

Effects of low oil prices



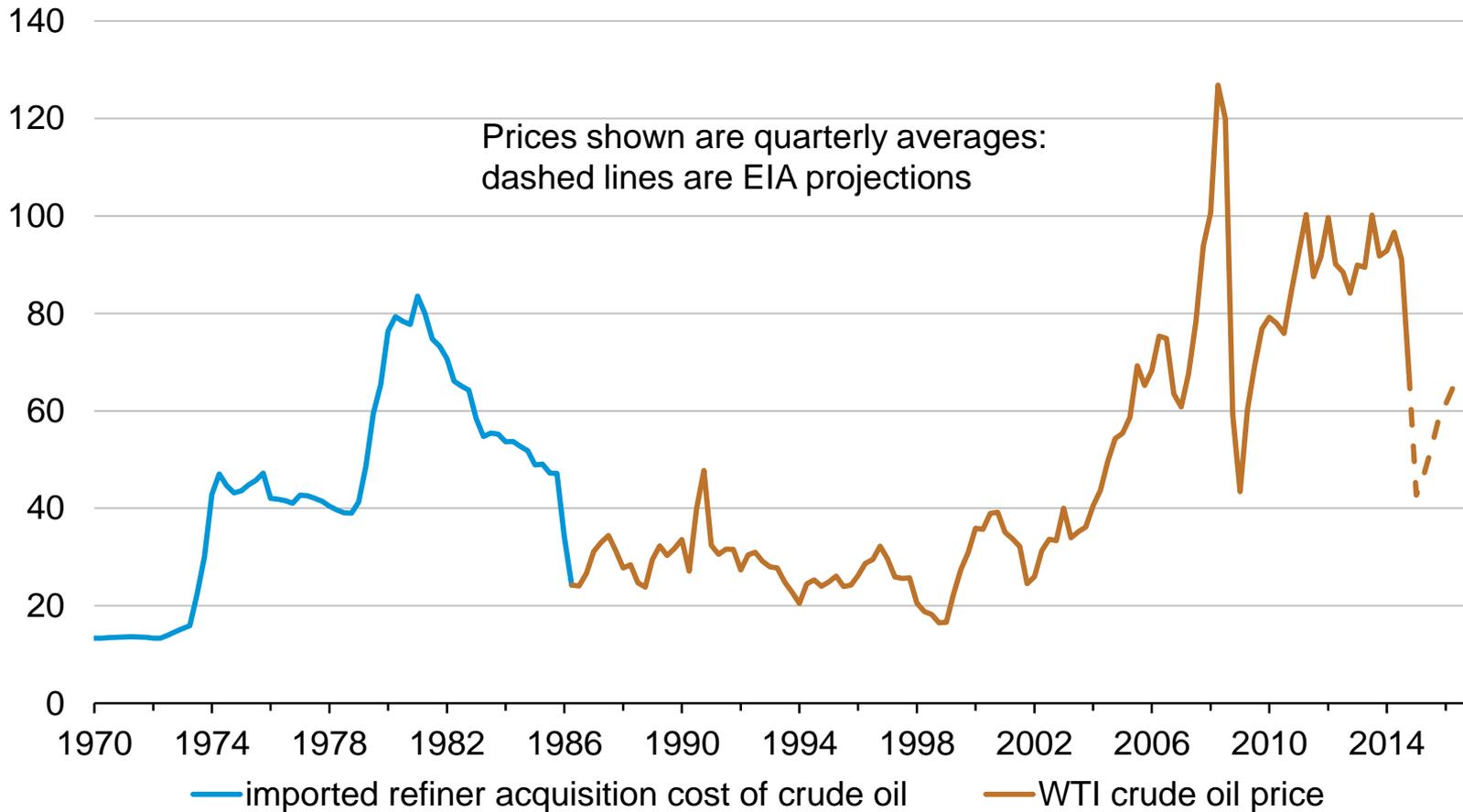
*Energy & Environmental Markets Advisory Committee
Commodity Futures Trading Commission
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*By: Adam Sieminski
U.S. Energy Information Administration*

Historical and projected oil prices

Crude oil price

price per barrel (real 2010 dollars)



Sources: U.S. Energy Information Administration, Thomson Reuters

Key takeaways

Oil prices: EIA's forecast for Brent averages \$58/b in 2015 and \$75/b in 2016. The market-implied 95% confidence band for Brent (estimated from WTI futures and options prices) is extremely wide – with a range from \$35/b to \$100/b across 2015-2016.

