

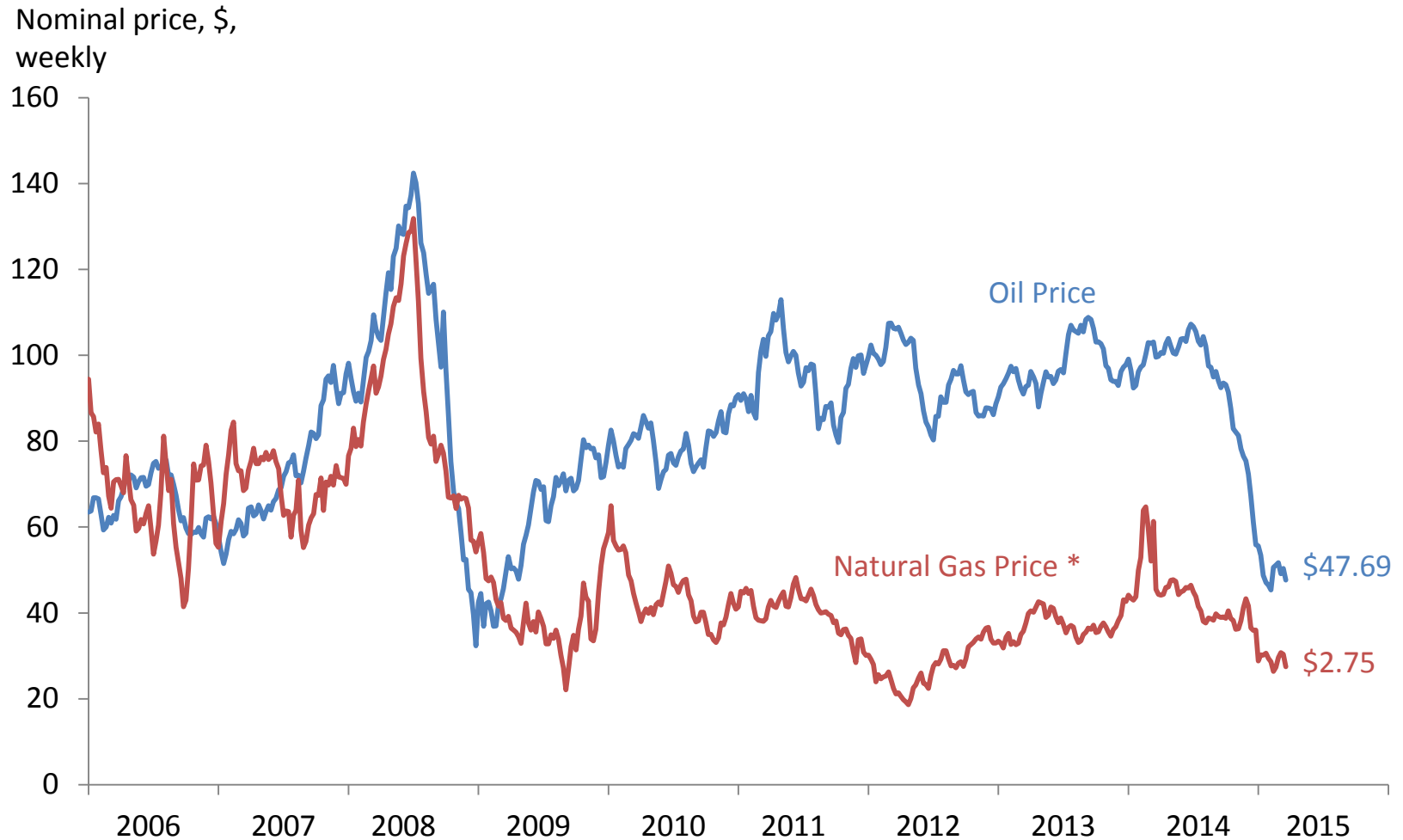
Plunging Crude Prices: Impact on U.S. and State Economies



Mine Yücel
Federal Reserve Bank of Dallas
March 25, 2015



Oil and gas prices plunge



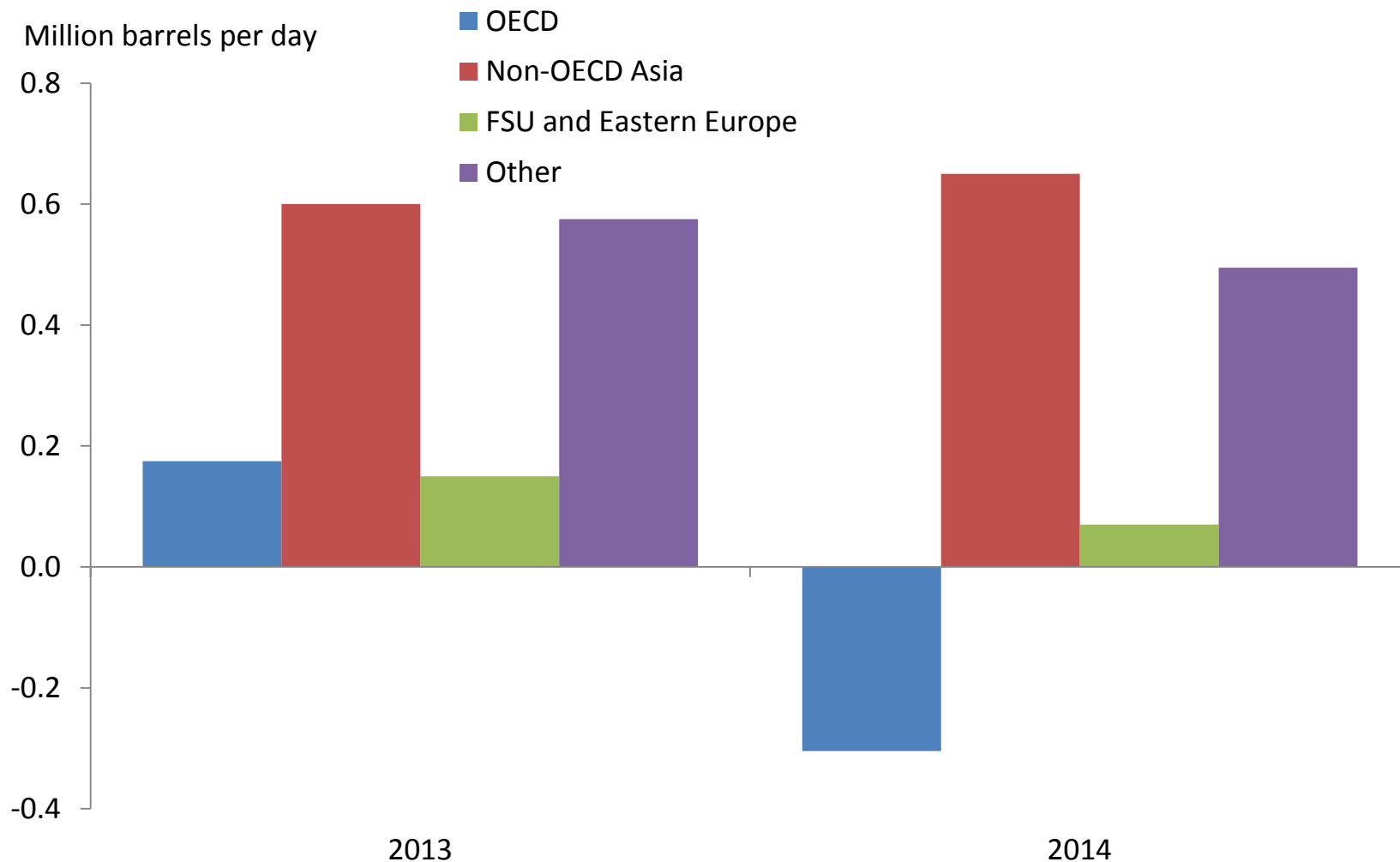
* Henry Hub Price x10

Source: Energy Information Administration; Wall Street Journal.



World Oil Consumption Growth

(year-over-year)



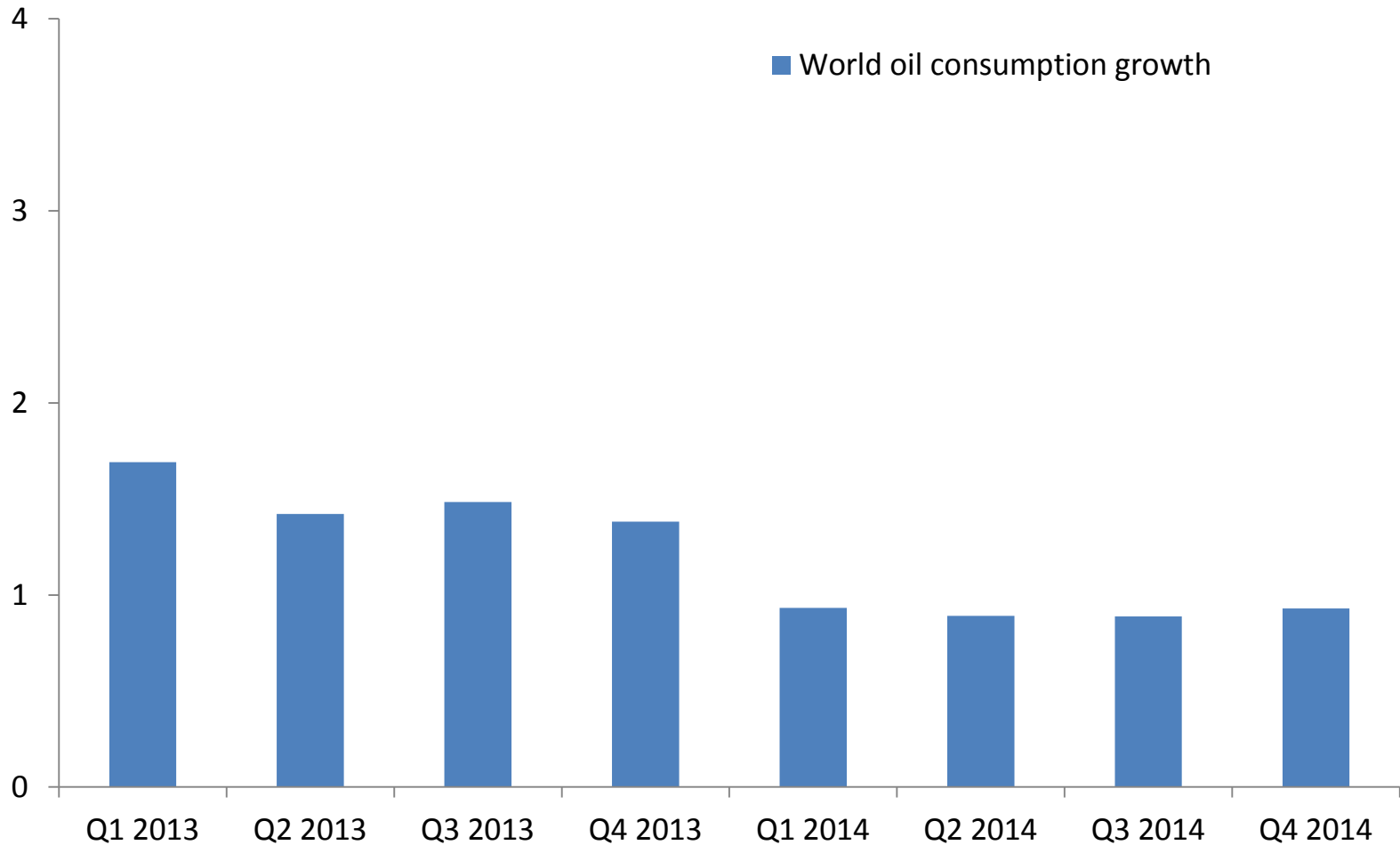
Source: Energy Information Administration.



