

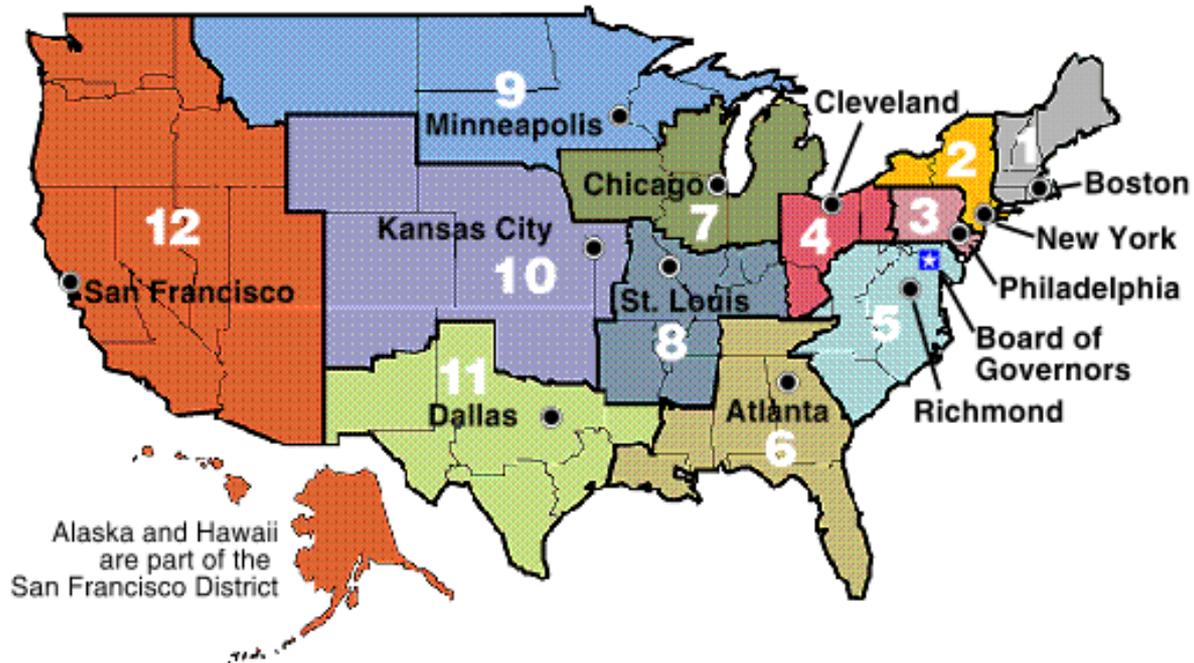


Federal Reserve
Bank of Dallas

**Regional Economy Strong,
but Outlook Points to Slower Growth in 2019**

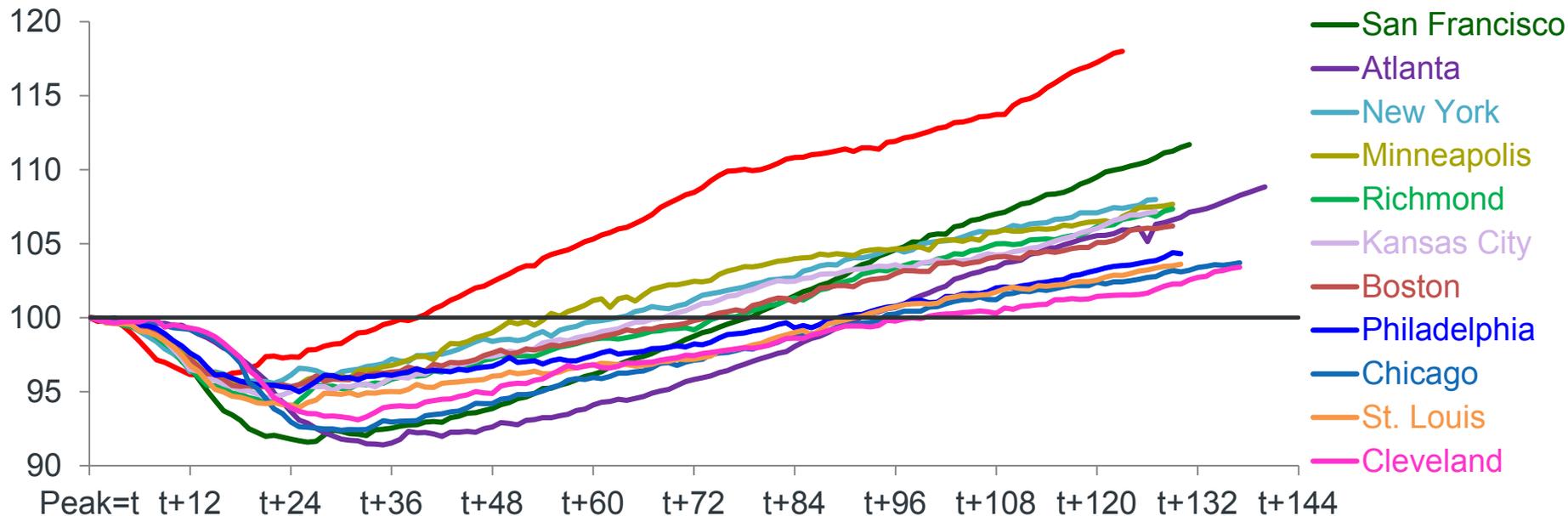
Pia M. Orrenius, Vice President
Federal Reserve Bank of Dallas
1/18/2019

Federal Reserve District map



10 years after Great Recession, long run regional growth trends reemerge

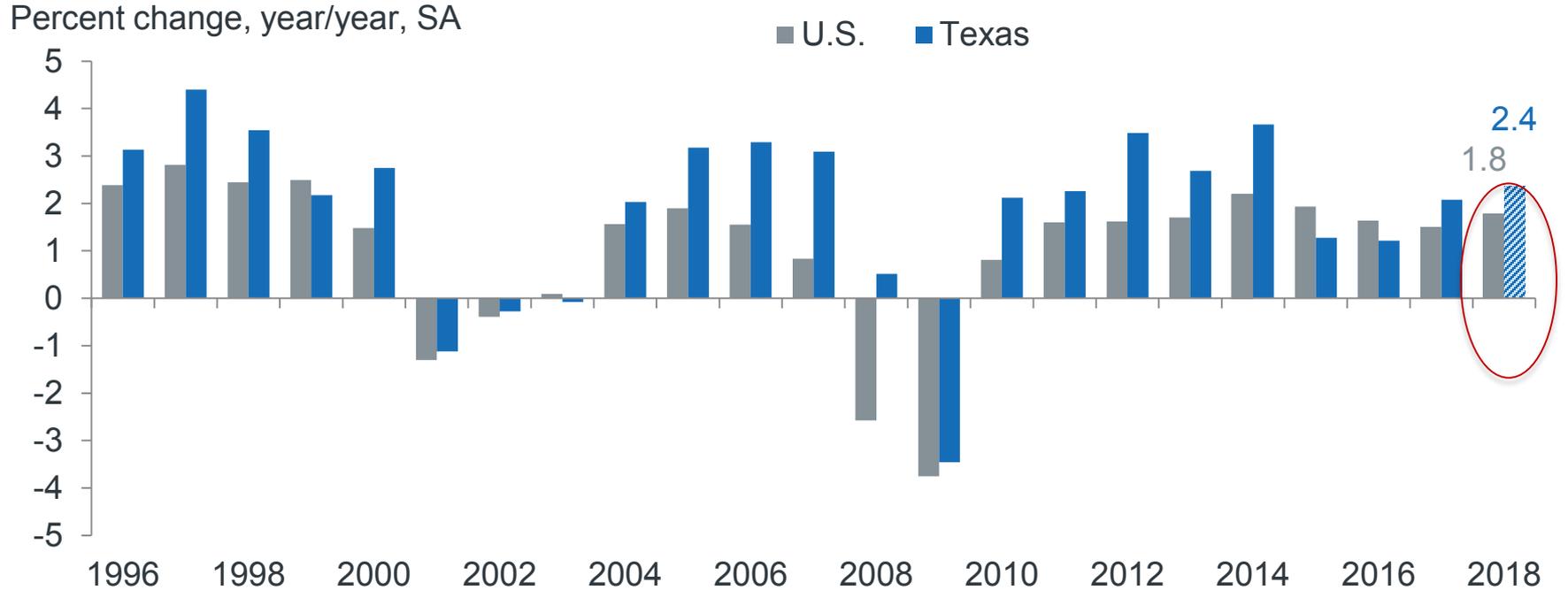
Index, each district's peak employment = 100



NOTE: Data through November 2018.

SOURCES: Bureau of Labor Statistics; FRB Dallas.

Texas job growth usually above nation's



NOTES: Shaded bar represents YTD 2018 annualized growth for Texas (Nov. 2018/Dec. 2017). Long-run trend growth is 1.1 percent for the U.S. and 2.0 percent for Texas.

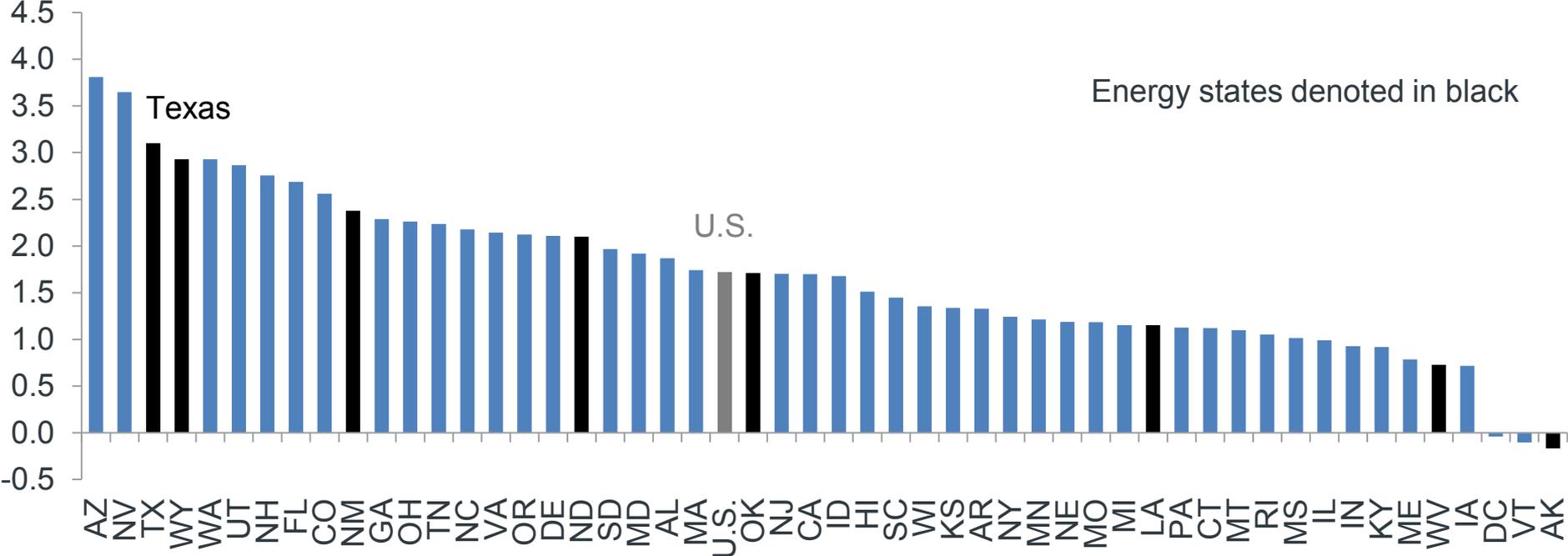
SOURCES: Bureau of Labor Statistics, Texas Workforce Commission; FRB Dallas.

Texas economy accelerated in 2018

- 2018 was second year of recovery from the 2015-16 oil bust
 - Oil bust job growth: 1.2 percent
 - 2017: 2.1 percent
 - 2018: 2.4 percent
- 2018 drivers included strong US economy (tax cut), initially upward revisions in global growth, high oil prices
 - But headwinds apparent early on and began to pick up in the second half
 - By September, indications of slowing underway
- This year Texas job growth likely to weaken to between 1 and 2 percent

Texas third among states in 2018 job growth (BLS data)

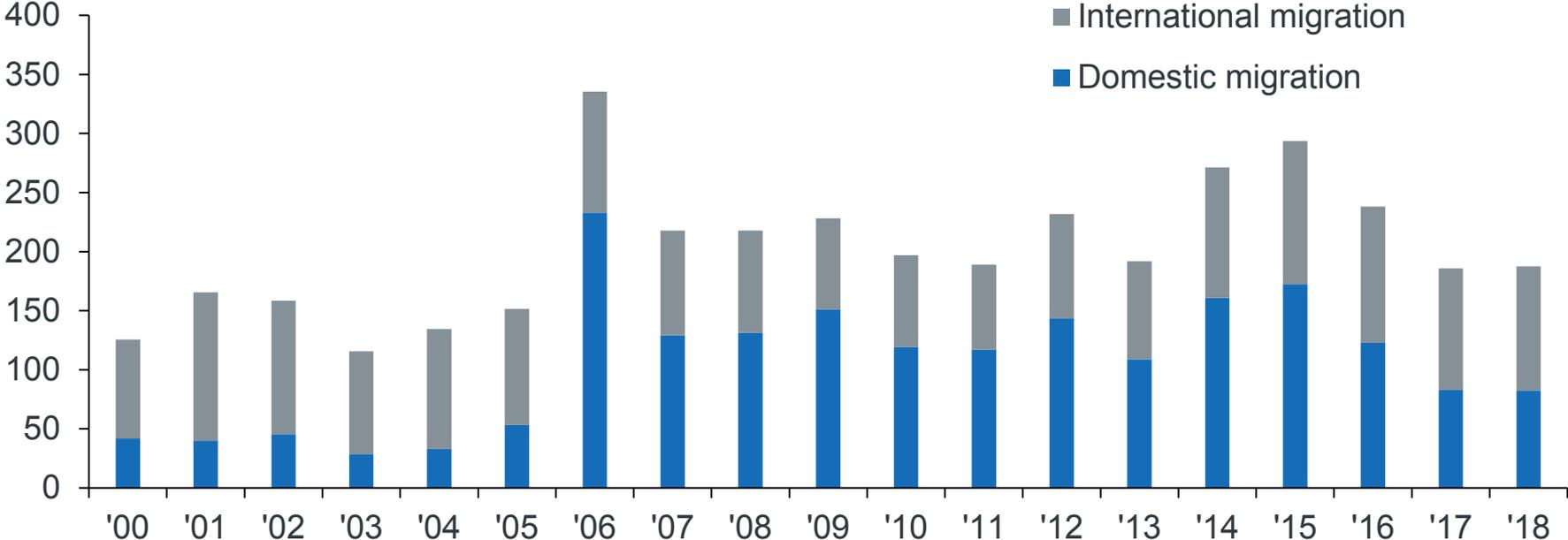
Percent change, Nov. 2018/Dec. 2017, SAAR



SOURCES: Bureau of Labor Statistics; FRB Dallas.

