Effects of low oil prices

for

19th Annual Energy Risk Summit

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by

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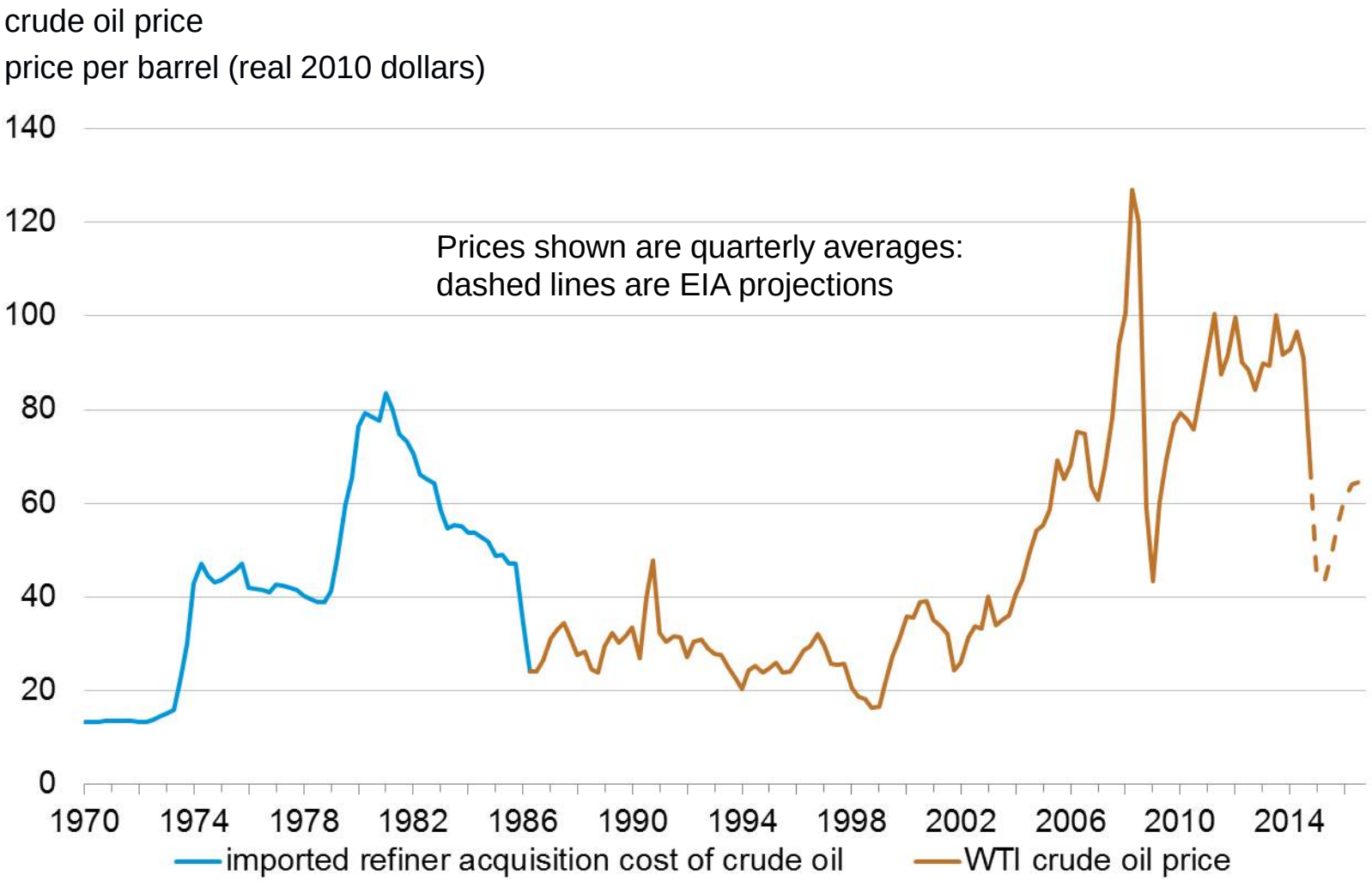
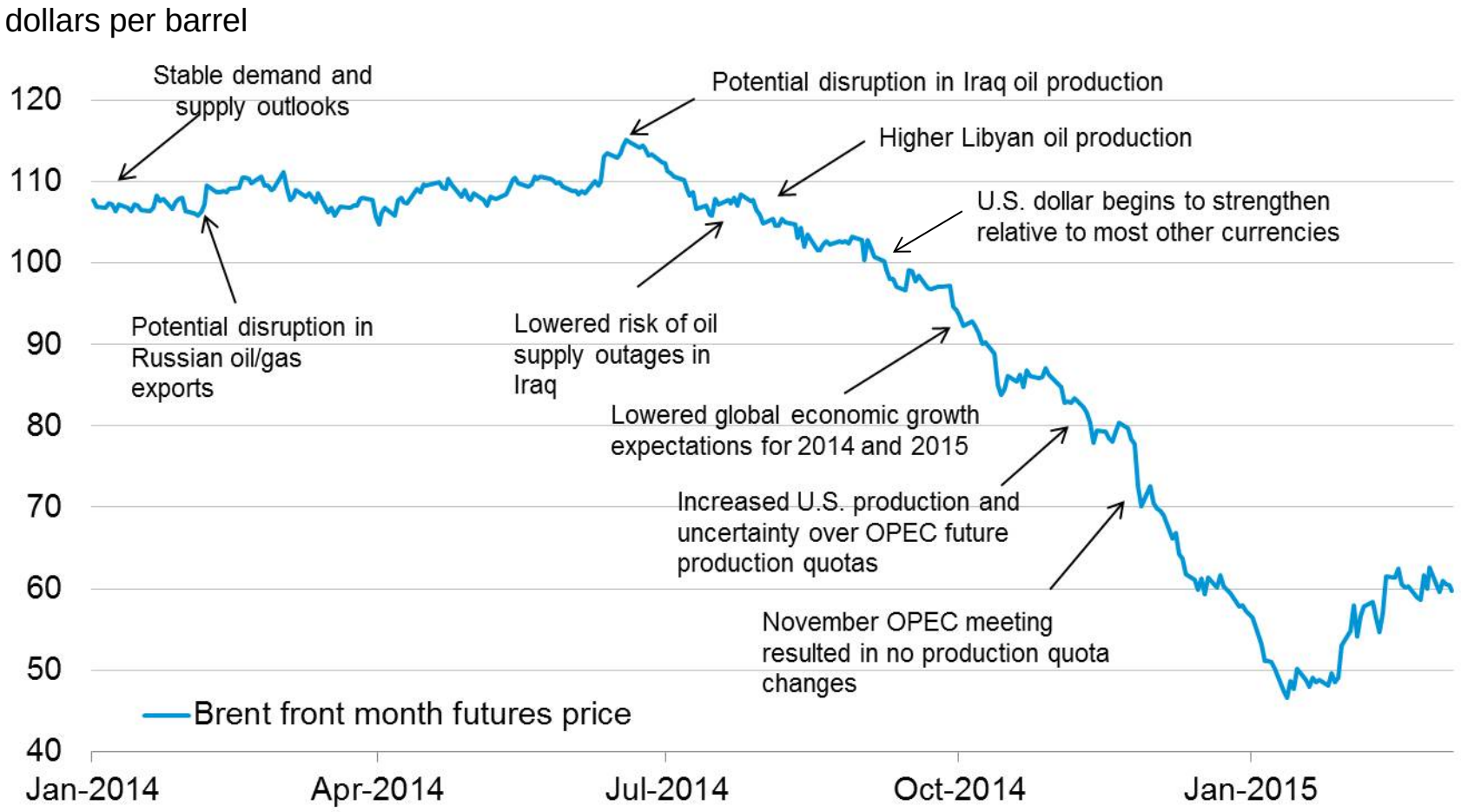
Historical oil prices (and EIA forecast through 2016)