World Oil Consumption Growth

(Year-over-year)

Million barrels per day



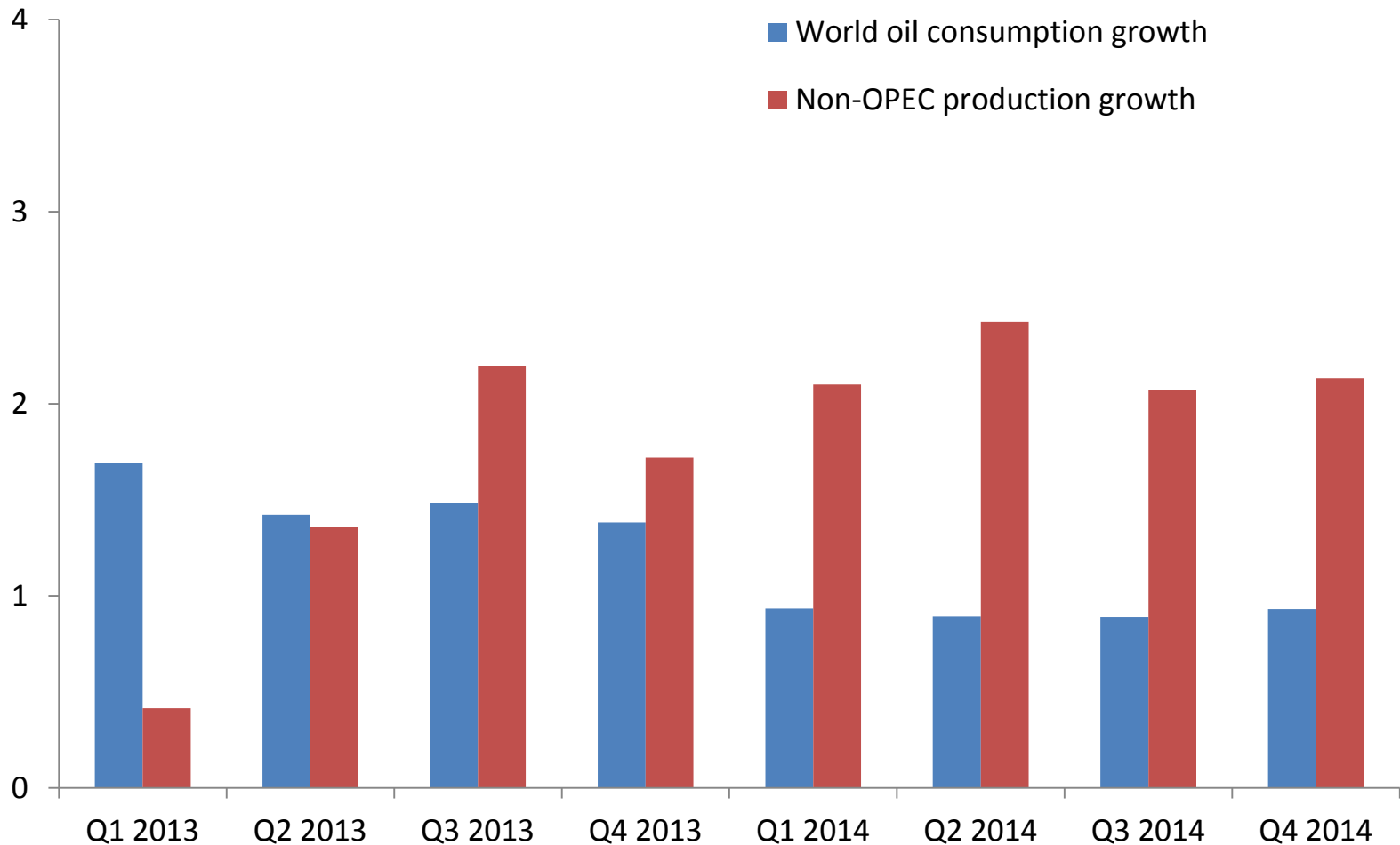
Source: Energy Information Administration.



World Consumption and Non-OPEC Production Growth

(Year-over-year)

Million barrels per day



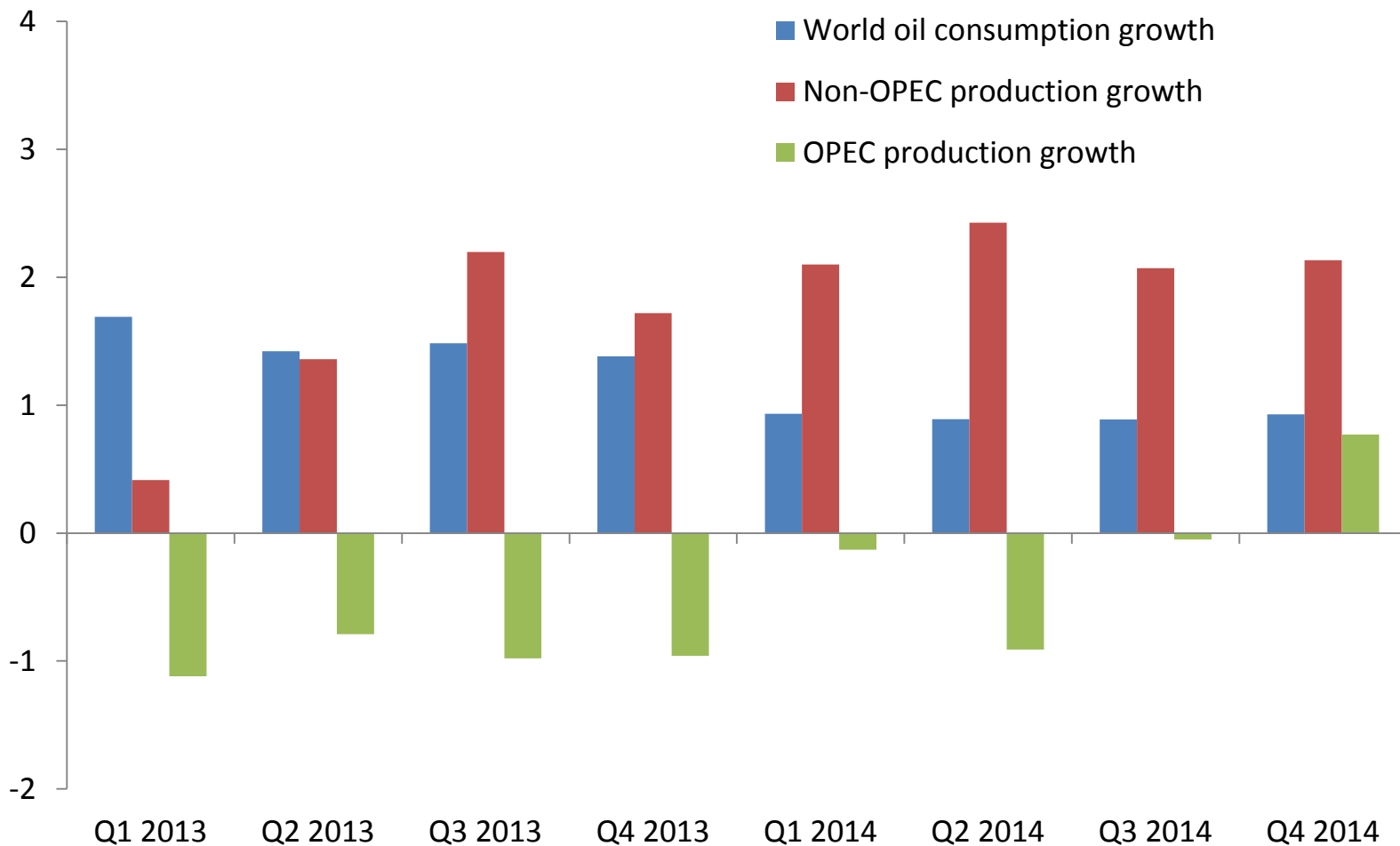
Source: Energy Information Administration.



