Tenth Federal Reserve District
Energy Survey Outlook

AAPG Meeting

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As the size of the oil and gas sector rose again after the financial crisis, we started a survey.

**Oil and Gas Sector Share of GDP**
1997-2017

*Oil & Gas Sector = NAICS 211 + NAICS 213; 2016-17 estimates based on size of overall Mining sector*

Source: U.S. Bureau of Economic Analysis; author’s calculations
In our Q2 survey, growth was expected to slow in second half 2017, with credit access stable.
Oil breakeven prices have come down, but oil was expected to stay around $50 through 2018.

Tenth District Energy Survey Oil Profitable Price and Near-term Expectations

- Profitable Range
- Profitable 1 SD*

* SD = Standard Deviation

Source: FRBKC Energy Survey, EIA, CME
Profitability in the natural gas sector has been even more challenging in recent years

Tenth District Energy Survey Natural Gas Profitable Price and Near-term Expectations

Profitable Range
Profitable 1 SD*

Henry Hub Prices & Futures
Profitable Henry Hub
Expected Henry Hub (avg)
Expected Henry Hub (range)
Expected Henry Hub (1SD)

* SD = Standard Deviation

Source: FRBKC Energy Survey, EIA, CME
Looking further into the future, respondents’ views on especially their oil price outlook vary widely.

**Kansas City Fed Energy Survey Special Questions**

- **Oil (WTI)**
  - Current price (10-02-17): $51.67
  - Profitable price (Q1-17): $51
  - Price expected in 2 years (Q2-17): $54
  - Price expected in 5 years (Q2-17): $61

- **Natural Gas (Henry Hub)**
  - Current price (10-02-17): $3.00
  - Profitable price (Q1-17): $3.38
  - Price expected in 2 years (Q2-17): $3.25
  - Price expected in 5 years (Q2-17): $3.51

Source: FRBKC Energy Survey, CME
“U.S. activity will curtail to some degree before year end due to poor returns and market balance will be achieved sometime in 2018. There is too much under-exploited oil supply for prices to rise to 2013 levels for some time.”

“The rig count pace of growth is going to slow significantly and probably flat line. The industry has a significant number of drilled but uncompleted wells and this inventory is growing every day.”

“The current rise in the rig count is a harvesting operation within the shale plays. Very little exploration seems to be occurring at the moment.”

“There are huge volumes of natural gas everywhere. Every oil well being drilled has significant associated natural gas.”

“Public companies overpaid for Permian assets and must show reserve and production growth, so drilling will continue to escalate for several months in the Permian, no matter the price. Other basins may counter that a bit when prices are uneconomic.”

Third quarter survey results available Friday, October 13 at 10:00 CST at: https://www.kansascityfed.org/research/indicatorsdata/energy