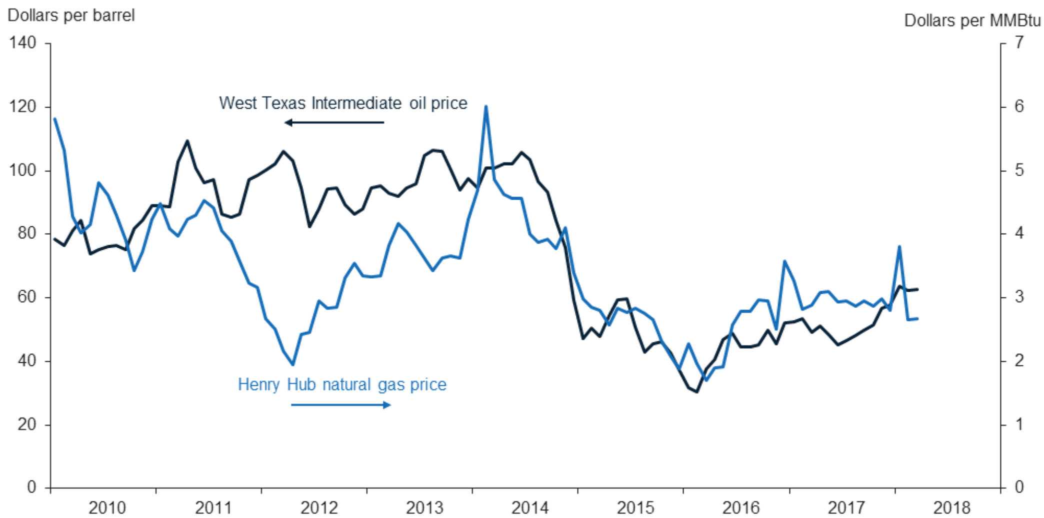
## April 2018

The Texas oil and gas sector remained strong through March. Prices for West Texas Intermediate (WTI) crude oil rose slightly in March, staying close to $63 per barrel. Oil production in the Permian Basin and Eagle Ford rose again. Texas oil and gas employment spiked up in February and is at its highest level since late 2015. U.S. Liquefied Natural Gas (LNG) exports are at an all-time high and projected to increase further this year.

## Oil and Natural Gas Prices

The average WTI spot price edged up from $62.23 per barrel in February to $62.72 in March (*Chart 1*). Continuing declines in total U.S. crude and refined product inventories, coupled with ongoing strong OPEC compliance, provided support for prices of WTI in March.

**Chart 1**
**Oil and Natural Gas Prices**



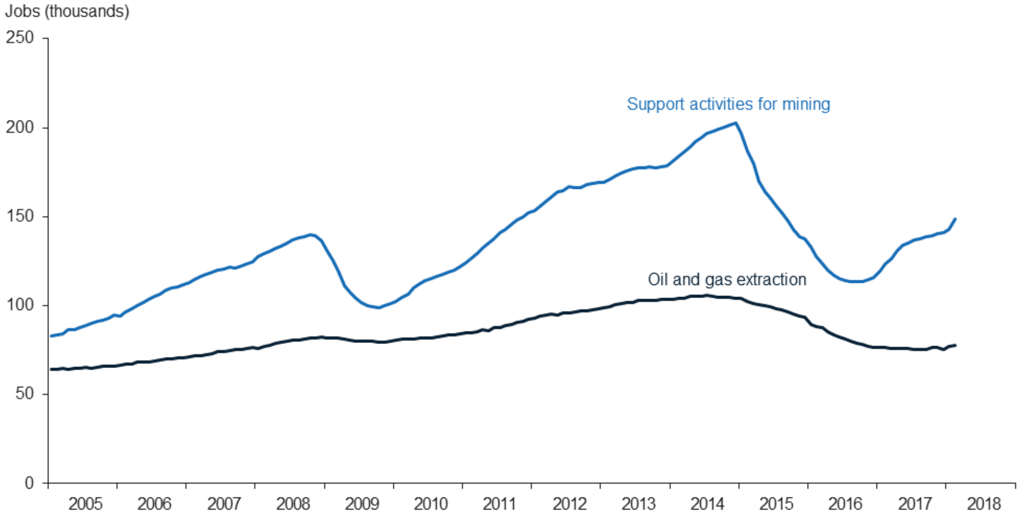

NOTE: MMBtu stands for million British thermal units.
SOURCES: Energy Information Administration (West Texas Intermediate); *Wall Street Journal* (Henry Hub).