Demand: Non-OECD Asia accounts for more than 50% of forecast liquids consumption growth of roughly 1 million b/d both 2015 and 2016; lower demand growth is a major downside risk to the price forecast

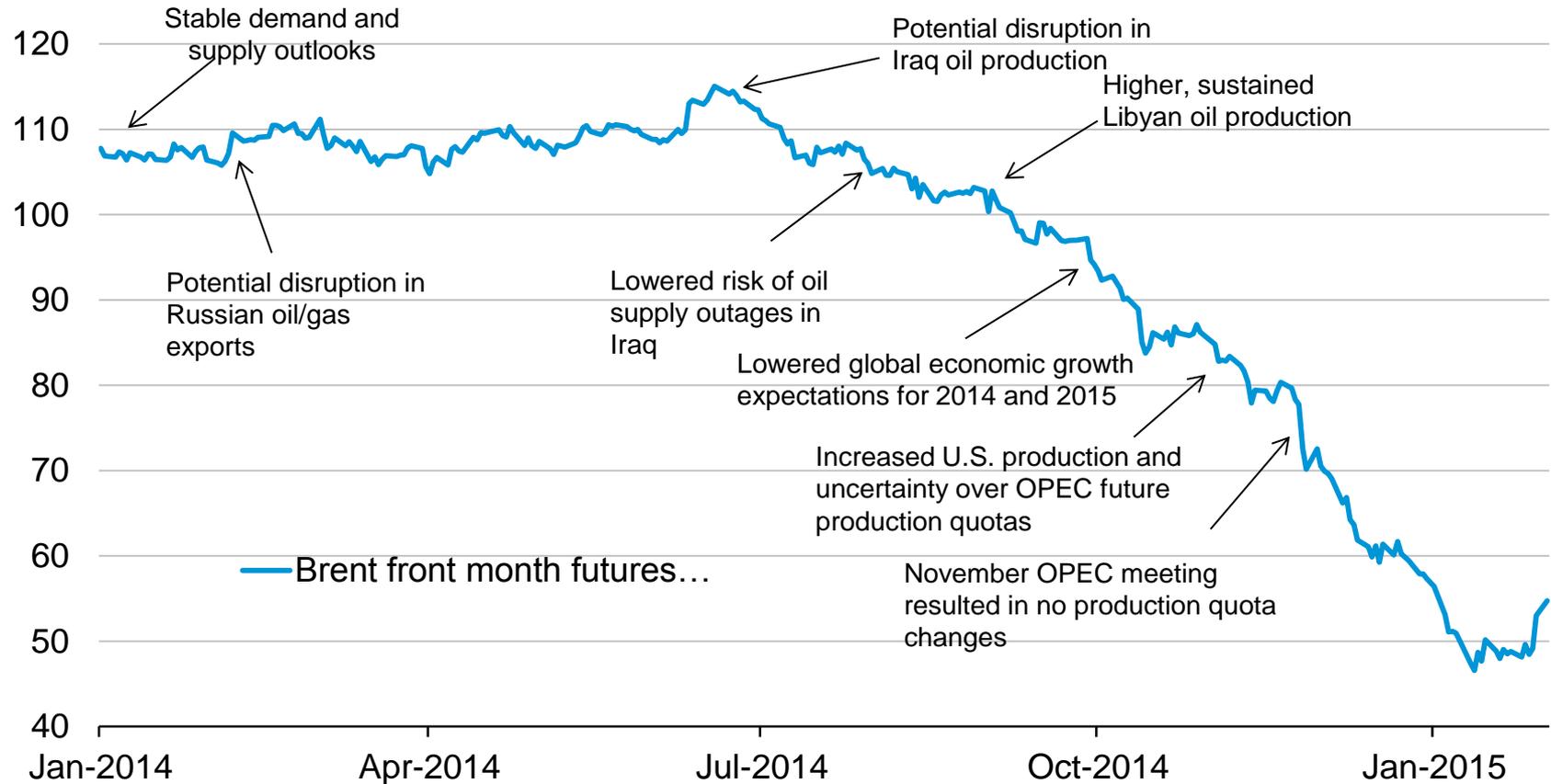
U.S. oil production: Lower-48 oil production in 4Q2015 and 1Q2016 is only slightly above its 4Q2014 level; however, offshore production continues to grow steadily

The economy and consumers: EIA's energy forecast reflects a U.S. economic growth outlook for 2015-16 that is somewhat stronger than 2013-14 experience.