World Oil Consumption and Production Growth

(Year-over-year)

Million barrels per day

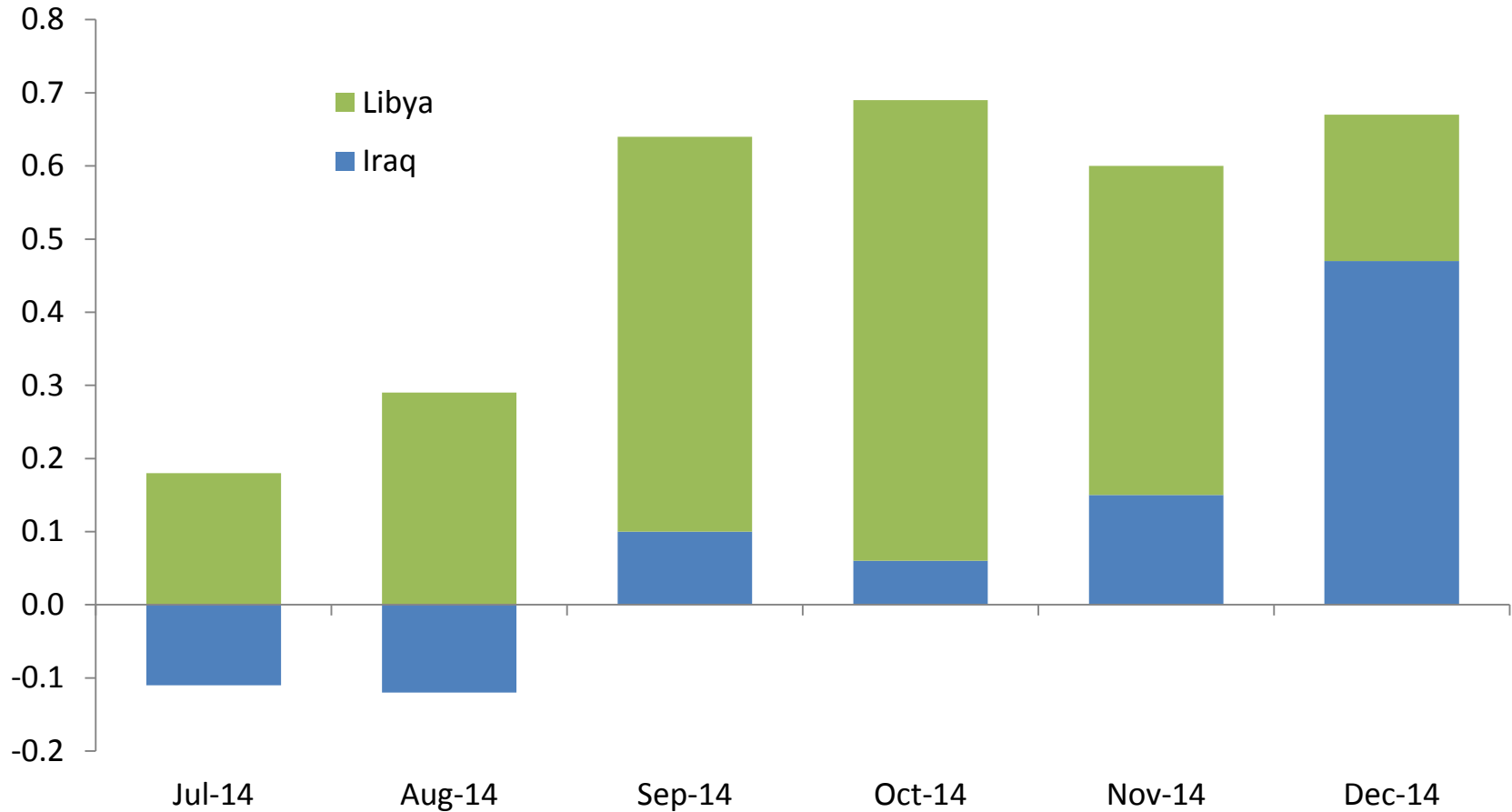


Source: Energy Information Administration.



Iraq and Libya Production Up Since June

Million barrels per day
change since June

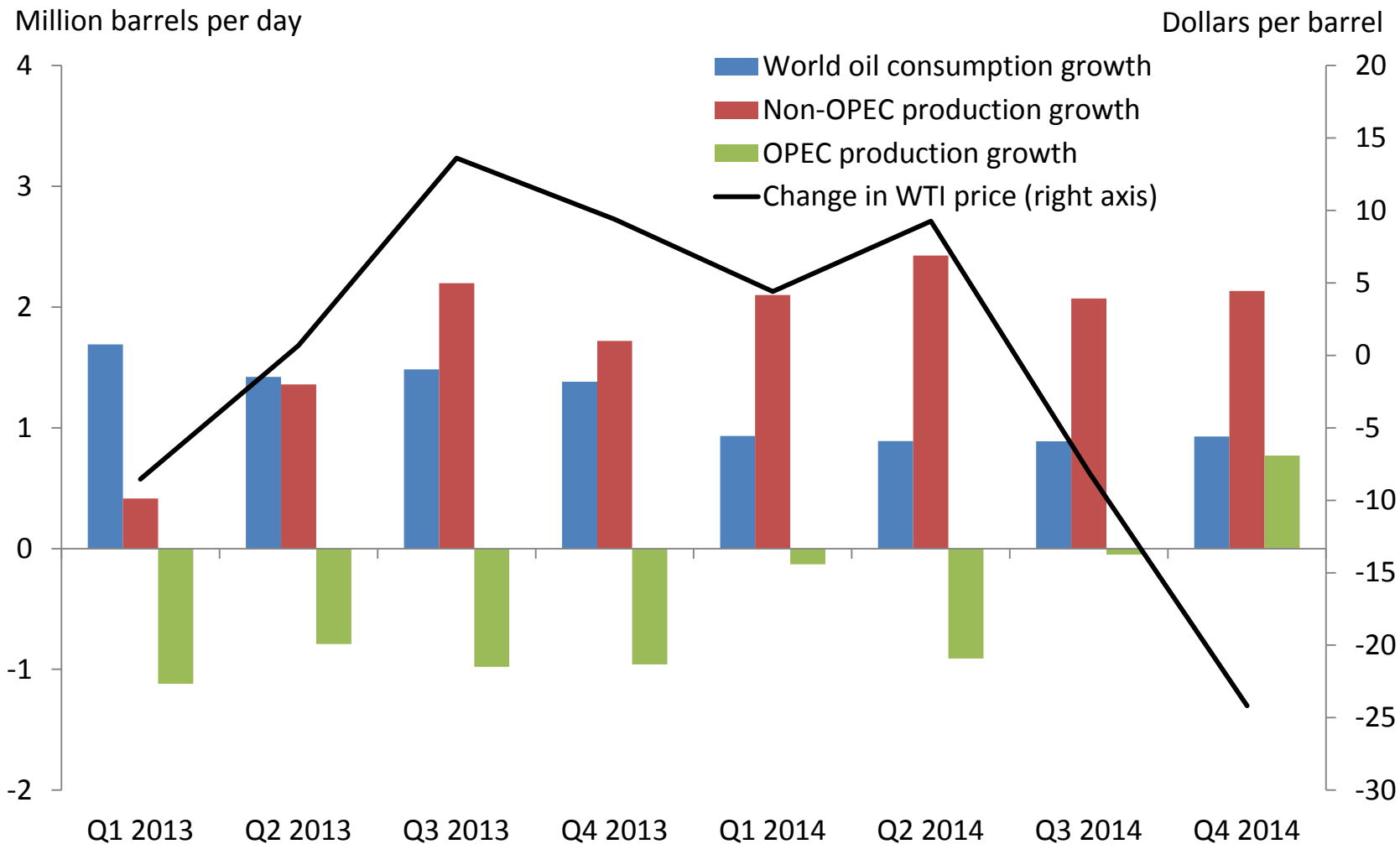


Source: International Energy Agency.

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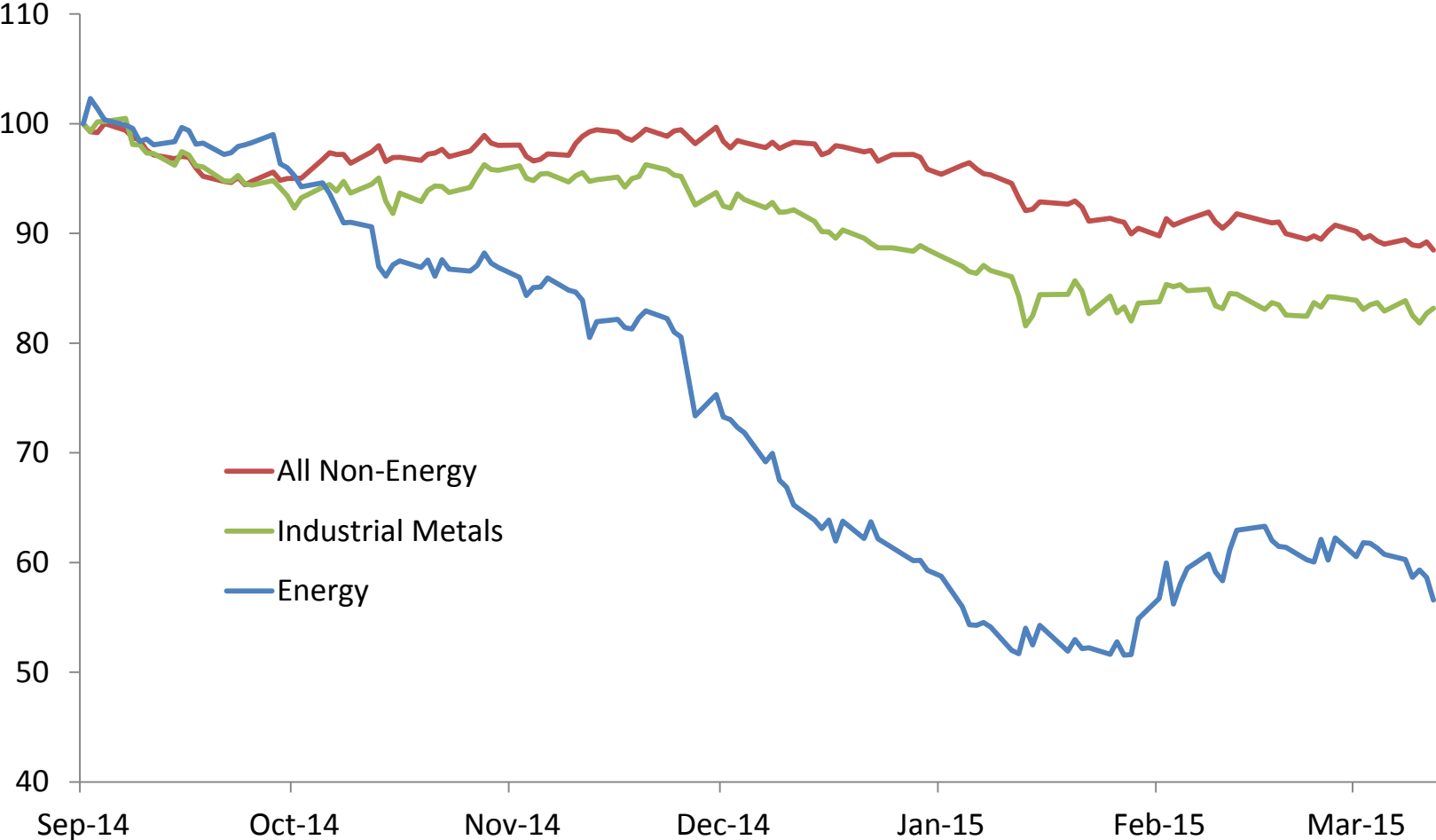
Demand/Supply Balance and Oil Prices



