From Boom to Gloom: Energy States After the Oil Bust

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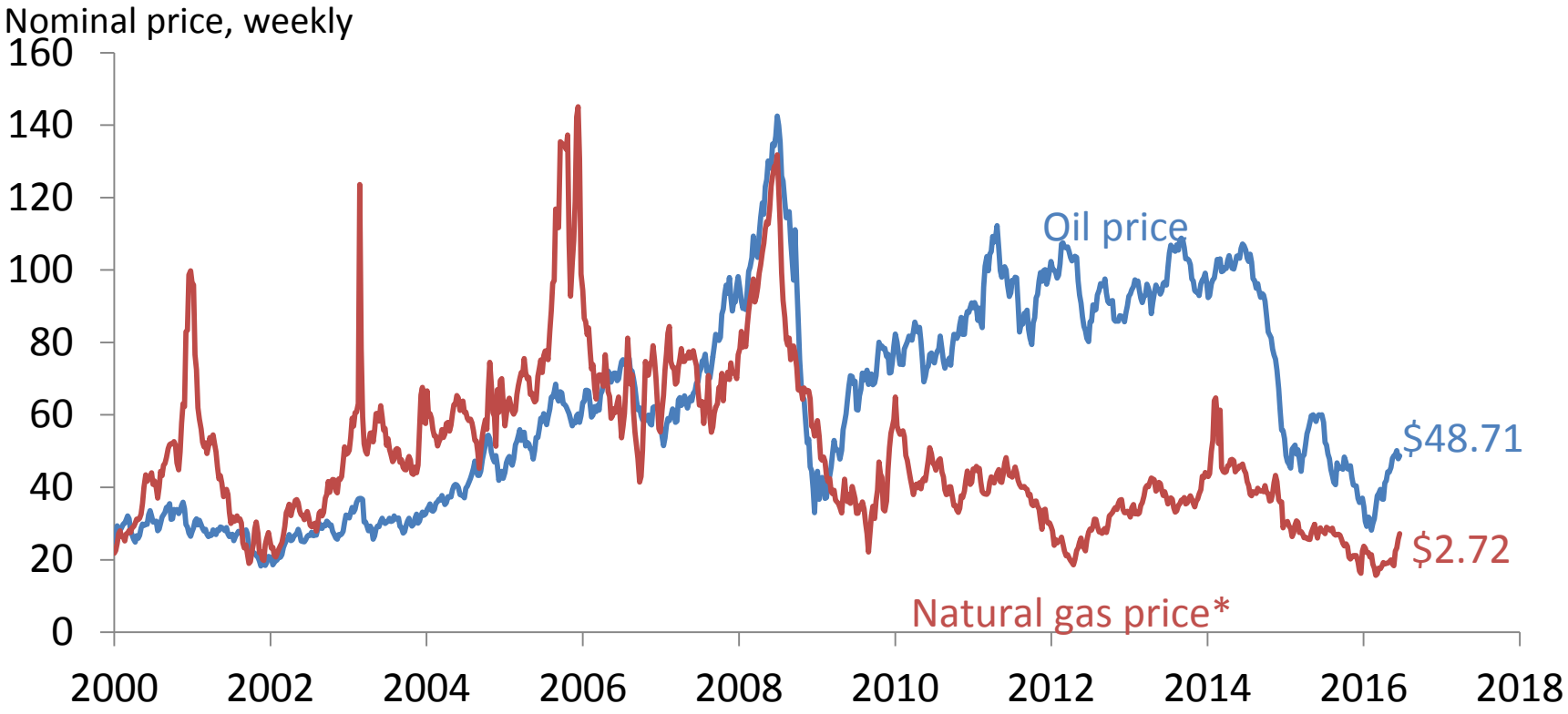
Oil and gas prices move up



*Natural gas price is multiplied by ten. Oil is priced in $/barrel, while natural gas is priced in $/million British thermal units. Last data points are for the week ending June 24, 2016.
SOURCES: Energy Information Administration; *Wall Street Journal*

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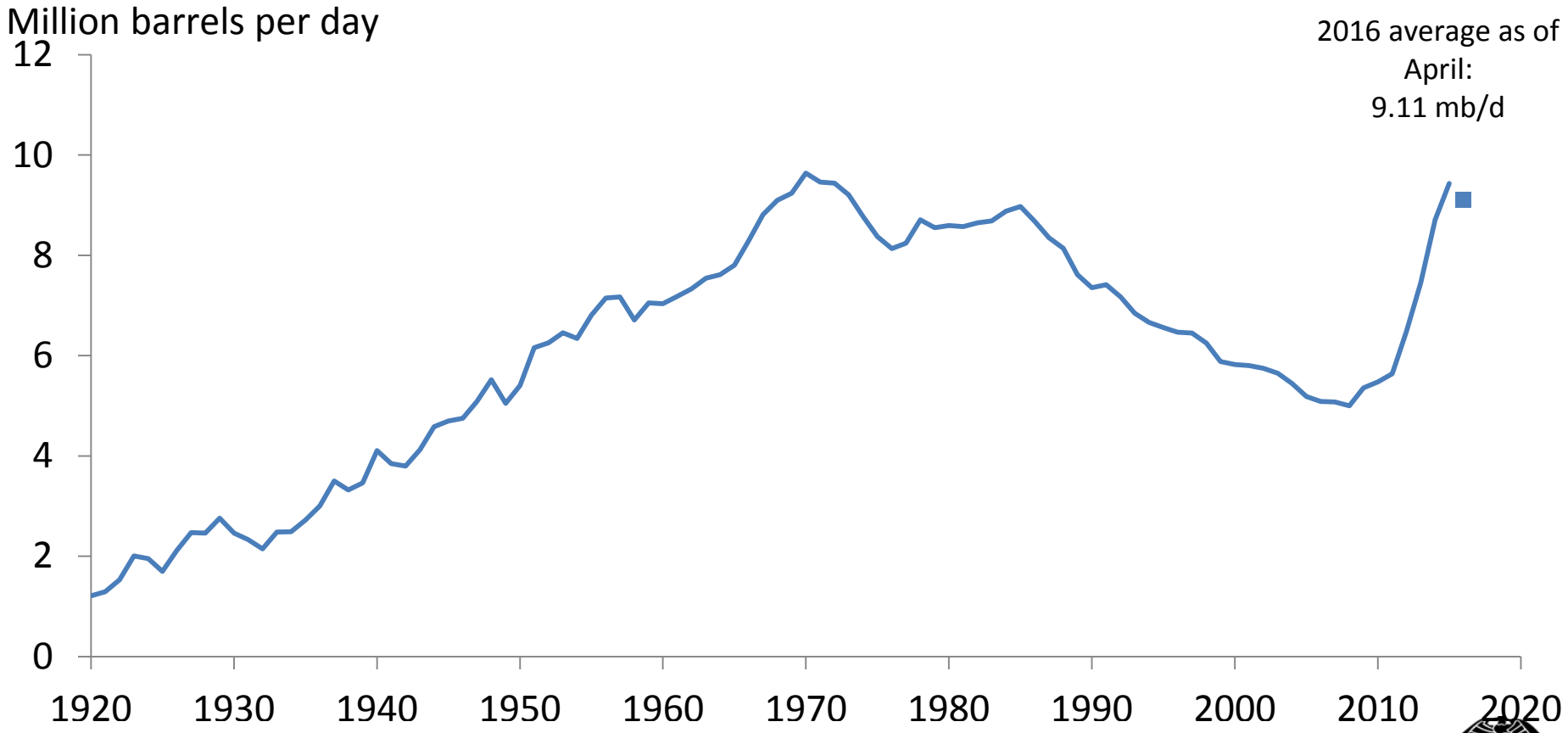
Shale boosts U.S. oil production



SOURCE: Energy Information Administration.

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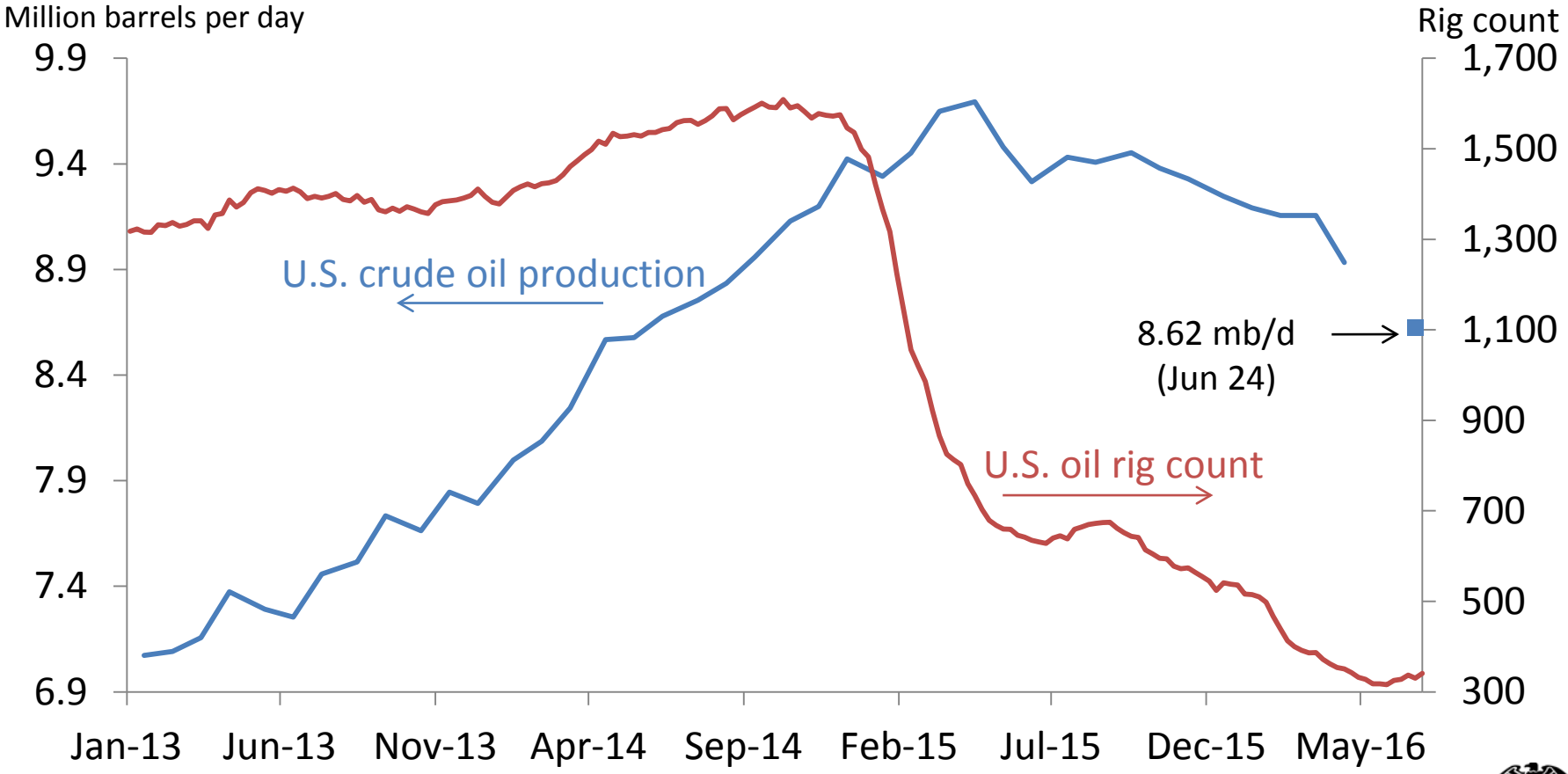
Rig count plunges, oil production drops



