

The Oil Market: From Boom to Gloom



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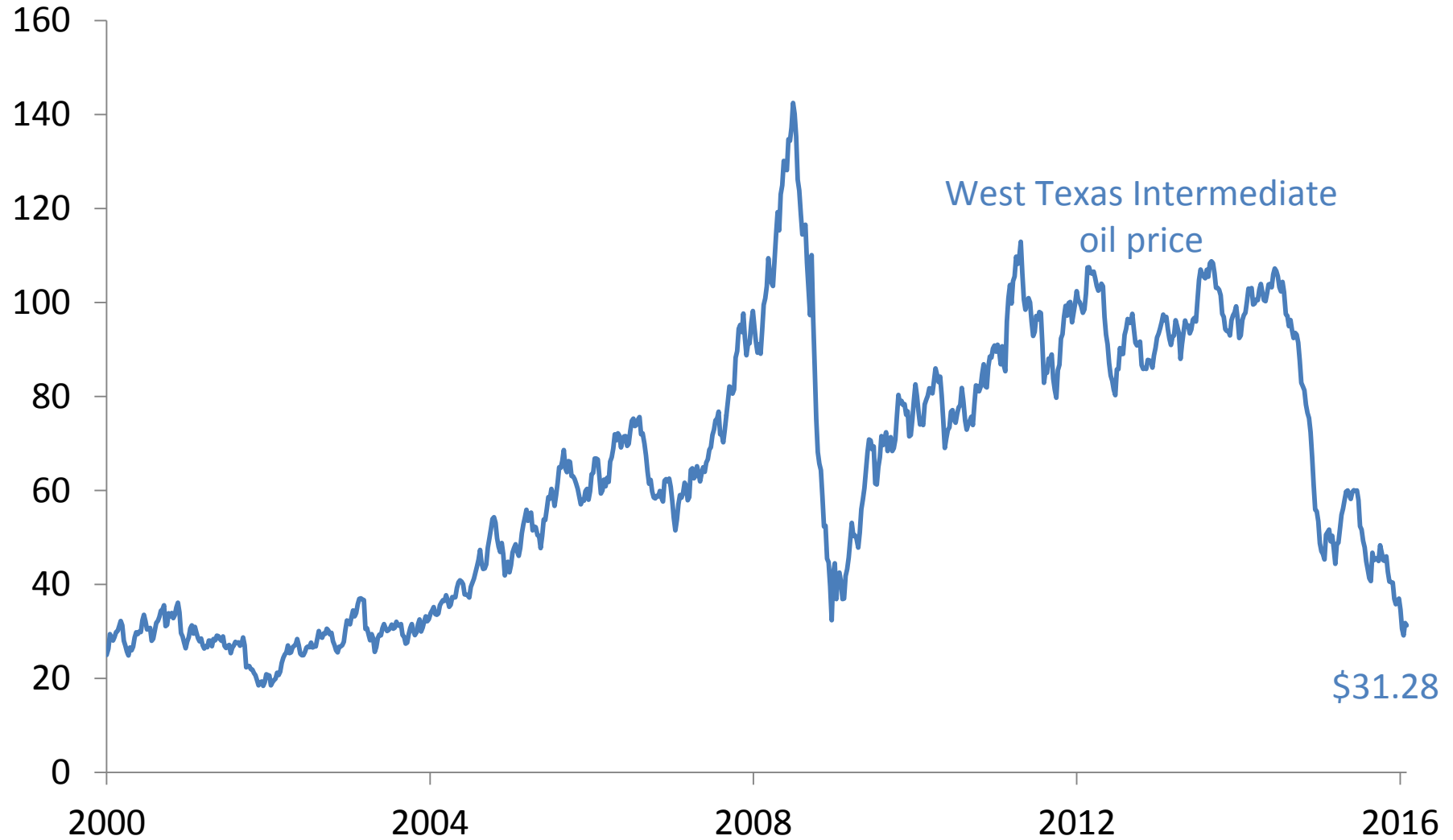
Federal Reserve Bank of Dallas

February 12, 2016

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Oil prices plunge

Nominal price, dollars per barrel, weekly



\$31.28

NOTE: Final data point is the average of daily prices from Monday 2/1/16 to Friday 2/5/16.

SOURCE: Energy Information Administration.

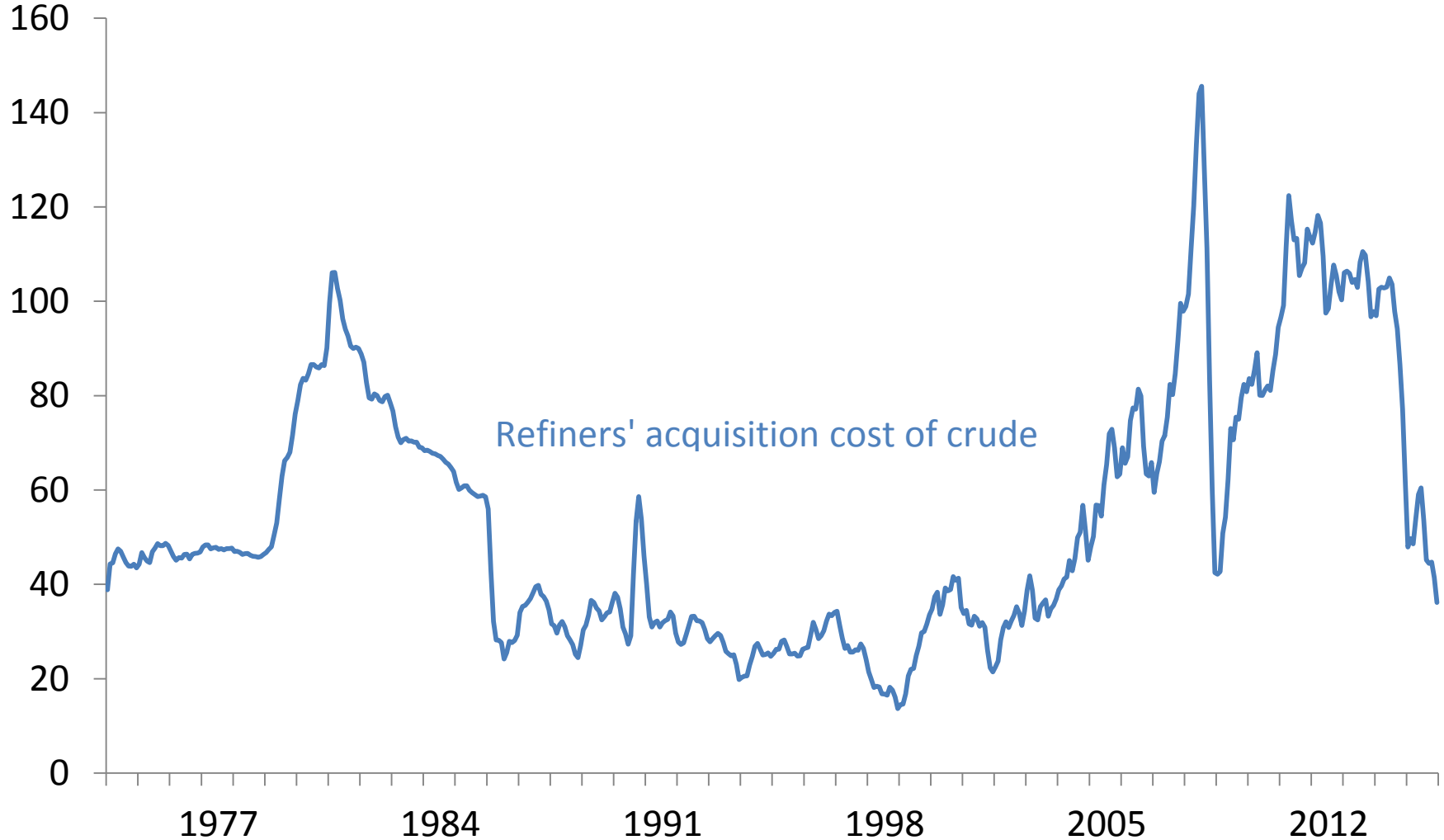
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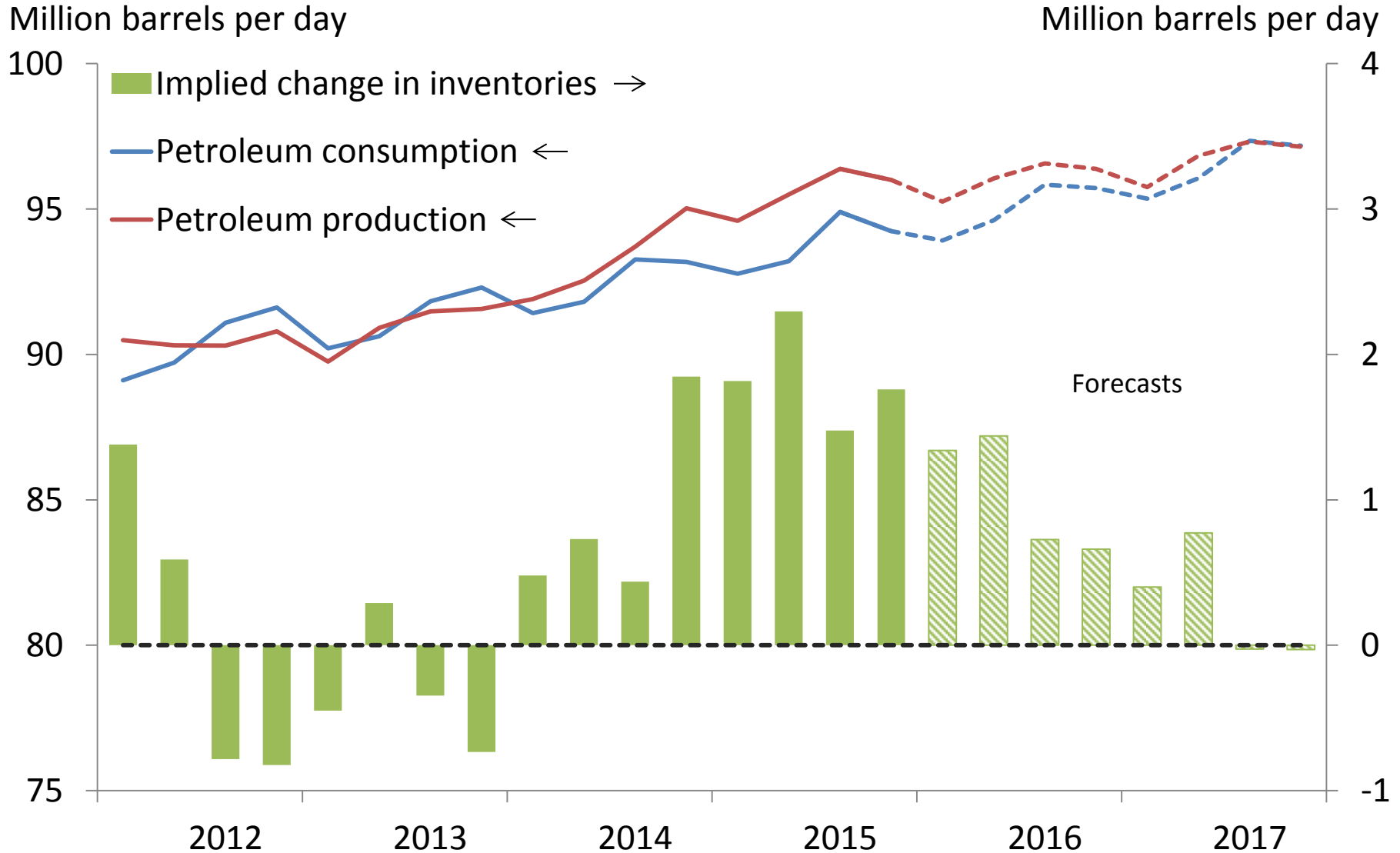
Current oil prices not a record low