- Relatively low oil prices and increased energy efficiency Energy expenditures as a share of GDP are forecast at 6.2% in 2015, their lowest level since 2002, reflecting both lower oil prices and energy efficiency.
- Average U.S. household (20,800 miles of vehicle travel) projected gasoline spending is \$750 less in 2015 than in 2014, and about \$450 less in 2016 than in 2014.

Brent crude oil prices were relatively stable through the first half of 2014; increased oil supply and lower global economic growth expectations lowered prices from July 2014 to January 2015

dollars per barrel

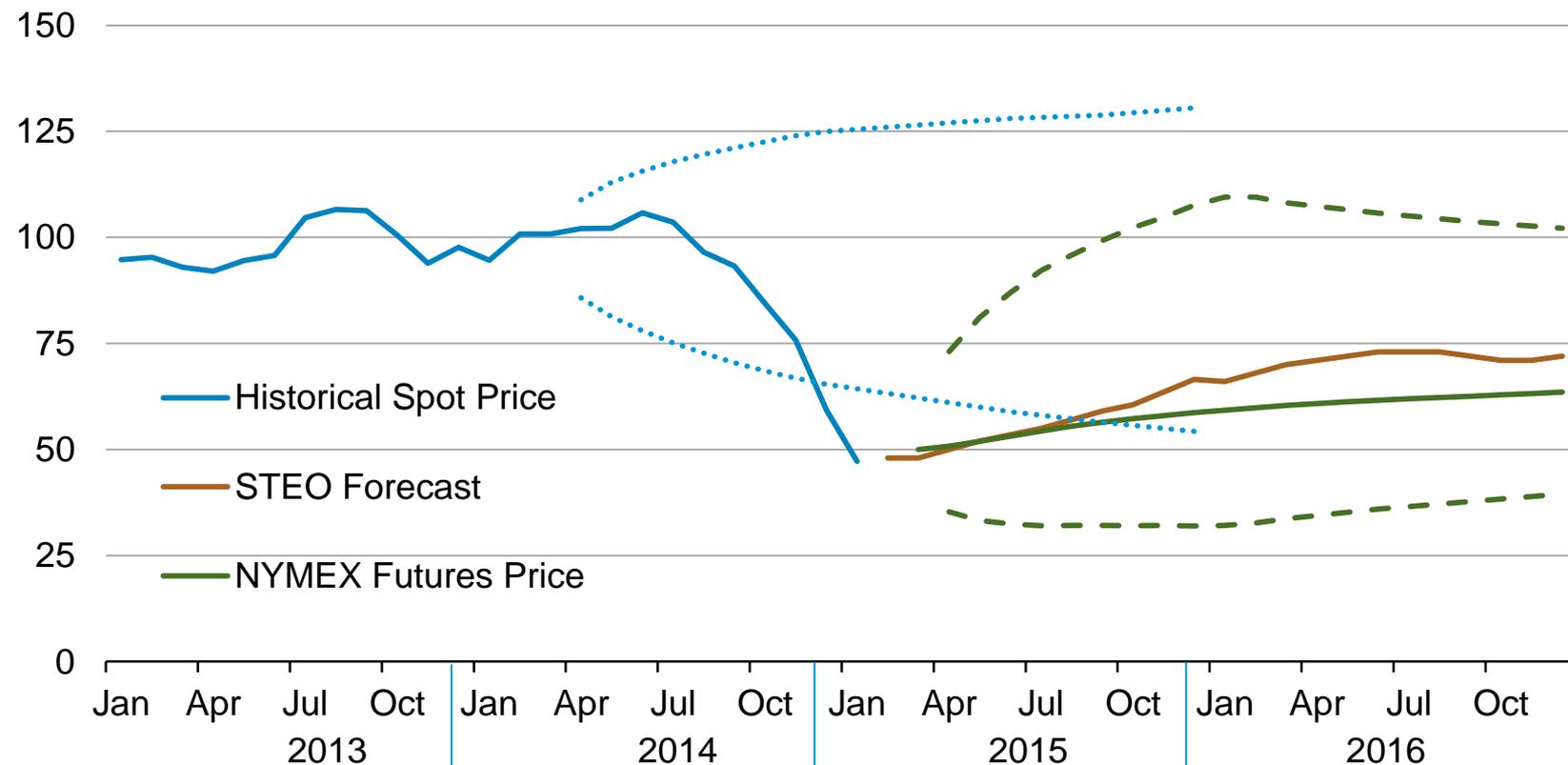


Source: EIA, Bloomberg

Oil prices rise from mid-2015 through mid-2016 in EIA's forecast – however, the market-implied confidence band is very wide