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

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



Source: EIA, Bloomberg

Key takeaways

Oil prices: EIA's forecast for Brent averages $61/b in 2015 and $70/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 $40/b to $110/b at the end of 2016.

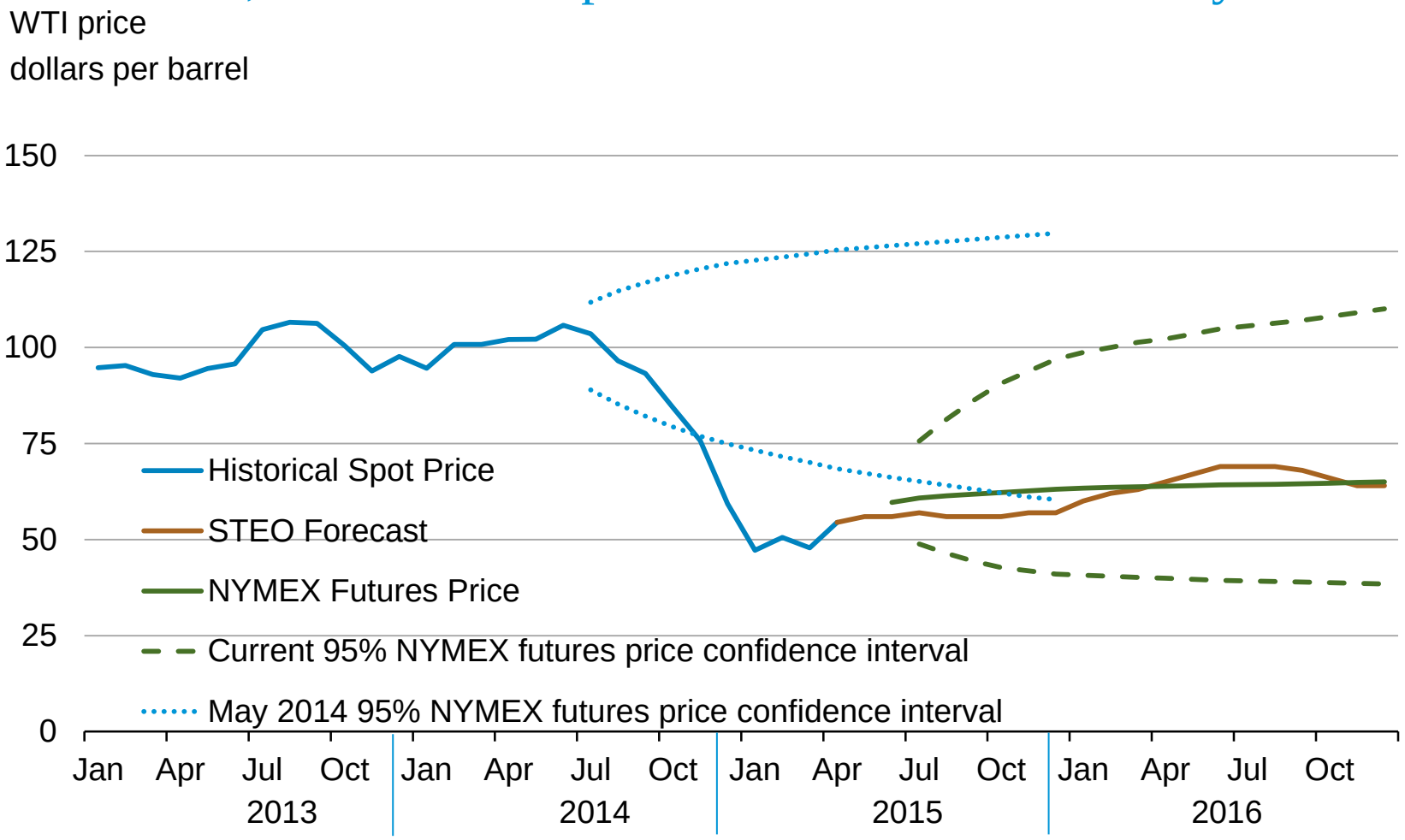
Demand: Non-OECD Asia remains a key driver of global forecast liquids consumption growth of roughly 1.2 million b/d in 2015 and 1.3 million b/d in 2016; lower demand growth is a major a downside risk to the price forecast

U.S. oil production: Lower-48 oil production falls to its 4Q2014 level in 3Q2015, and then remains below that level for the following 3 quarters, before returning to that level in 3Q2016 as production growth resumes under EIA's price scenario; near-term production in the federal offshore (growing) and Alaska (declining) are not responsive to recent price changes