Real prices of crude oil (December 2015 dollars)

Dollars per barrel



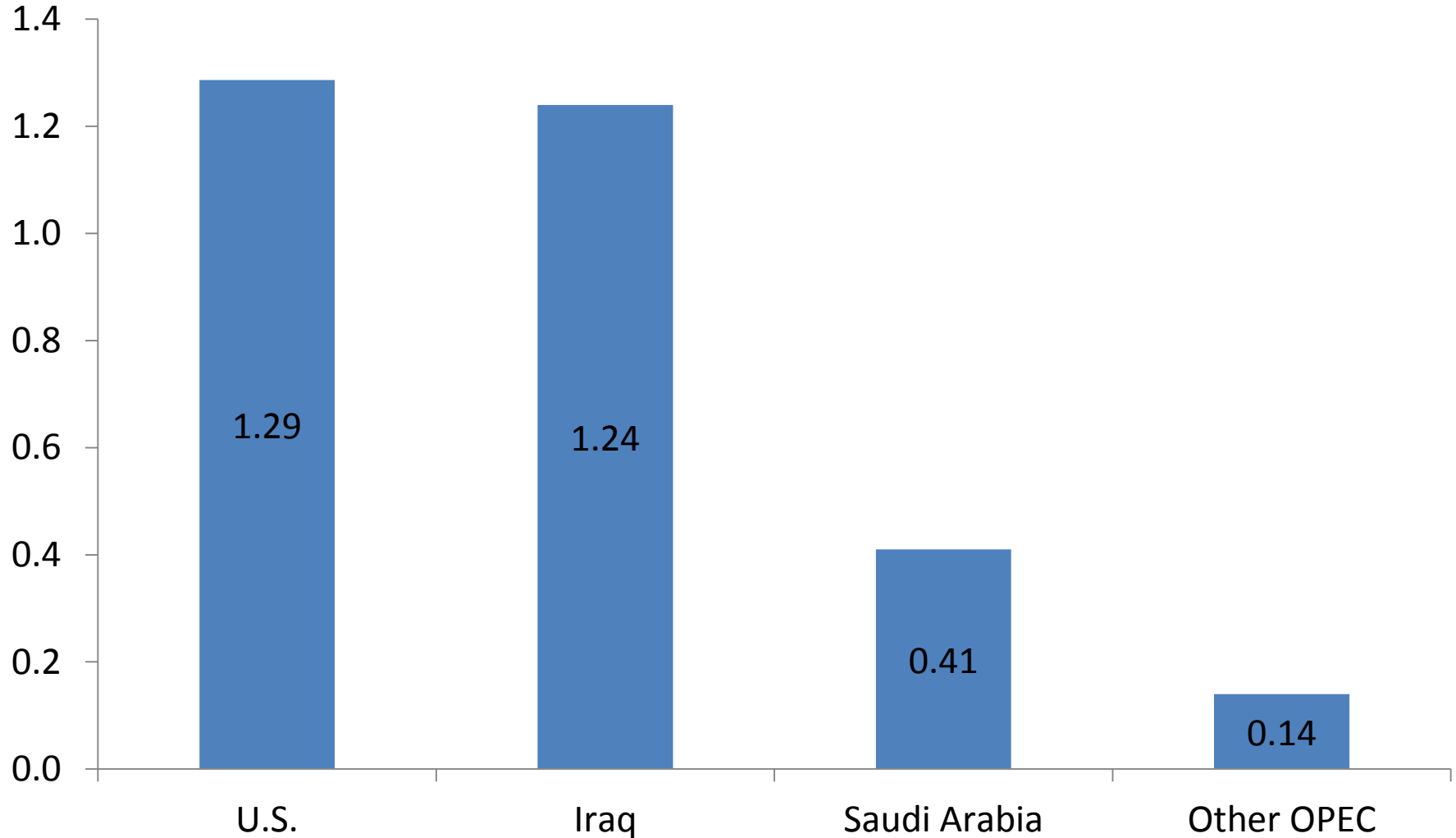
Supply/demand mismatch



U.S. and OPEC keep oil market oversupplied

Growth in oil production, January 2014-November 2015

Million barrels per day



SOURCES: Energy Information Administration; Oil Market Report.

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Why the recent slide in prices?

- Iran comes into the market
- U.S. output stronger than expected
- Concerns about Chinese demand
 - The big picture from the oil data: healthy consumer, sick manufacturing
- December unusually warm
 - Heating degree days (HDD) in the NE US were 33% below their 10-year average in December.
- Weather forecasts adding downside risk to prices
 - High likelihood of warm weather in various parts of the OECD through 2016Q1.