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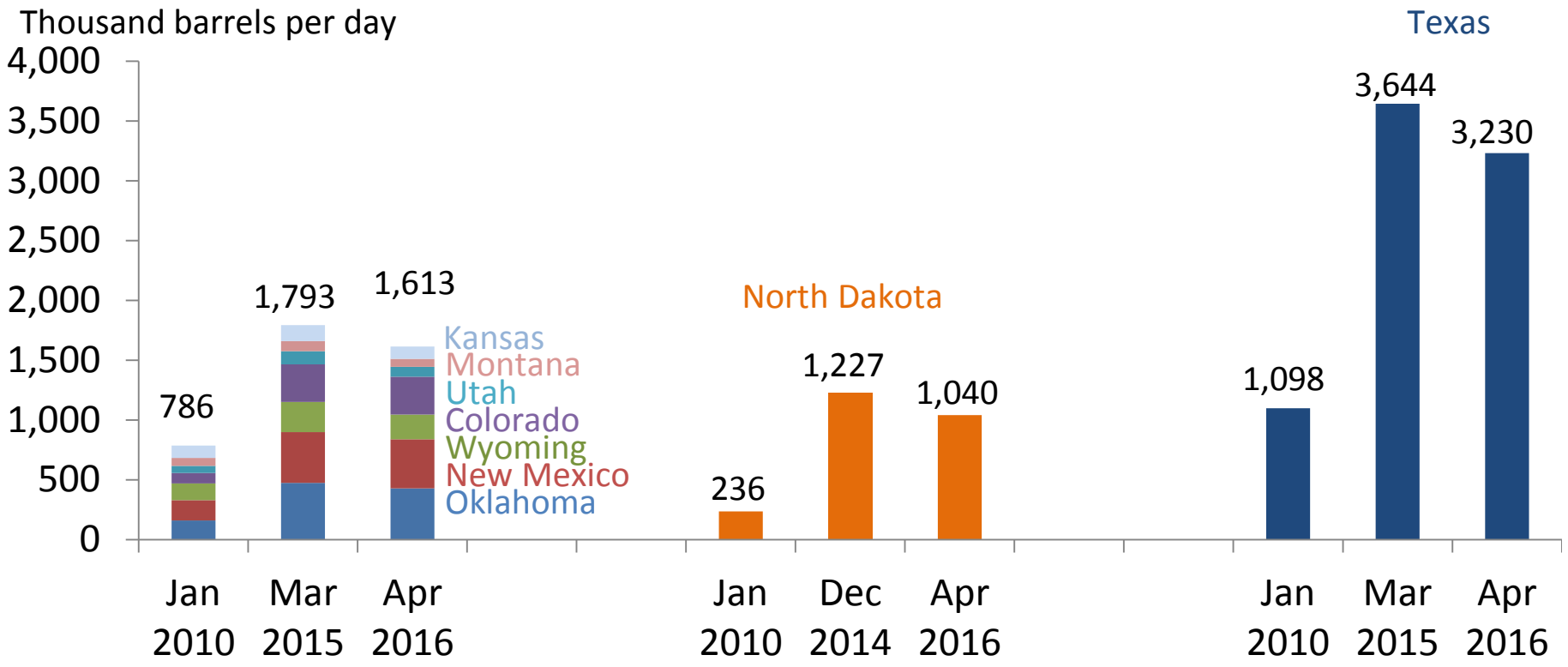
SOURCES: Baker Hughes; Energy Information Administration.

U.S. Shale Oil Production



SOURCE: Energy Information Administration.

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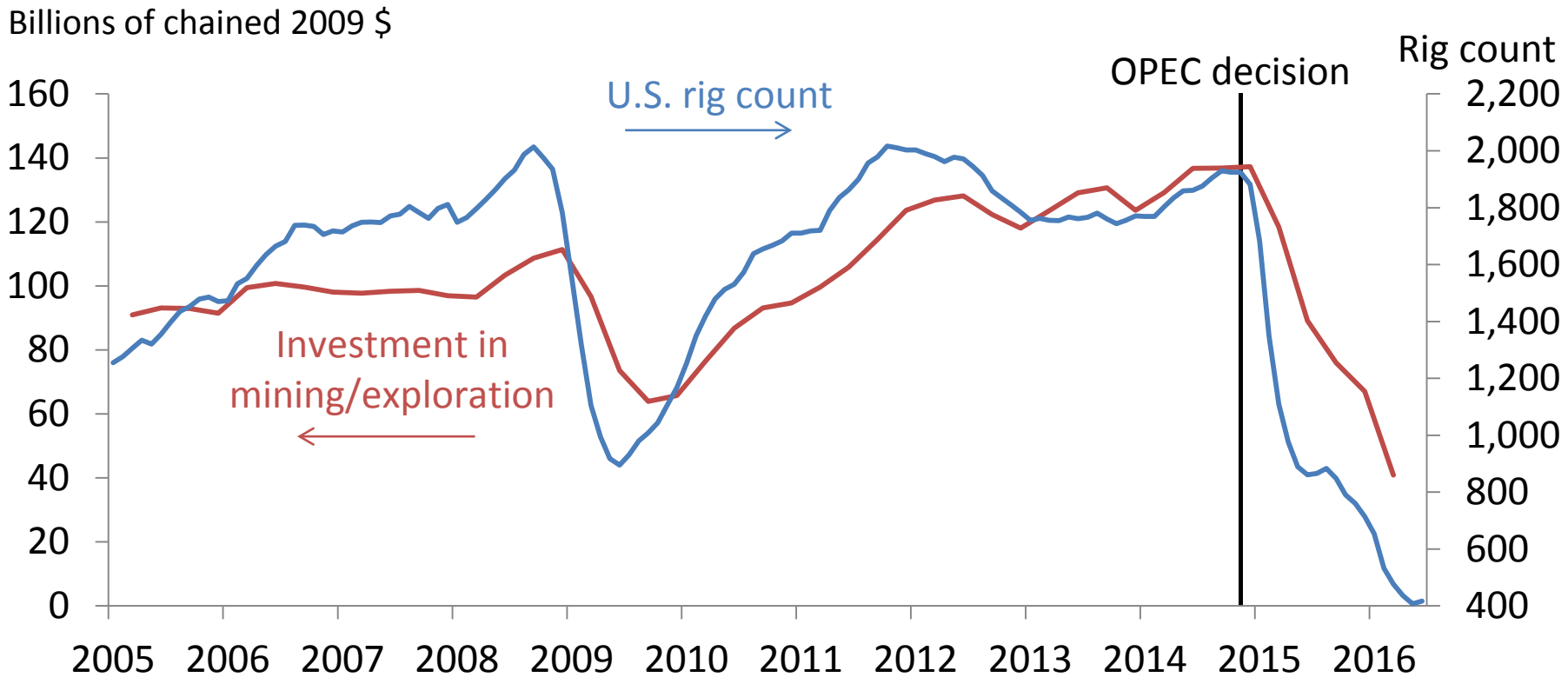
IMPACT ON U.S. ECONOMY

Oil investment and rig count plunge



SOURCES: Baker Hughes; Bureau of Economic Analysis.