Henry Hub natural gas prices were relatively flat at $2.67 per million British thermal units (MMBtu). U.S. dry gas production in March was 11 percent higher than a year ago, hitting an all-time high of 79.2 billion cubic feet per day (Bcf/d). Despite current U.S. natural gas inventories being below the five-year average, prices continue to remain subdued as market participants anticipate there will be ample supply to meet demand this year.

## Employment

Texas oil and gas employment increased by 6,600 jobs in February to roughly 226,300 (*Chart 2*). This marks the 15th consecutive monthly increase in Texas energy-sector employment. Support activities for mining added 5,800 jobs, and payrolls in oil and gas extraction increased by 700. In the latest Dallas Fed Energy Survey, 51 percent of executives expect the number of employees at their firm in 2018 to increase from 2017.

**Chart 2**
**Texas Oil and Gas Employment**



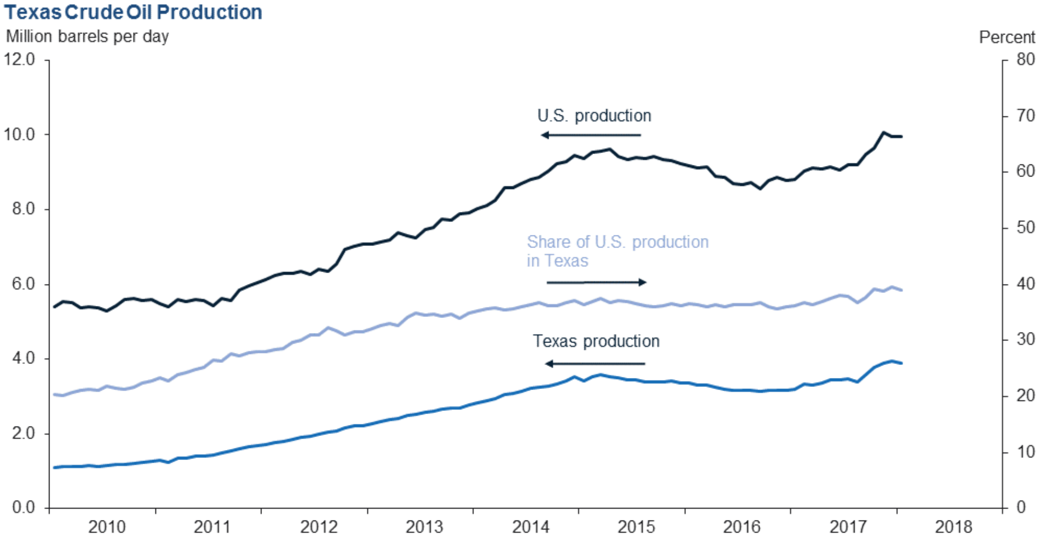

SOURCES: Bureau of Labor Statistics; seasonal and other adjustments by the Dallas Fed.

## Production

### Texas Production Grows, Becoming Larger Share

The latest monthly data from the Energy Information Administration (EIA) show Texas produced 3.9 million barrels per day (mb/d) of crude oil in January, while total U.S. production was slightly below 10.0 mb/d (*Chart 3*). The share of Texas production has steadily increased from 20 percent at the start of 2010 to 39 percent in January 2018, driven primarily by rising production in the Permian Basin. U.S. production is expected to average 10.7 mb/d in 2018.

**Chart 3**
**Texas Crude Oil Production**

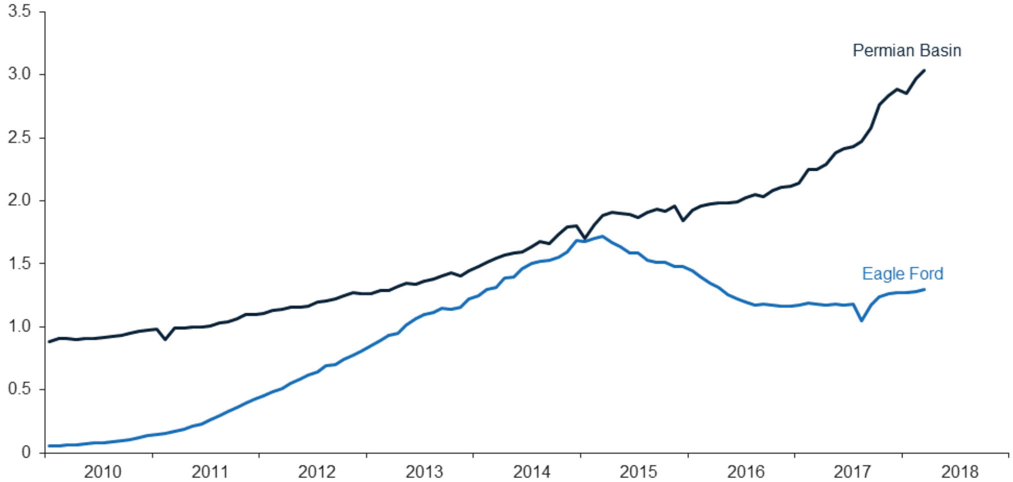



SOURCE: Energy Information Administration, *Petroleum Supply Monthly*, March 2018.