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

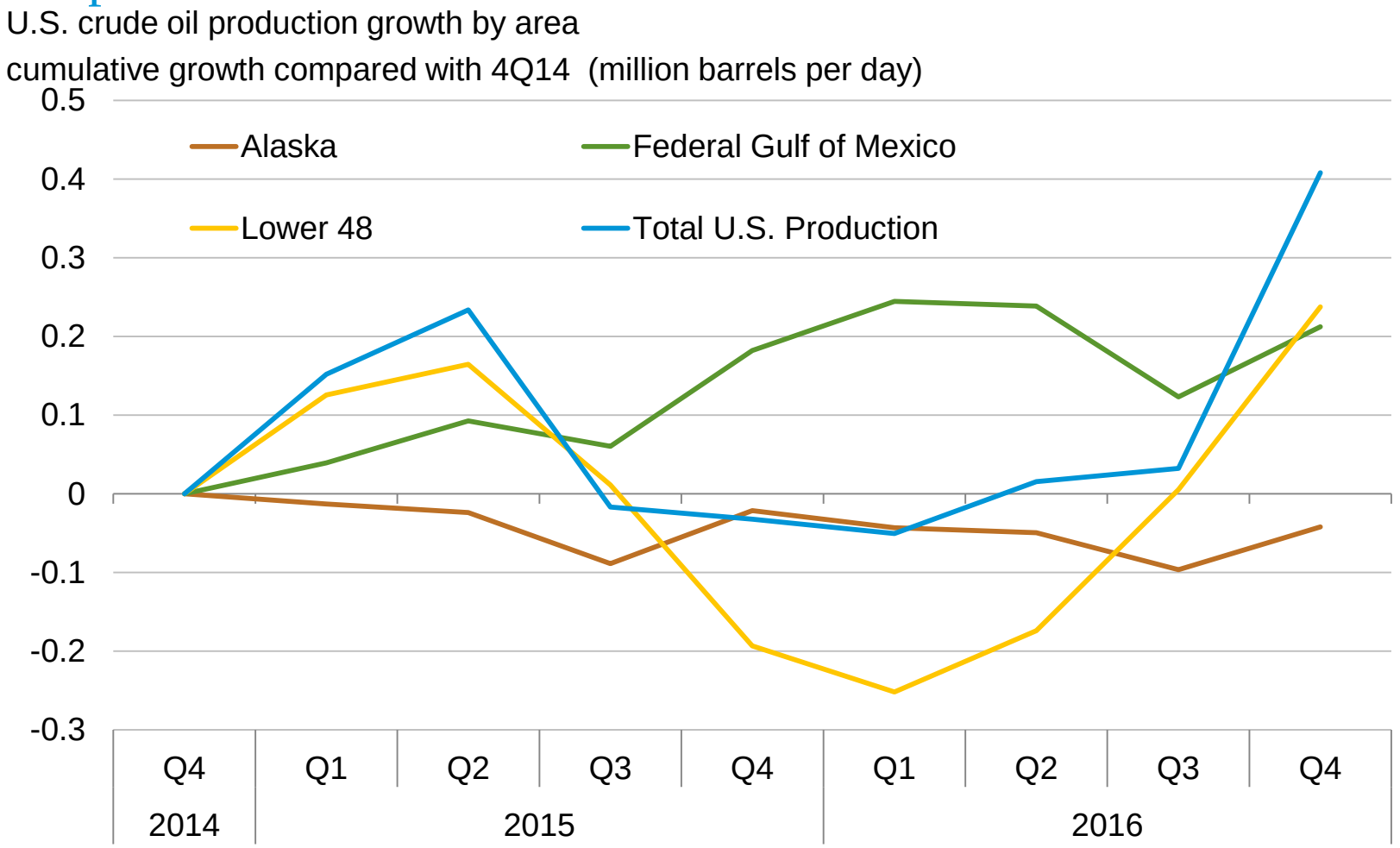
- Energy expenditures as a share of GDP are forecast at 6.3% in 2015, their lowest level since 2002, reflecting both lower oil prices and energy efficiency
- Average U.S. household projected gasoline spending is $675 less in 2015 than in 2014, and about $530 less in 2016 than in 2014

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



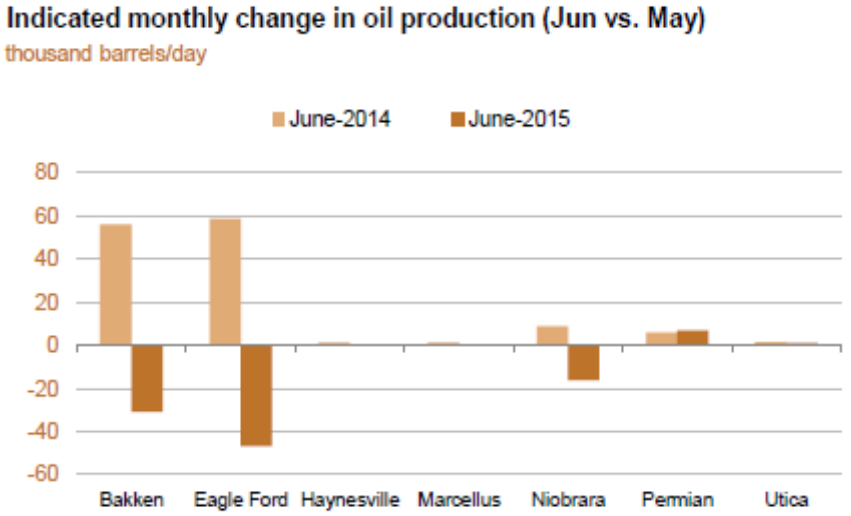
Source: EIA, Short-Term Energy Outlook, May 2015