WTI price

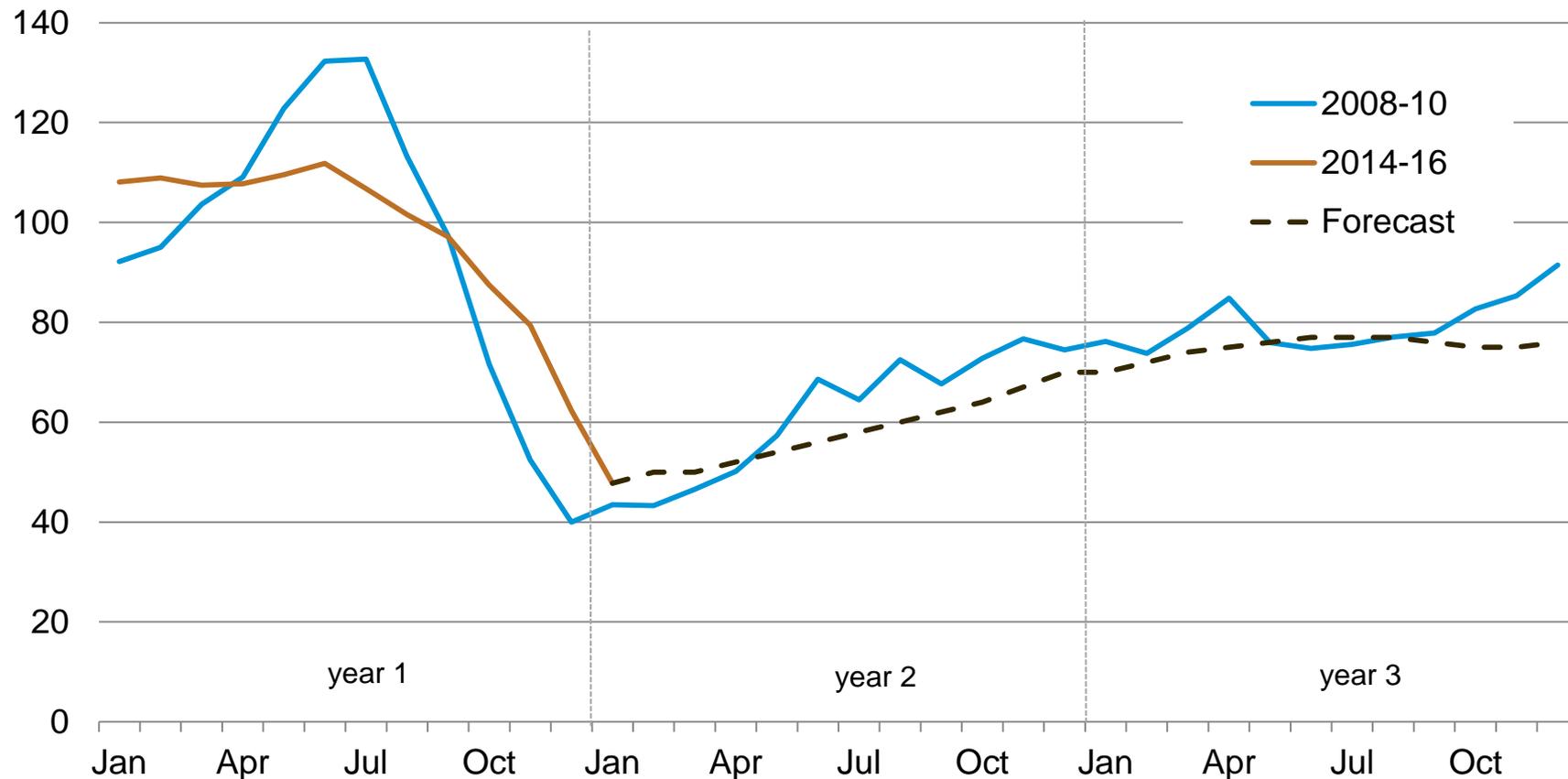
dollars per barrel



Source: EIA, Short-Term Energy Outlook, February 2015

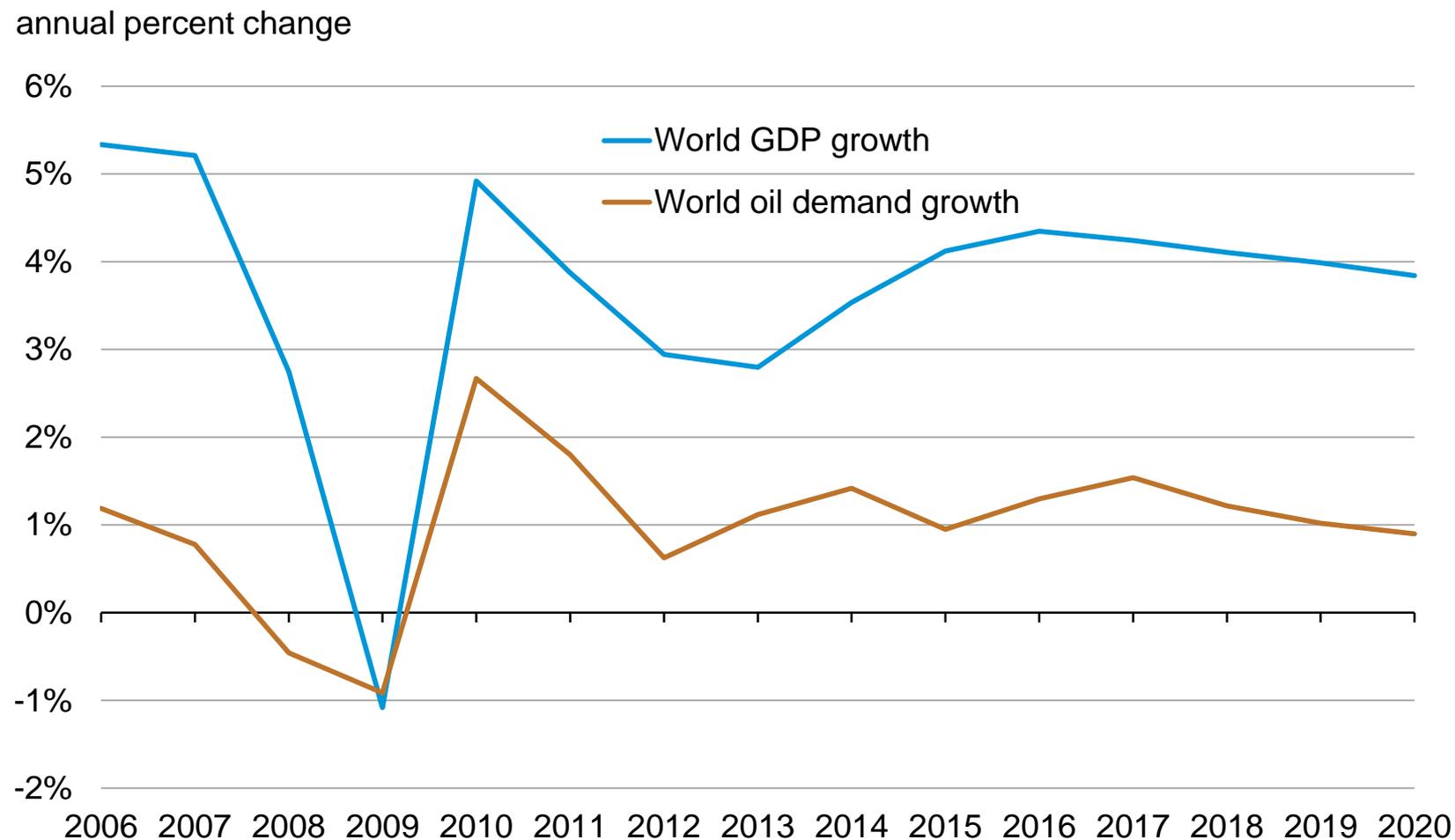
EIA forecast oil price path is similar to trajectory of 2008-10 price recovery (just a comparison, not a factor in developing the forecast)