Large net in-migration allows Texas to grow faster

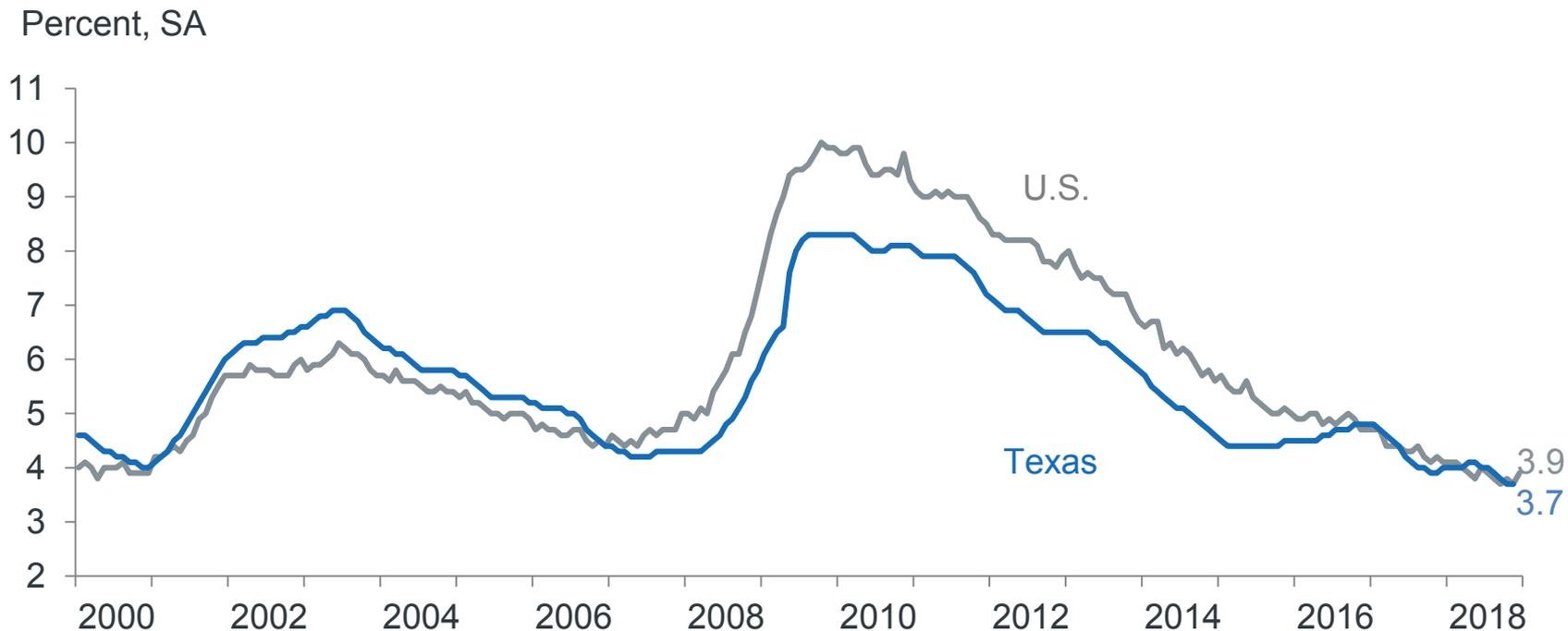
Net migration (thousands)



NOTE: Data are for July of the previous year to July of the year indicated.

SOURCE: U.S. Census Bureau Population Estimates.

Texas and U.S. unemployment rates at record lows

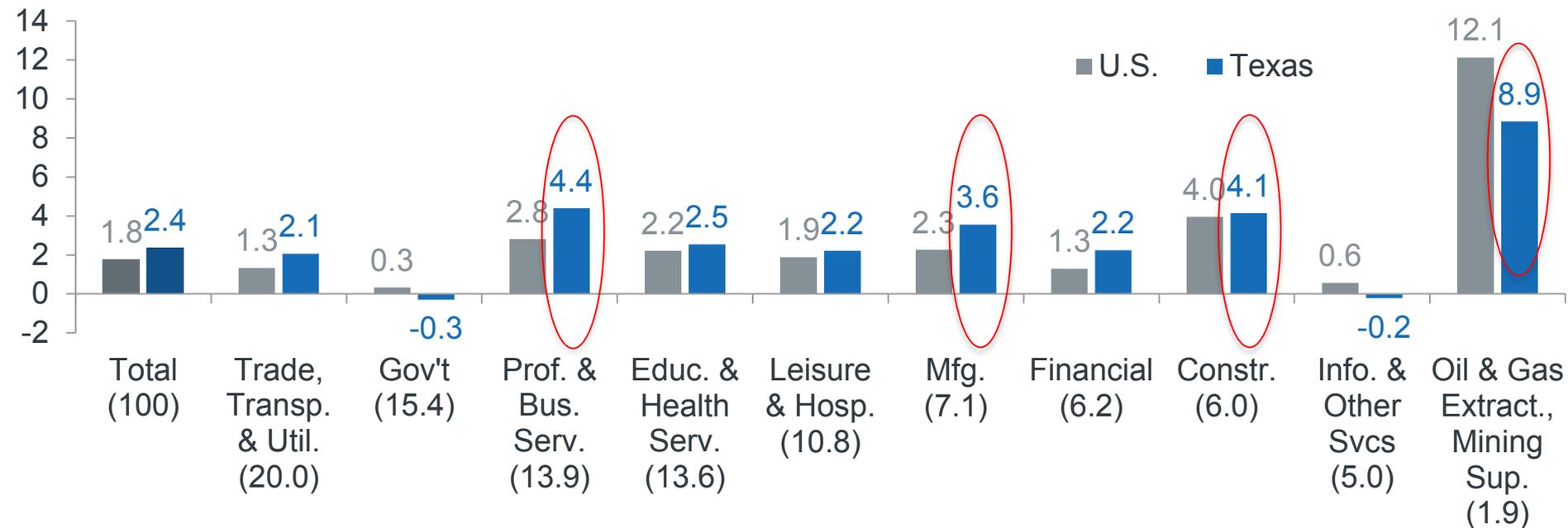


NOTE: U.S. data through Dec. 2018 and Texas data through Nov. 2018.

SOURCE: Bureau of Labor Statistics.

Goods-producing, professional & business services sectors led the charge in 2018

Percent job growth YTD, SAAR

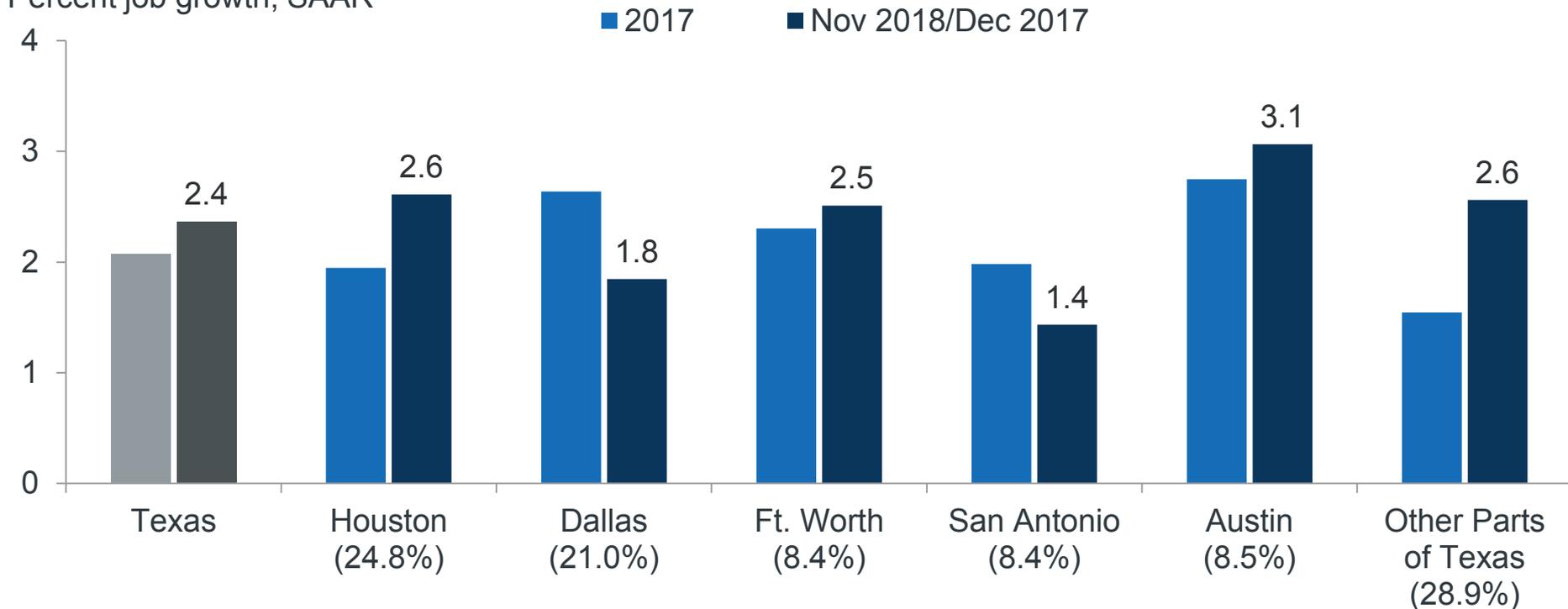


NOTES: U.S. data refer to Dec. 2018 / Dec. 2017 and Texas data refer to Nov. 2018 / Dec. 2017. Numbers in parentheses are share of Texas employment for most recent month.

SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; seasonal and other adjustments by FRB Dallas.

In 2018, Dallas and SA slowed, while Houston rebounded

Percent job growth, SAAR

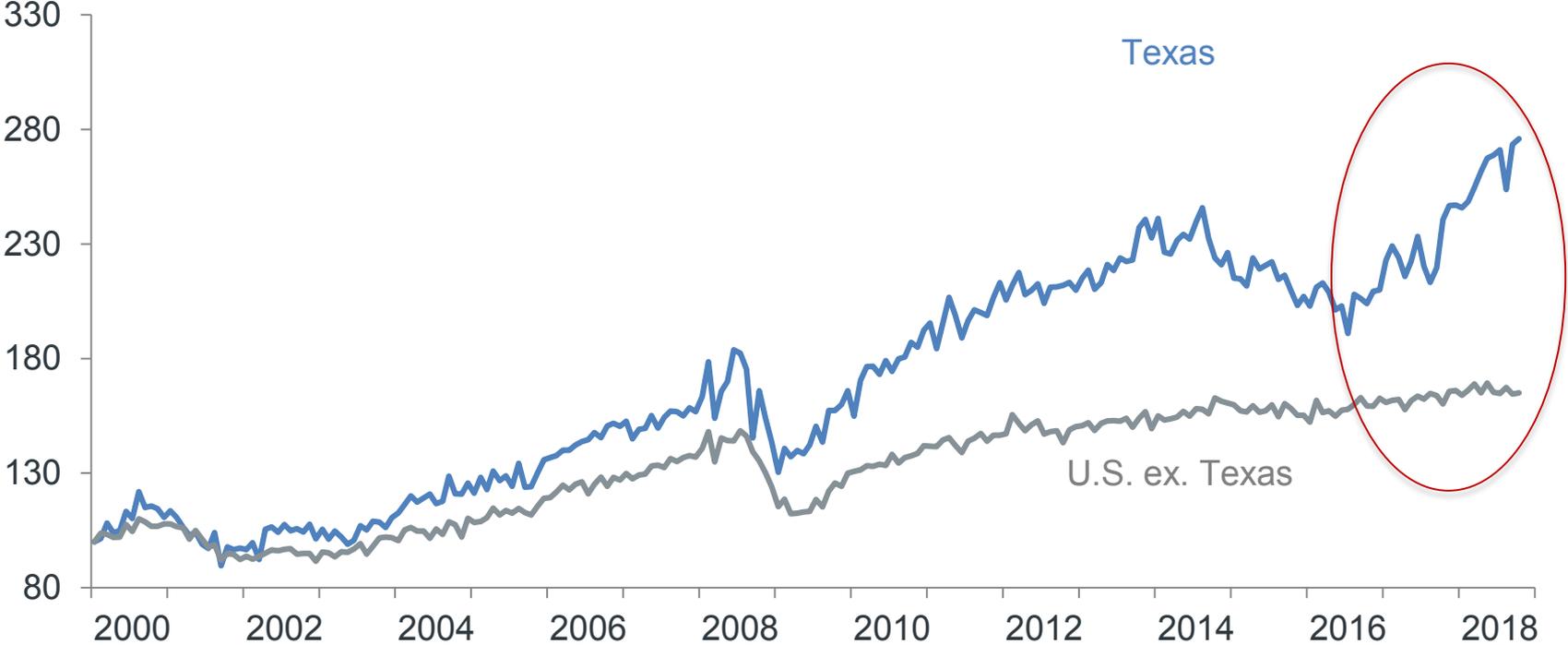


NOTE: Numbers in parentheses refer to the share of Texas employment in the most recent month.

SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; seasonal and other adjustments by Dallas Fed.