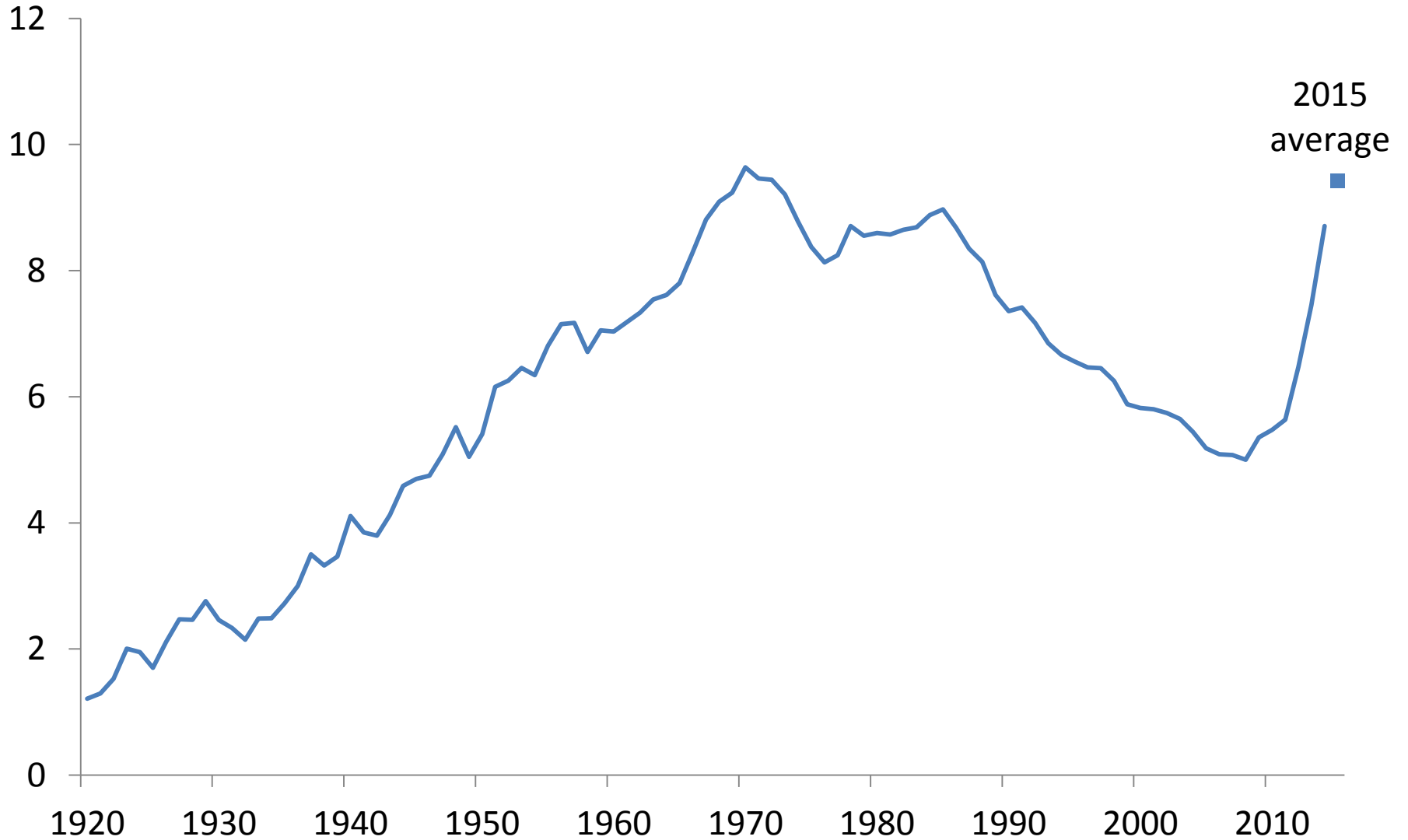


IMPACT ON U.S. ECONOMY



U.S. oil production

Million barrels per day



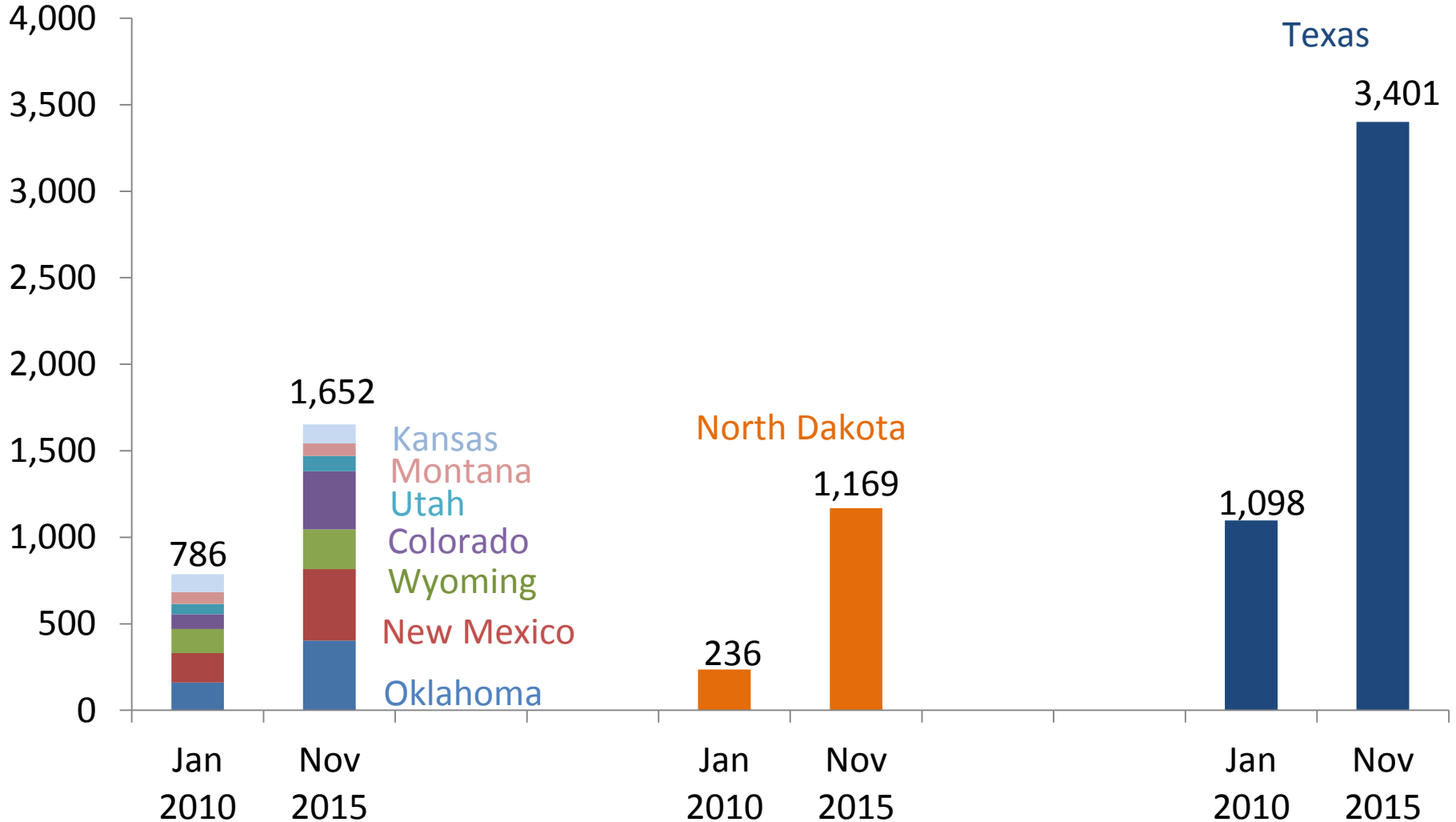
SOURCE: Energy Information Administration.

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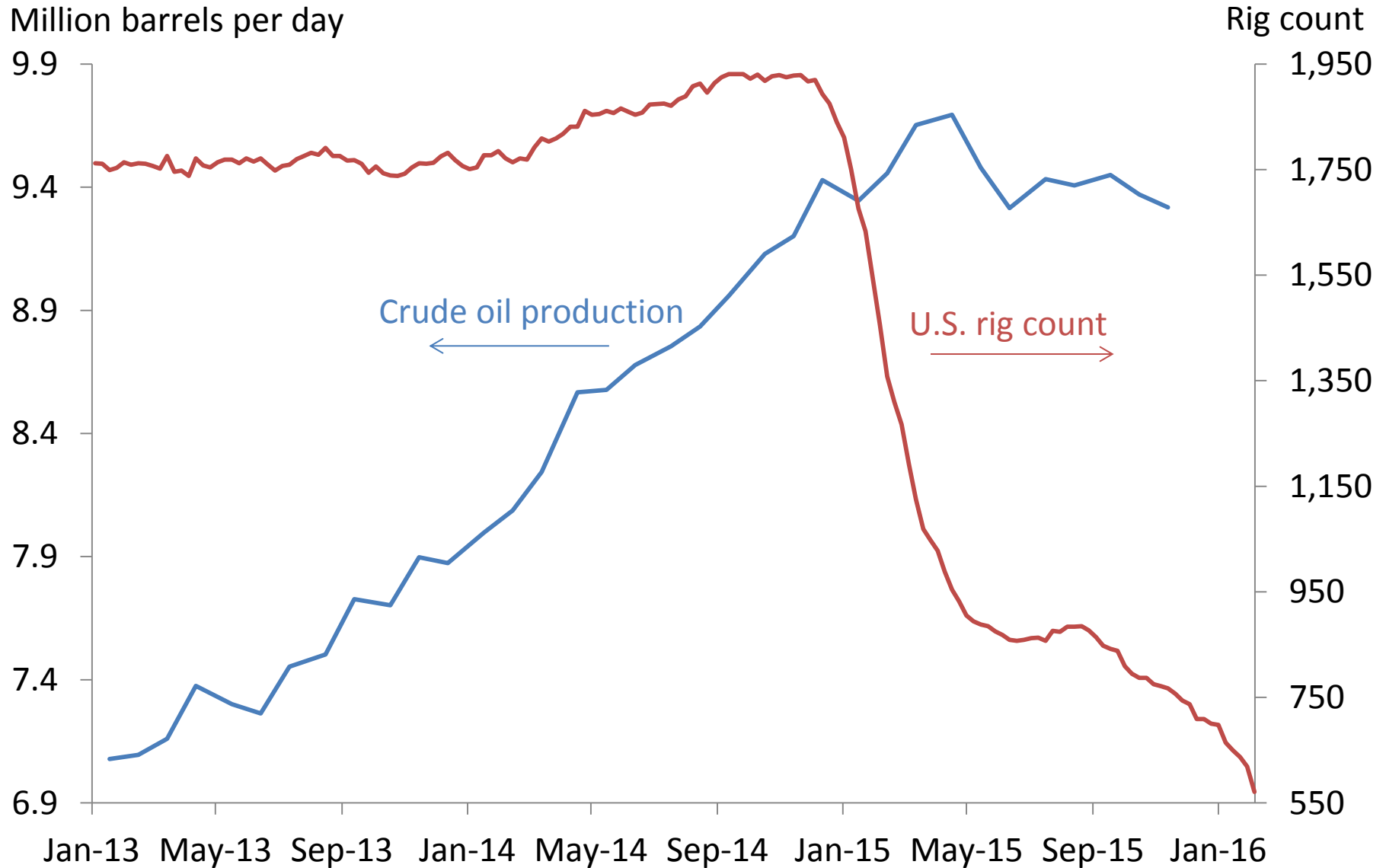
U.S. crude oil production from shale

Thousand barrels per day



SOURCE: Energy Information Administration.