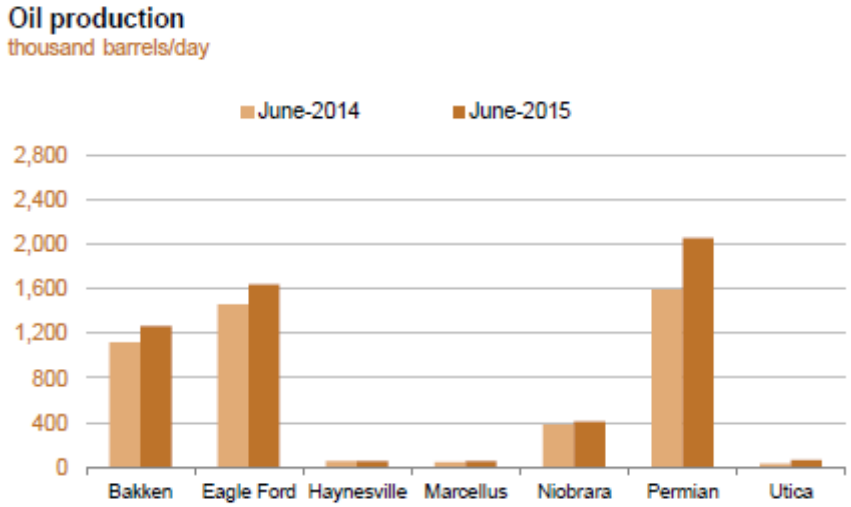
Total U.S. crude production is forecast to decline between 2Q15 and 1Q16; output growth then resumes growth in 2016, reflecting EIA's price forecast



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

EIA's latest DPR forecasts June oil production below the May level in the Bakken, Eagle Ford, and Niobrara regions

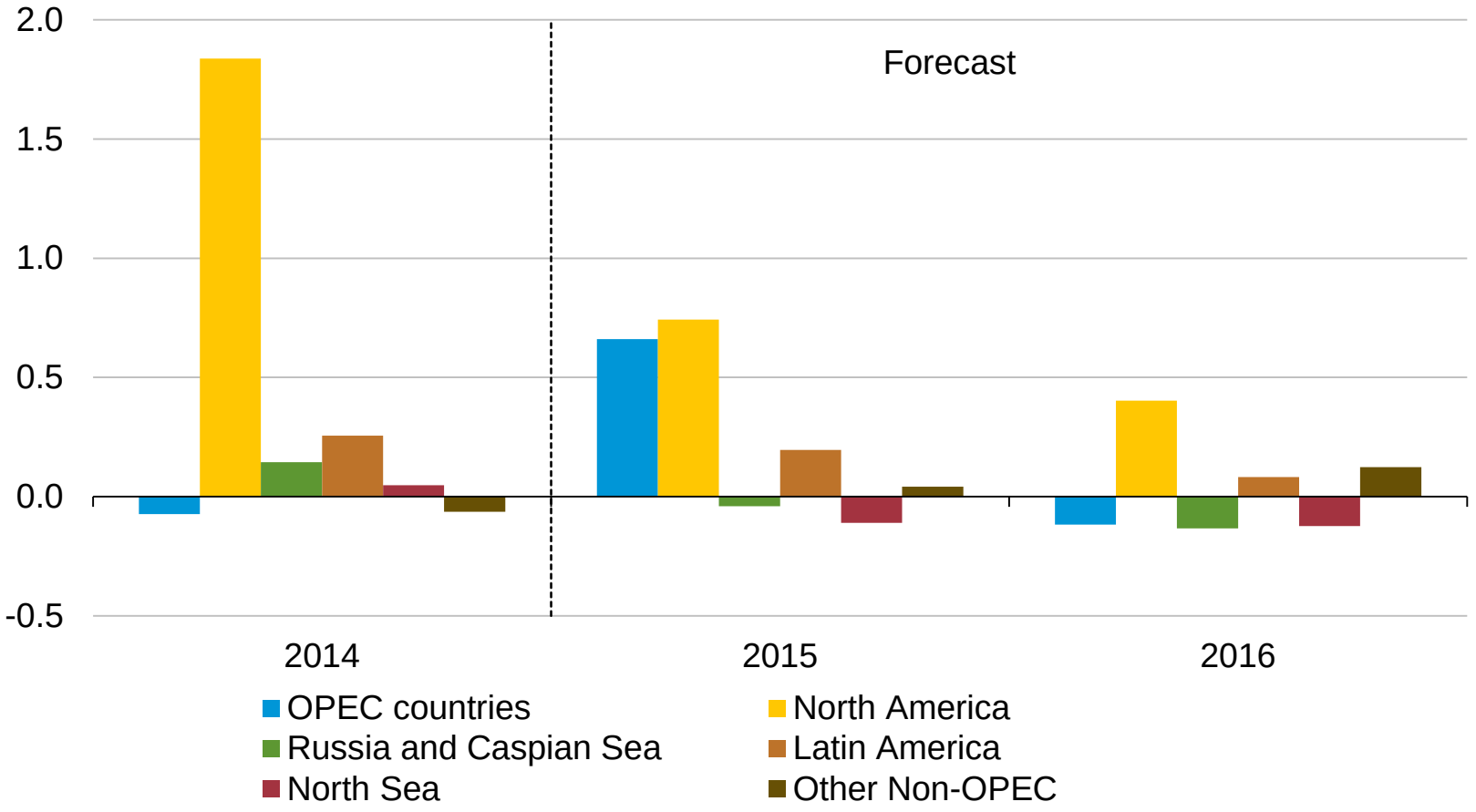




North American oil production growth slows with lower oil prices but remains the main driver of global production growth