Source: Energy Information Administration.

Energy prices fall more than other commodities

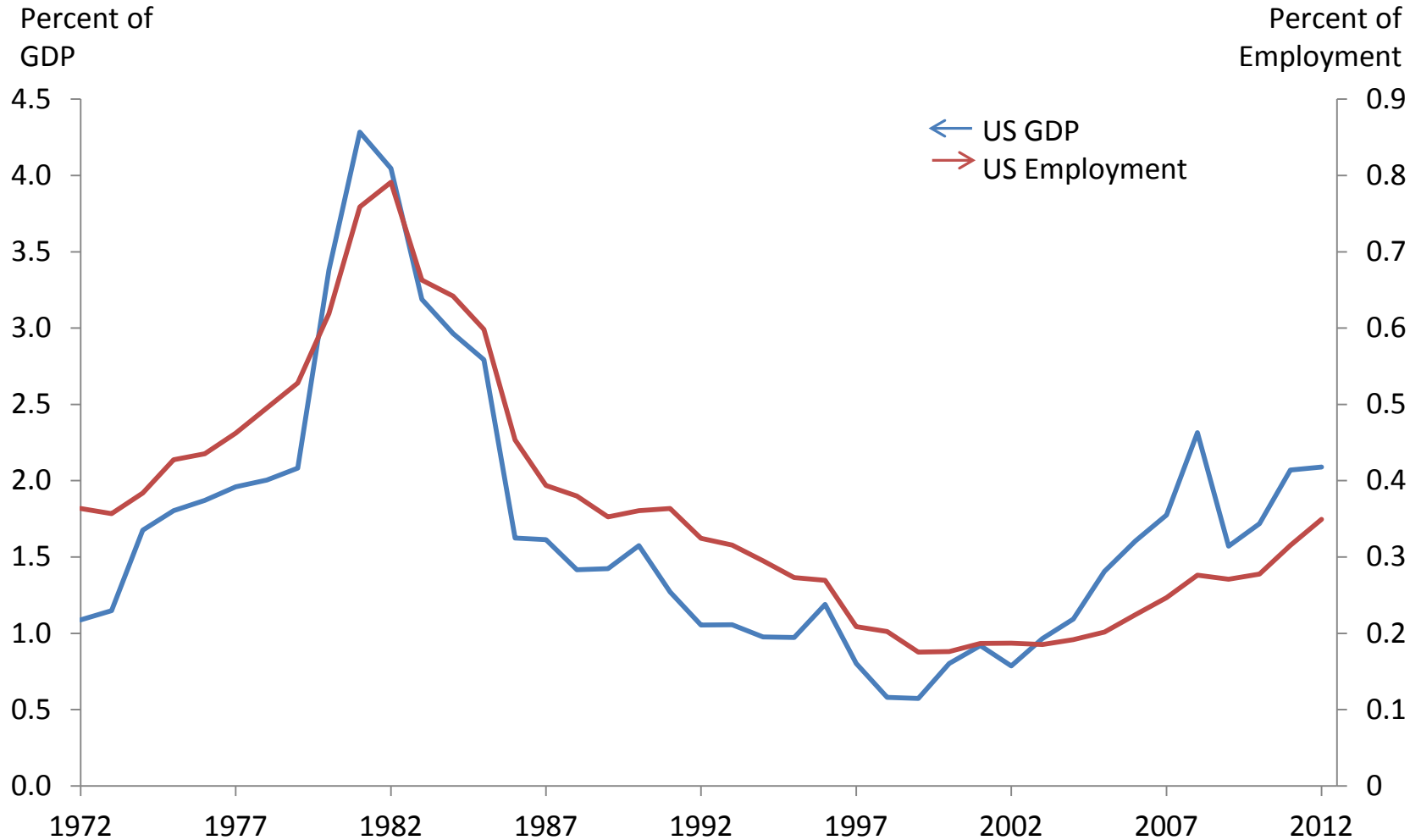
GSCI Index, Sept 2, 2014 = 100



Sources: S&P; Bloomberg.