Oil production levels off

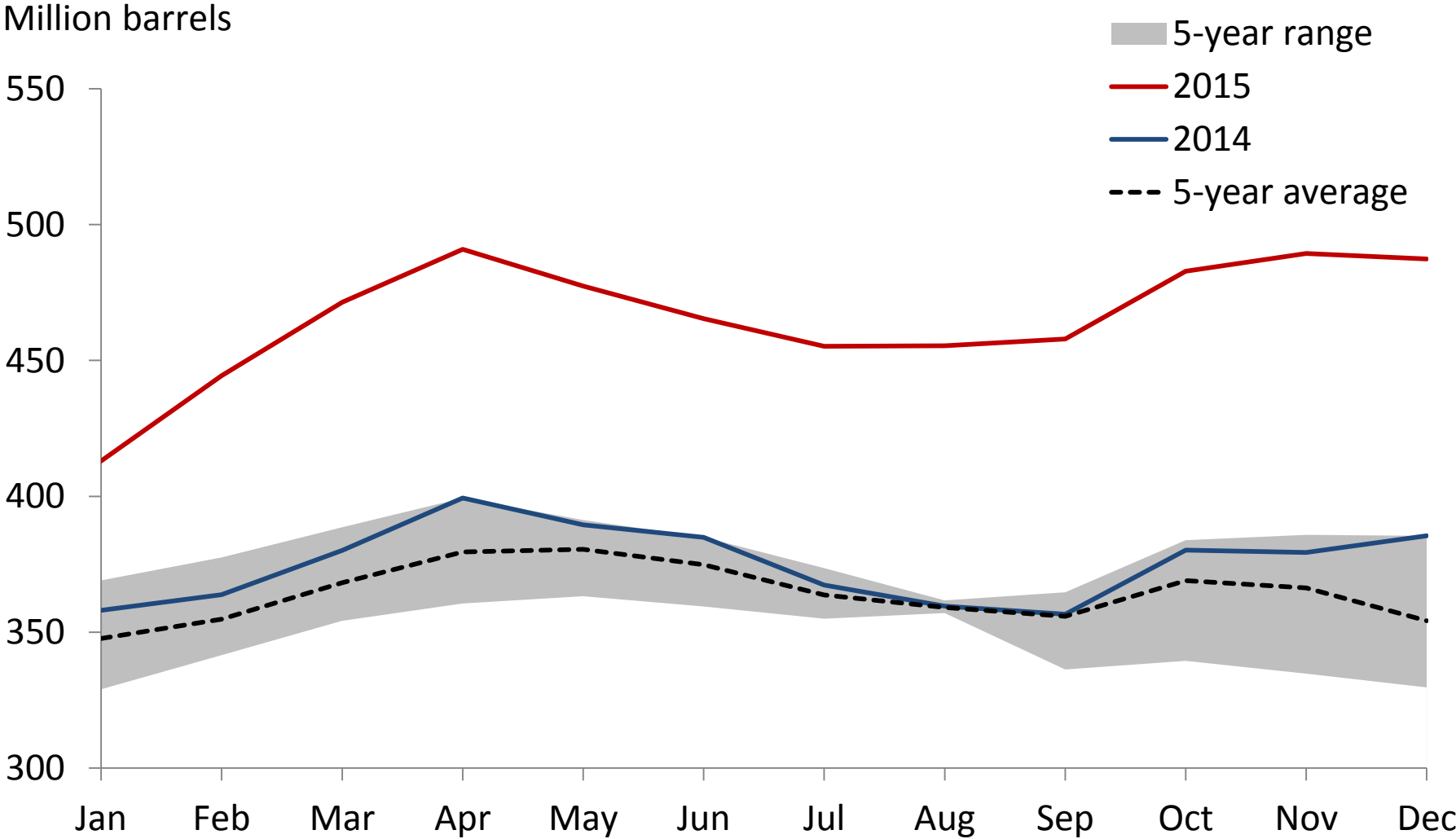


SOURCES: Baker Hughes; Energy Information Administration.

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Crude oil inventories at 80-year highs

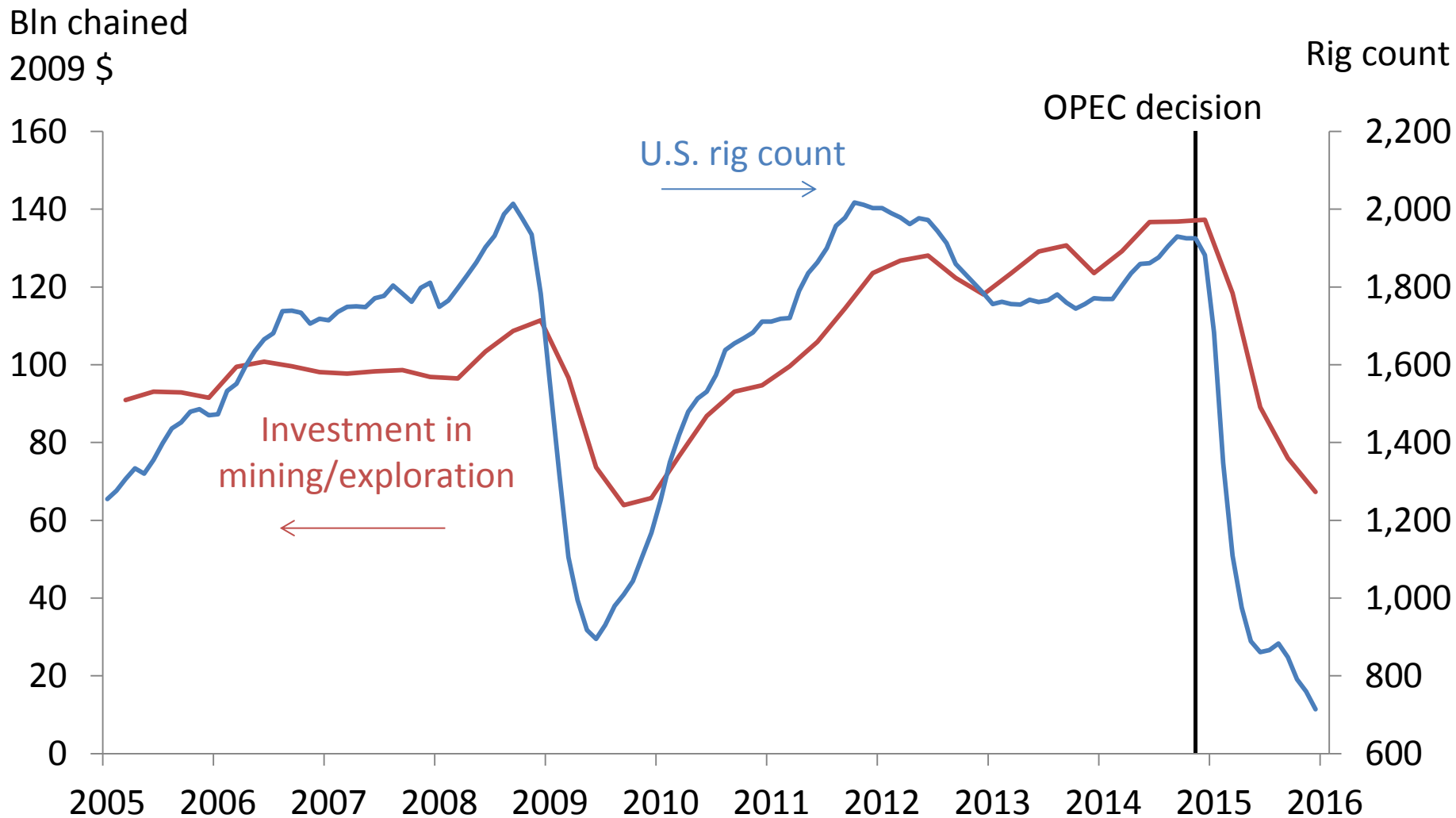


SOURCE: Energy Information Administration.



Drilling investment falls with rig count

Private fixed investment in mining/exploration



SOURCES: Baker Hughes; Bureau of Economic Analysis.



Impact on U.S. economy

- The U.S. benefits from lower oil prices
- Boosts consumer disposable income
 - PCE growth: 3.6% in 2Q, 3.2% in 3Q and 2.2% in 4Q 2015
 - Auto sales up 9% in 2015
- Reduces the cost of energy to firms
- Reduces profitability of producing oil
 - Layoffs, capex declines and bankruptcies in oil patch
- A 50% fall in oil prices may lead to a 0.3% to 1.0% increase in GDP (depending on the model)
- Headline inflation falls

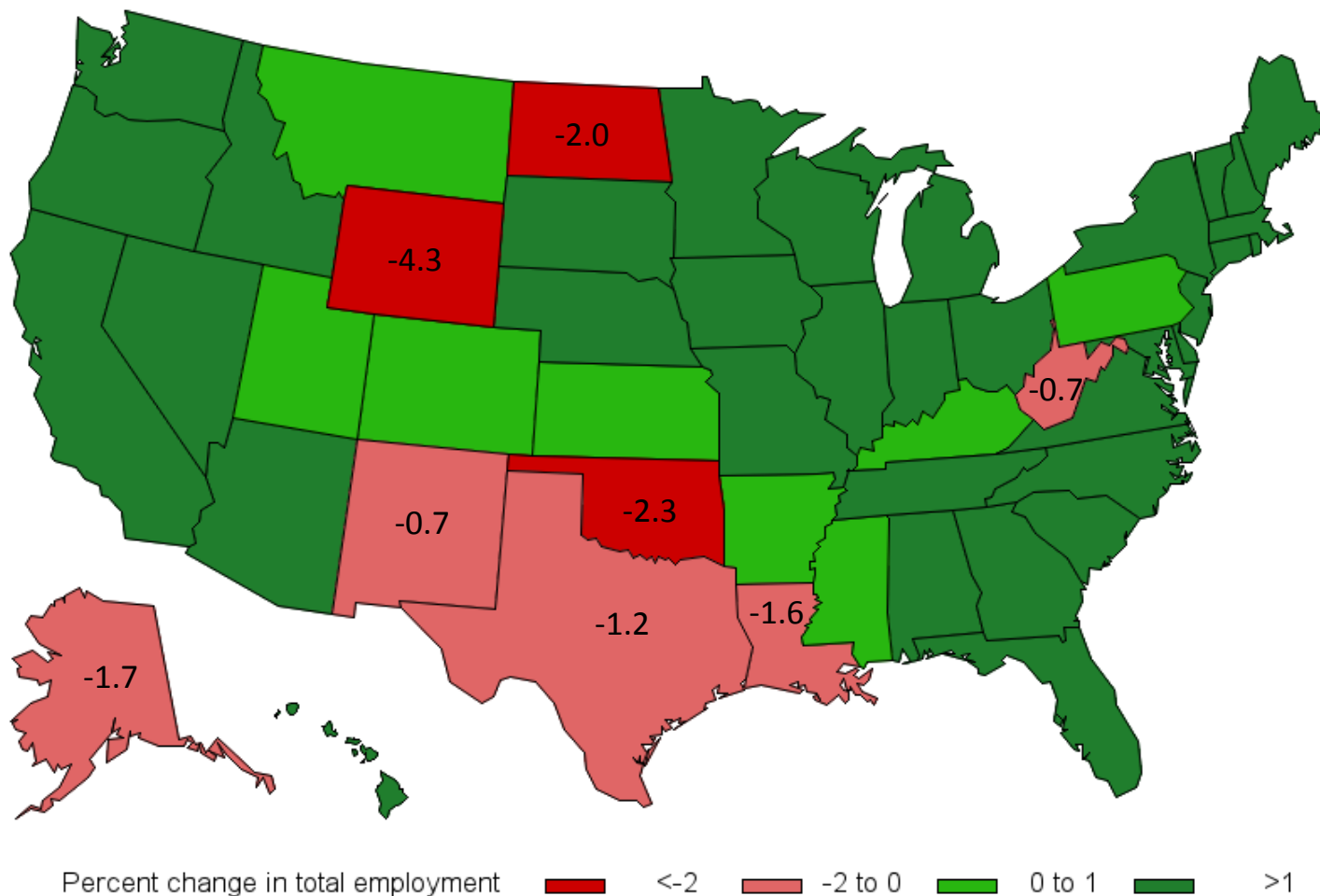


IMPACT ON STATE ECONOMIES



Low oil prices benefit most states

(Effect of a 50% decline in oil prices on employment)