Texas exports outperform nation, surge after 2016

Index, Jan. 2000=100, SA

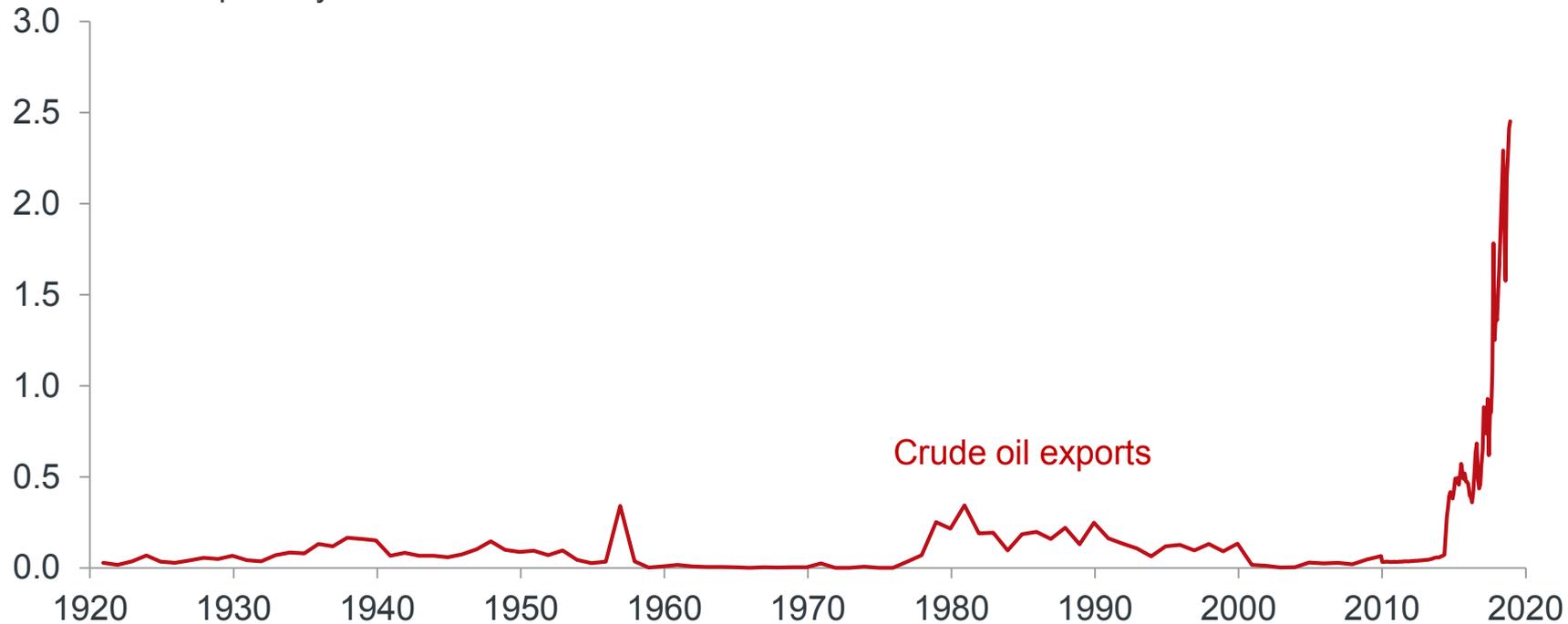


NOTES: Data through October 2018. Underlying data in real dollars.

SOURCES: U.S. Census Bureau; WISERTrade.

U.S. crude exports surge after lifting of export ban

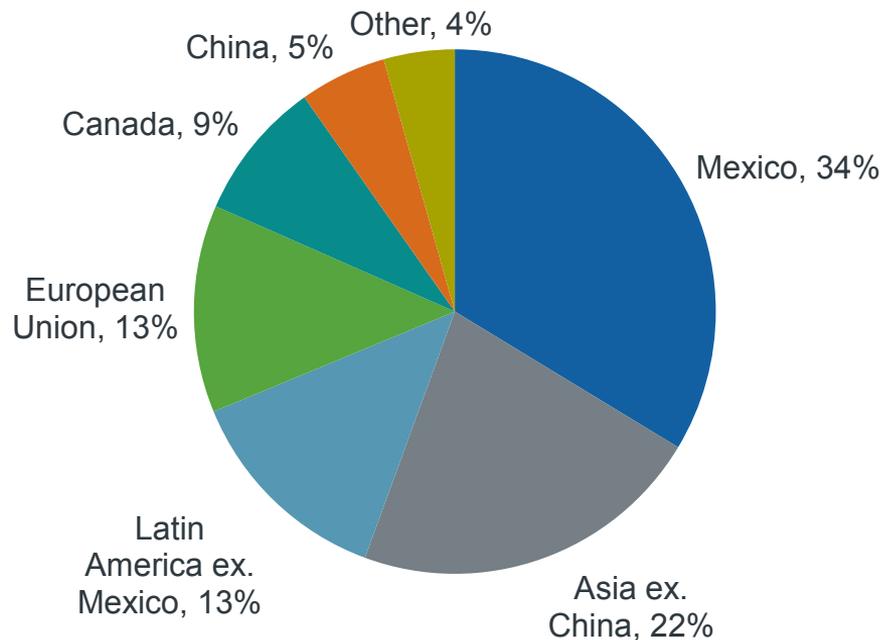
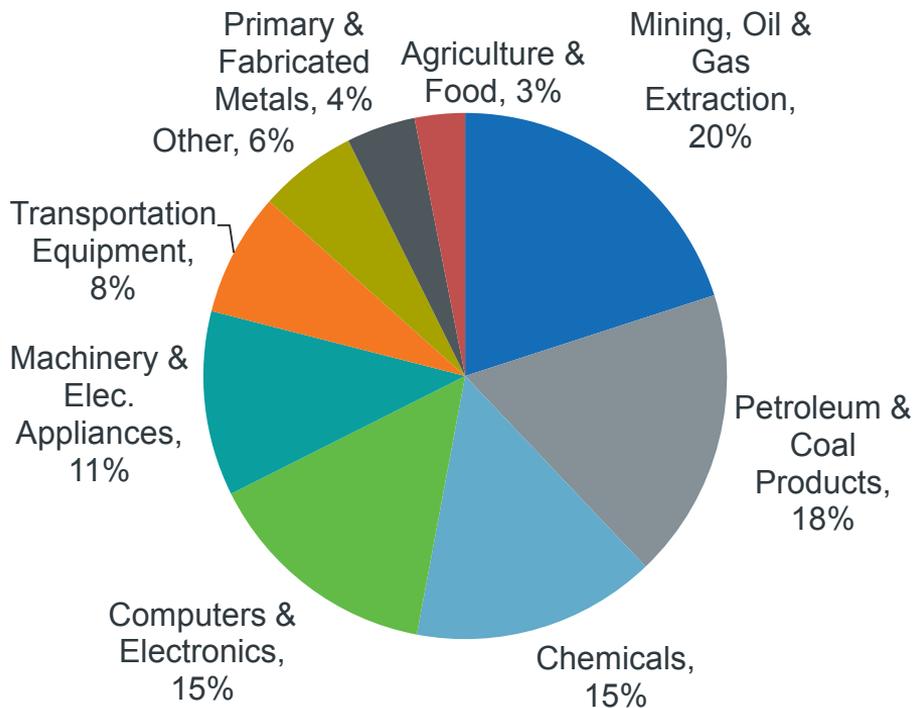
Million barrels per day



NOTE: Data through December 2018.

SOURCE: Energy Information Administration.

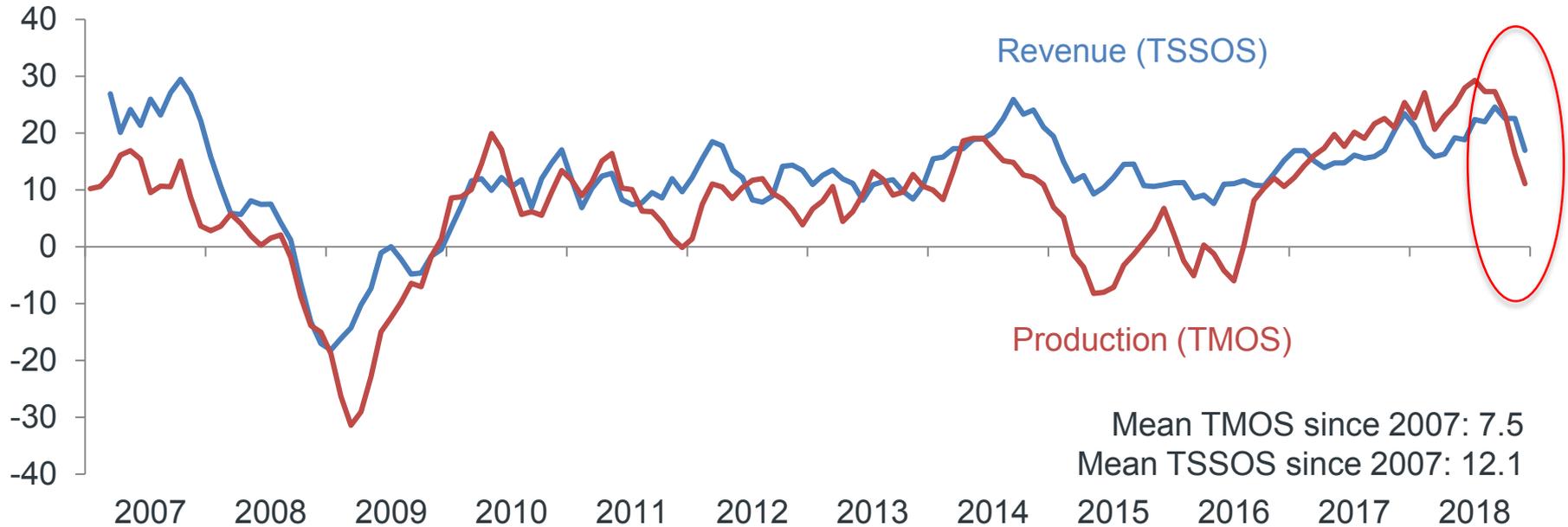
Texas exports broad-based and top trading partners are Mexico, Canada



NOTES: Data for Q3 2018. Underlying data are seasonally adjusted.
 SOURCES: U.S. Census Bureau; Bureau of Labor Statistics, WISERTrade.

Dallas Fed business outlook surveys suggest slowing ahead

Index, 3MMA, SA

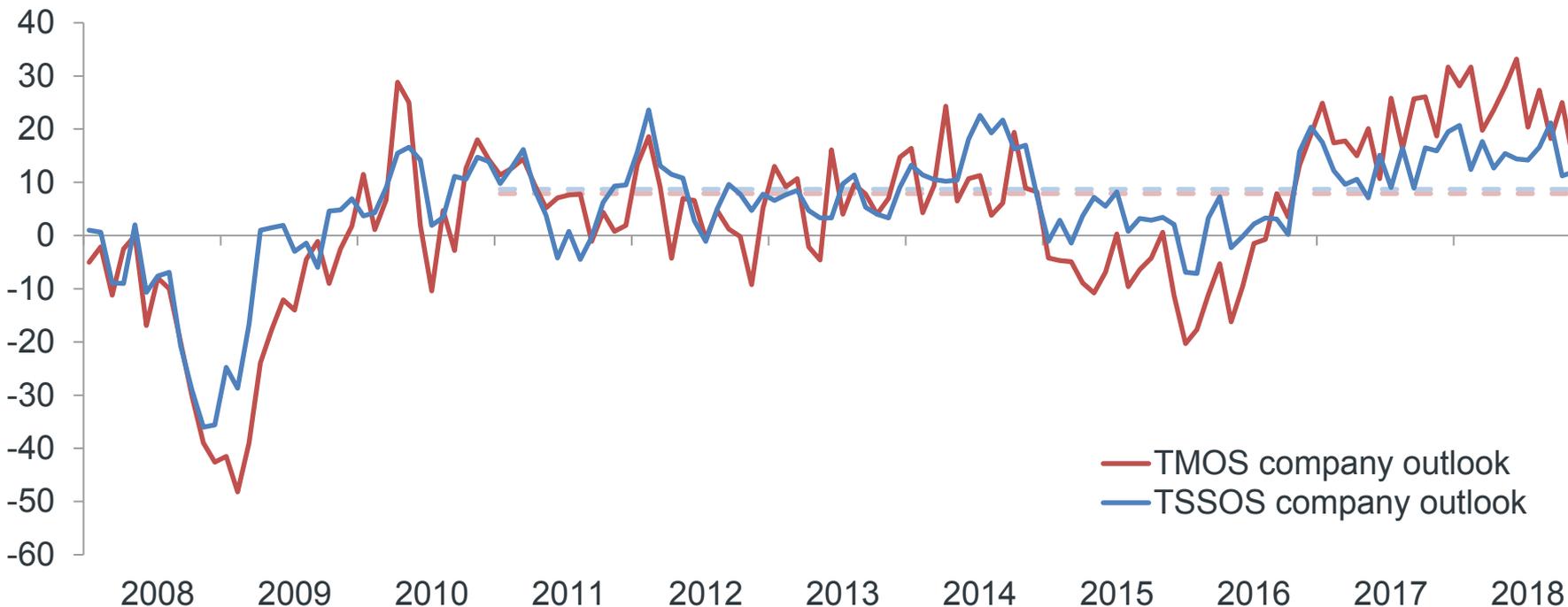


NOTE: Data through December 2018.

SOURCE: Federal Reserve Bank of Dallas Texas Business Outlook Surveys (TBOS).

Company outlook turned negative in December

Index, SA



NOTES: Data through Dec. 2018. Dashed lines are post-recession averages.

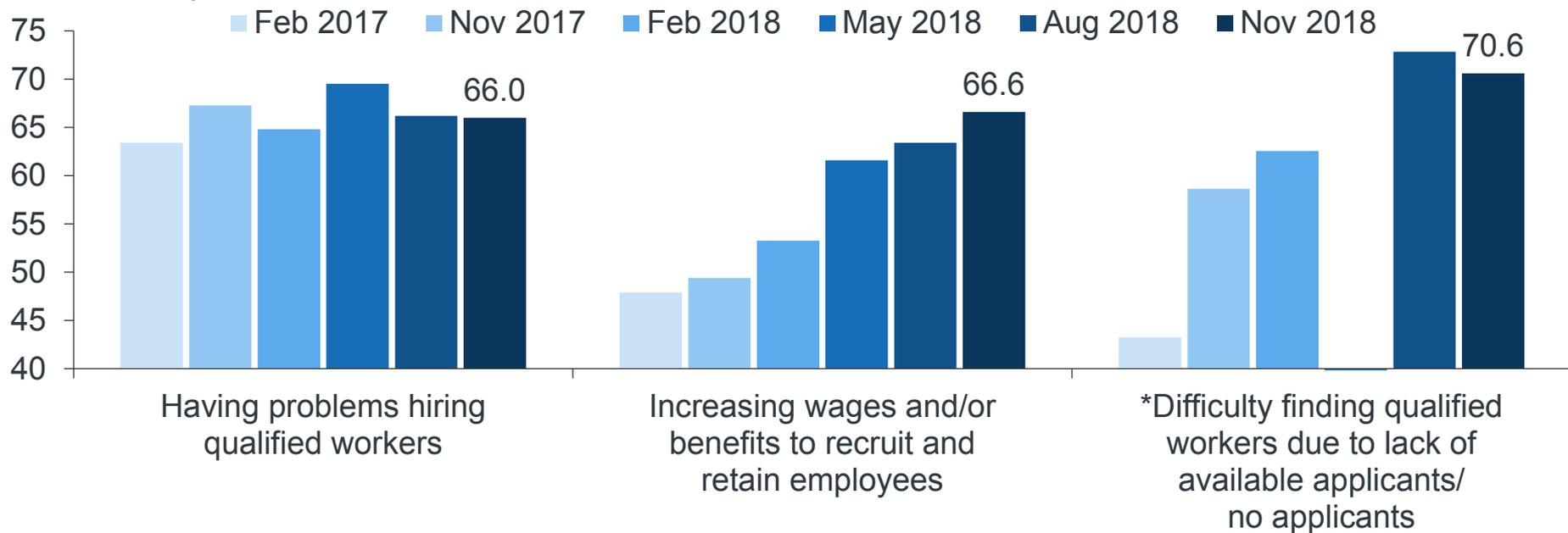
SOURCES: Federal Reserve Bank of Texas Business Outlook Surveys (TBOS).