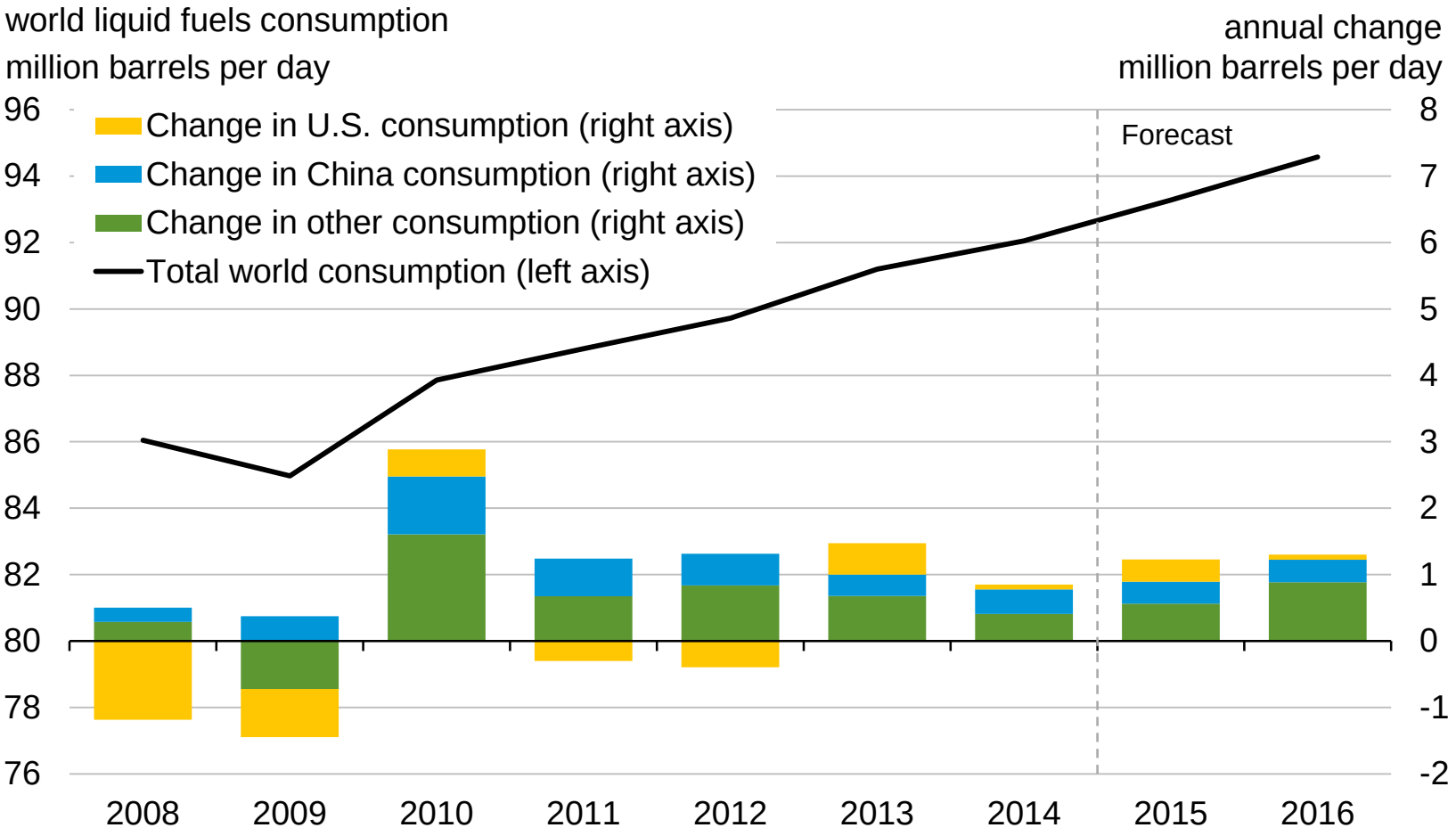
world crude oil and liquid fuels production growth

million barrels per day



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

EIA forecasts global liquids consumption growth at 1.2 million bbl/d in 2015 and 1.3 million bbl/d in 2016