Brent crude oil price
dollars per barrel



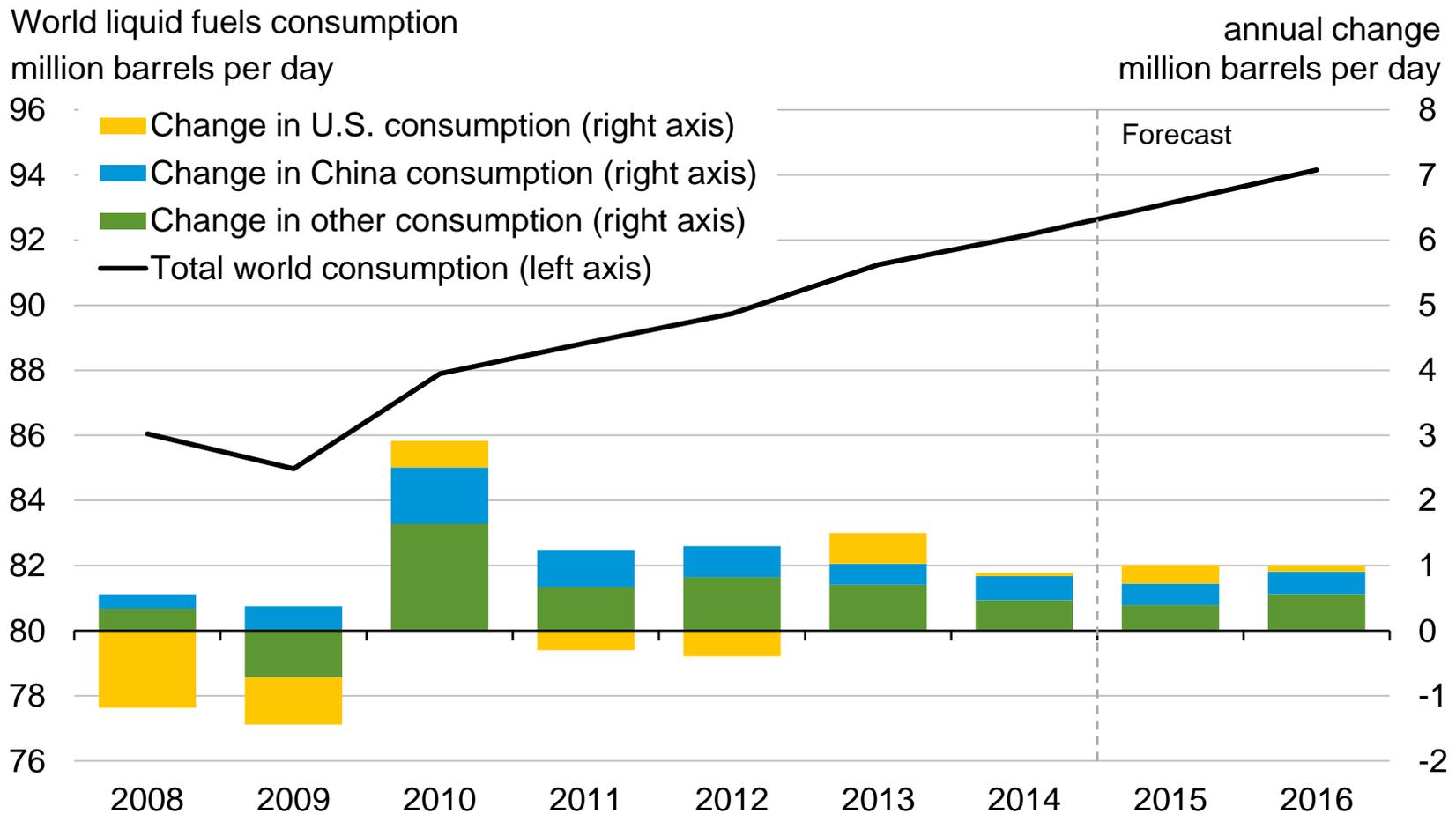
Source: EIA, Short-Term Energy Outlook, February 2015

Global oil demand tracks world GDP growth



Source: U.S. Energy Information Administration, *International Energy Outlook 2014*