Strong growth but with some tapering, headwinds

- Growth is above trend year to date (2.4 percent)
- But supply side constraints emerged
 - Labor market tightness
 - Energy infrastructure bottlenecks in Permian, ports
- And then there's the policy headwinds
 - Tariffs and retaliatory tariffs
 - Uncertain trade policy
 - Higher cost of credit, stronger dollar
- Plus signs of slowing demand growth in ROW
 - Lower oil prices; financial market volatility

Texas firms say it's hard to hire; cite lack of applicants

Percent of respondents



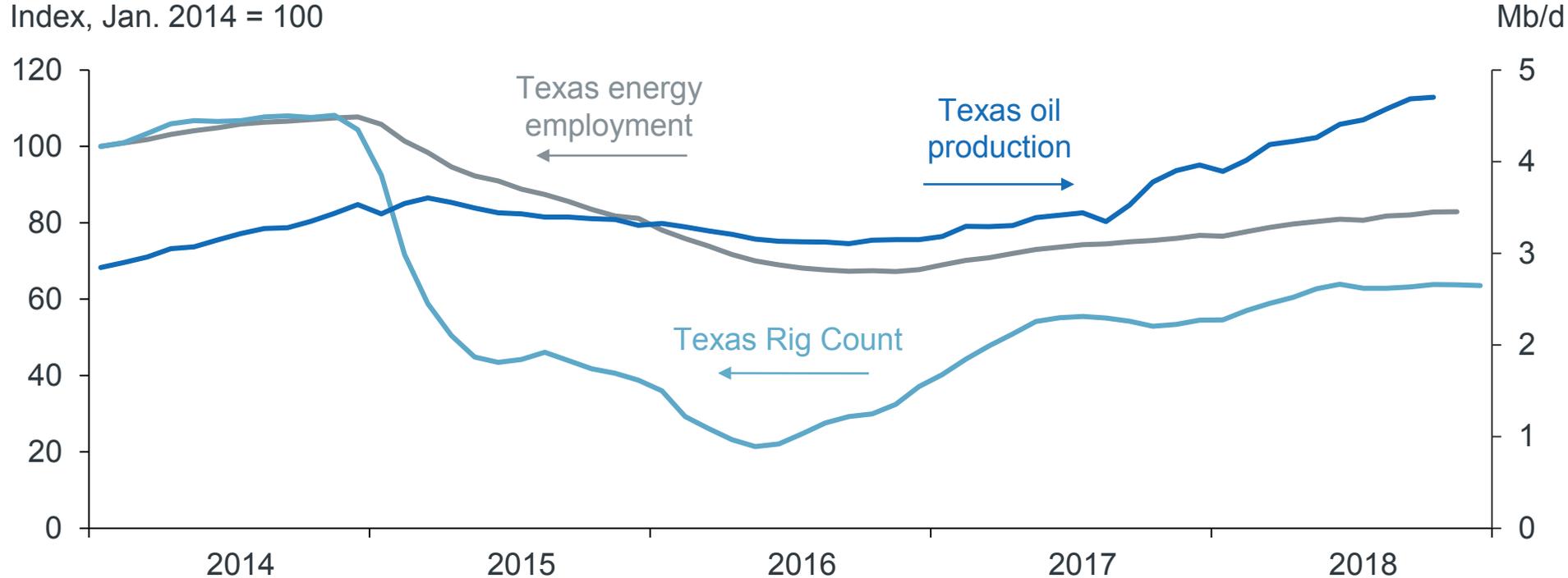
*Percent of respondents is taken as a percent of those who answered "Yes" to the question: "Are you having problems finding qualified workers when hiring?"

NOTE: Starting in Nov. 2018, "increasing wages" appears as a separate answer choice from "increasing benefits" and the combined value is calculated based on responses to "increasing wages" and "increasing benefits".

SOURCE: FRB Dallas Texas Business Outlook Surveys.

Some slowing in energy due to lack of pipeline capacity

Index, Jan. 2014 = 100



NOTES: Texas rig count data through Dec. 2018. Texas energy employment through Nov. 2018. Texas oil production through Oct. 2018. Employment data seasonally adjusted.

SOURCES: Baker Hughes; EIA; BLS; Texas Workforce Commission; seasonal and other adjustments by FRB Dallas.

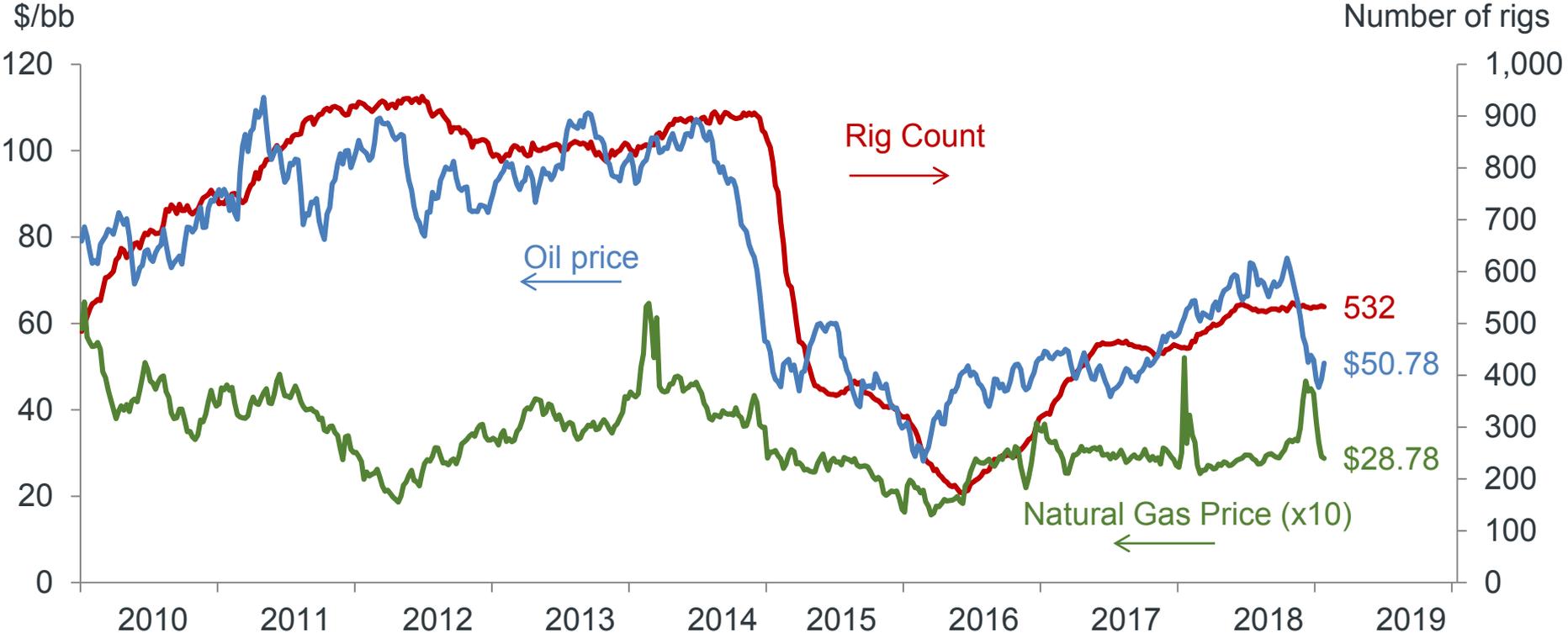
Midland WTI spot price diverges from Cushing when pipeline constraints increase



NOTE: Data are through January 11, 2019.

SOURCE: Bloomberg.

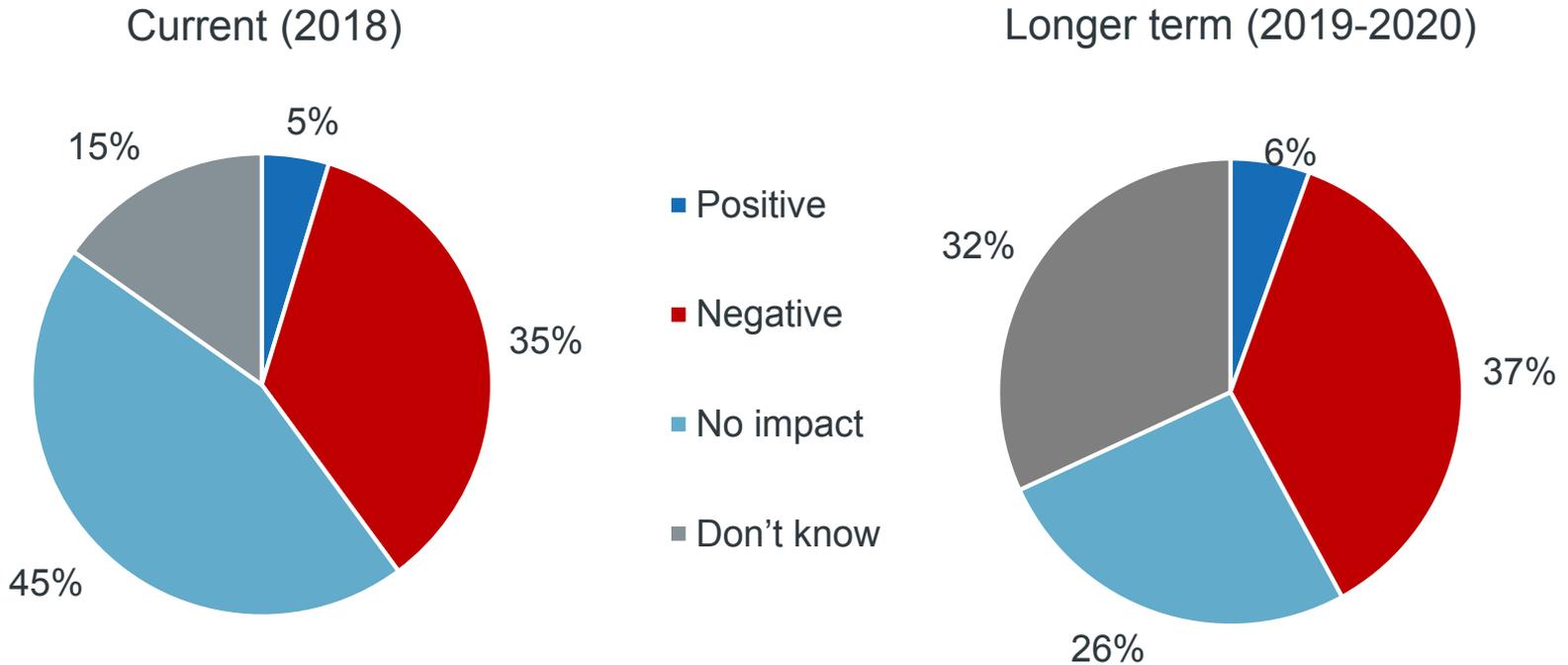
Oil price decline suggests upcoming decline in rig count



NOTE: Data are weekly; last data point is the week of Jan. 11, 2019.

SOURCES: Oil and Gas Journal; Baker Hughes.

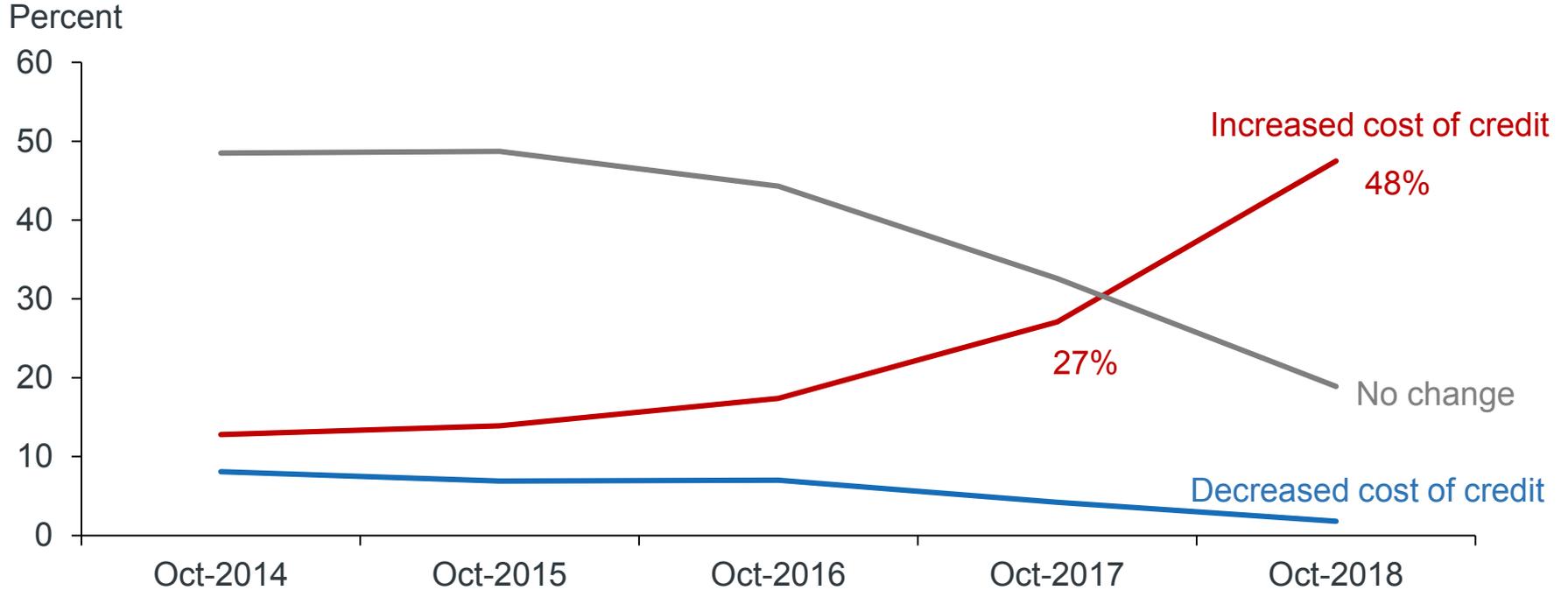
Texas firms report they are far more likely to be harmed than helped by tariffs



NOTES: Data collected September 11-19 and 364 business executives responded to the surveys.
SOURCE: Federal Reserve Bank of Dallas Texas Business Outlook Surveys.

Interest rates on the rise

How does the cost of credit compare to what it was 6 months ago?