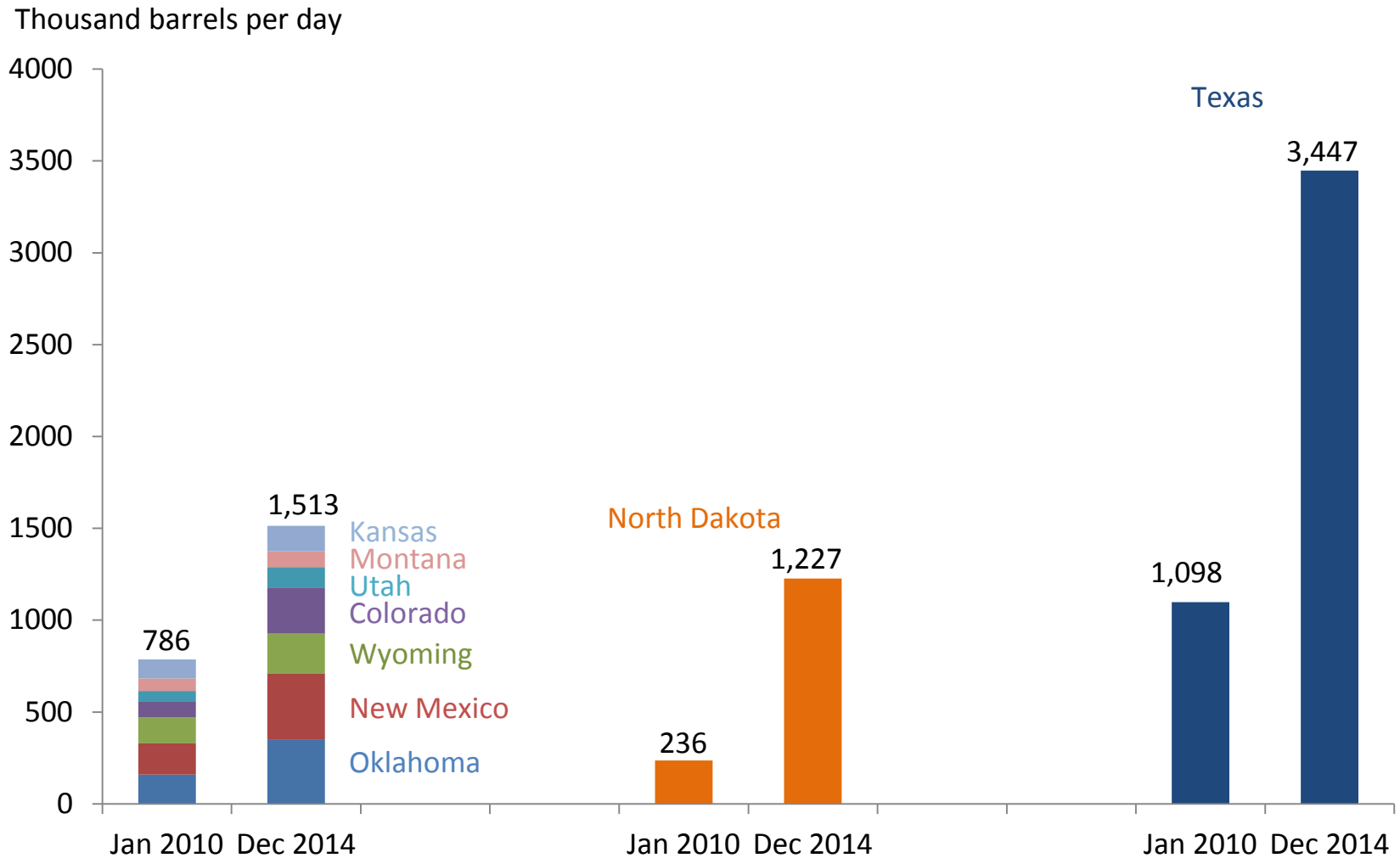
IMPACT ON U.S. AND STATES

Importance of oil and gas to U.S. economy



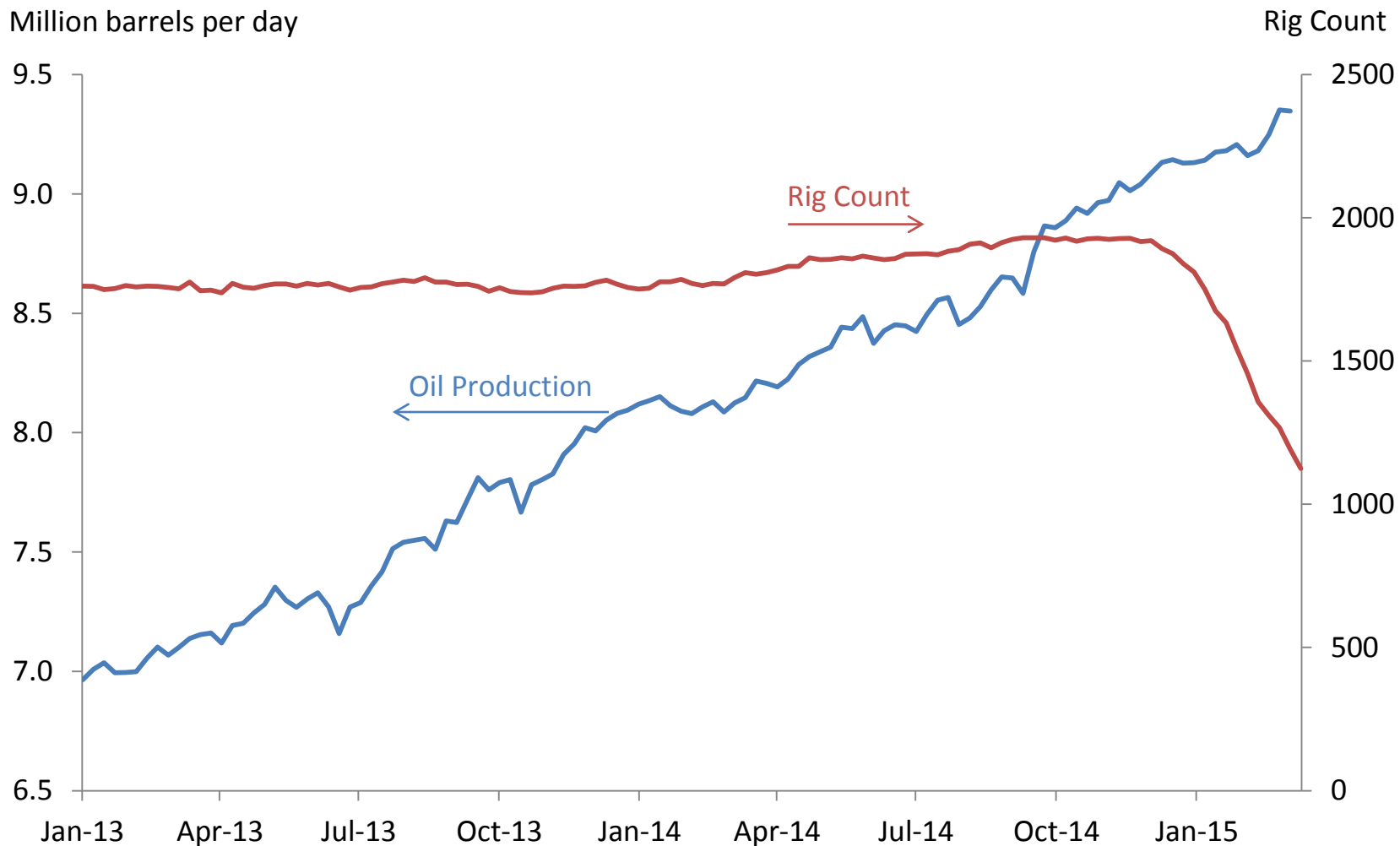
Source: Bureau of Economic Analysis; Bureau of Labor Statistics.

U.S. Crude Oil Production From Shale



Source: Energy Information Administration

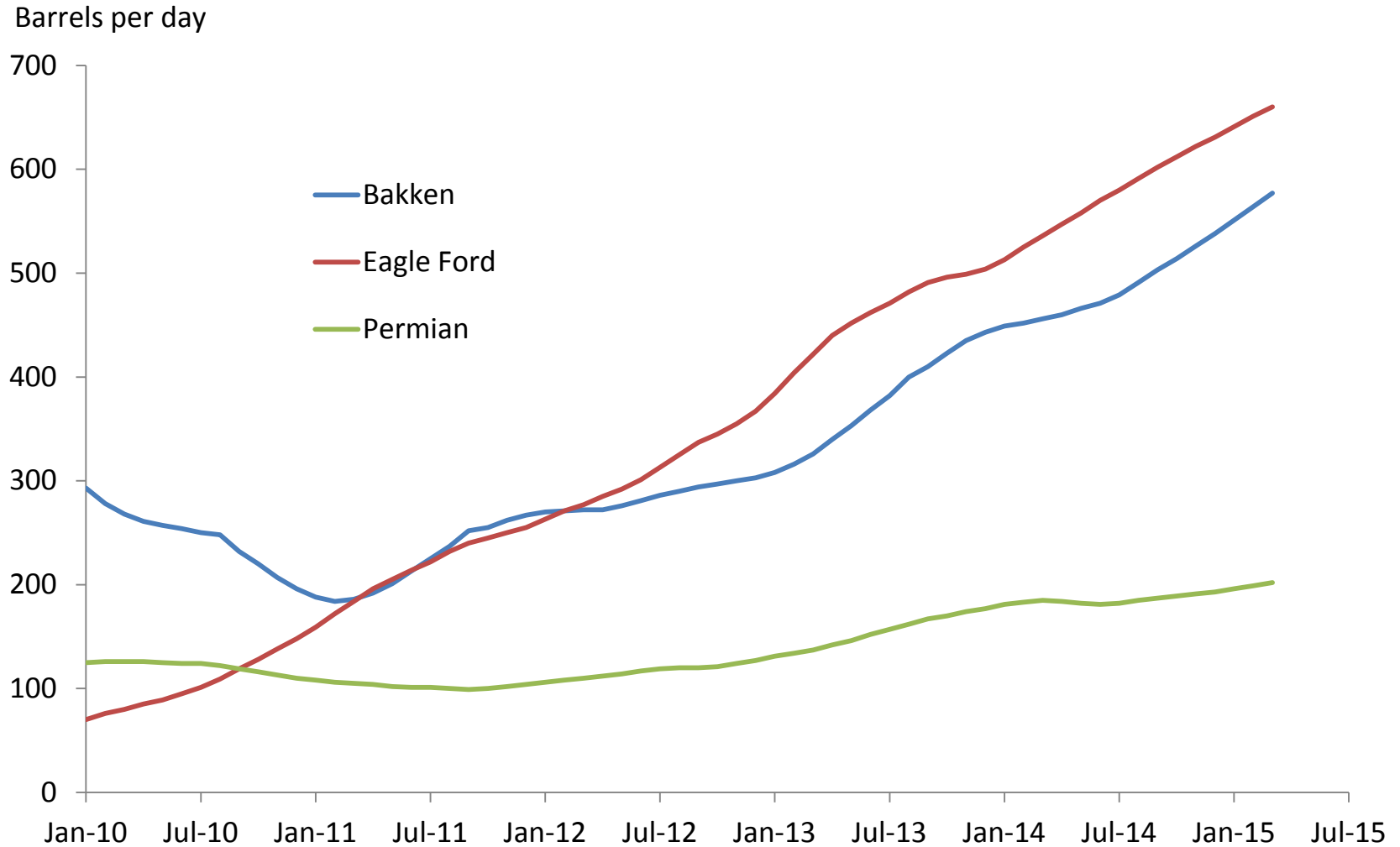
Despite rig count declines, oil production holding up



Source: Oil and Gas Journal; Baker Hughes.

New rigs and wells very productive

(New well oil production per rig)



Source: Energy Information Administration.

Impact on U.S. Economy

- The U.S. benefits from lower oil prices
- Boosts consumer disposable income
 - The decline in gasoline prices adds \$710 to household budgets in 2015
- Reduces the cost of energy to firms
- Reduces profitability of producing oil
 - Layoffs and Capex declines in energy firms
- 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



