energy sector over the past quarter, most notably in the Permian Basin, where drilling activity picked up modestly and oil production appears to have bottomed out. A significant rebound in U.S. drilling activity requires more time, however, as oversupply persists in the oil market and prices remain below \$50 per barrel. The recent Organization of the Petroleum Exporting Countries (OPEC) announcement of its agreement to cut production increased uncertainty about when the global oil market will rebalance.

Drilling Activity Resuscitated

After experiencing a nearly 20 percent plunge in July, oil prices recovered in mid-August and hovered in the mid to upper \$40s per barrel through September. West Texas Intermediate crude averaged about \$46 per barrel in the third quarter, very close to the second-quarter average.

Although volatile, prices have remained high enough to convince some companies to return to the oil patch. The number of rigs drilling for oil in the U.S. has increased by 95 since late June to 425 rigs at the end of September.

Much of the increase has been in the Permian Basin, where the rig count has risen since the end of May, approaching where it began the year (*Chart 1*). In addition to more rigs operating in the area, a flurry of mergers and acquisitions during the summer suggests a nascent recovery.

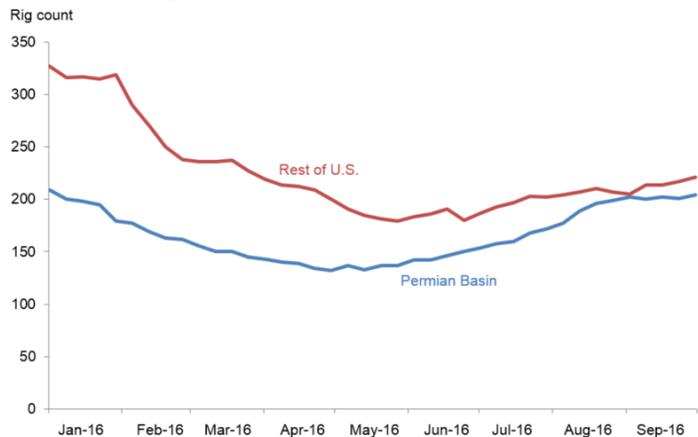
Increased activity in the Permian Basin and elsewhere has affected employment in the Texas mining sector, which rose slightly in August—its first increase since late 2014 (*Chart 2*).

While drilling activity has edged up, industry participants believe it will be awhile before activity significantly increases. When queried in the third quarter 2016 [Dallas Fed Energy Survey](#), most respondents said prices need to exceed \$55 per barrel for solid gains to occur, with a ramp-up unlikely until at least second quarter 2017.

U.S. Production More Resilient than Expected

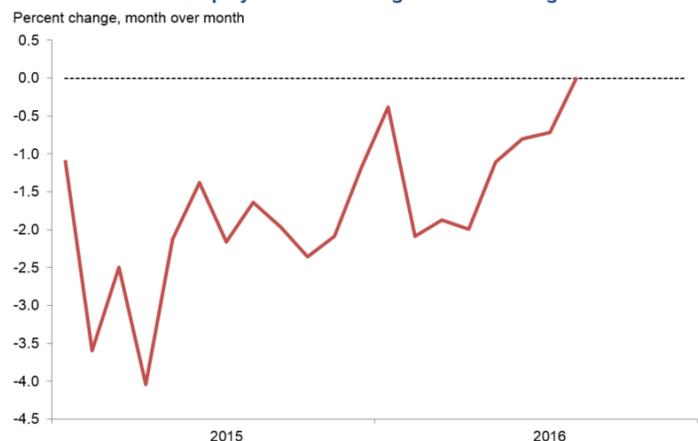
Renewed drilling, along with several other factors, has led to upward revisions in U.S. Energy Information Administration (EIA) data and forecasts for U.S. crude oil production. In its September forecast, the EIA estimated that U.S. crude pro-

Chart 1
Permian Basin Rig Count Back Above 200



SOURCE: Baker Hughes.

Chart 2
Texas Oil and Gas Employment Shows Slight Growth in August



SOURCES: Bureau of Labor Statistics; Federal Reserve Bank of Dallas.

duction will stabilize at around 8.6 million barrels per day for an extended period (*Chart 3*). Increased production in the Gulf of Mexico is expected to offset further declines in most shale areas.

Agency Pushes Back Timing of Market Balance

Amid signs of softer-than-expected demand and continued upside surprises to global supply, the International Energy Agency (IEA) recently increased its estimates for excess supply in the global oil market. The agency no longer believes the oil market will be in balance in the second half of 2016 (*Chart 4*).

Instead, rebalancing has been pushed out to the second half of 2017.

Significant downward adjustments to third-quarter global demand came from China, which has experienced lackluster gasoline and diesel consumption alongside a significant increase in its exports of these fuels. Third-quarter demand was even weaker than anticipated due to flooding and other factors. China's petroleum product consumption growth in 2016 is projected to be the lowest in the past decade, according to the IEA.