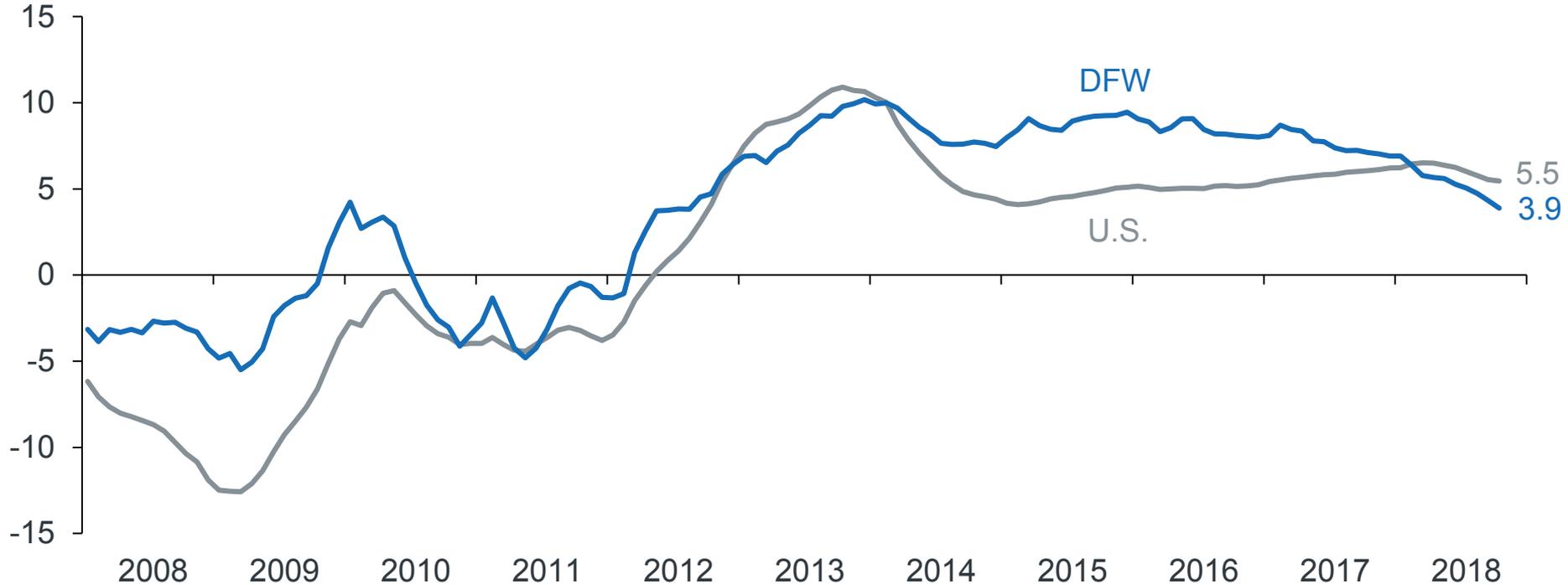


NOTES: Chart omits respondents who reported “not applicable—haven’t sought credit” (approximately 40% in October 2018). Latest responses were collected Oct. 16–24, and 388 Texas business executives responded to the surveys.

SOURCE: Federal Reserve Bank of Dallas Texas Business Outlook Surveys.

Home price appreciation slowing slightly in North Texas

Percent, year/year, SA

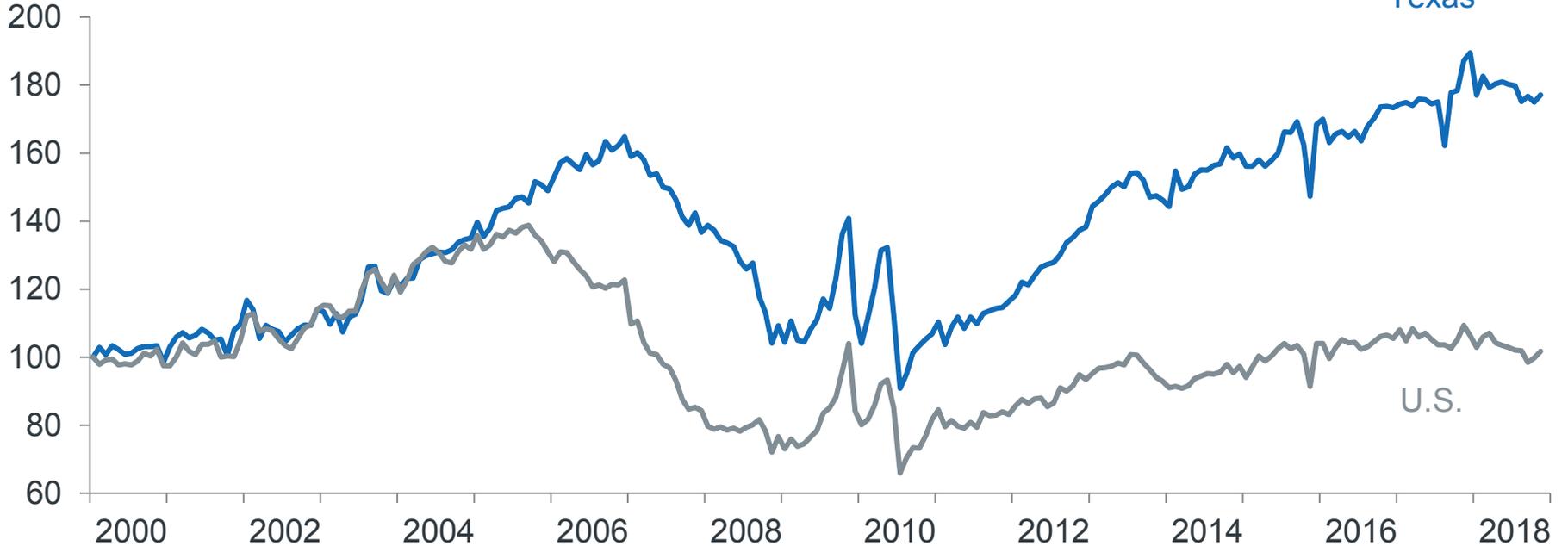


NOTE: Data through Oct. 2018.

SOURCE: Standard & Poor's CoreLogic Case-Shiller Home Price Index.

Texas home sales at high levels but trending down

Total existing home sales,
Index, Jan. 2000 = 100, SA

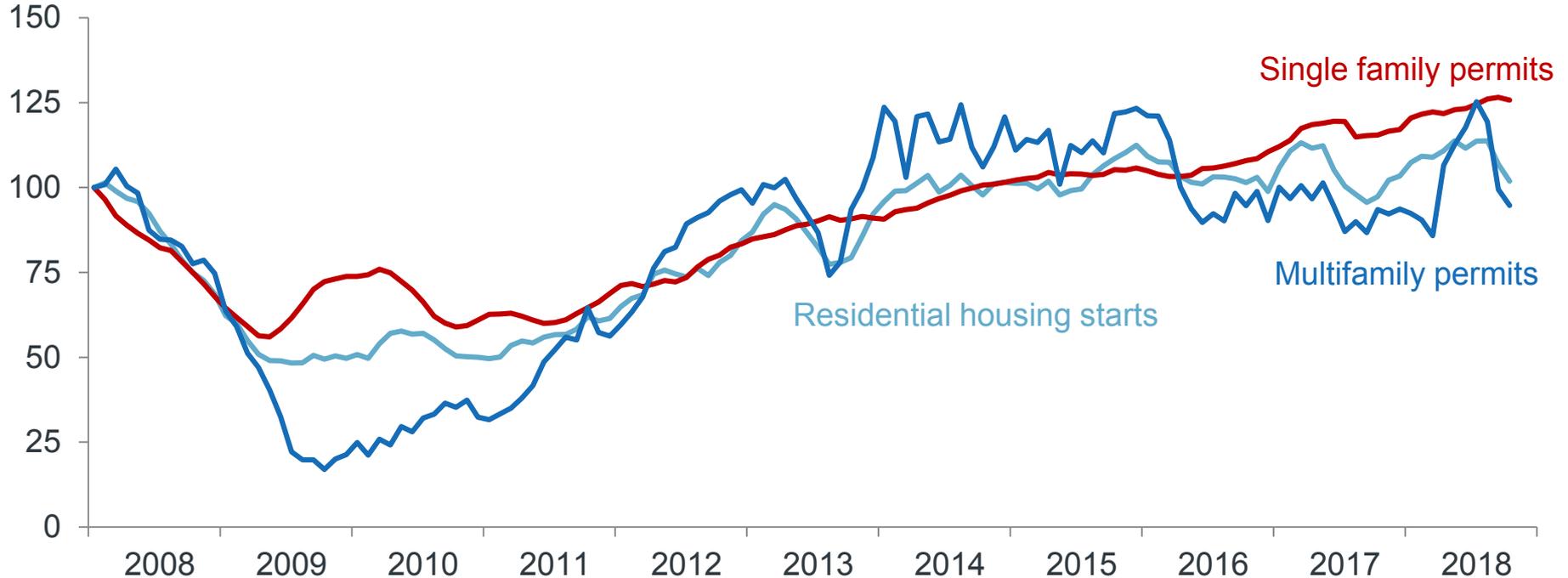


NOTE: Last data point is November 2018.

SOURCES: Real Estate Center at Texas A&M; Multiple Listing Service; adjustments by Federal Reserve Bank of Dallas.

Residential construction activity slowing in recent months

Index, Jan. 2008=100, 5MMA, SA



NOTE: Data through October 2018.

SOURCES: U.S. Census Bureau; Bank of Tokyo-Mitsubishi UFJ.

Regional economy outlook

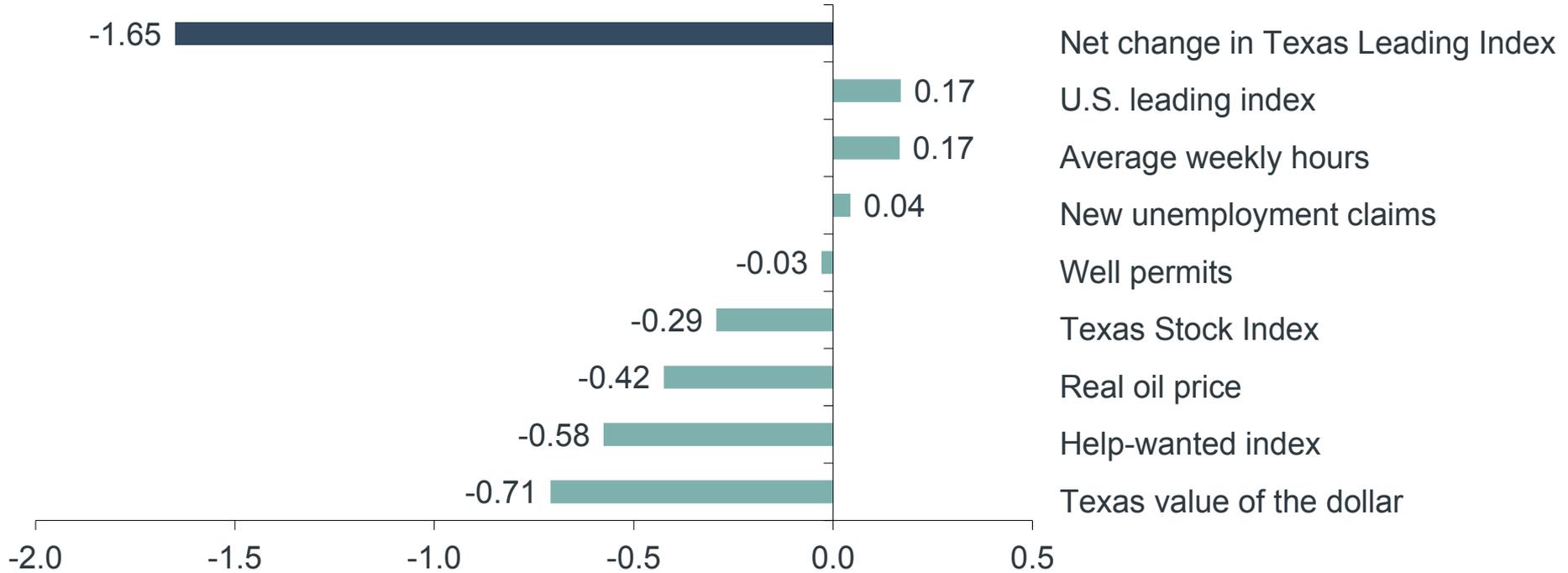
- Strong broad-based growth may be slowing slightly
- 2019 employment forecast is 1.4 percent
- Upside risks
 - Lagged effects of tax cuts
- Downside risks
 - Continued supply side constraints
 - Additional tariffs; USMCA passage?
 - Global slowing
 - Declining oil prices
 - Political risk, uncertainty

Thank you!



Texas Leading Index Components Mostly Negative

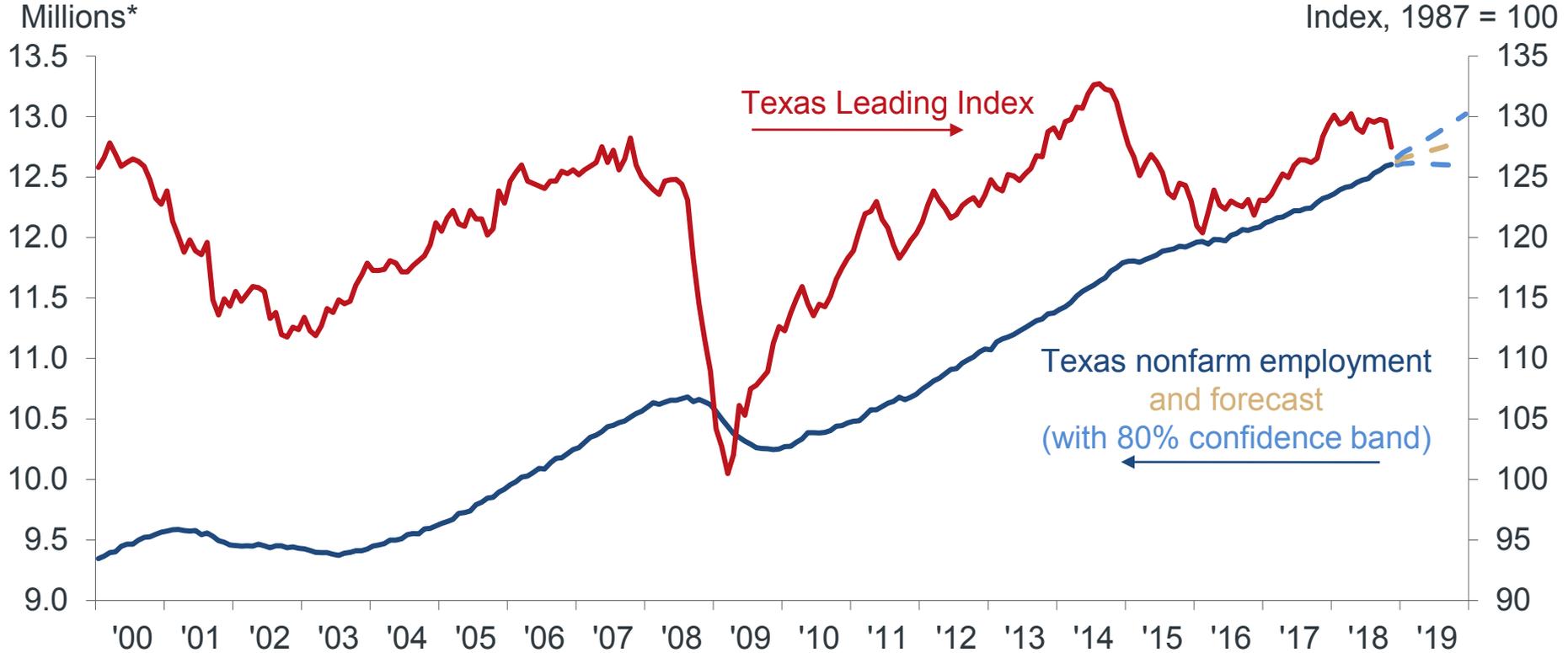
Net contributions to change in Texas Leading Index



NOTE: Three-month percent change through November, seasonally adjusted.