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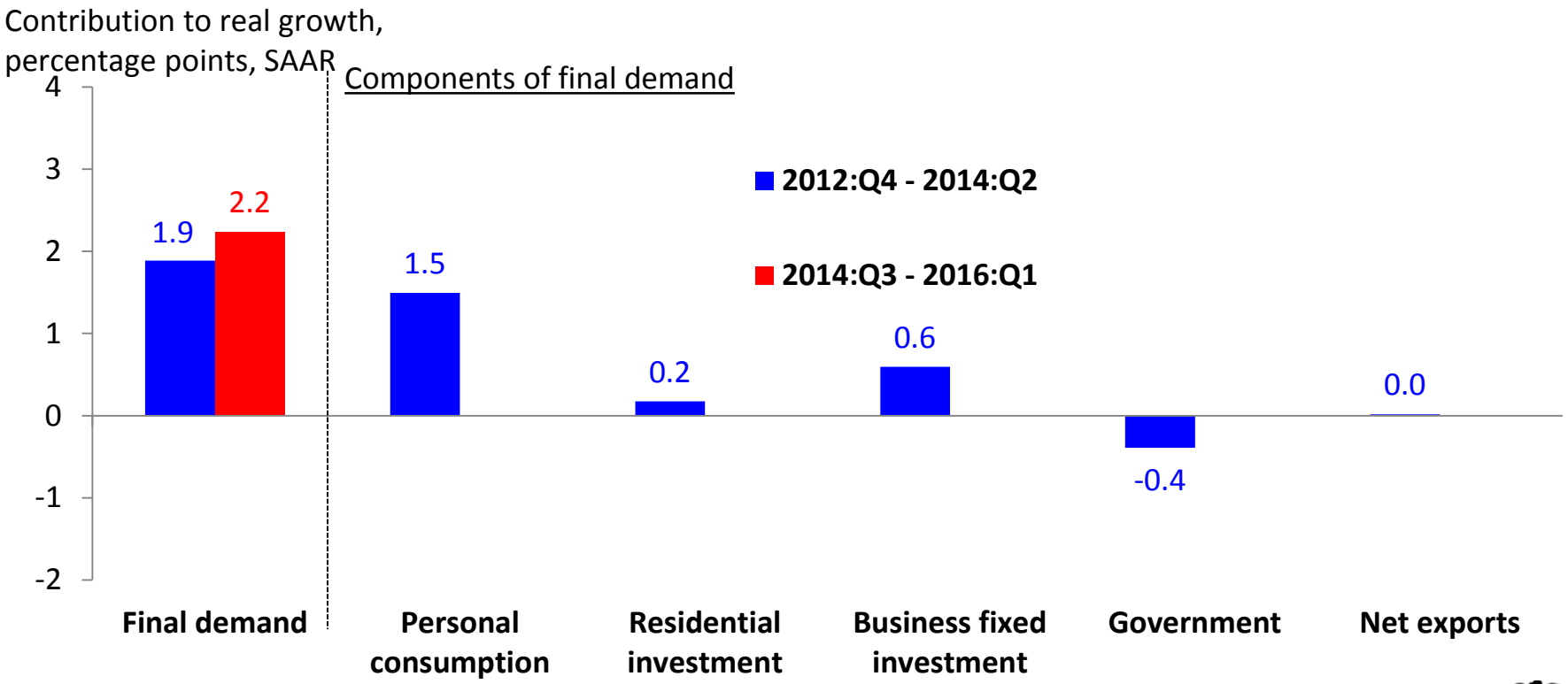
Low oil prices boosted growth in final demand



NOTE: Components do not sum exactly to final demand due to rounding.
SOURCE: Bureau of Economic Analysis

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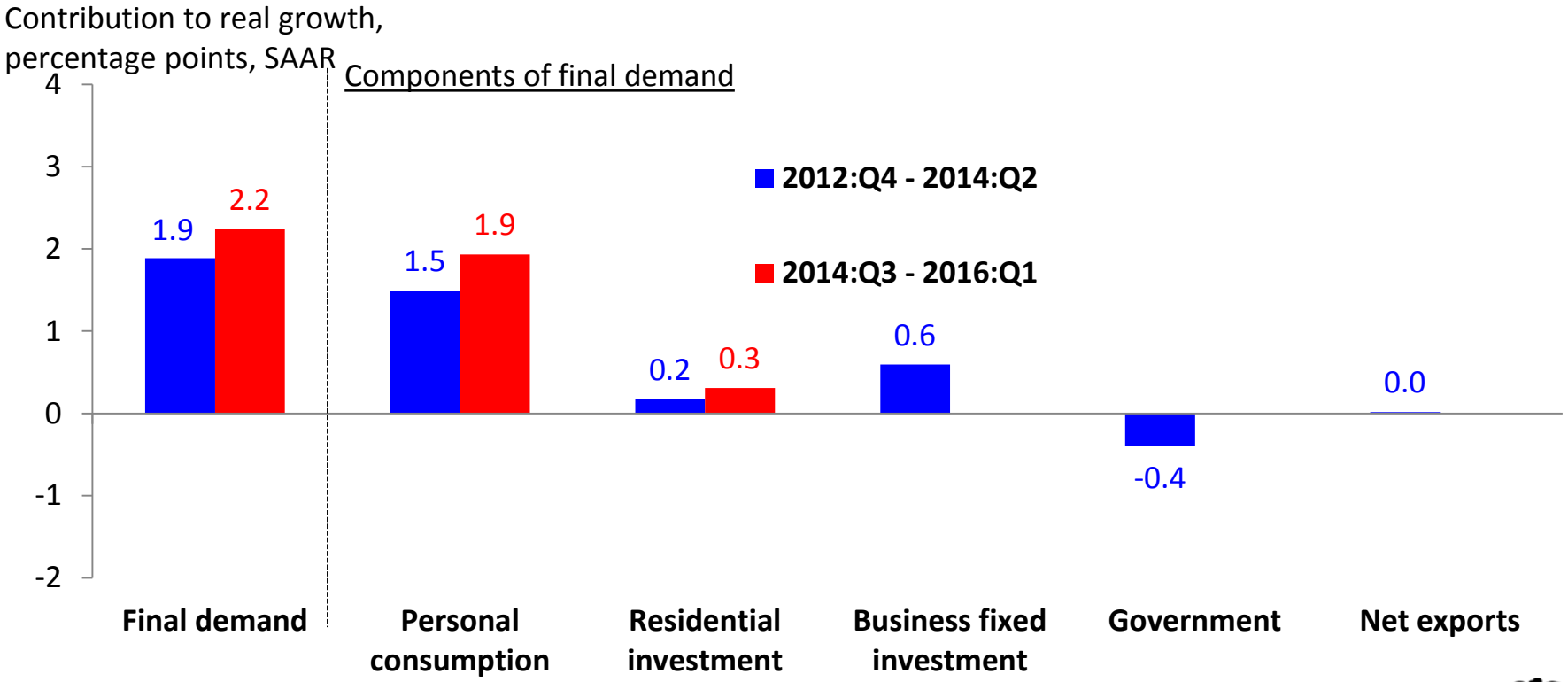
Households benefit from low energy prices and a strong dollar



NOTE: Components do not sum exactly to final demand due to rounding.
SOURCE: Bureau of Economic Analysis

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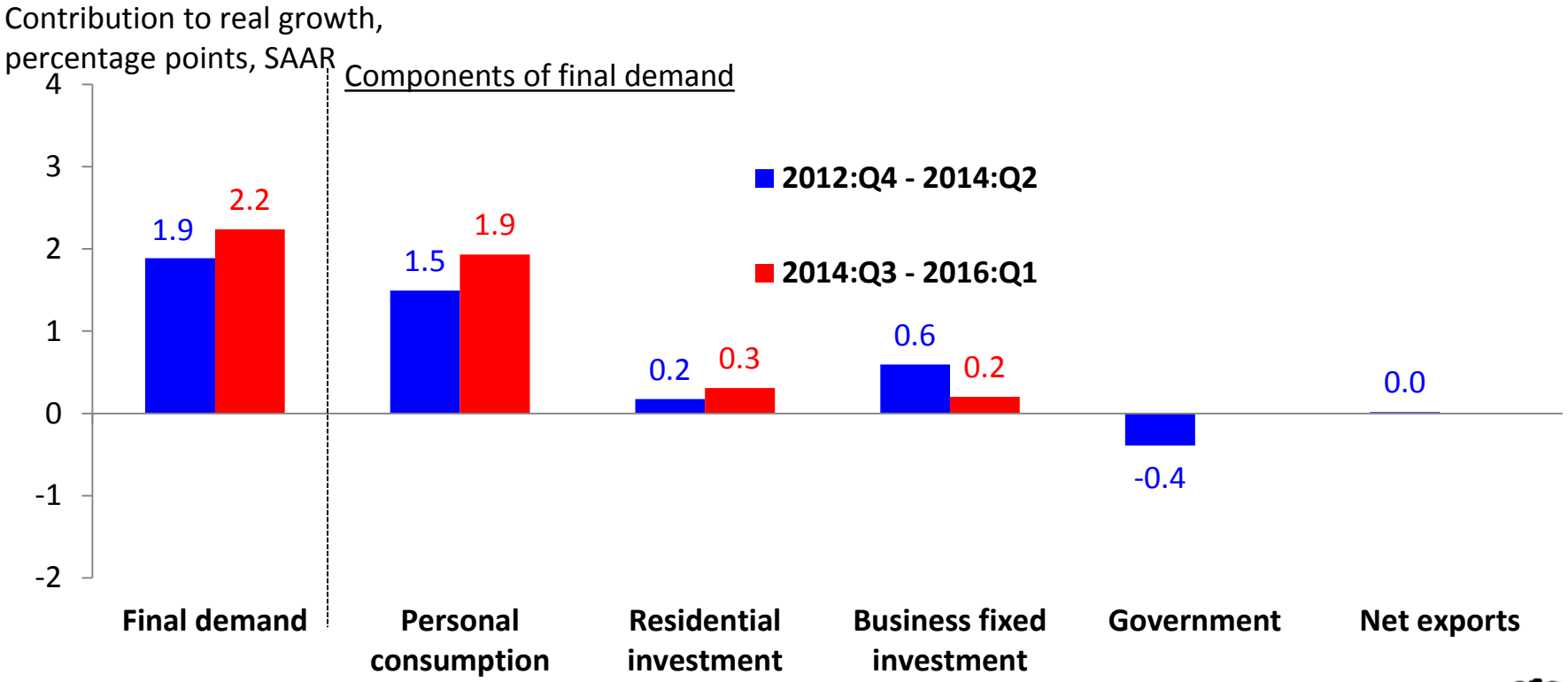
Mining and manufacturing firms have scaled back cap ex plans, and investment growth has slowed



NOTE: Components do not sum exactly to final demand due to rounding.
SOURCE: Bureau of Economic Analysis