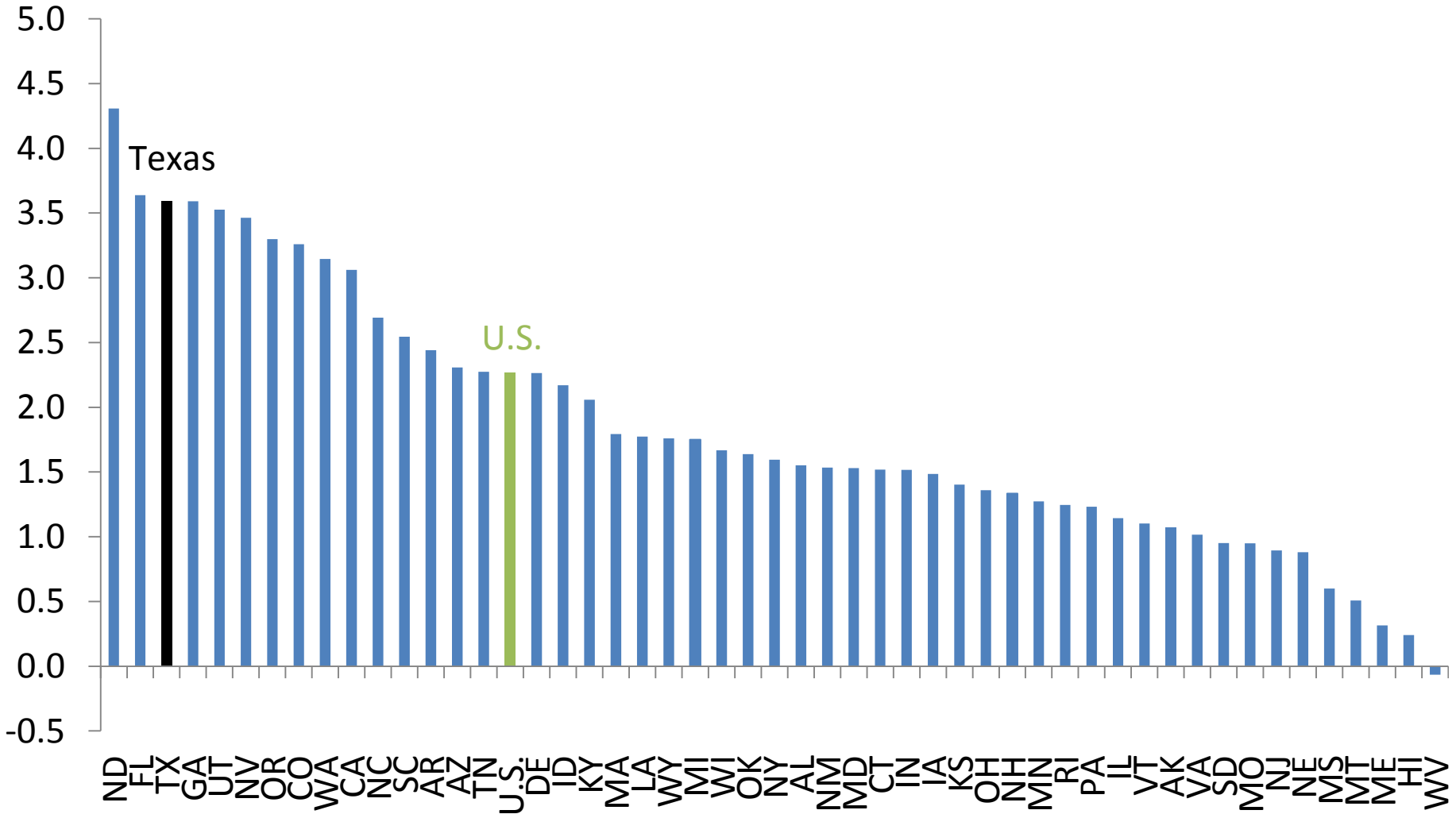
SOURCE: "The Shale Gas and Tight Oil Boom: U.S. States' Economic Gains and Vulnerabilities," by Stephen P.A. Brown and Mine K. Yücel, Council on Foreign Relations, *Energy Brief*, Oct. 2013.

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Energy states doing well in 2014

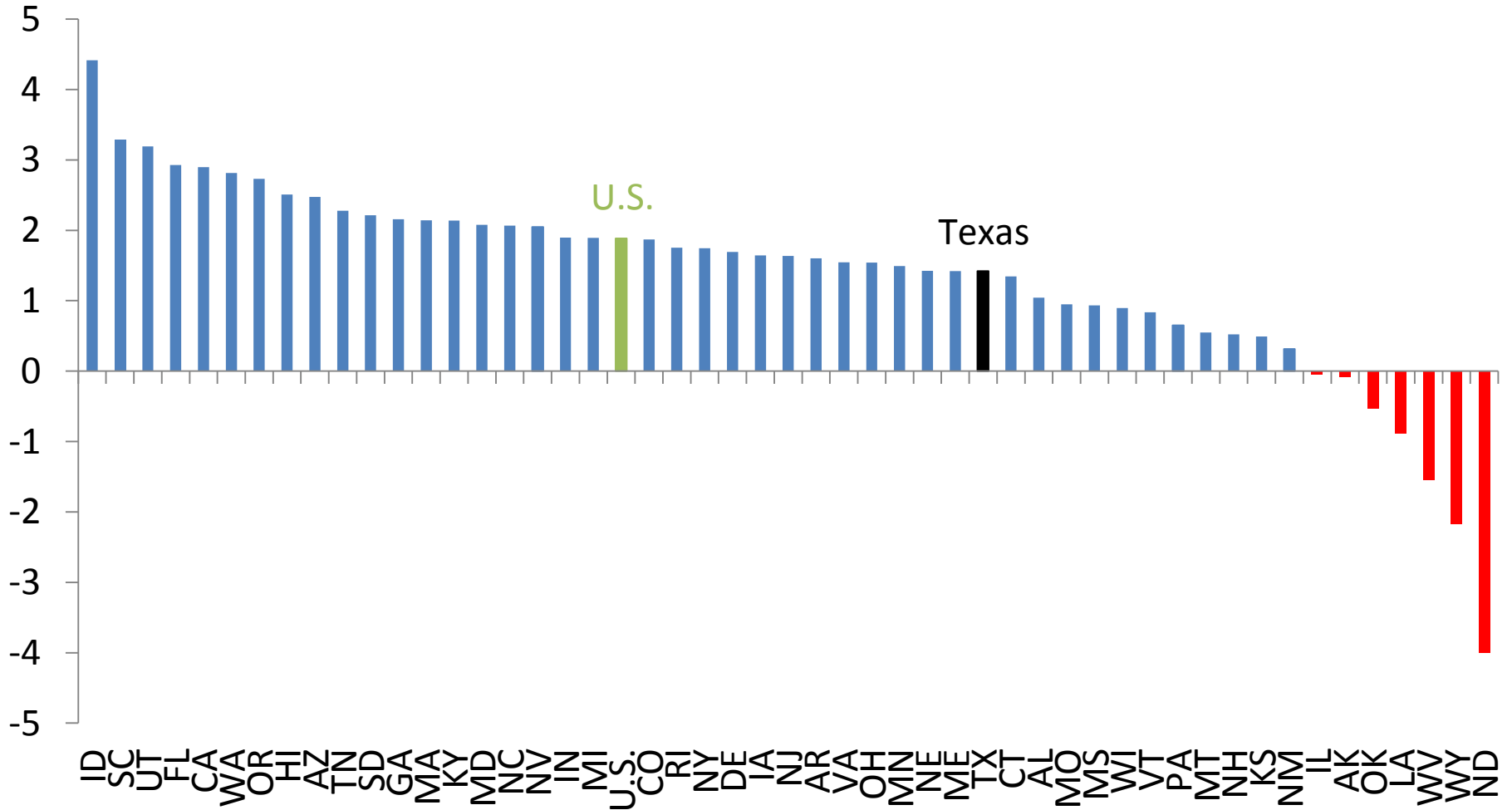
Percent change (Dec/Dec)



SOURCE: Bureau of Labor Statistics.

Energy states lose jobs in 2015

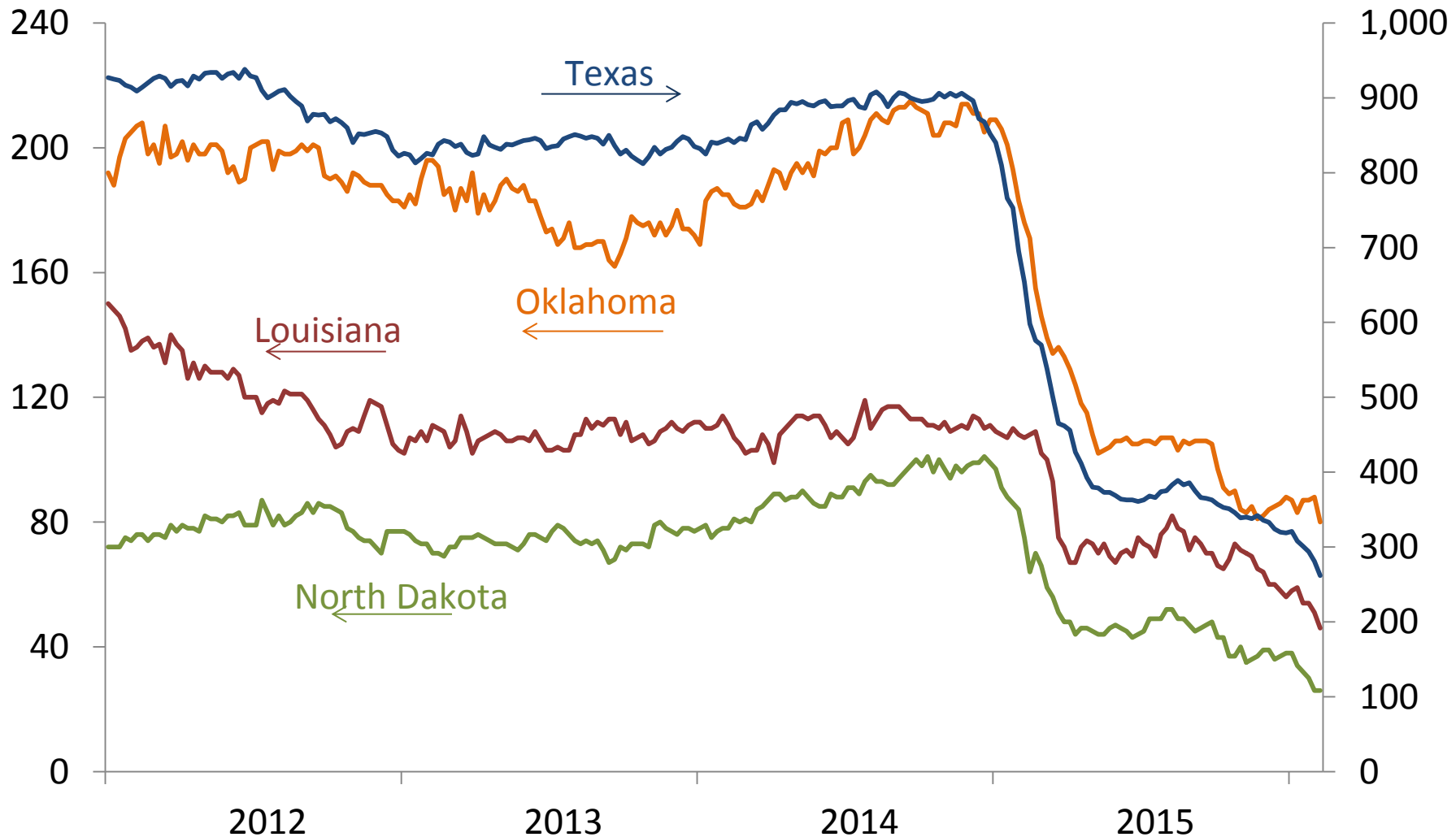
Percent Change (year-to-date)