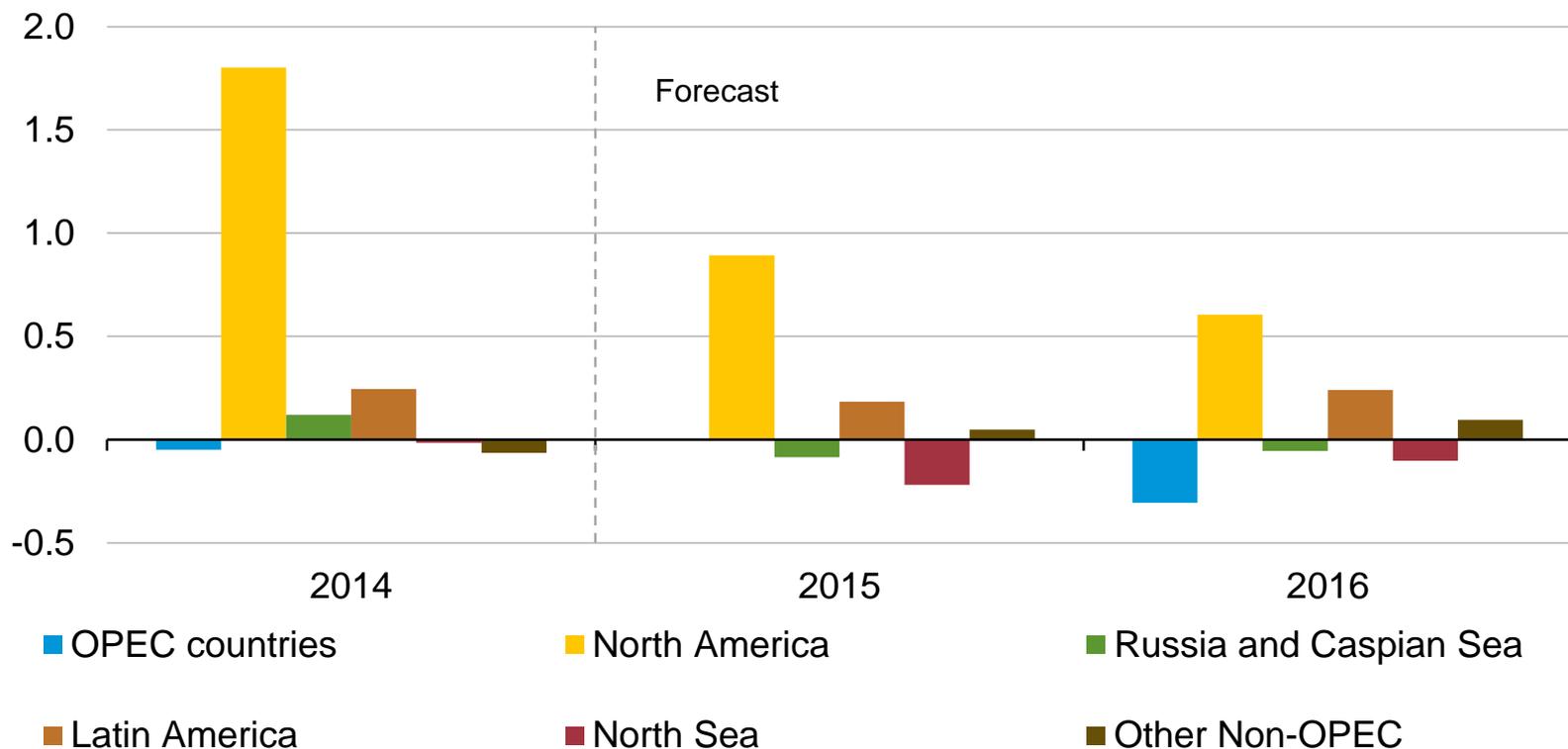
Global liquids consumption growth is forecast at 1.0 million bbl/d in both 2015 and 2016



Source: EIA, Short-Term Energy Outlook, February 2015

North American oil production growth slows with lower oil prices but remains the main driver of global production growth