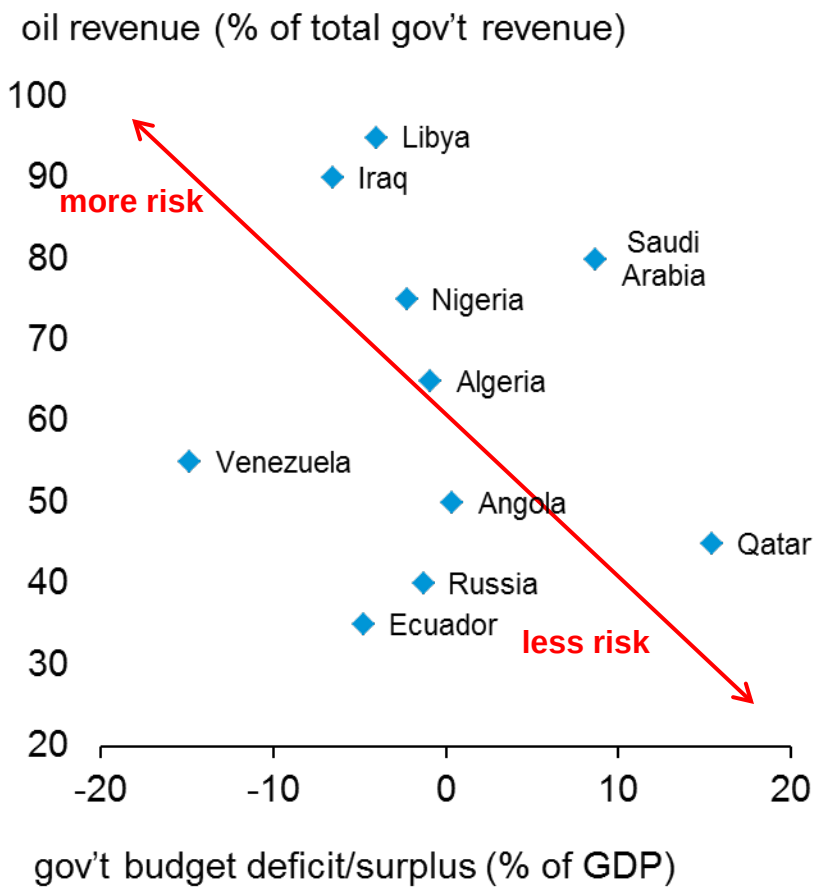


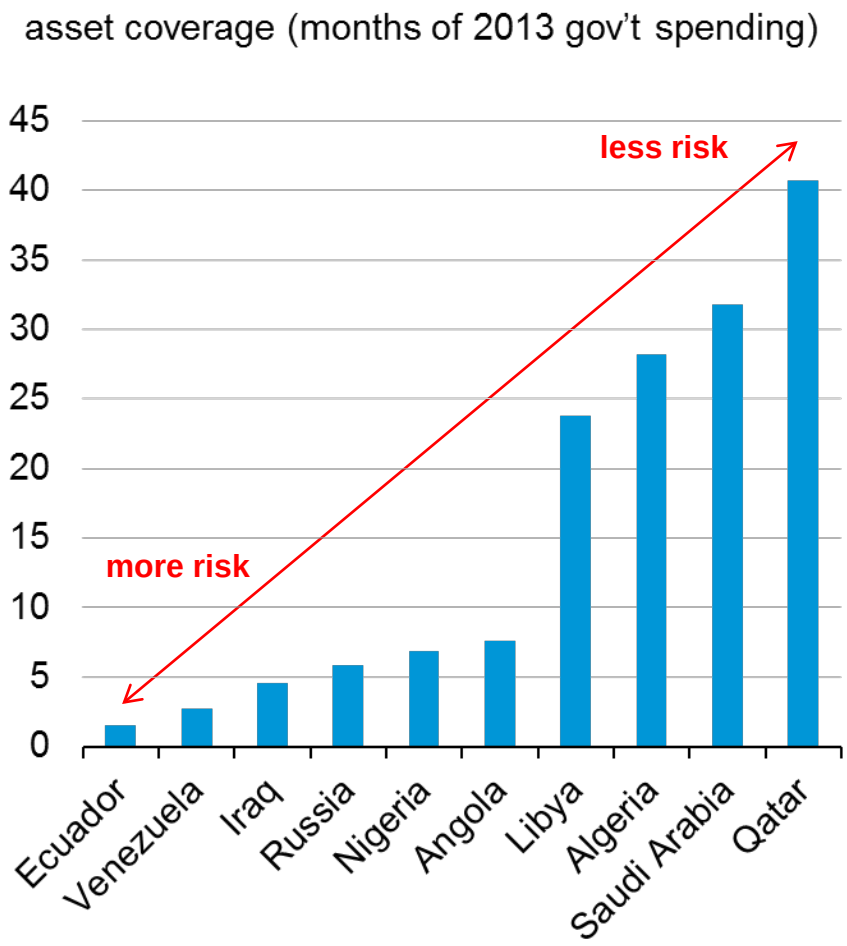
Source: EIA, Short-Term Energy Outlook, May 2015