SOURCE: Bureau of Labor Statistics.

Rig counts still falling

Rig count, weekly



Rig count, weekly

1,000

900

800

700

600

500

400

300

200

100

0

2012

2013

2014

2015

NOTE: Final data points are for the week of February 5.

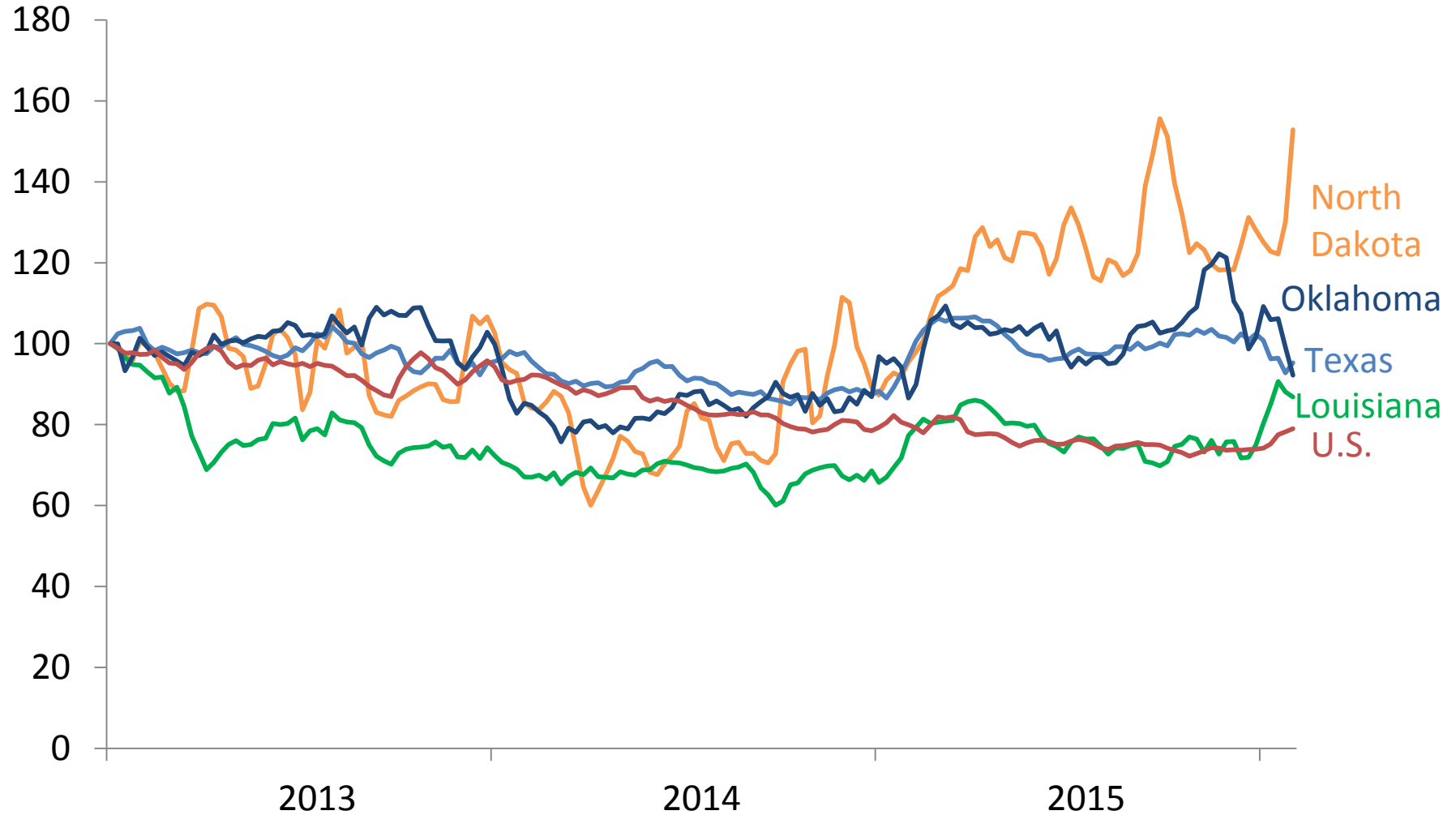
SOURCE: Baker Hughes.

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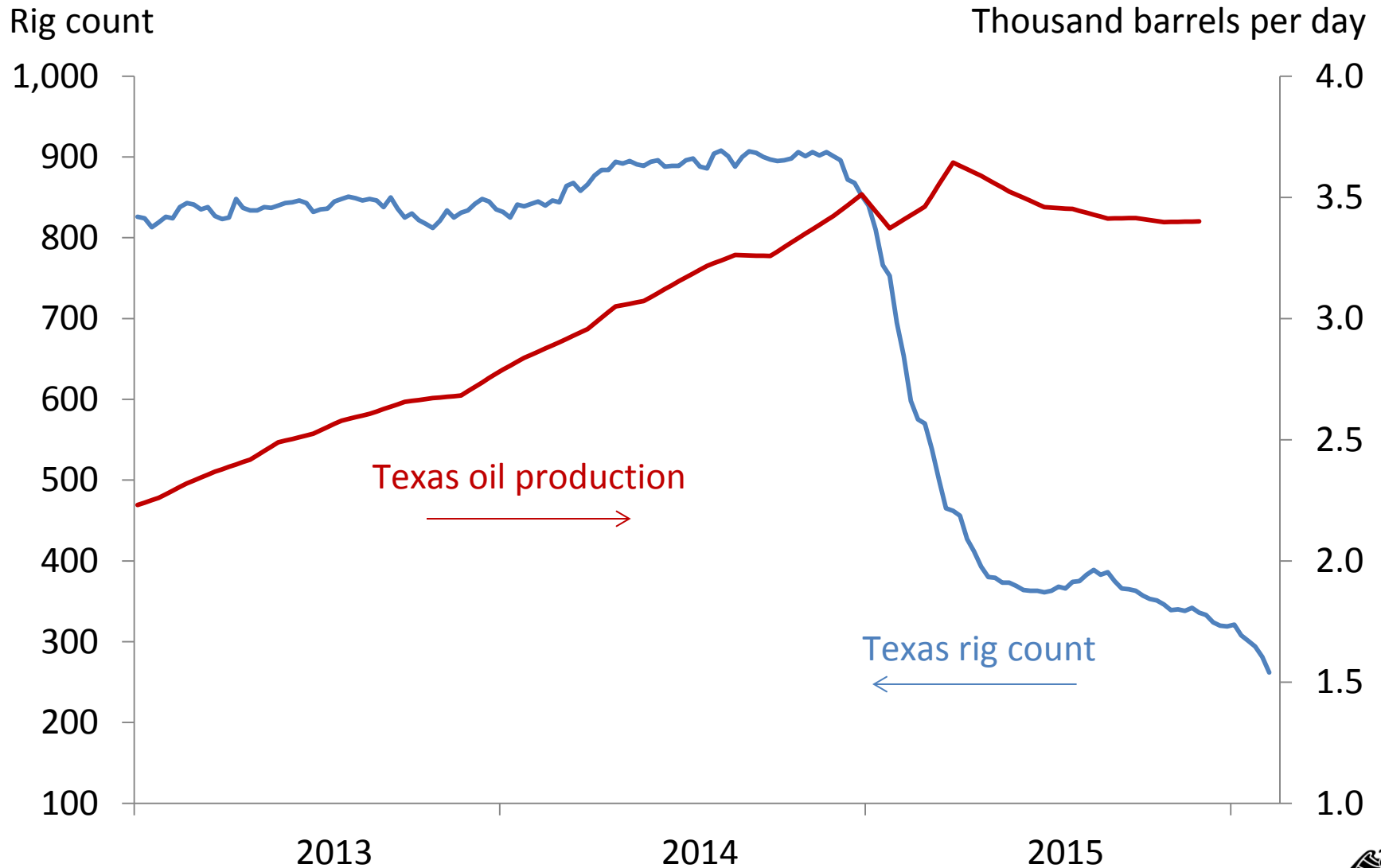