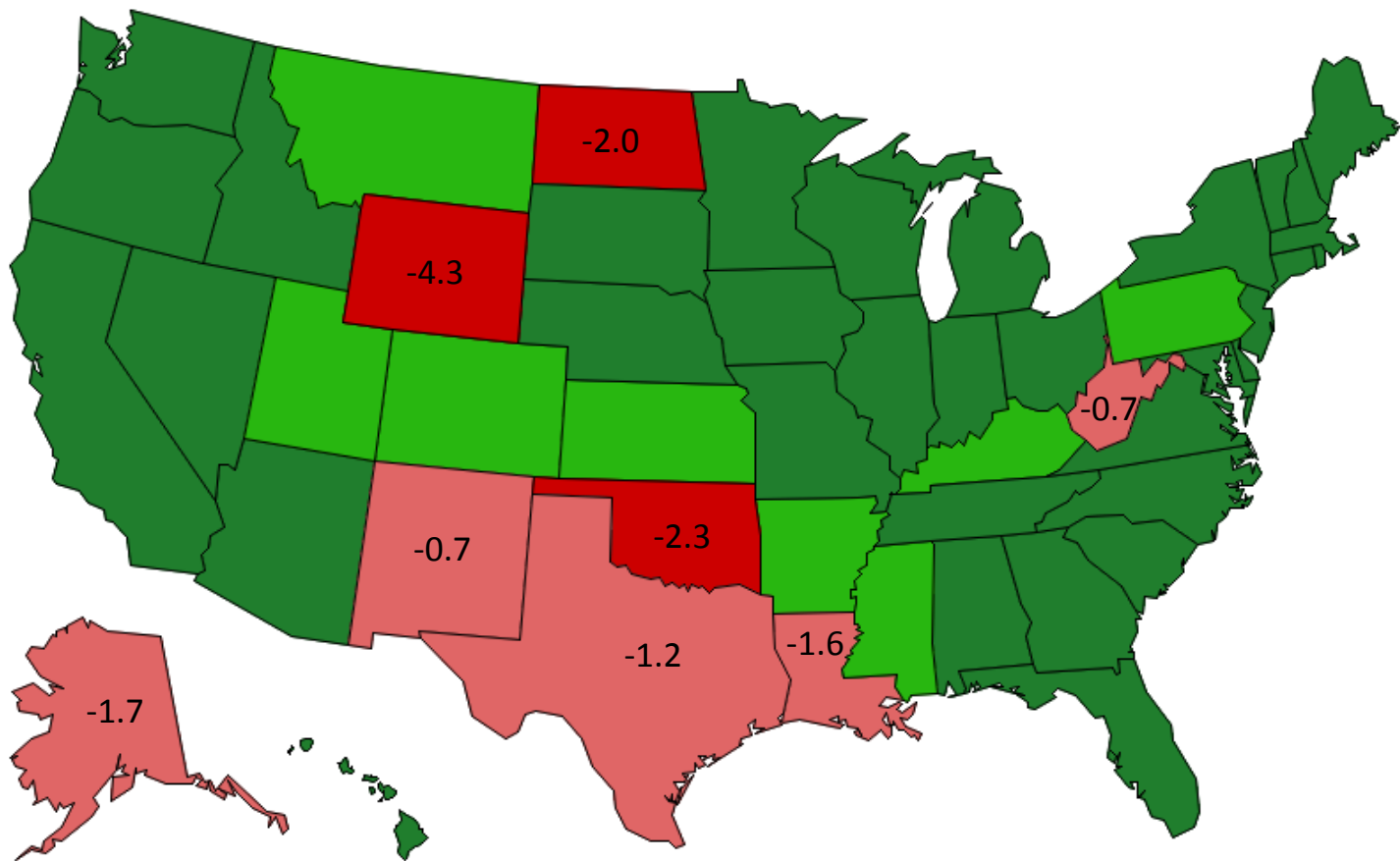
Regional Effects

- Increased energy activity brings oil and gas extraction and oil-field support jobs
- Local areas:
 - lease and royalty payments,
 - infrastructure construction and
 - increased spending on retail, leisure and hospitality, and health services.
- Local governments: greater sales taxes
- State governments: increased severance tax revenues



Low oil prices benefit most states

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

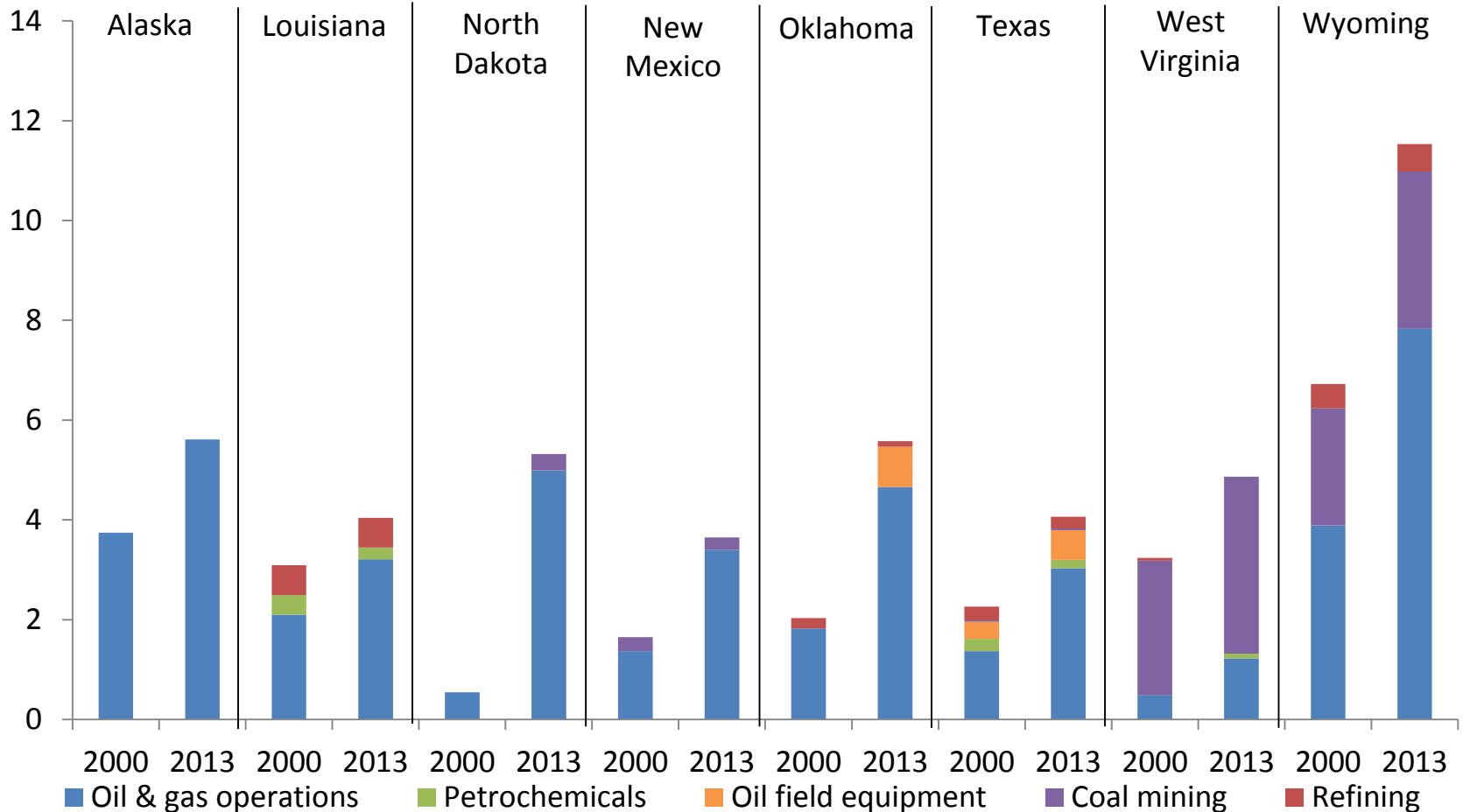


Percent change in total employment **Red** <-2 **Light Red** -2 to 0 **Light Green** 0 to 1 **Dark Green** >1