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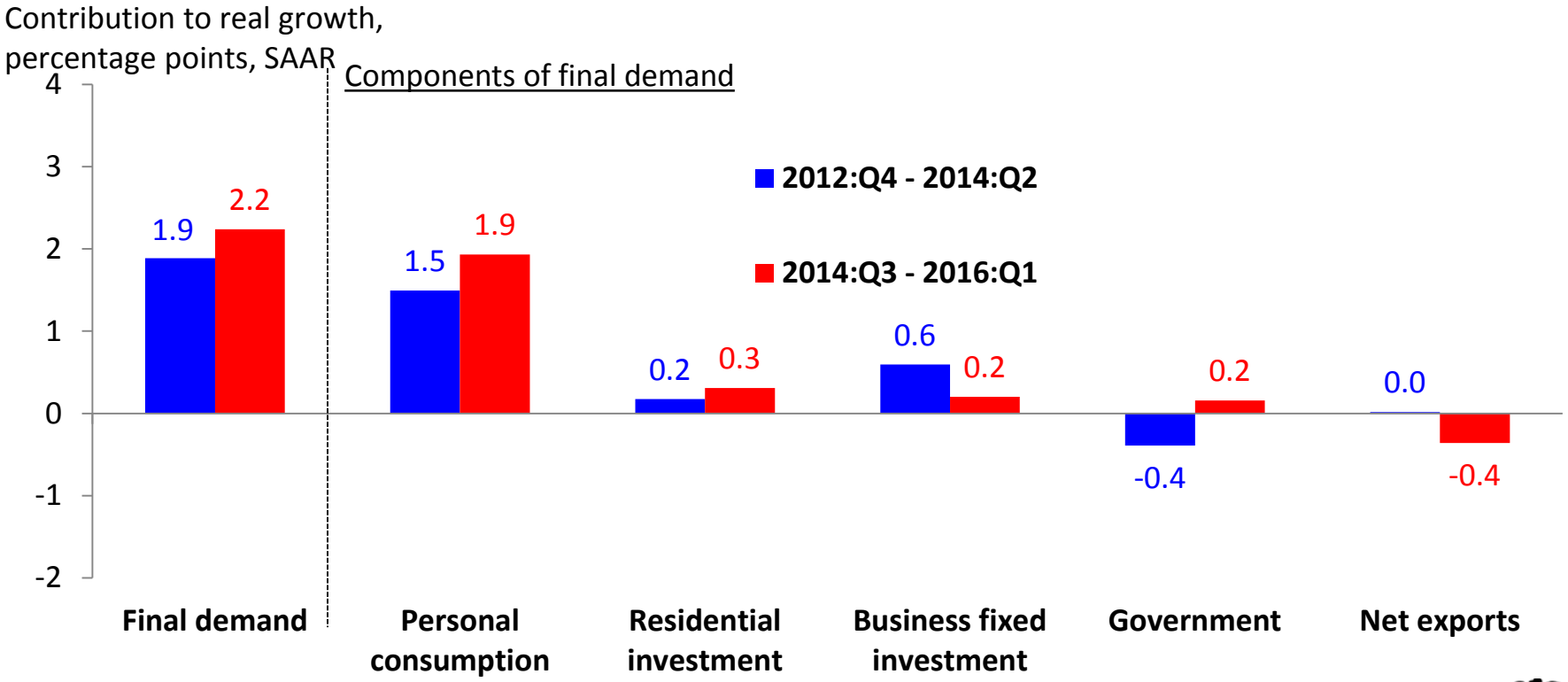
Government purchases and the strong dollar have also affected final demand



NOTE: Components do not sum exactly to final demand due to rounding.
SOURCE: Bureau of Economic Analysis

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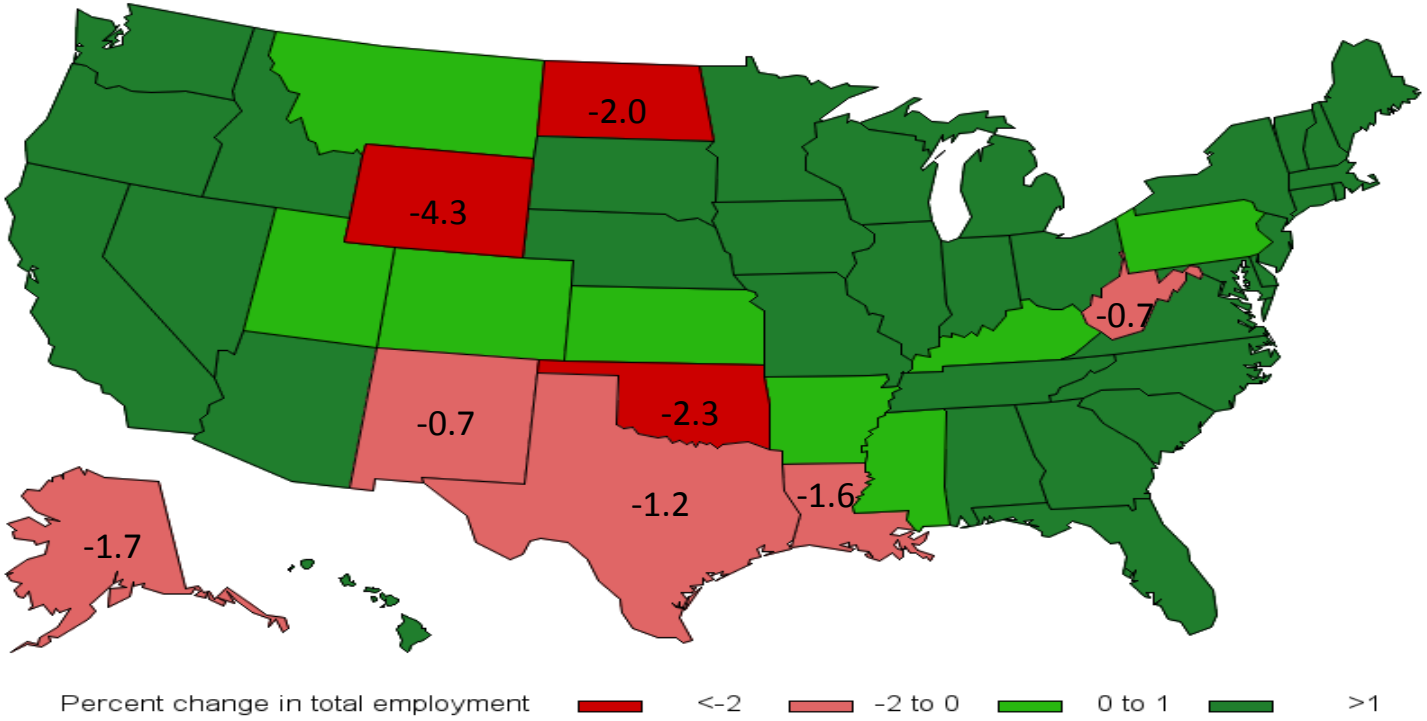
IMPACT ON STATE ECONOMIES

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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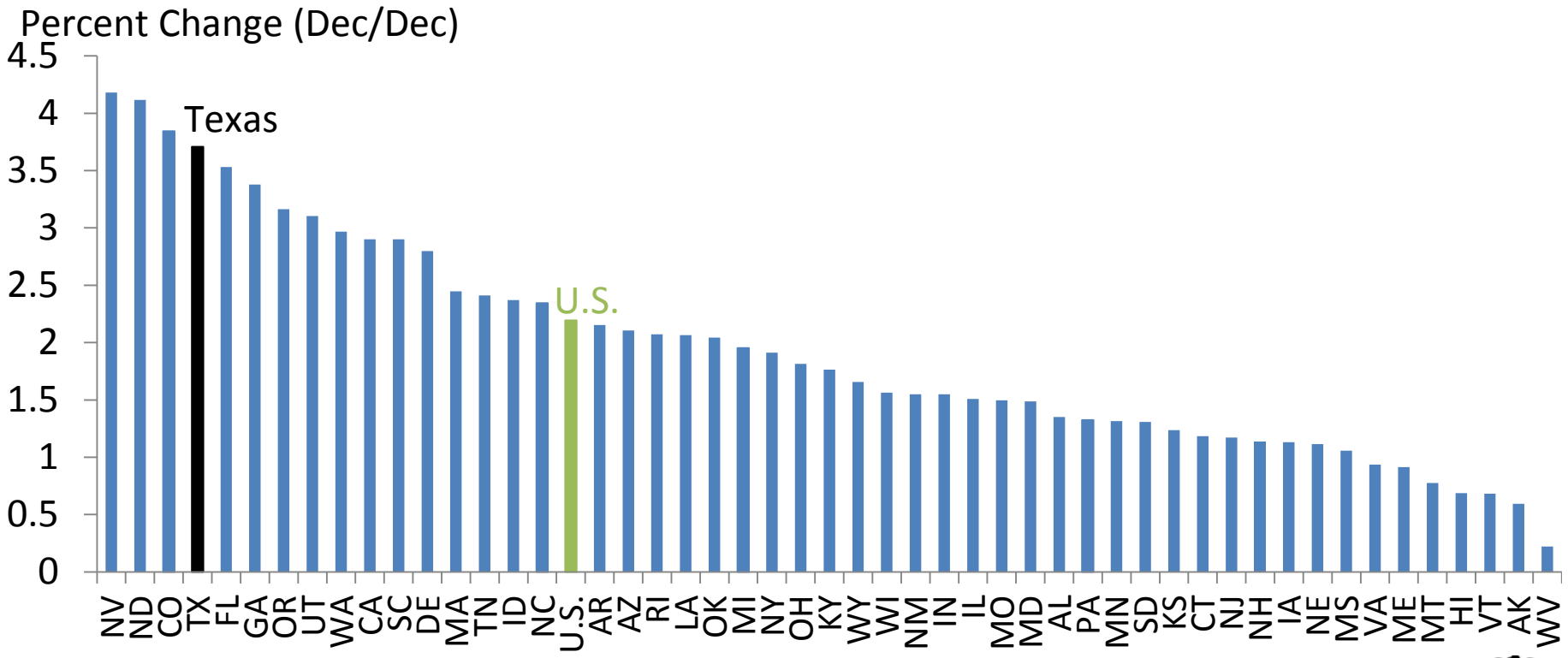
Energy states did well in 2014



SOURCE: Bureau of Labor Statistics.