Initial jobless claims still high

Index, Jan. 5 '13 = 100, 4 WMA



Texas rig count and oil production continue to decline



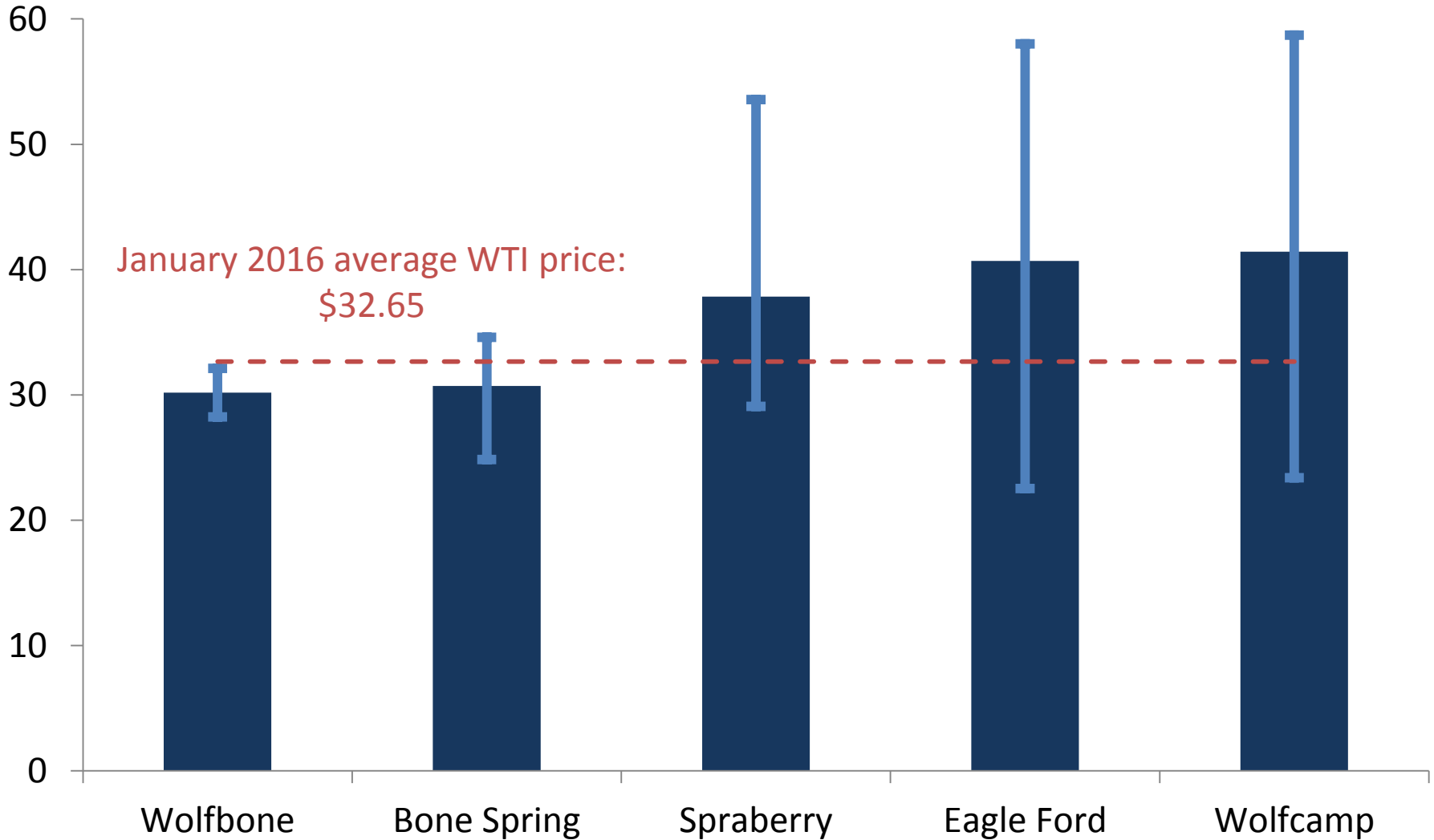
SOURCES: Baker Hughes; Energy Information Administration.

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Regional breakeven prices varied

Dollars per barrel



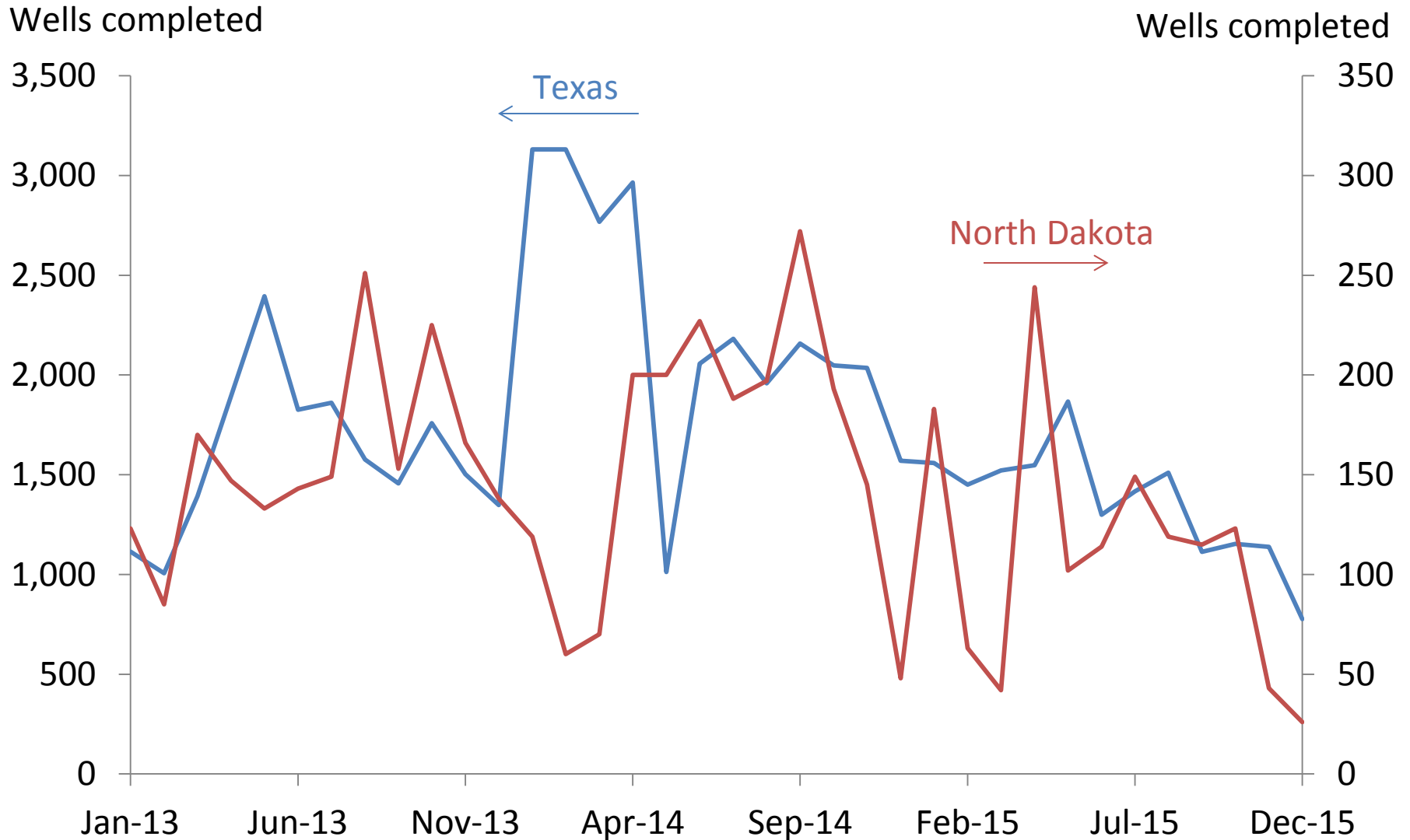
NOTE: Bars show average breakeven prices by play. Bands show county-level max and minimums.

SOURCES: Bloomberg; Energy Information Administration.

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Well completions dwindling



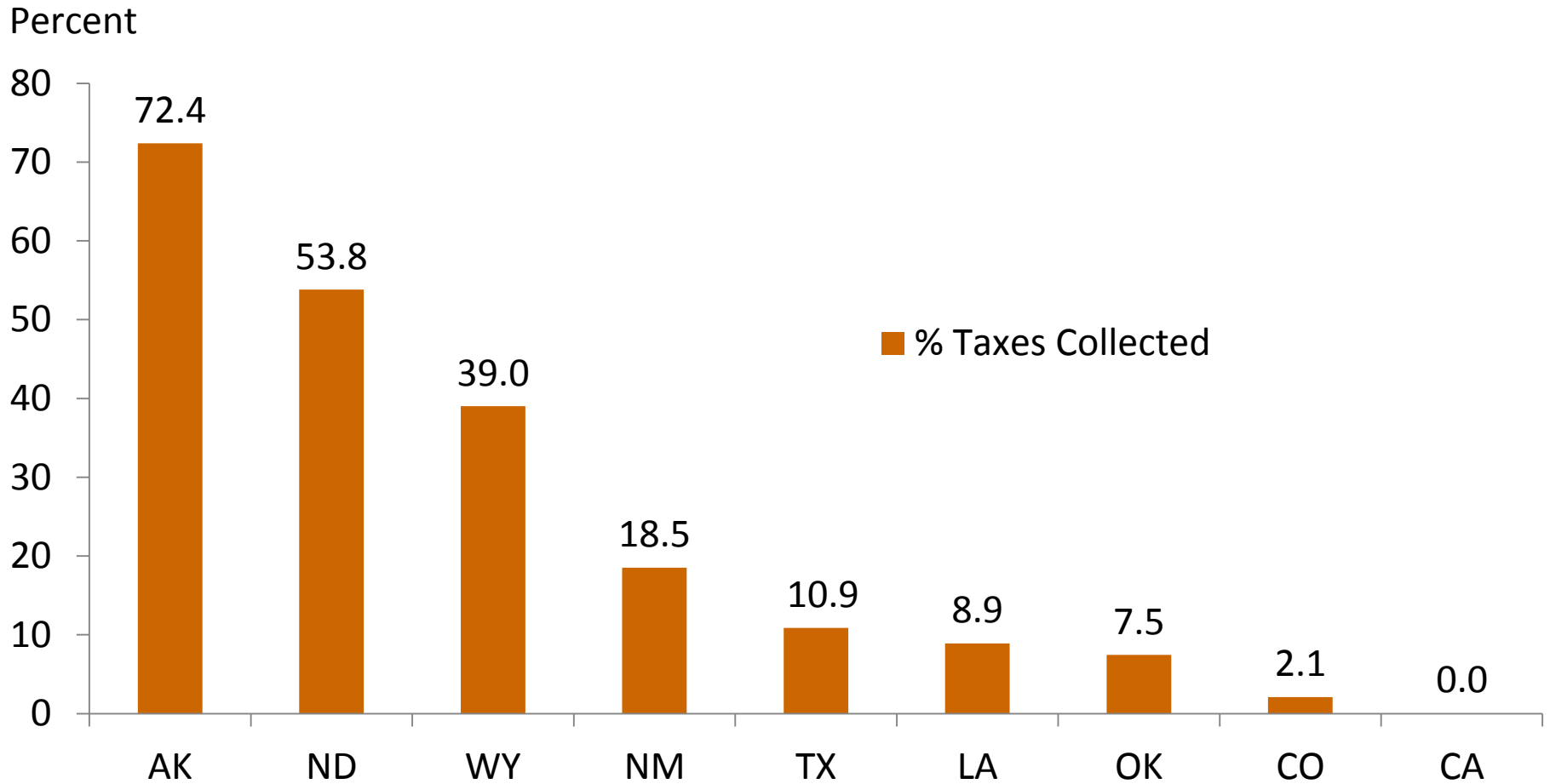
SOURCES: Railroad Commission of Texas; North Dakota Oil and Gas Division.