SOURCE: Federal Reserve Bank of Dallas.

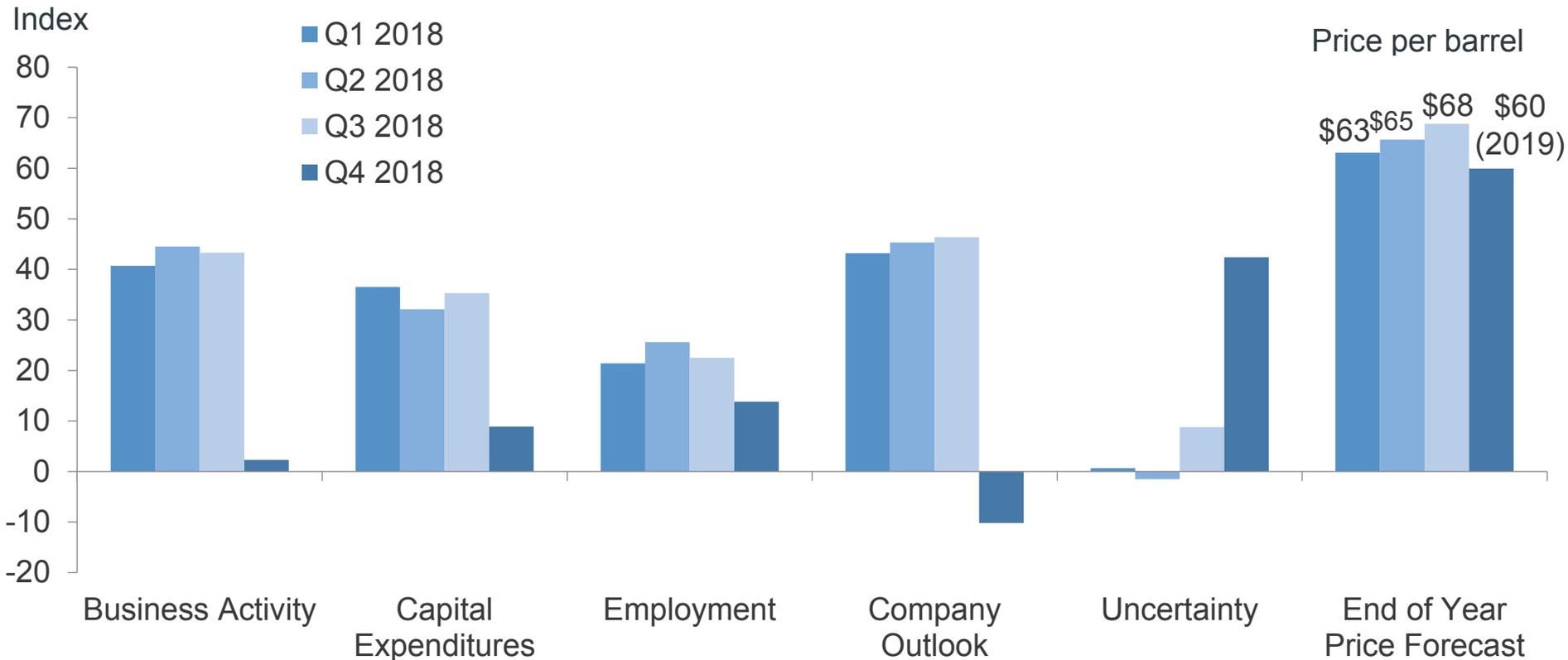
Texas Jobs Forecasted to Grow about 0 to 2.8 percent in 2019



*Seasonally adjusted.

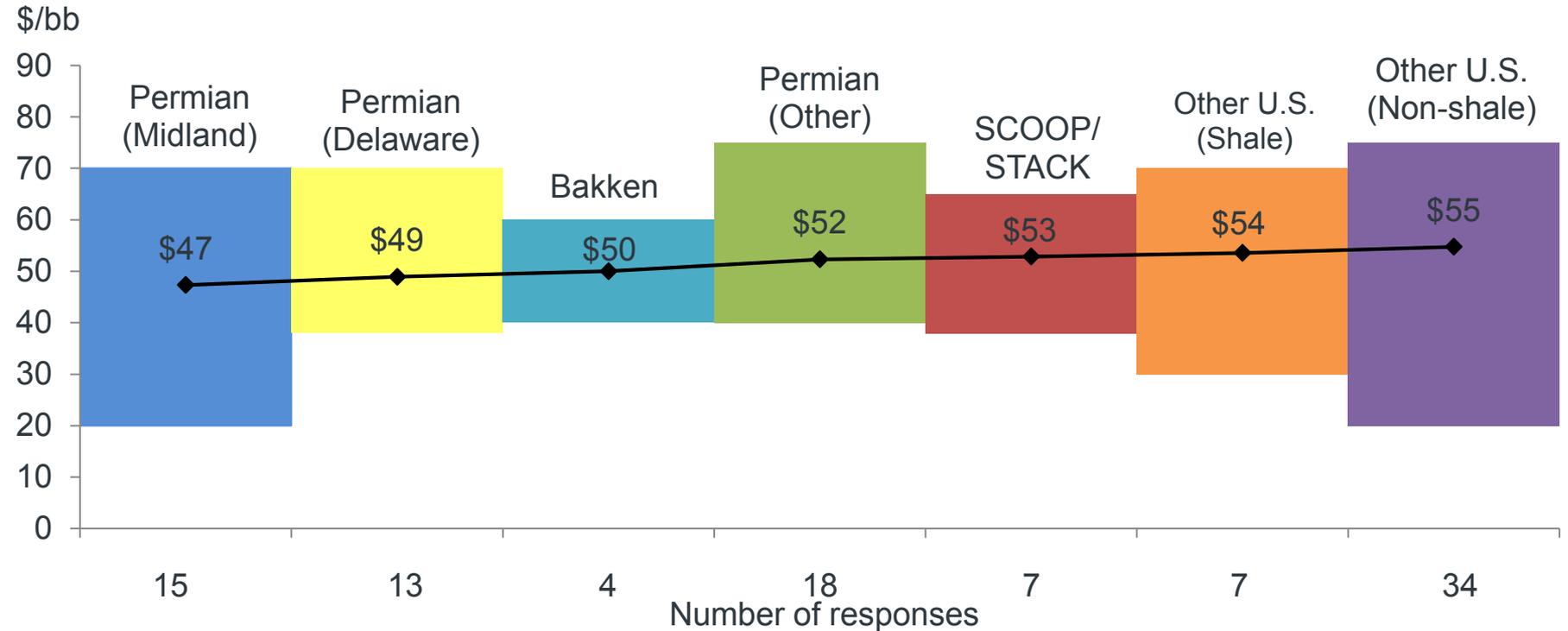
SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; Federal Reserve Bank of Dallas.

Energy Survey Suggests Weaker Growth, More Uncertainty



SOURCE: Federal Reserve Bank of Dallas.

Breakeven for New Drilling in Permian Ranges from \$20 to \$70



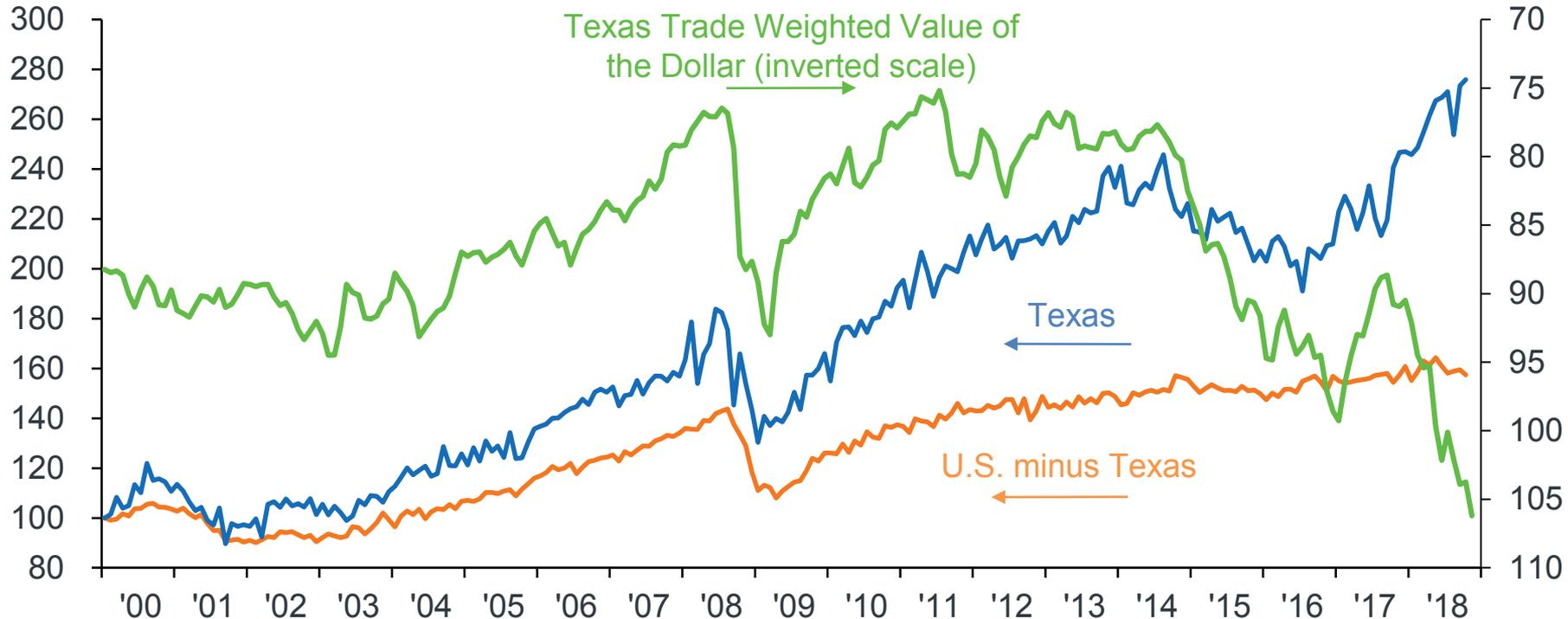
NOTES: Lines show the mean, and bars show the range of responses. Executives from 65 exploration and production firms answered this question during the survey collection period, March 14–22, 2018.

SOURCE: Federal Reserve Bank of Dallas.

State Exports Continue to Expand Despite Strong Dollar

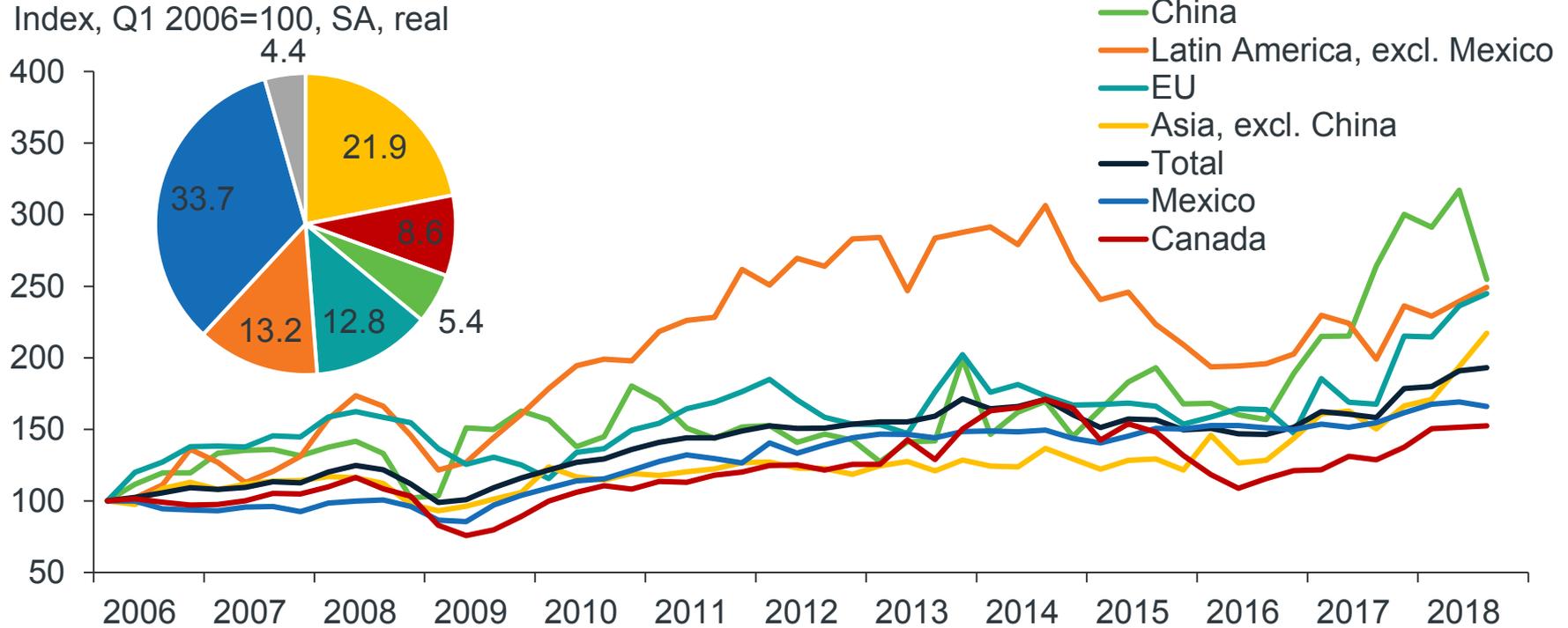
Index, SA, Real \$, Jan. 2000=100

Index, Jan. 1988=100



SOURCES: U.S. Census; Bureau of Labor Statistics; WISERTrade; Federal Reserve Bank of Dallas.