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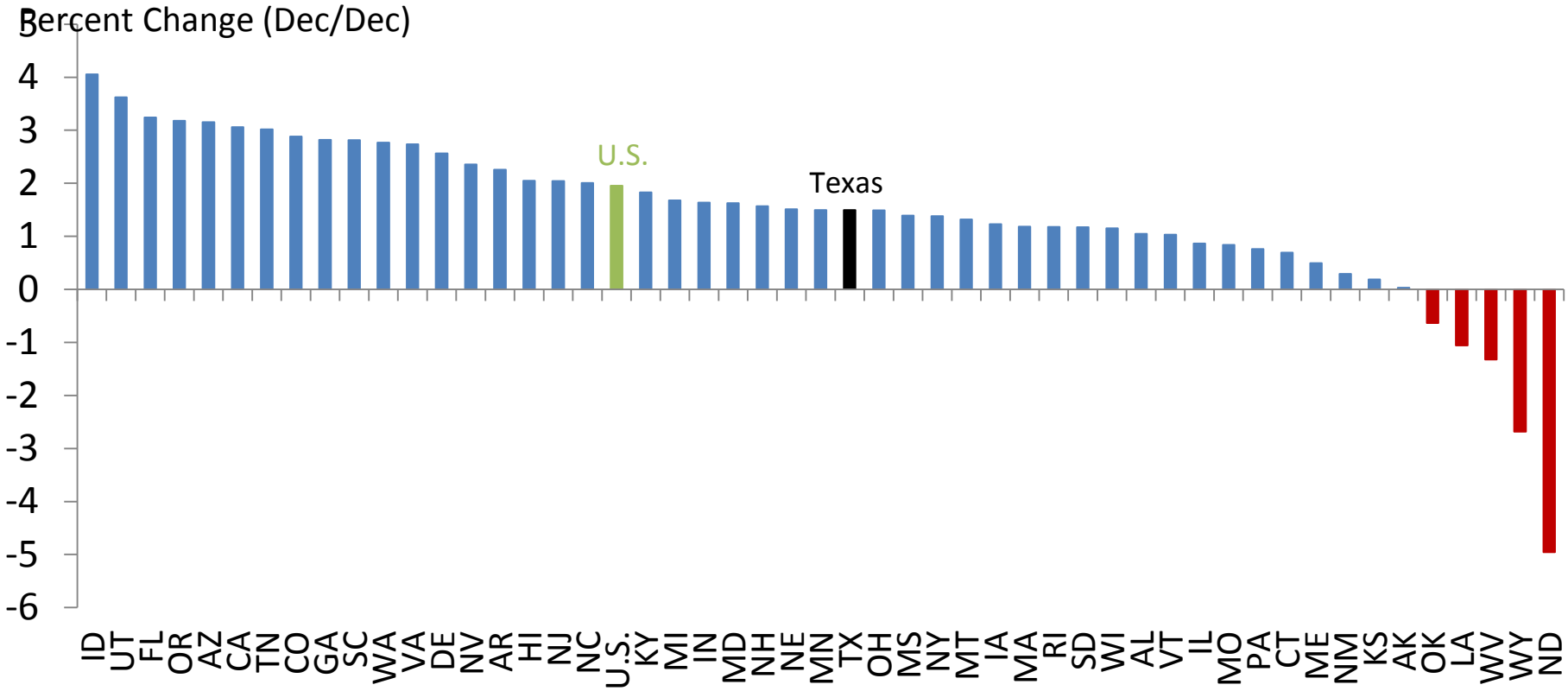
Energy states lose jobs in 2015



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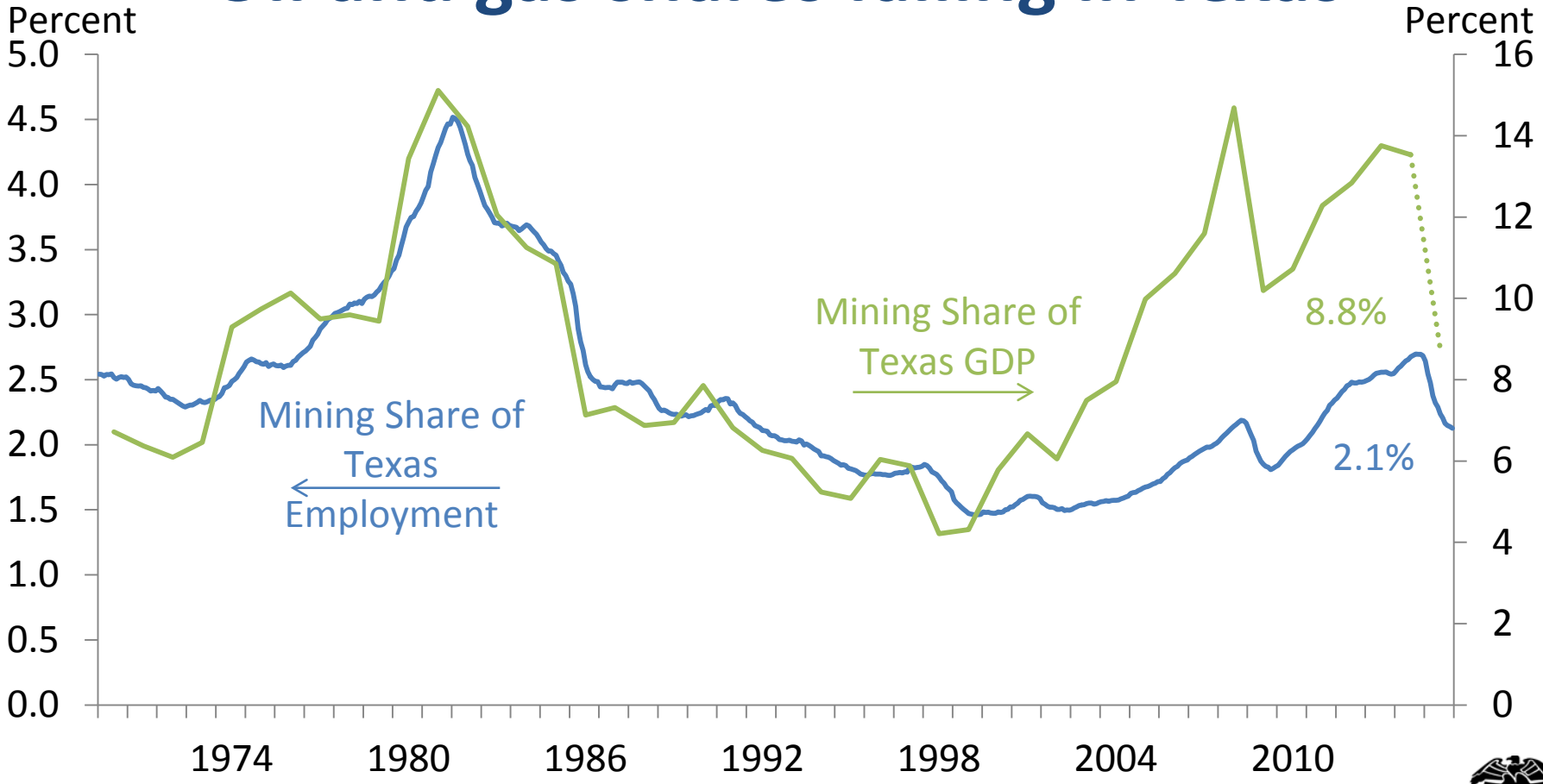
SOURCE: Bureau of Labor Statistics

Oil and gas shares falling in Texas



SOURCES: Bureau of Economic Analysis; Bureau of Labor Statistics; calculations by FRB Dallas.

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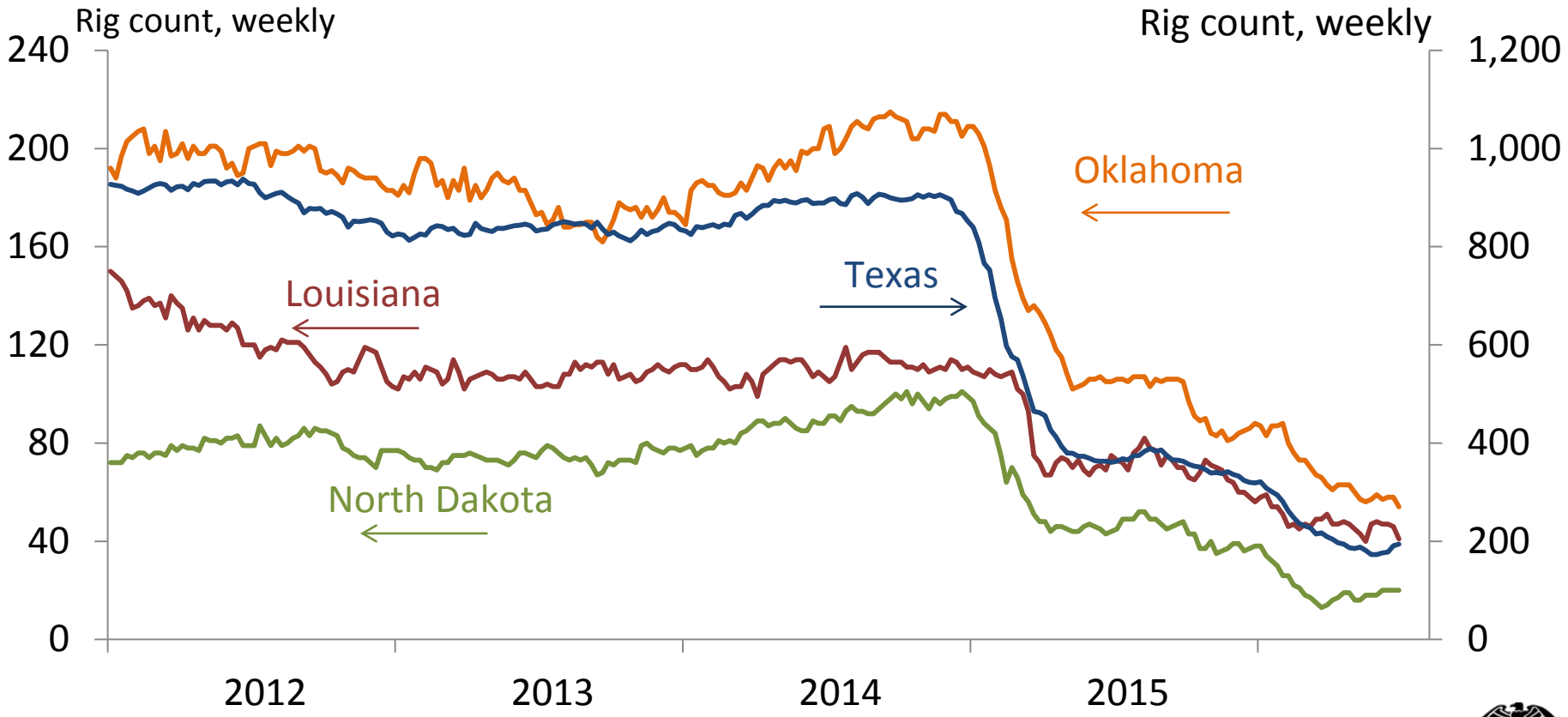
Is the fall in rig counts over?