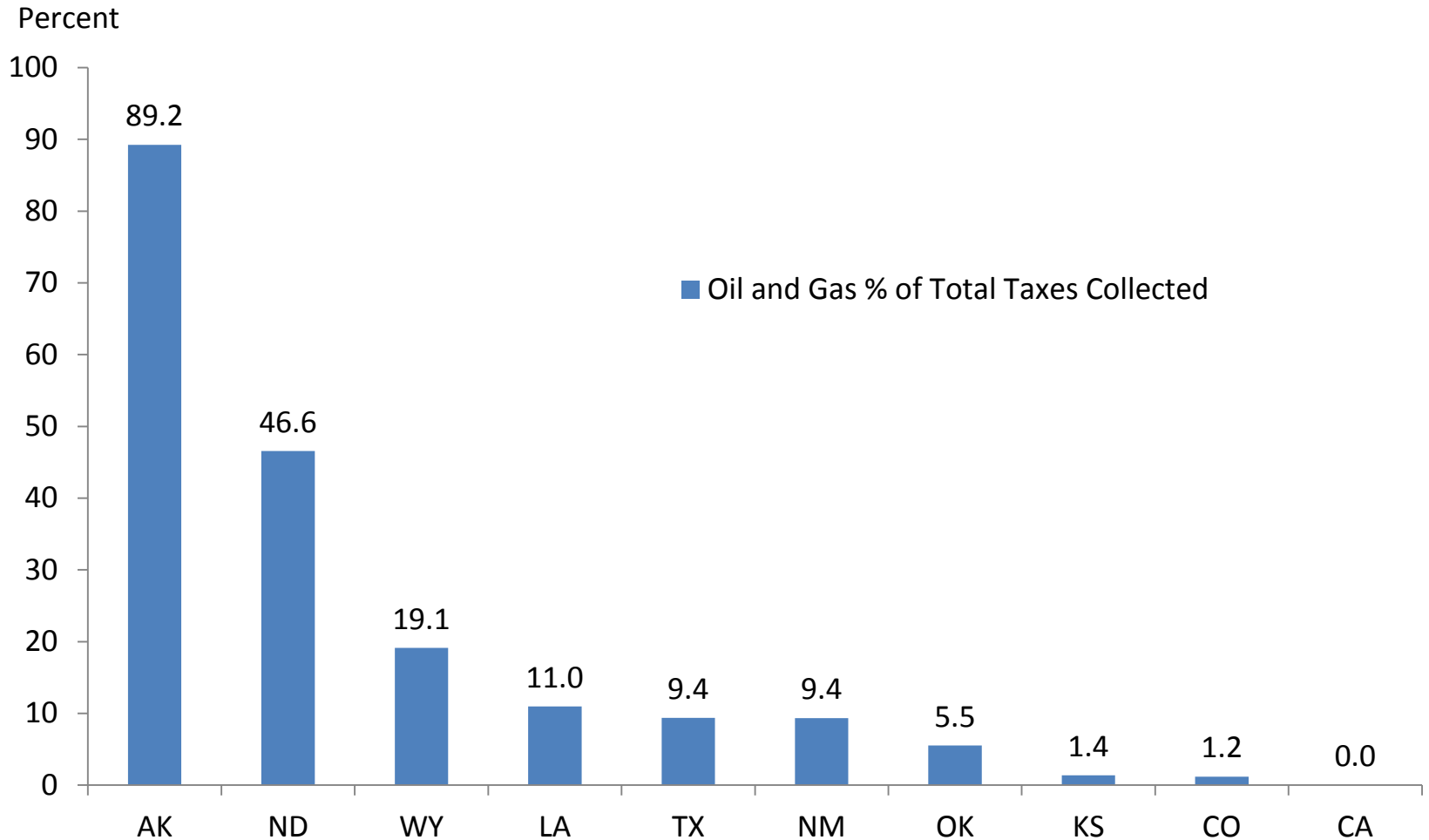
Energy Related Employment

Percentage of nonagricultural employment



Some states rely heavily on oil and gas severance taxes

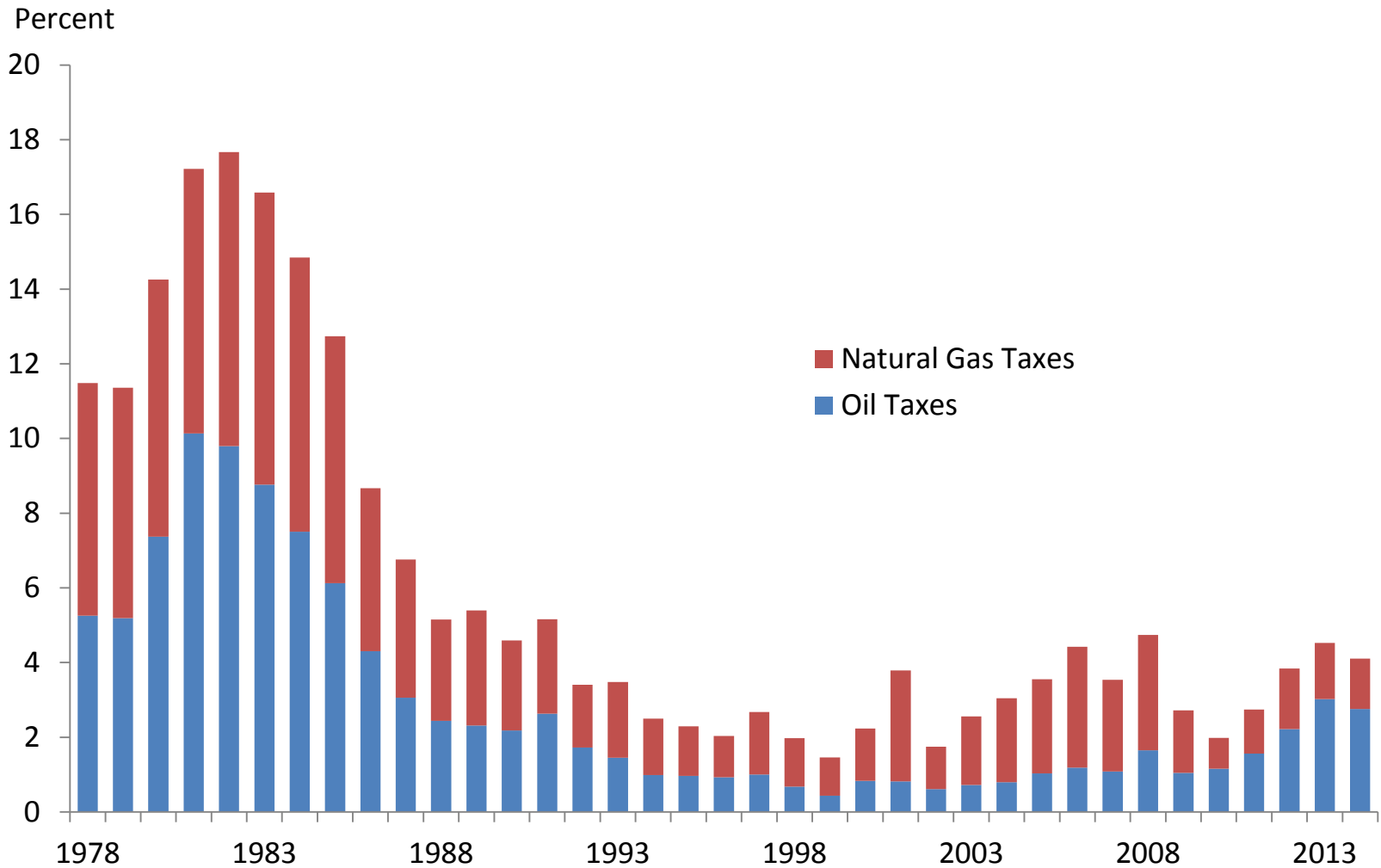
(Share of state tax revenues)



Sources: States' revenue reports for fiscal year 2013.



Oil and Gas Share of Revenues

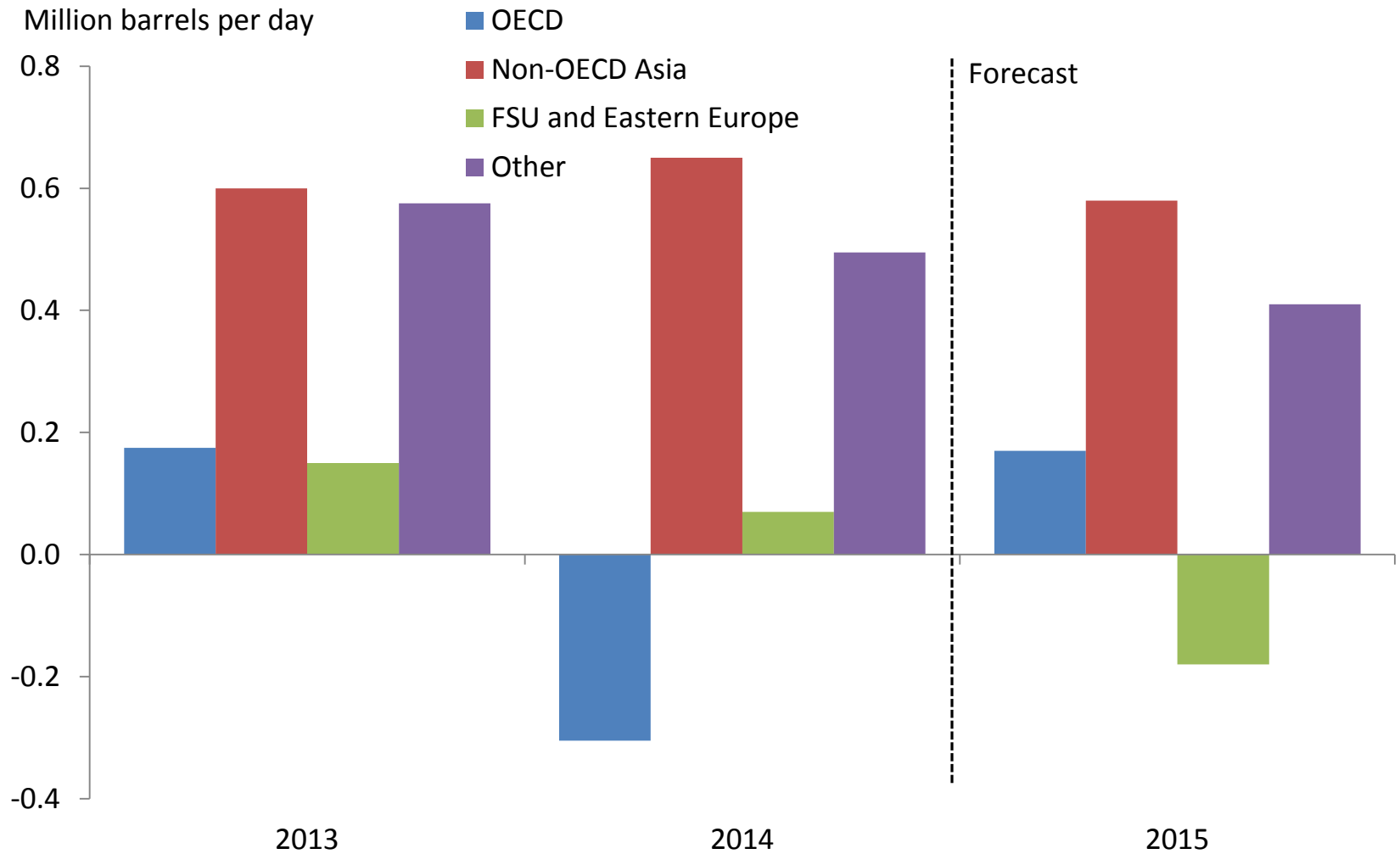


Source: Texas Comptroller.



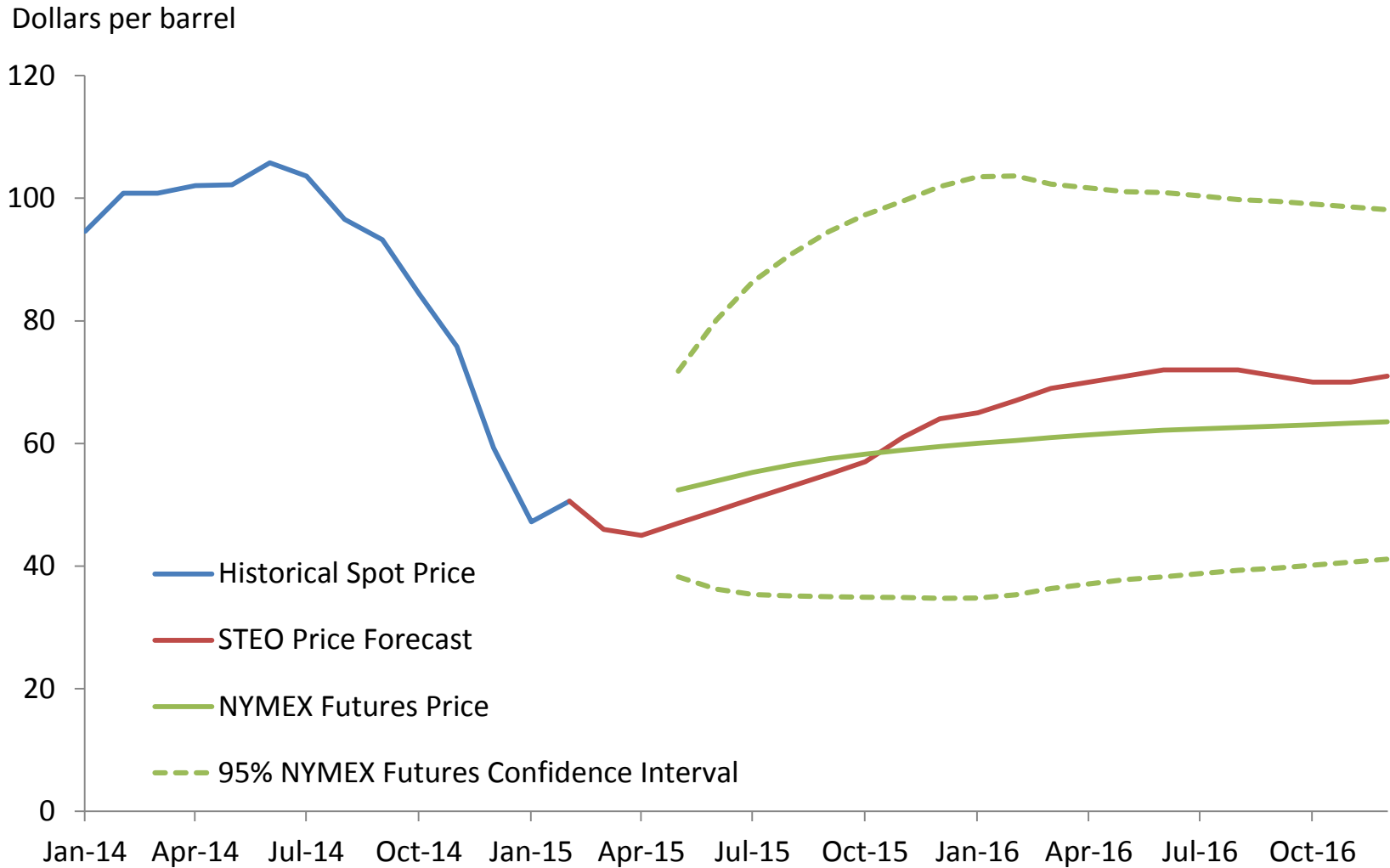
WHERE DO WE GO FROM HERE?