World crude oil and liquid fuels production growth
million barrels per day



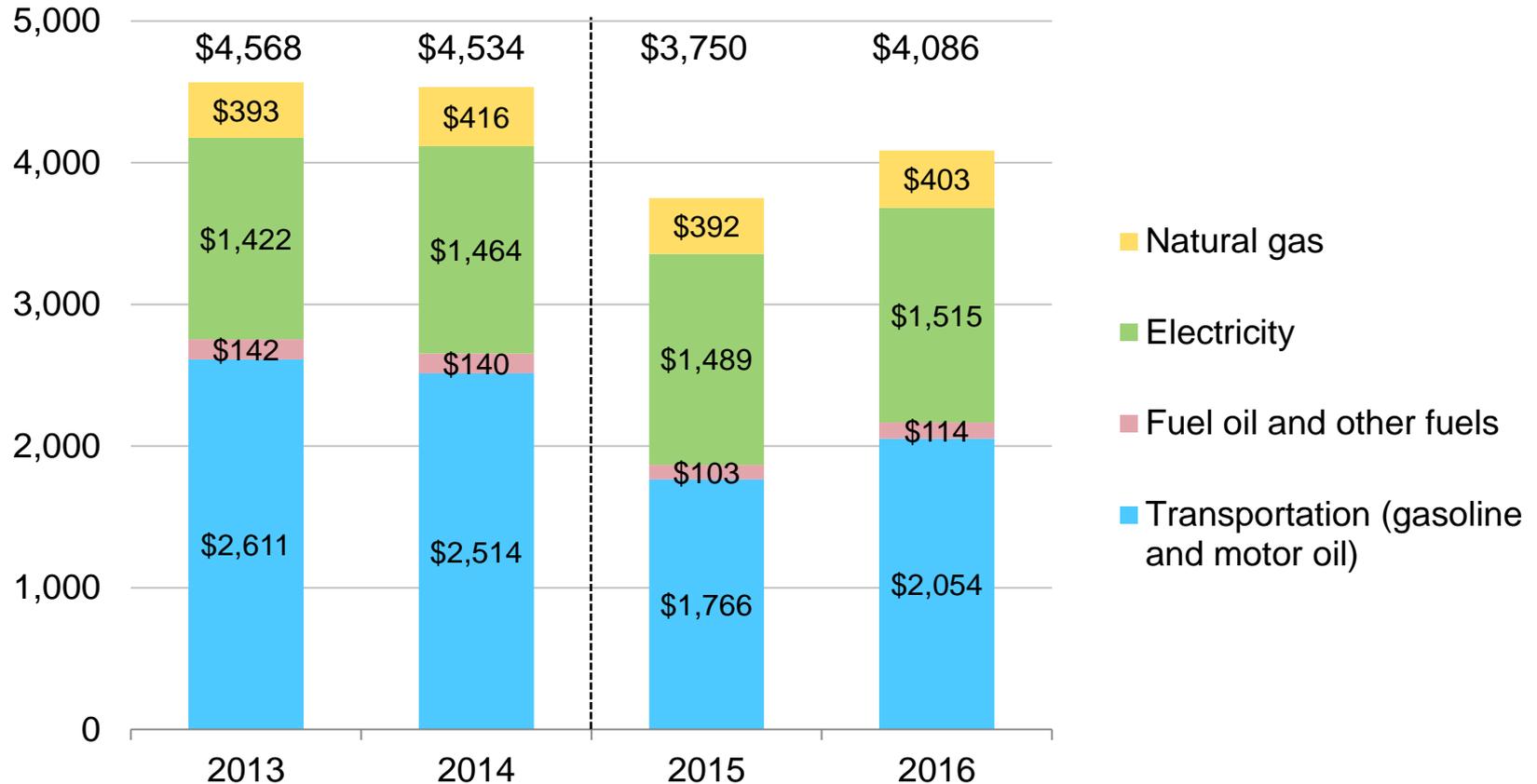
Source: EIA, Short-Term Energy Outlook, February 2015

Lower oil prices are expected to provide an immediate boost to the economy

- Starting from a base price of roughly \$100 per barrel, a \$10 drop in oil prices sustained for four quarters is estimated to raise real GDP by about 0.22% above baseline; if the drop in oil prices is sustained for a second year, the level of real GDP in that year averages 0.34% above baseline
- Estimated GDP impacts presented above are roughly scalable for drops of \$20 or \$30 per barrel; in the latter case the average level of GDP in the second year would be roughly 1% above baseline.
- If oil prices drop and then return to previous levels, GDP begins to return as well; the speed in which GDP adjusts depends on the oil price trajectory
- Estimated percentage impacts of an oil price drop on consumer prices and unemployment are generally smaller than impacts on GDP, and also tend to decrease in the second year as increased demand puts pressure on prices of other goods

Average household energy expenditures fall by 17% in 2015, then rebound somewhat in 2016 (based on EIA price forecast)

household energy expenditures
dollars



Sources: 2013 expenditures and income from BLS Consumer Expenditure Survey. The average household in the BLS survey (called a consuming unit) averages 2.5 people and 1.3 income earners. Expenditures for 2014-16 based on average prices from EIA Short-Term Energy Outlook, February 2015

Various events could lead to changes in global supply or demand that could push future crude oil prices higher or lower than the STEO forecast

Increase Prices

Event
Social unrest in Venezuela leads to supply disruptions
ISIL disrupts Iraqi exports
Iranian sanctions are tightened
Social unrest in oil-dependent countries leads to supply disruptions
OPEC cuts output more than projected

Decrease Prices

World economic growth is lower than projected (e.g., China)
Saudi Arabia keeps production at 9.6-9.7 million bbl/d in 2016
Reduction in unplanned production outages
Iranian sanctions are lifted

For more information

U.S. Energy Information Administration home page | www.eia.gov

Annual Energy Outlook | www.eia.gov/aeo

Short-Term Energy Outlook | www.eia.gov/steo

International Energy Outlook | www.eia.gov/ieo

Monthly Energy Review | www.eia.gov/mer

Today in Energy | www.eia.gov/todayinenergy

State Energy Profiles | <http://www.eia.gov/state>

Drilling Productivity Report | <http://www.eia.gov/petroleum/drilling/>