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Some states rely heavily on oil and gas severance taxes

(Share of 2014 state tax revenues)



SOURCE: U.S. Census Bureau, 2014 Annual Survey of State Government Tax Collections.

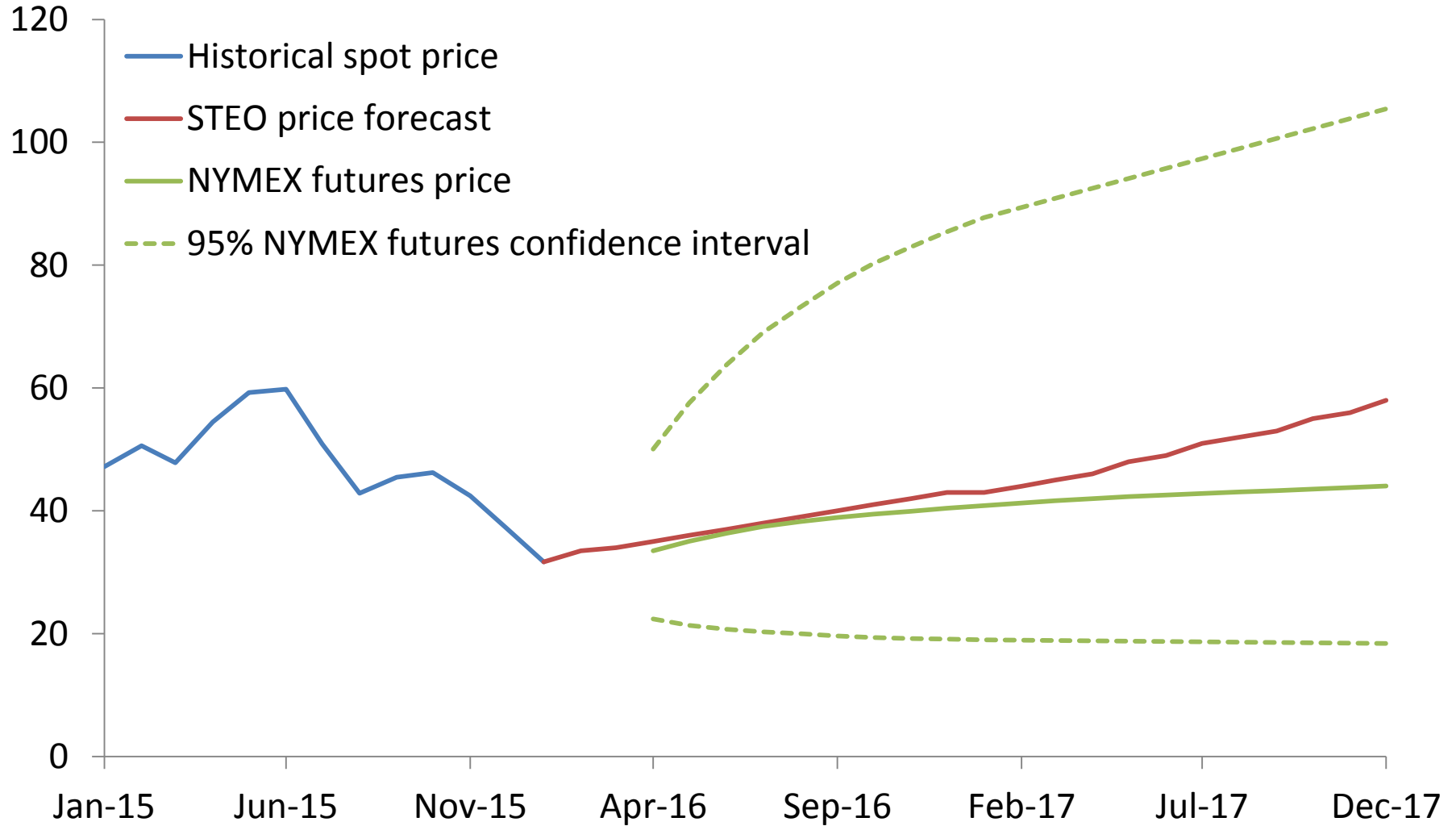
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WHERE DO WE GO FROM HERE?

Crude price forecast

Dollars per barrel



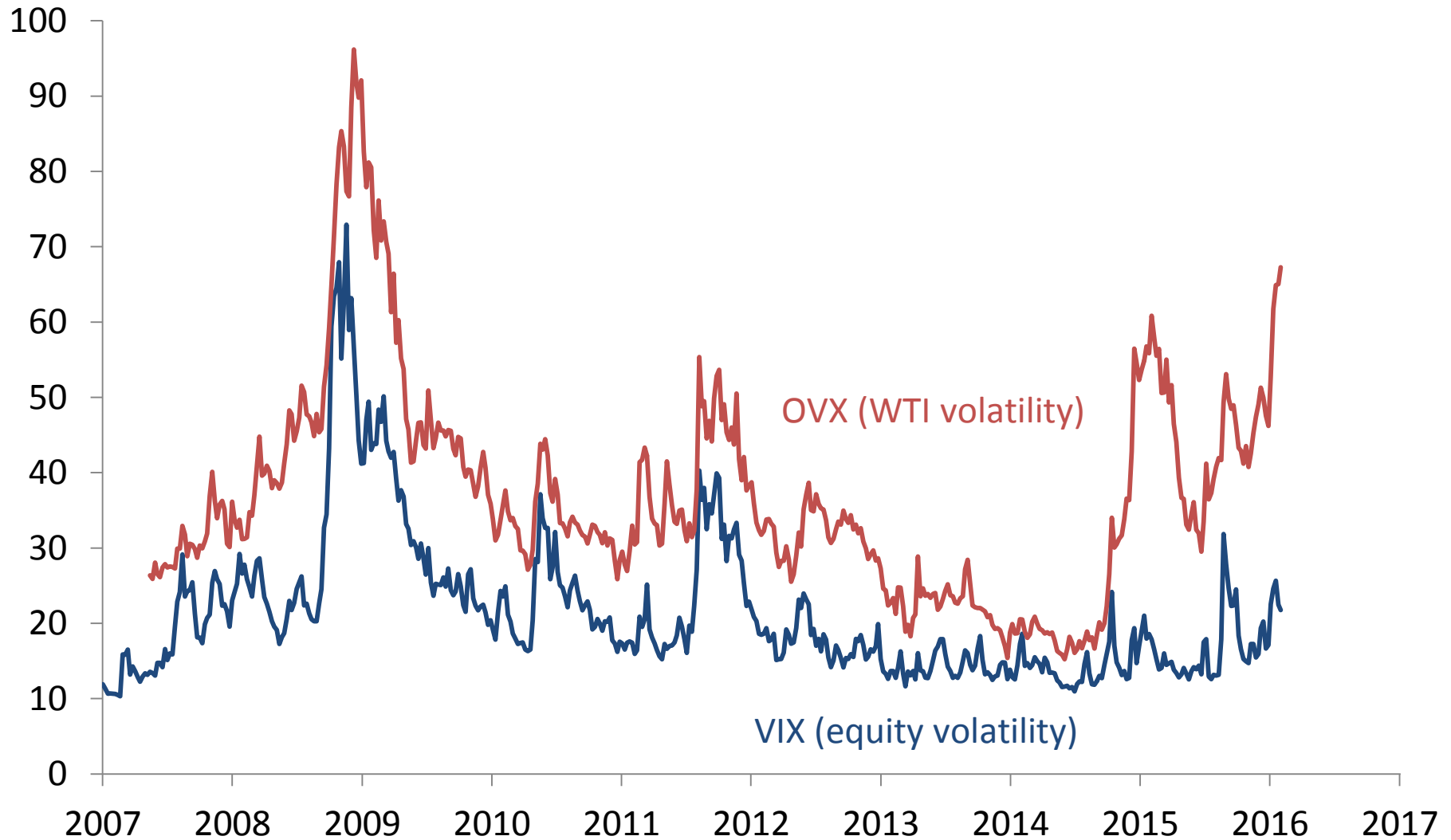
SOURCE: Energy Information Administration.

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Oil price outlook very uncertain

Annualized percentage points



SOURCES: Chicago Board Options Exchange; *Wall Street Journal*.

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Outlook

- “Lower for longer” outlook for oil prices
- Global GDP growth is expected to rise over time
- Uncertainties abound
- Oil price risks more on the downside in the short run
 - China, Iran, high inventories
- Energy importers such as the U.S. should continue to benefit from lower oil prices.
- Rough patch for energy-producing countries and states.



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