### Permian Production Continues to Rise

Estimated Permian Basin production rose in March by 64,600 barrels per day (b/d) to 3.04 mb/d (*Chart 4*). Eagle Ford production was also up 11,400 b/d to 1.30 mb/d. Operating rigs numbered 443 in the Permian Basin and 72 in the Eagle Ford at the end of March. Limited takeaway capacity in the Permian, which has not kept up with the rising production, led to a steep decline in spot prices for Midland WTI relative to Magellan East Houston crude in March.

**Chart 4**
**Eleventh District Oil Production**
Million barrels per day




SOURCE: Energy Information Administration, *Drilling Productivity Report*, April 2018.

## LNG Exports

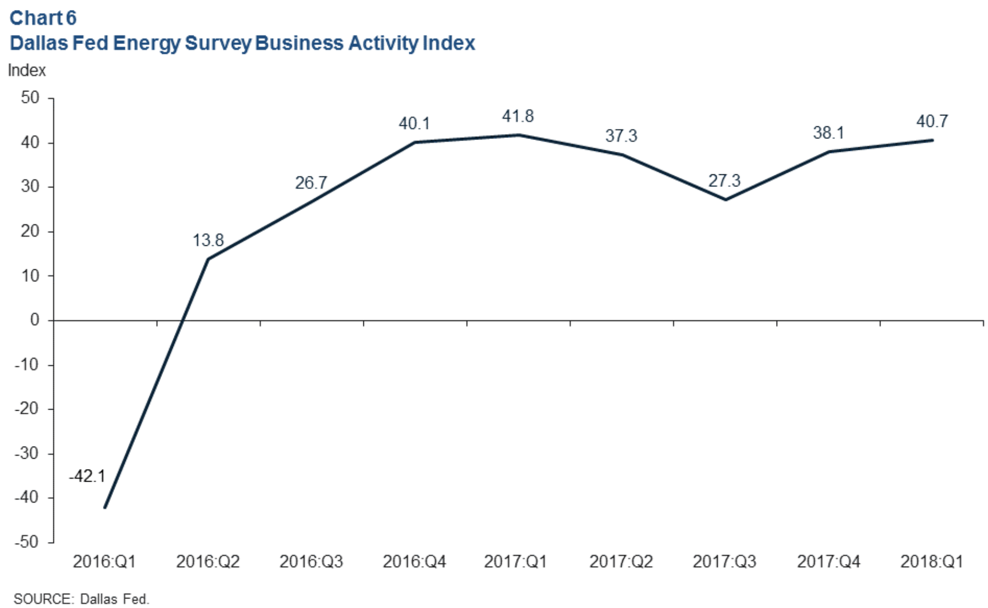
U.S. LNG exports inched up to 2.9 Bcf/d in March (*Chart 5*). The Dominion Cove Point LNG facility in Maryland exported its first cargo in early March, helping bump up U.S. export volumes. The EIA projects U.S. LNG exports will end the year at 3.8 Bcf/d as additional export facilities are completed. In Texas, the first export facility projected to come online is Freeport LNG, scheduled for fourth quarter 2018.

**Chart 5**
**U.S. Liquefied Natural Gas Exports**
Billion cubic feet per day


NOTE: Dashed line denotes forecasted value for April 2018 to December 2018.
SOURCE: Energy Information Administration, *Short-Term Energy Outlook*, April 2018.

## Energy Survey

Activity in the Eleventh Federal Reserve District's energy sector expanded robustly in first quarter 2018, according to the Dallas Fed Energy Survey. The business activity index—the survey's broadest measure of business conditions—climbed roughly three points to 40.7, driven by the oilfield services side of the industry (*Chart 6*). Special questions in this quarter's survey found that firms need on average $52 per barrel to drill a new well and $35 per barrel to cover operating expenses for existing wells.




Additional charts of interest can be found in the Dallas Fed's monthly energy slideshow.
https://www.dallasfed.org/research/energy/slideshow.aspx

## About Energy Indicators

Questions can be addressed to Kunal Patel at kunal.patel@dal.frb.org. *Energy Indicators* is released every third Thursday of the month and can be received by signing up for an email alert. For additional energy-related research, please visit the Dallas Fed's energy home page.