There were also some major supply-side revisions, both to OPEC and non-OPEC countries. The OPEC forecasts, however, are now subject to additional uncertainty due to OPEC's recent announcement to cut supply.

OPEC Agreement Clouds Timing of Balance

At the September International Energy Forum, OPEC members agreed to cut oil production to help speed market rebalancing. The agreement occurred at a time when the price of crude oil was stagnant at around \$45 per barrel. The announced deal would put OPEC-14 production between 32.5 and 33.0 million barrels per day.¹ While more details are expected during OPEC's official November meeting, the market reacted with a 6 percent increase in crude oil price the day of the announcement, Sept. 28.

While the agreement appears to be a solid step toward OPEC's goal of pushing crude prices higher, ambiguities could limit its ultimate success. For example, the agreement makes exceptions for Nigeria, Libya and Iran, allowing them to increase production. A significant amount of production remains offline in both Nigeria and Libya. While complete resolution of these outages is unlikely, if this production comes back online and other countries refuse to offset that increase, total OPEC production would be quite high (*Chart 5*). Several other issues remain as potential roadblocks, including which countries will be forced to cut output and by how much, what mechanisms would be used to verify that production cuts have actually occurred and which set of production numbers will be used.

Finally, while OPEC's action may provide a short-run benefit to all oil producers, the benefits to OPEC members in the medium- and long run will be smaller. In the long run, non-OPEC producers can increase production in response to higher prices, which would eventually replace any lost OPEC production and once again depress prices.

—Rachel Brasier, Justin J. Lee and Michael D. Plante

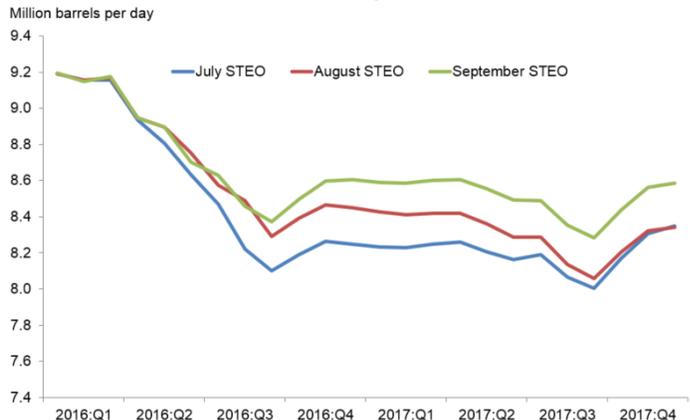
Note

- OPEC-14 consists of Algeria, Angola, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela.

About the Authors

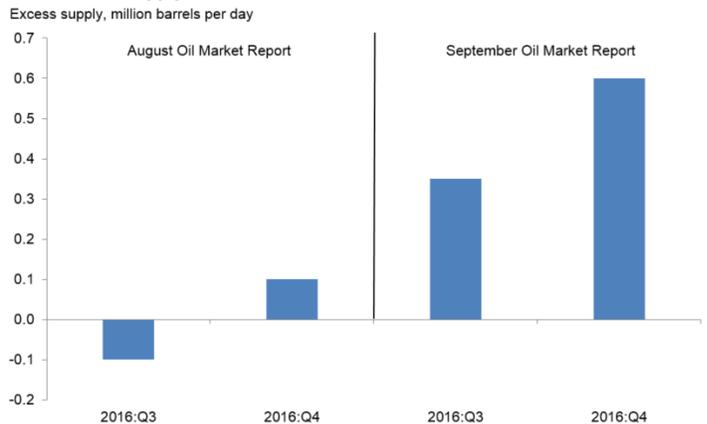
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Chart 3
U.S. Oil Production Forecasts Revised Up



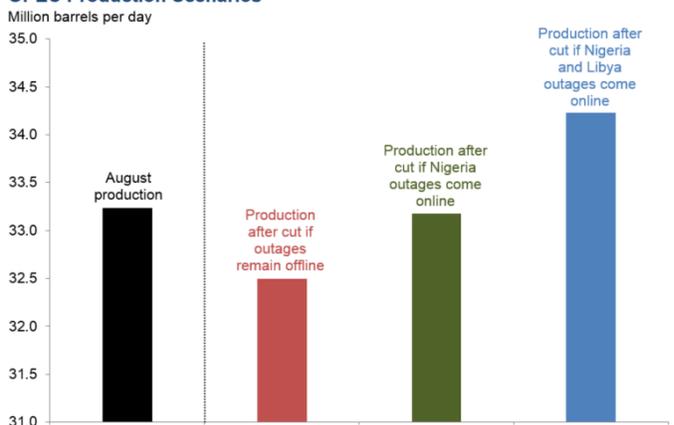
NOTE: STEO stands for Short-Term Energy Outlook.
SOURCE: Energy Information Administration.

Chart 4
Greater Oversupply Predicted for Second Half of 2016



SOURCE: International Energy Agency.

Chart 5
OPEC Production Scenarios



SOURCES: Energy Information Administration; Organization of the Petroleum Exporting Countries.