NOTE: Last data point is June 24.
SOURCE: Baker Hughes.

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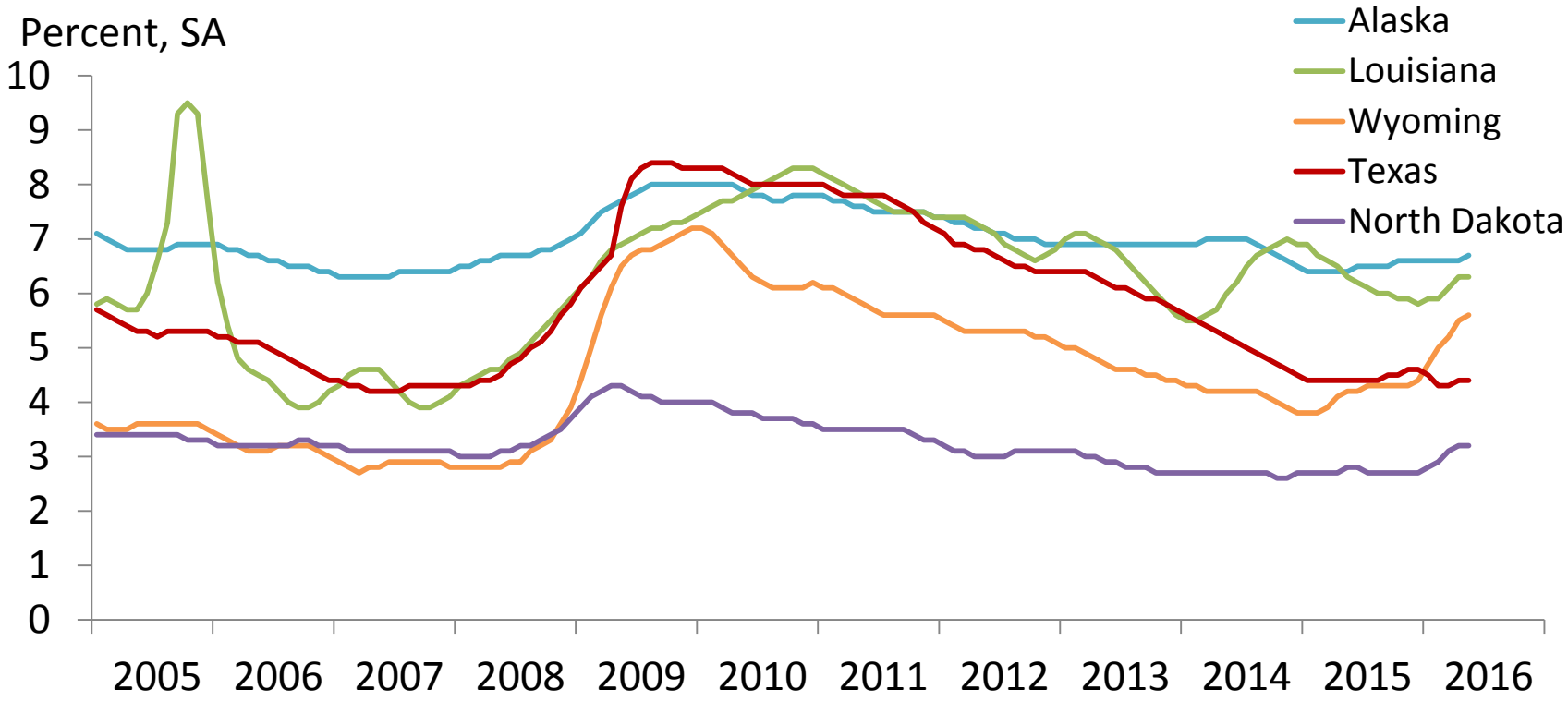
Unemployment rates rising



SOURCE: Bureau of Labor Statistics.

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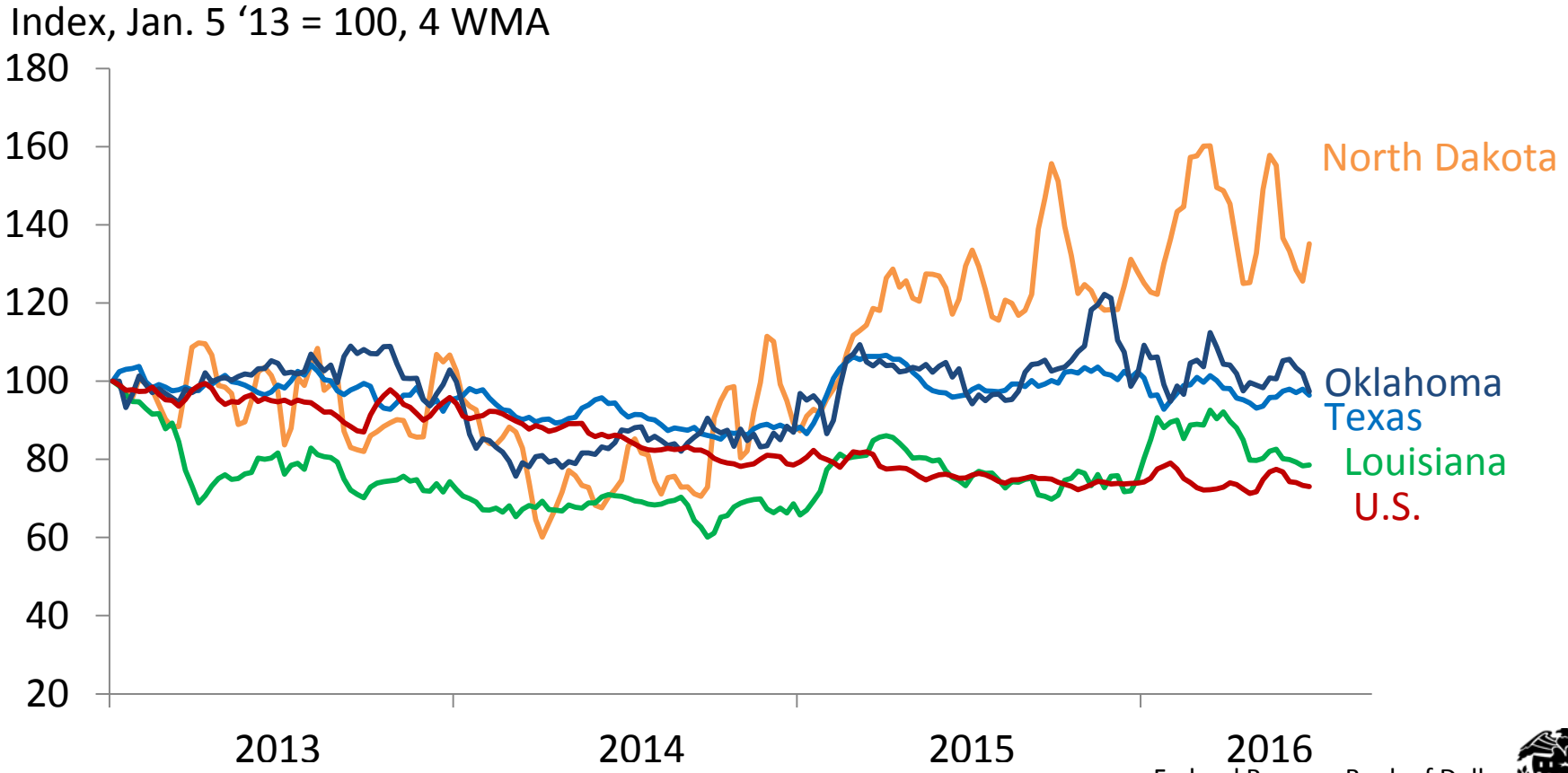
Initial jobless claims still high



SOURCE: Bureau of Labor Statistics.

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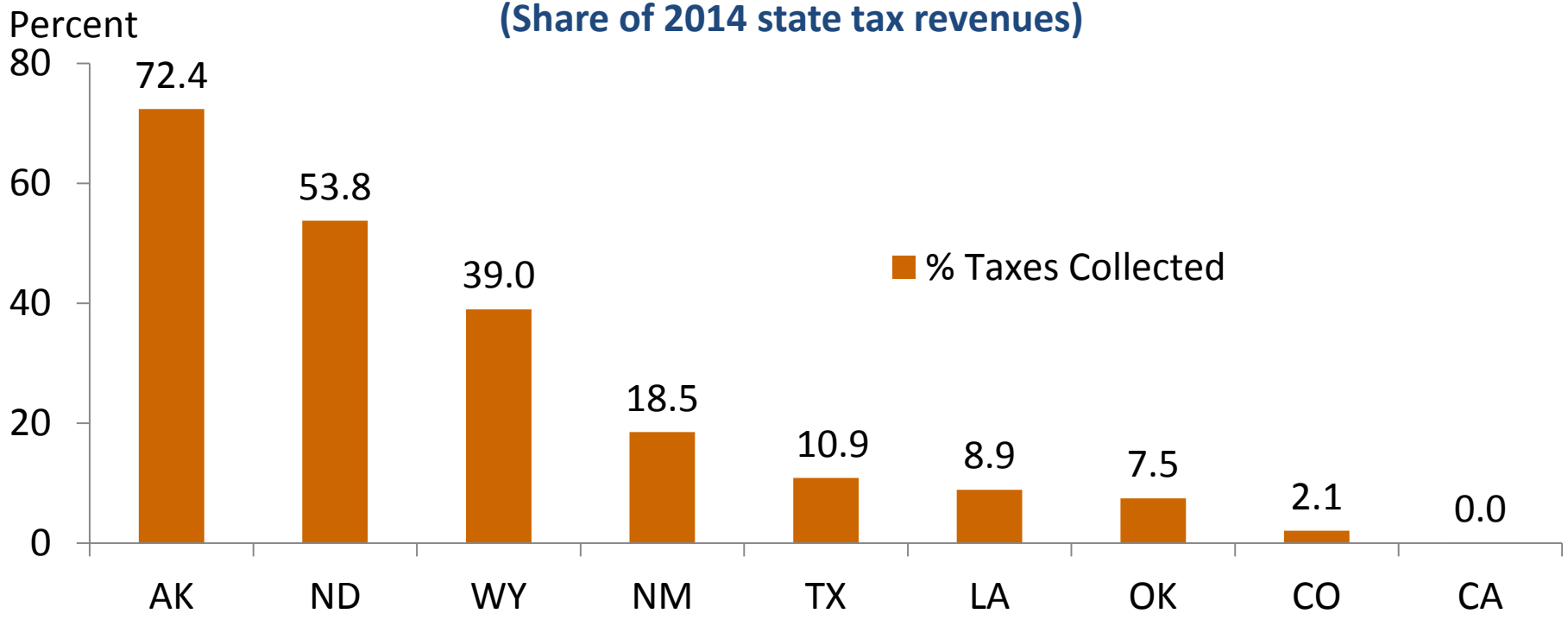
Some states rely heavily on oil and gas severance taxes