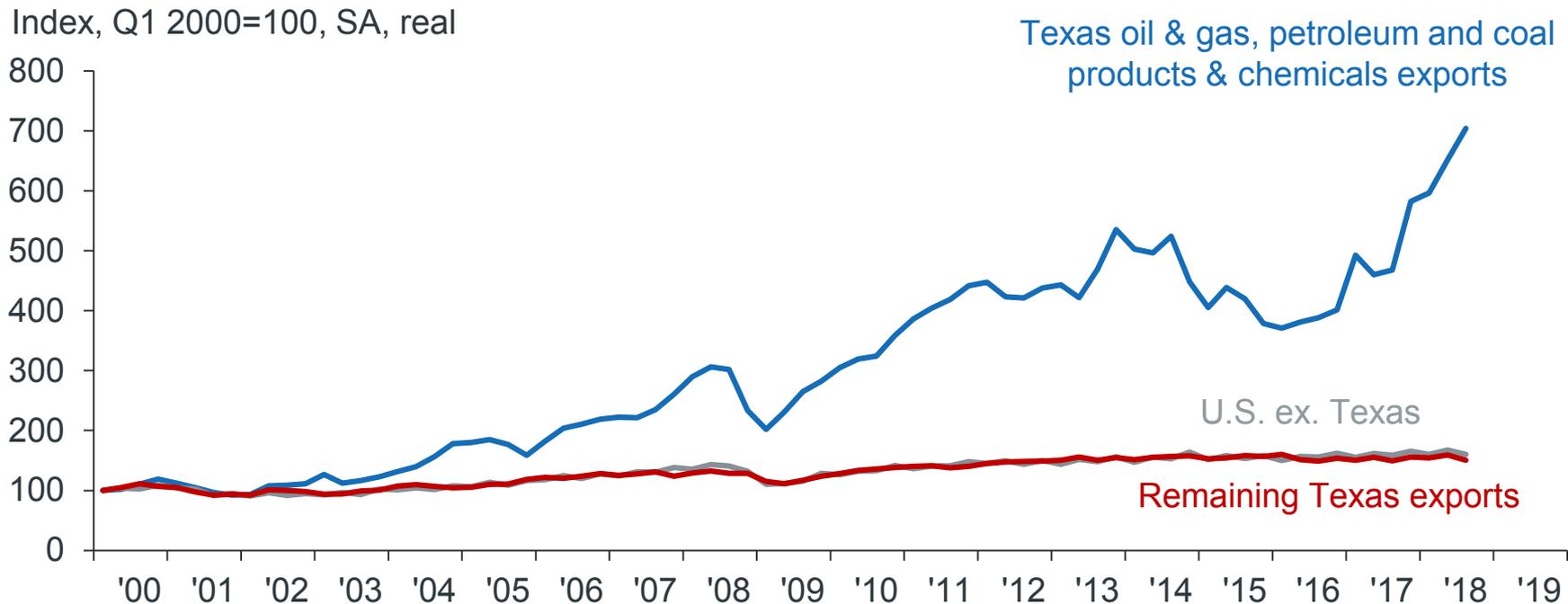
Texas exports to China declining



NOTE: Lines through Q3 2018; pie chart refers to Q3 2018.

SOURCES: U.S. Census, Bureau of Labor Statistics, WISERTrade.

Oil & Gas, petroleum and chemical products are drivers of Texas export growth relative to U.S.



NOTE: Data through Q3 2018.

SOURCES: U.S. Census, Bureau of Labor Statistics, WISERtrade.

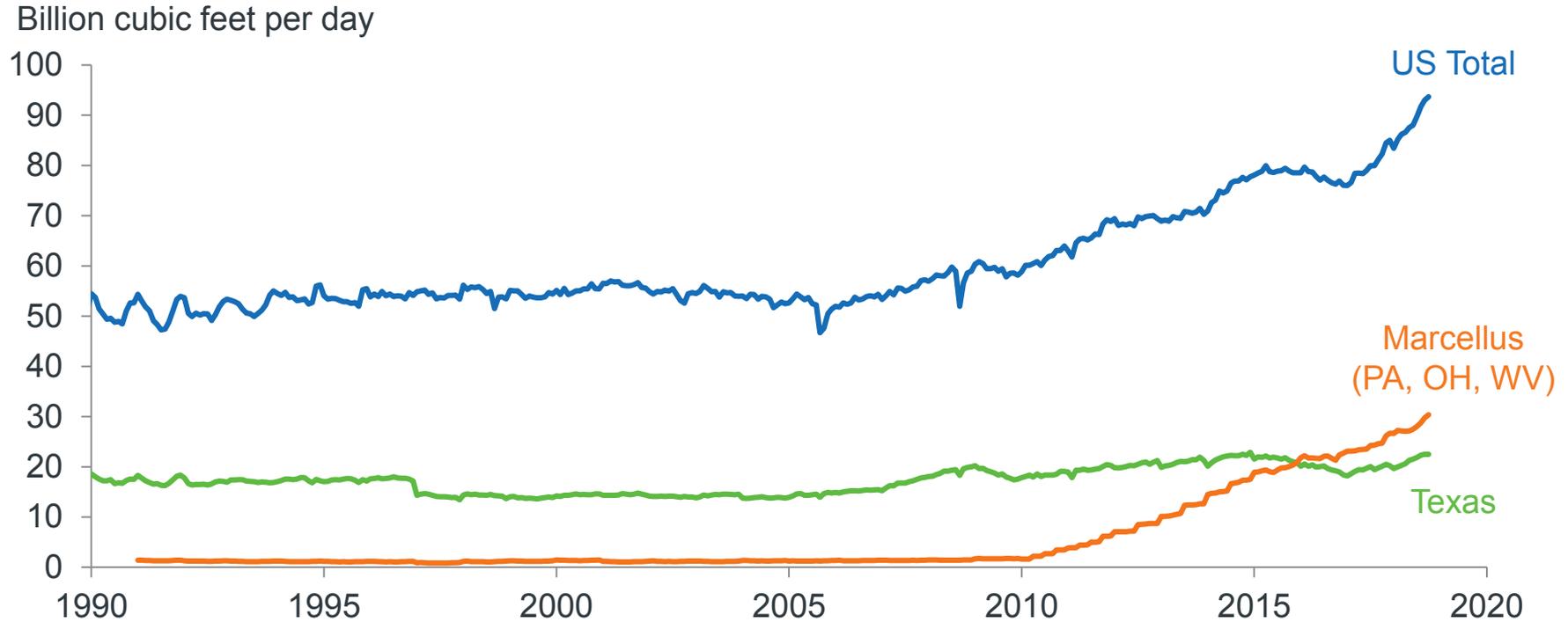
Global Oil and Gas Production

<u>Crude Oil (mb/d)</u> (November 2018)		<u>Natural Gas (bcf/d)</u> (August 2018)	
World	82.56	Total World	390.33
U.S.*	11.57	Total U.S.	91.84
Russia	11.37	Russia	63.86
Saudi Arabia	11.06	Iran	31.94
Texas*	5.07	Qatar	21.61
Iraq	4.60	Texas	22.31
China	3.71	Pennsylvania	17.26
United Arab Emirates	3.33	Canada	16.45
Canada	3.01	China	14.70
Iran	3.01	Norway	12.05
Kuwait	2.78	Algeria	7.55

*U.S. and Texas crude oil production are monthly averages of weekly estimates for November 2018.

SOURCES: Energy Information Administration; International Energy Agency; *Oil and Gas Journal*.

Natural gas production a record every year

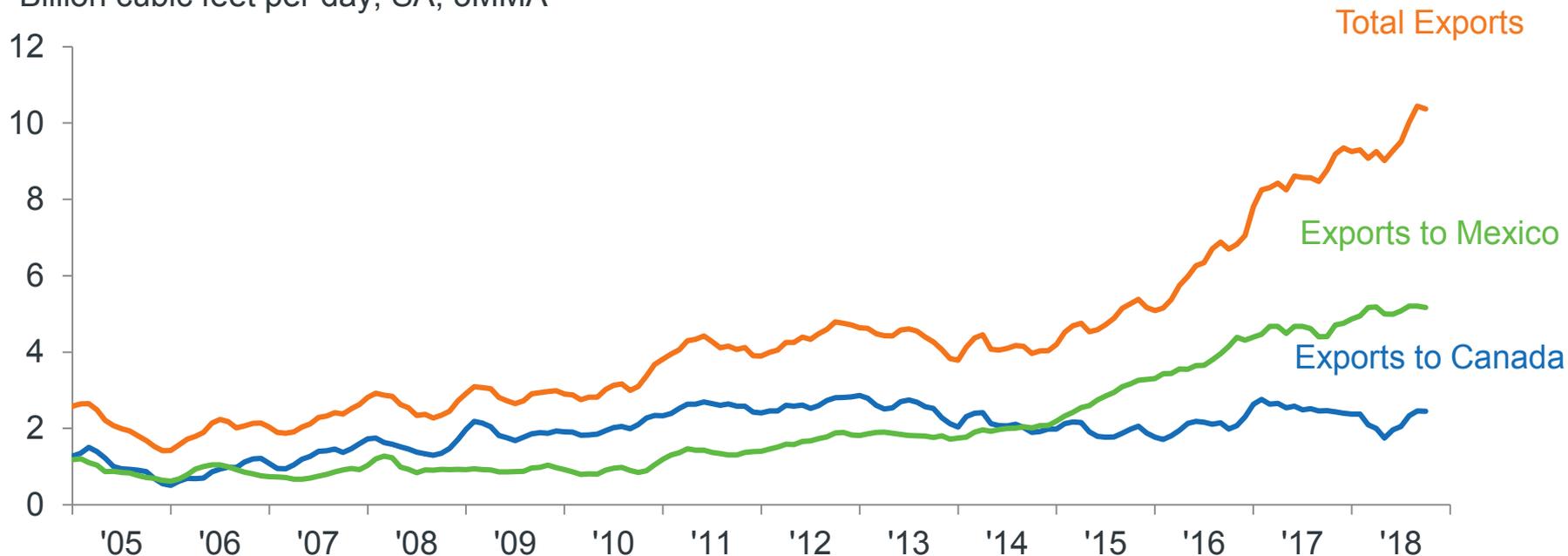


NOTE: Data through October 2018.

SOURCE: Energy Information Administration.

Bulk of U.S. natural gas exports go to Mexico and Canada

Billion cubic feet per day, SA, 3MMA

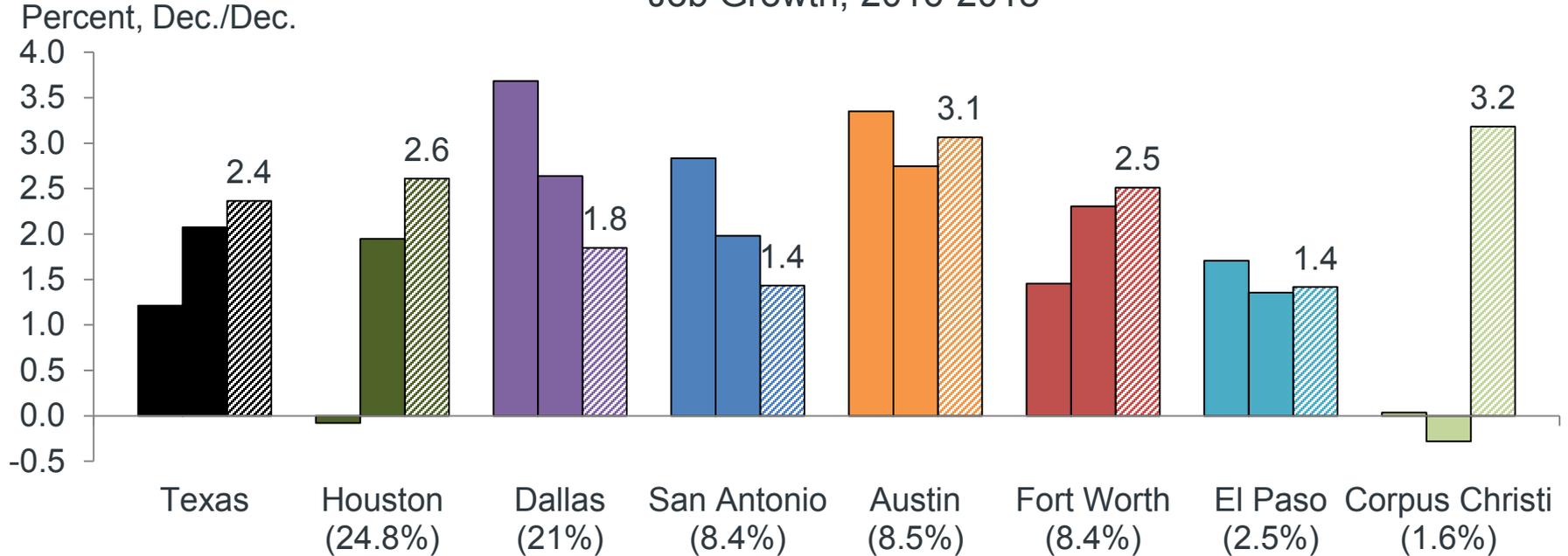


NOTES: Data through October 2018. Exports to Mexico comprises pipeline and LNG exports; exports to Canada comprises pipeline, LNG and CNG exports.

SOURCE: Energy Information Administration.

In 2018, Dallas and San Antonio Slowed from Strong Growth, Energy Metros Rebounded

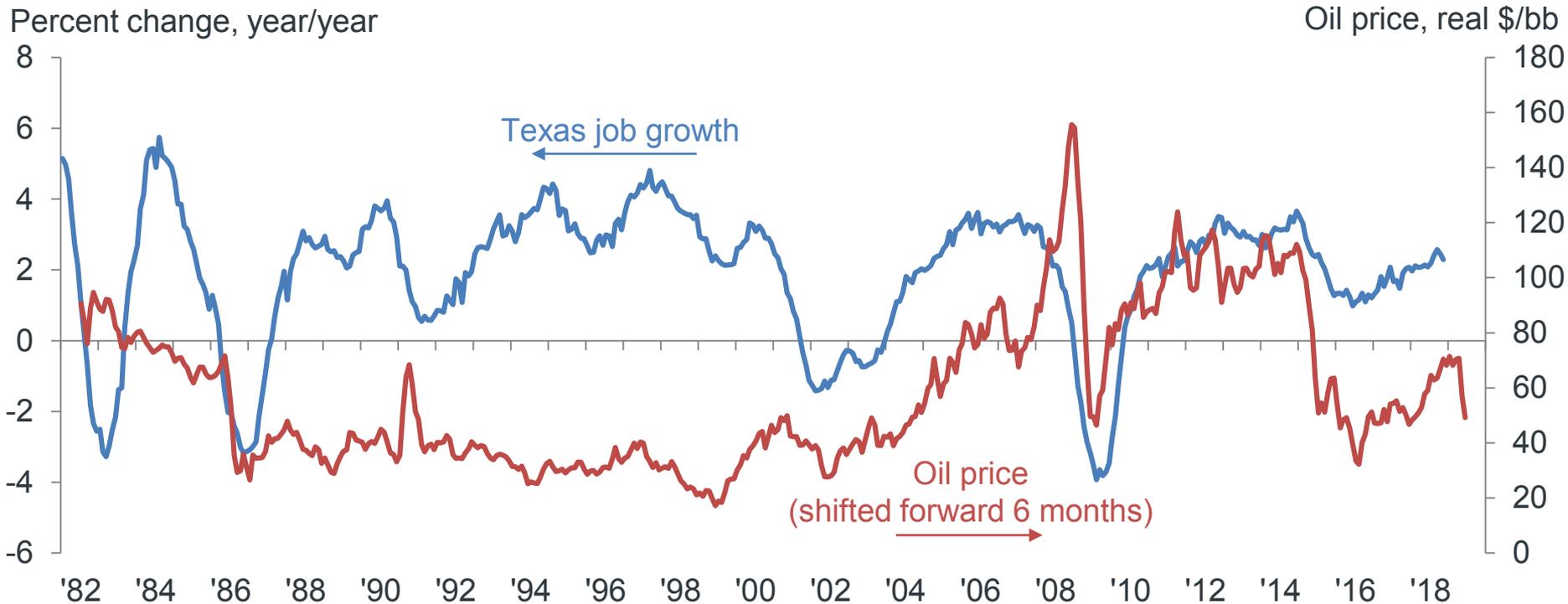
Job Growth, 2016-2018



NOTES: Shaded bars represent seasonally adjusted, annualized growth from Dec. 2017 to Nov. 2018. Figures in parentheses represent shares of total state employment.