World Consumption Growth Forecast



Source: Energy Information Administration.

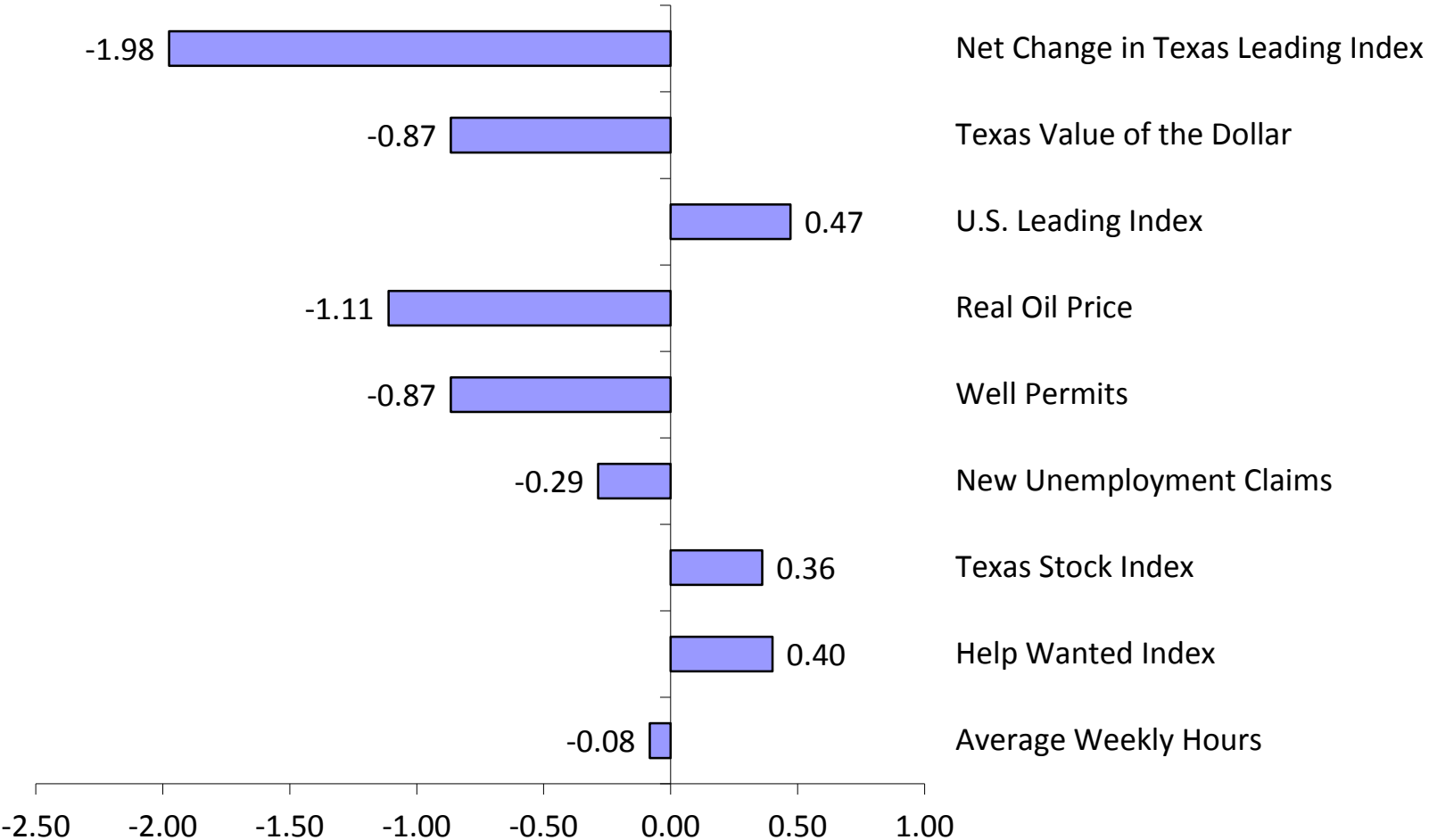
Crude Price Forecast



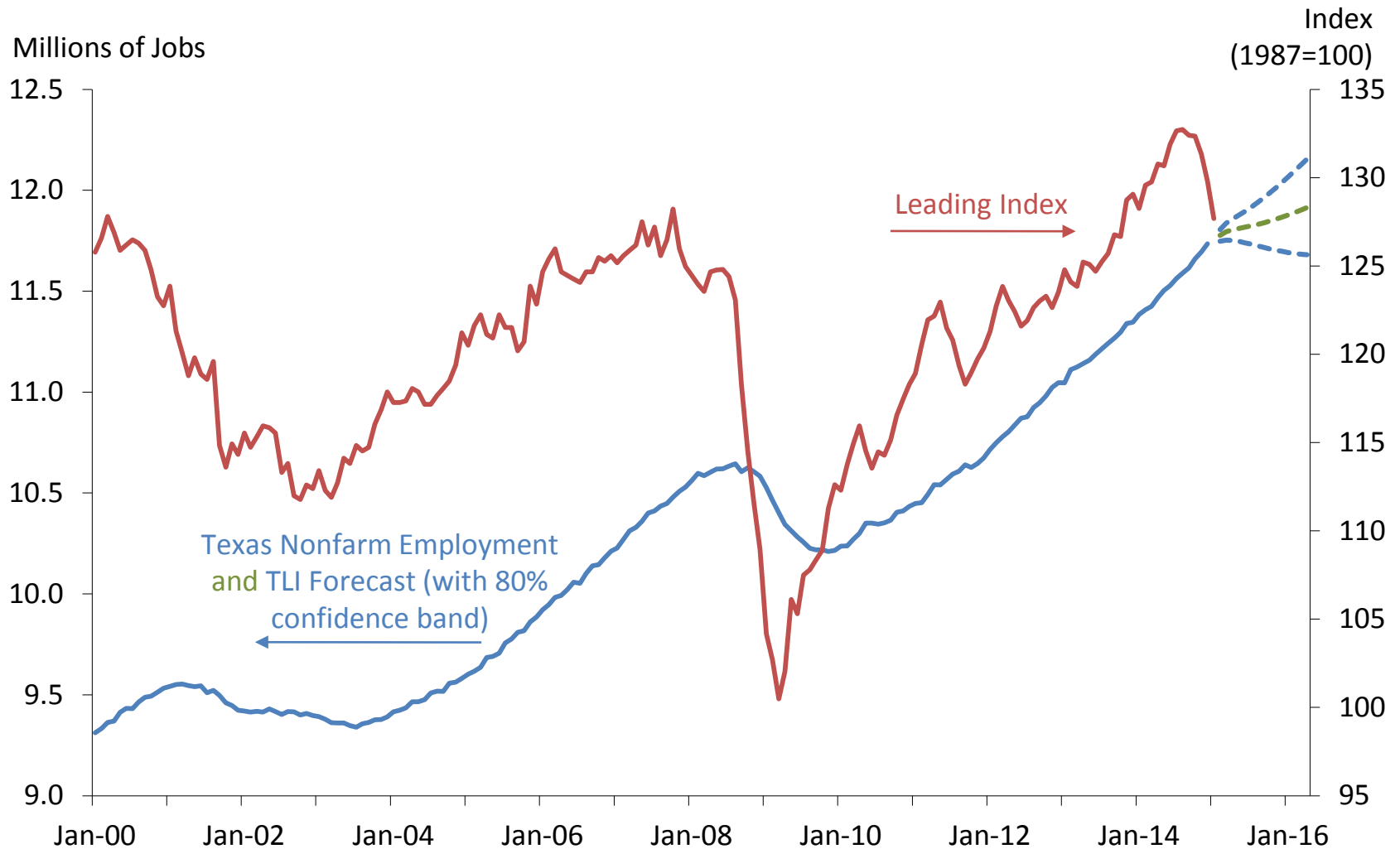
Source: Energy Information Administration.

Dollar and oil weigh on Texas Leading Index

Texas Leading Index Components, 3 month change
October -December



Texas still expected to add jobs



Source: Bureau of Labor Statistics, Federal Reserve Bank of Dallas, author's calculations

Outlook

- Market will adjust
 - Lower prices will lead to a contraction of supply and increase in demand
- Global GDP growth is expected to rise over time
- Oil prices expected rise
- U.S. supply response will be swifter than in the past
- Uncertainties abound



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