(Share of 2014 state tax revenues)



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

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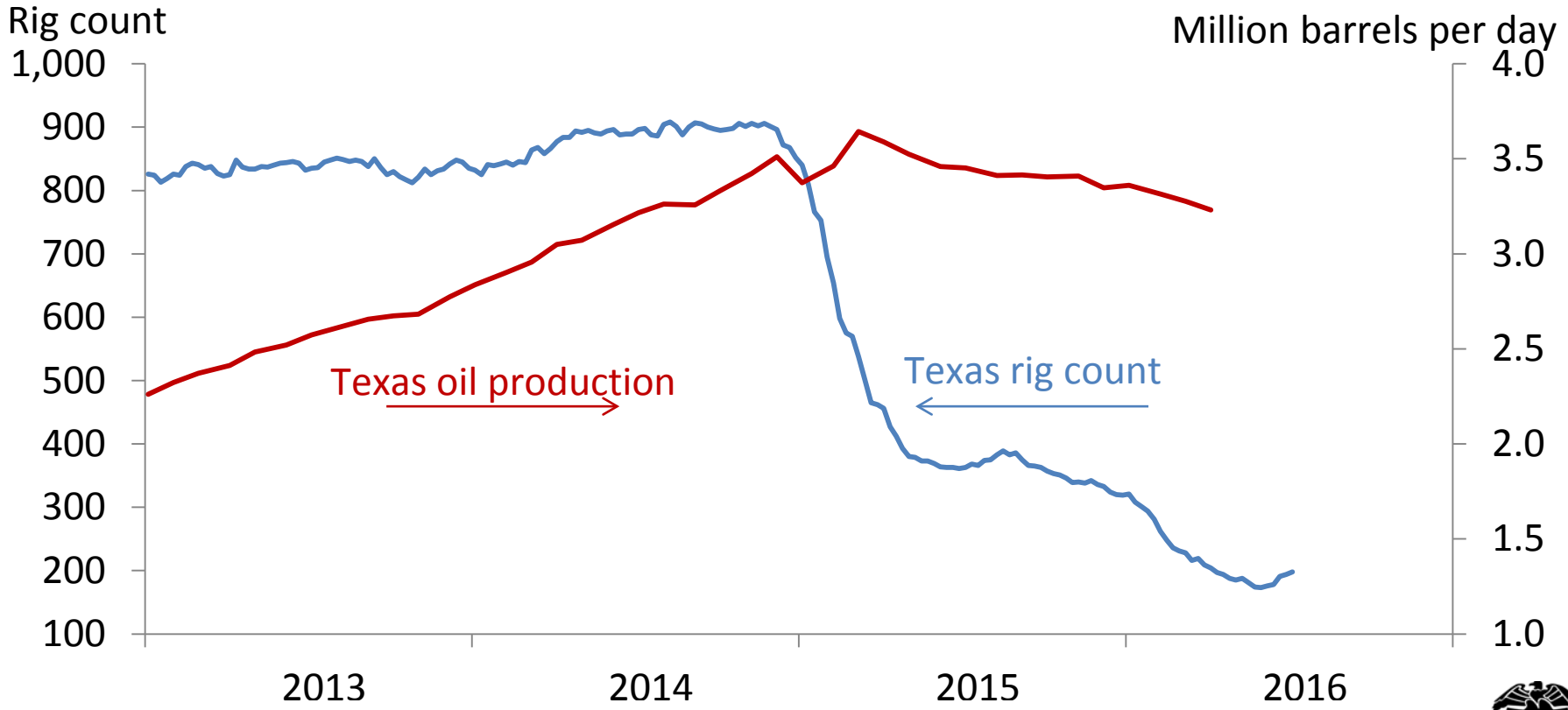
Texas rig count ticks up but oil production continues to decline



SOURCES: Baker Hughes; Energy Information Administration.

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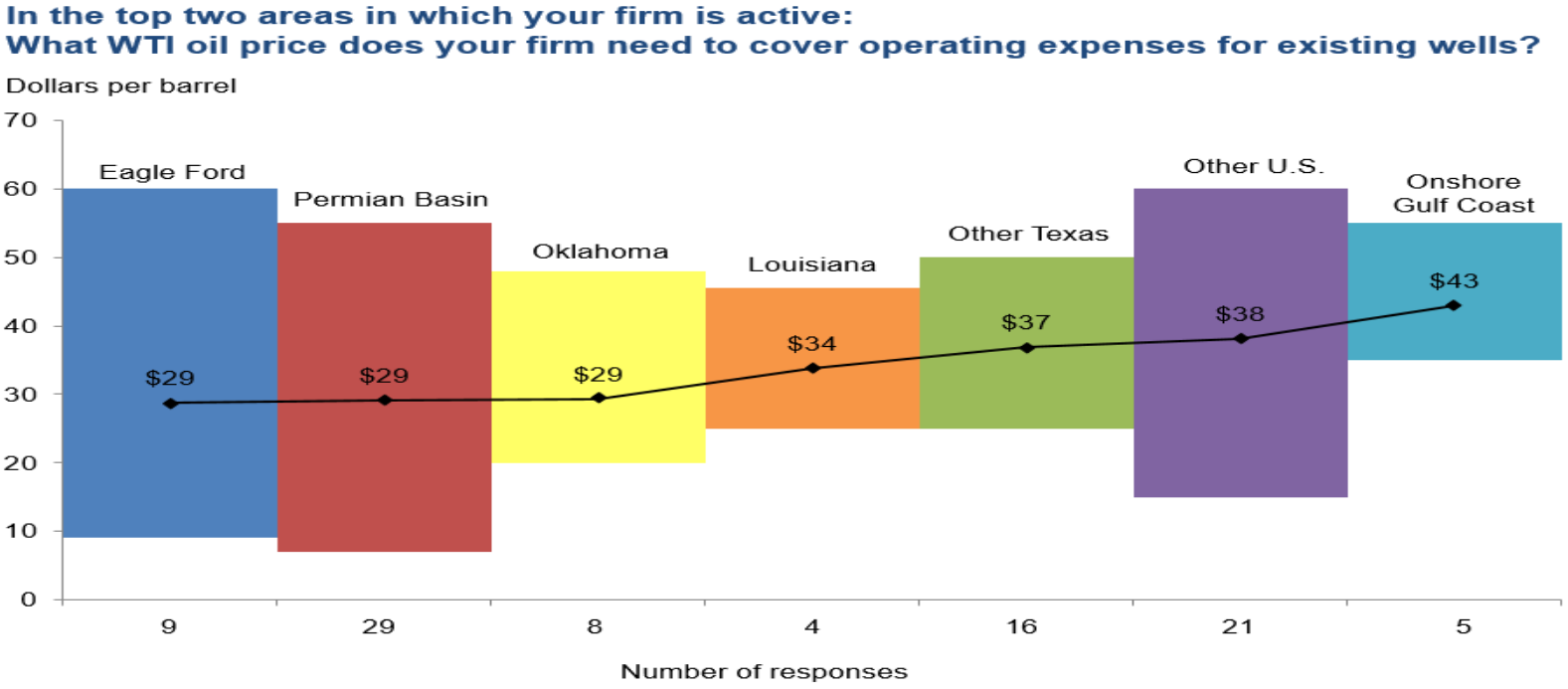
Breakeven prices for existing wells from Dallas Fed Energy Survey



SOURCE: Federal Reserve Bank of Dallas.