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

If Oil Prices Persist Near \$50 per barrel, Texas Job Growth Likely to Feel Impacts in Q2 2019

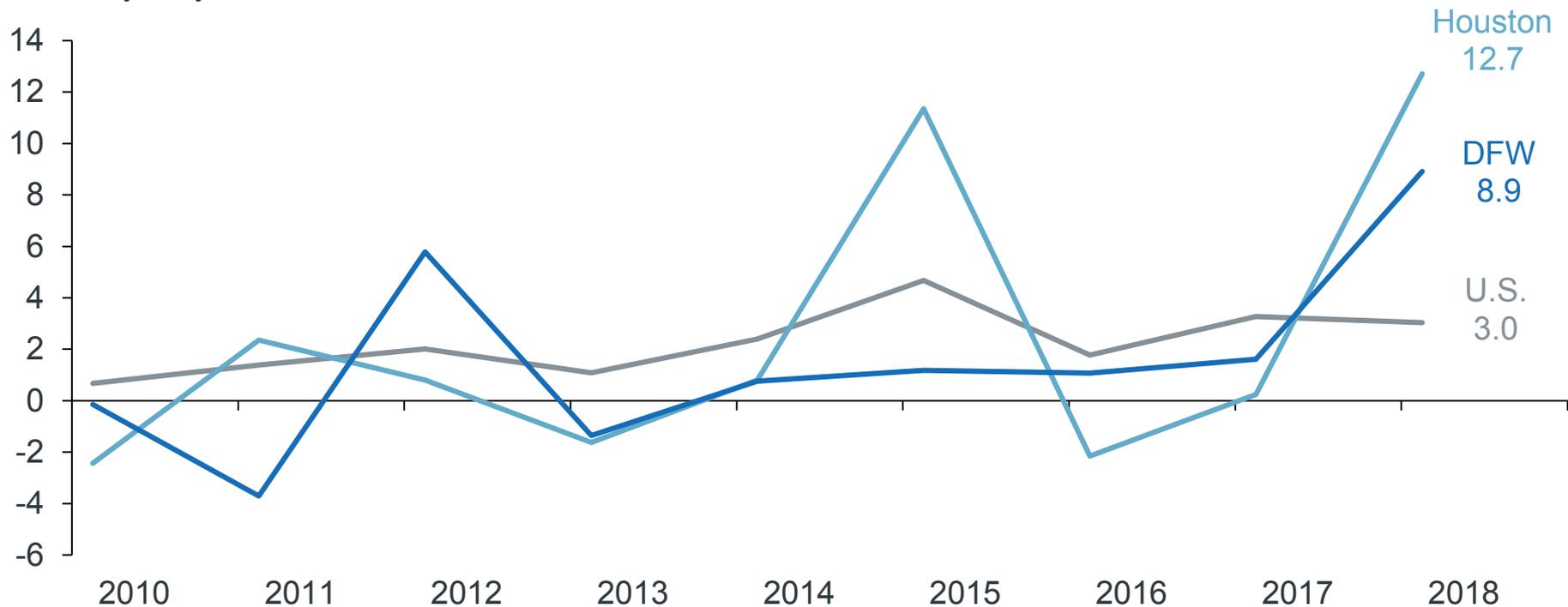


NOTE: WTI oil price deflated using CPI-U to Dec. 2018 dollars.

SOURCES: *Wall Street Journal*; Bureau of Labor Statistics.

ECEC data suggest wage growth has spiked in Houston, DFW

Percent, year/year



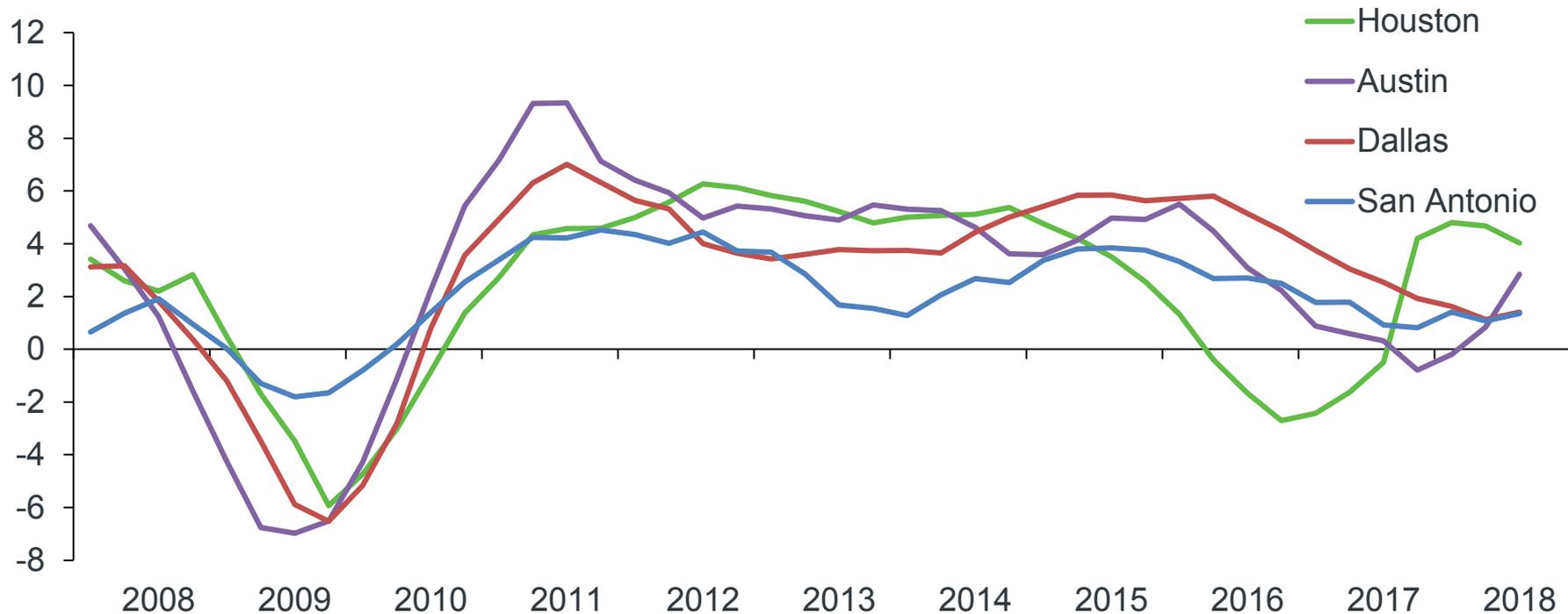
NOTES: Data include only private firms. Data through 2018:Q1.

SOURCE: Bureau of Labor Statistics Employer Costs for Employee Compensation.

Commercial Real Estate

Apartment Rent Growth Cools in Most Metros But Picks up In Austin

Percent, year/year

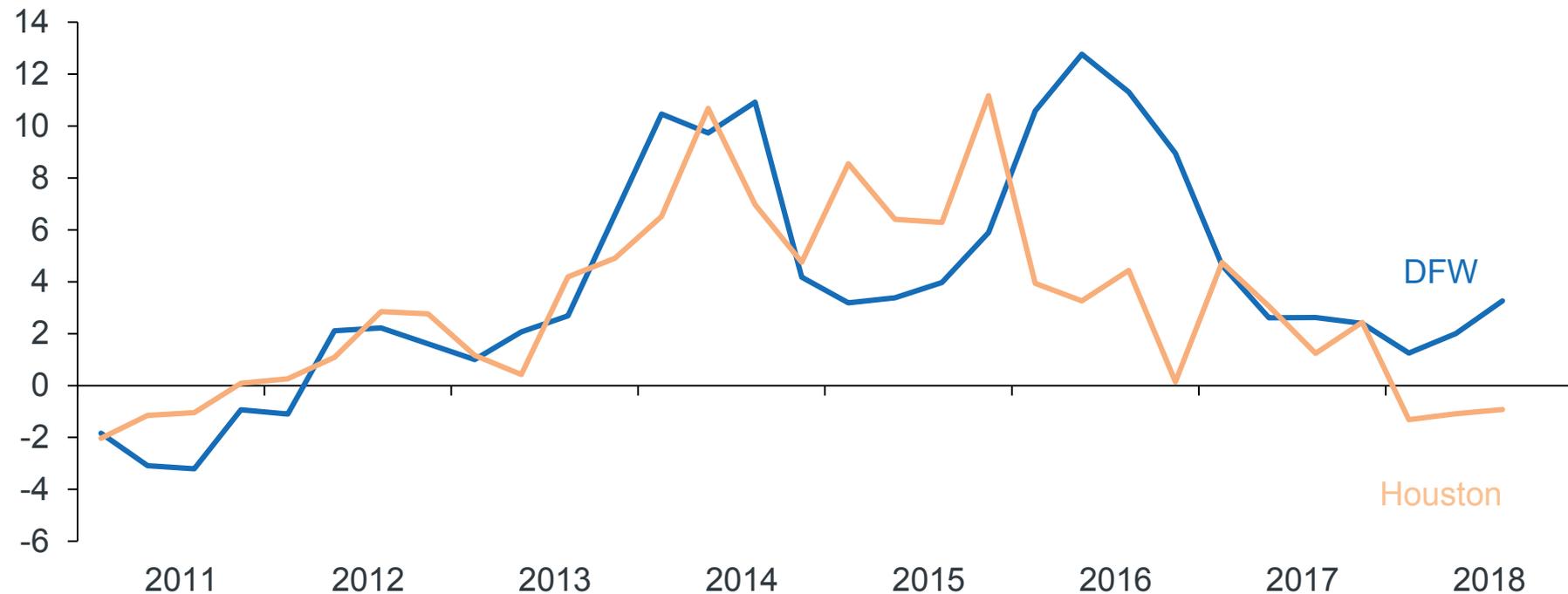


NOTES: Data through Q3 2018. Index constructed using non-seasonally adjusted nominal dollar rents (\$/unit/month).

SOURCE: CBRE Econometric Advisors.

Office Rents Decline in Houston, Rising in Dallas

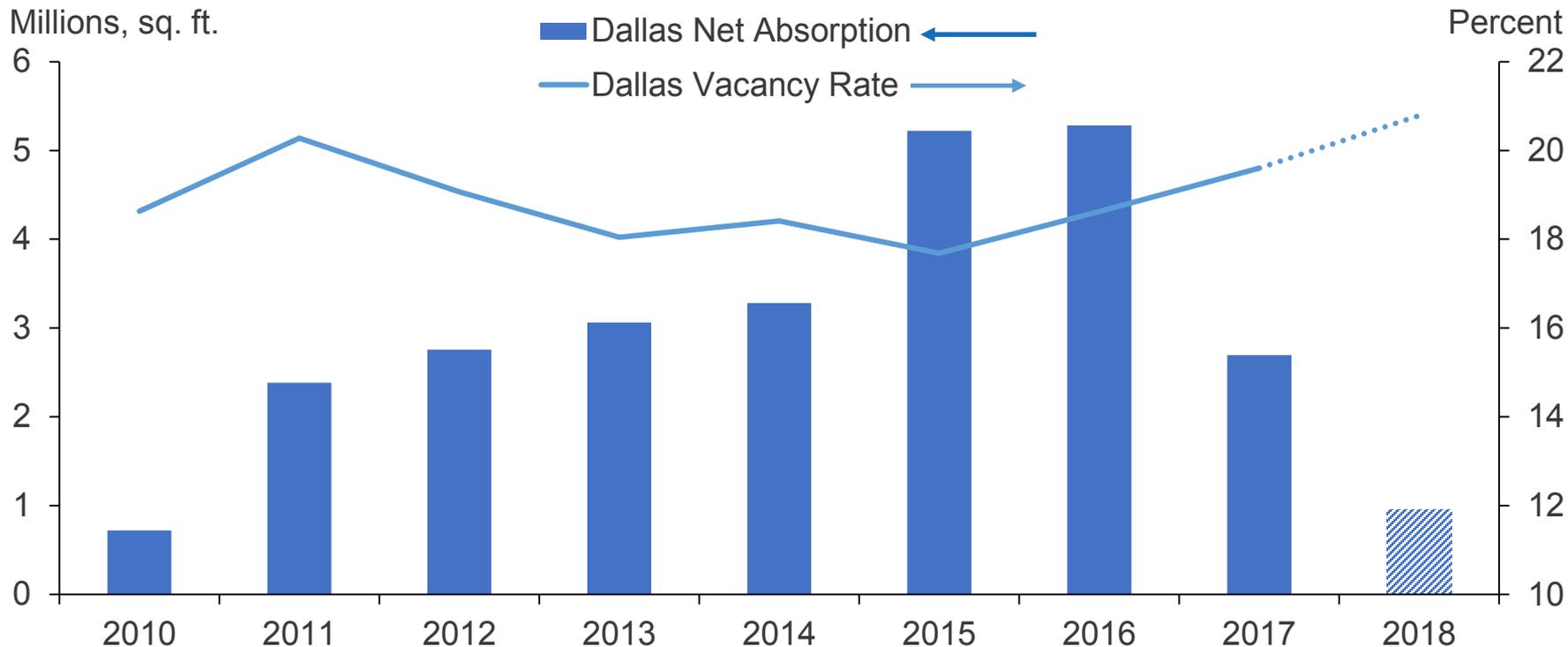
Rent growth, year/year



NOTES: Data through Q3 2018. Underlying data in nominal dollars per square foot.

SOURCE: CBRE Research.

DFW Office Absorption Slows, Vacancy Rises



NOTES: Data through Q3 2018. Patterned bars and dashed lines denote partial year data.

SOURCE: CBRE Research.