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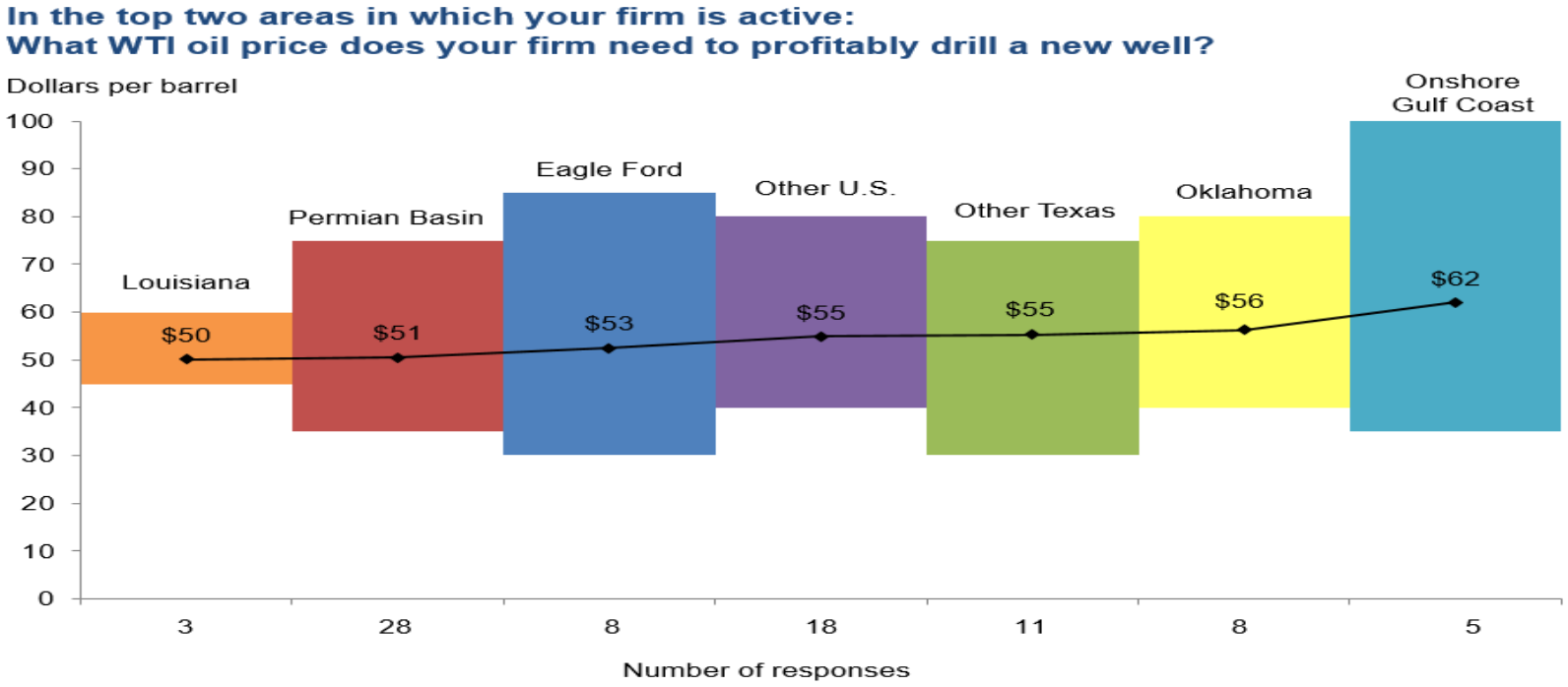
Breakeven prices for new wells from Dallas Fed Energy Survey



SOURCE: Federal Reserve Bank of Dallas.

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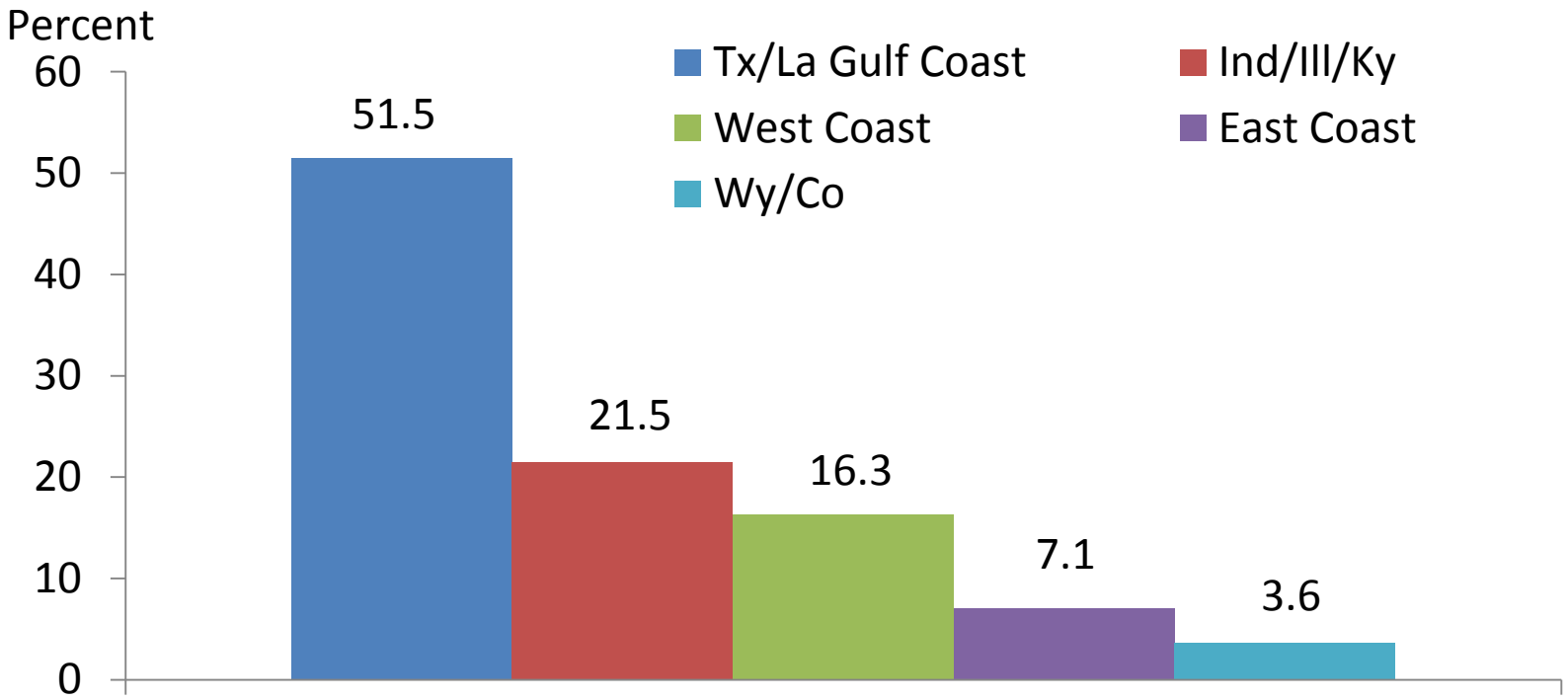
Texas and Louisiana Gulf Coast biggest share of U.S. refining capacity



NOTE: West Coast is DOE definition of PAD 5, Ind/Ill/Ky is PAD 2, and the East Coast is PAD 1; Inland Texas has another 4 percent of US capacity; Operable distillation capacity per calendar day; January 1, 2015.

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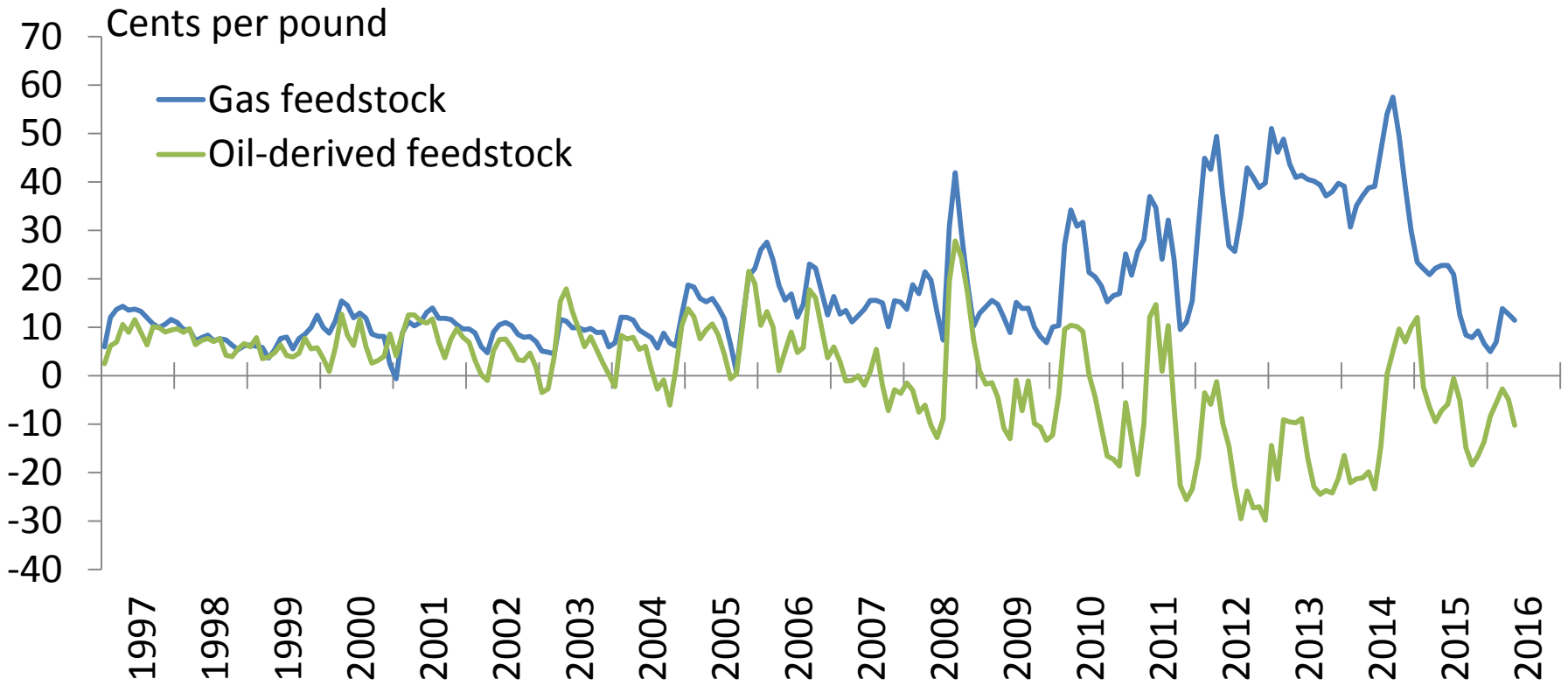
Petrochemical cost advantage remains



Note: Data are cash margins for ethylene production.
Source: Muse, Stancil & Co.

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Outlook

- Plunge in oil prices slowed growth in energy states.
  - Small energy states still in recession.
  - Texas - larger and more diversified - skirted recession.
- Risks:
  - Energy prices
  - Strong dollar
  - National economy
    - Healthy national economic growth has been a tailwind
- Rough patch for energy-producing states.

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