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

	Event
Increase Prices	Oil demand growth surprises to the upside (economy- or price-driven)
	Key OPEC producers cut output more than expected
	Iraq production is significantly disrupted (ISIL? other discord?)
	Social unrest in oil-dependent countries leads to supply disruptions
	Non-OPEC production slows more than expected
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

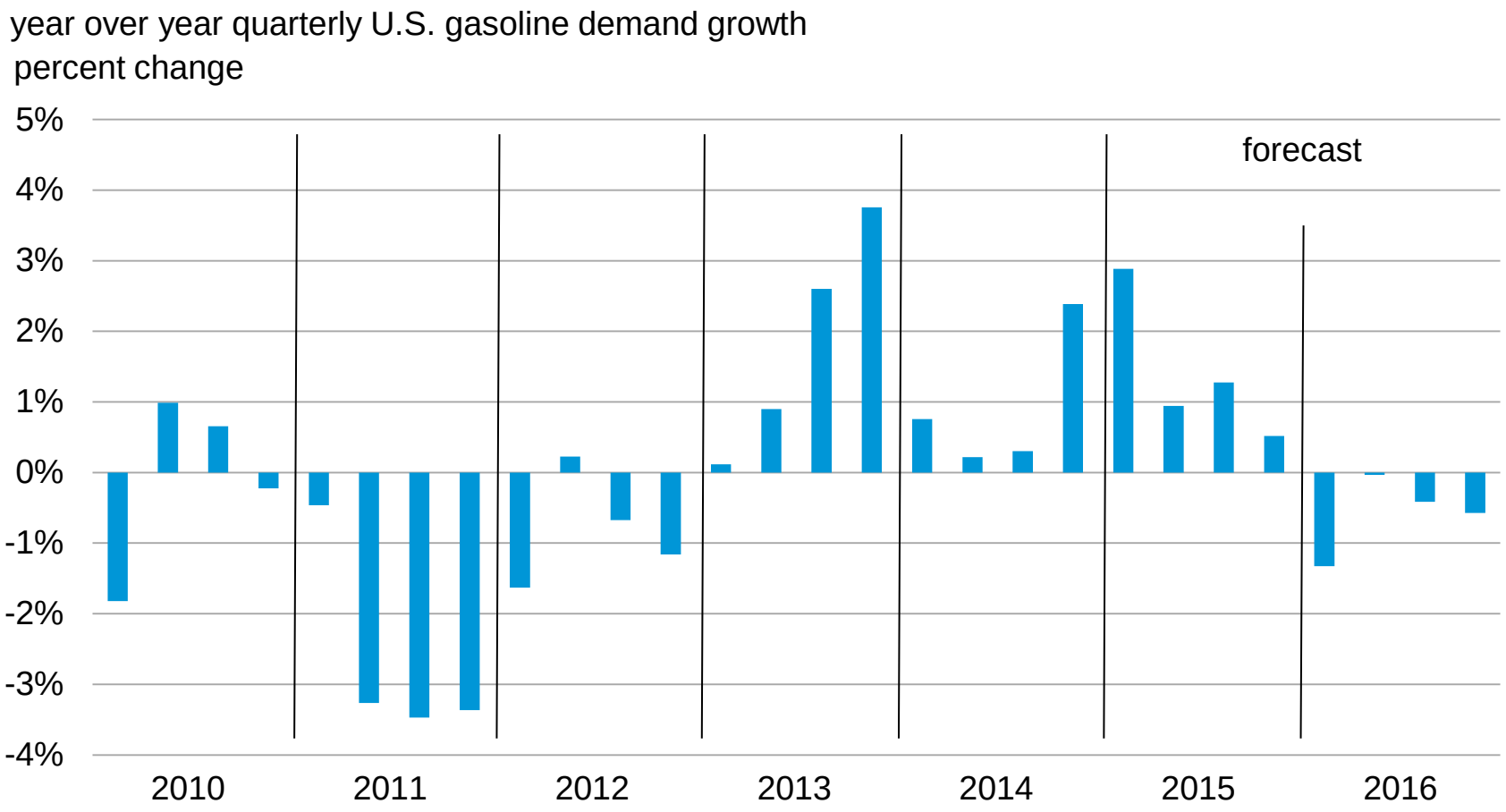
Gov't deficits, high reliance on oil revenue, and asset coverage of gov't spending are indicators of geopolitical stress exposure





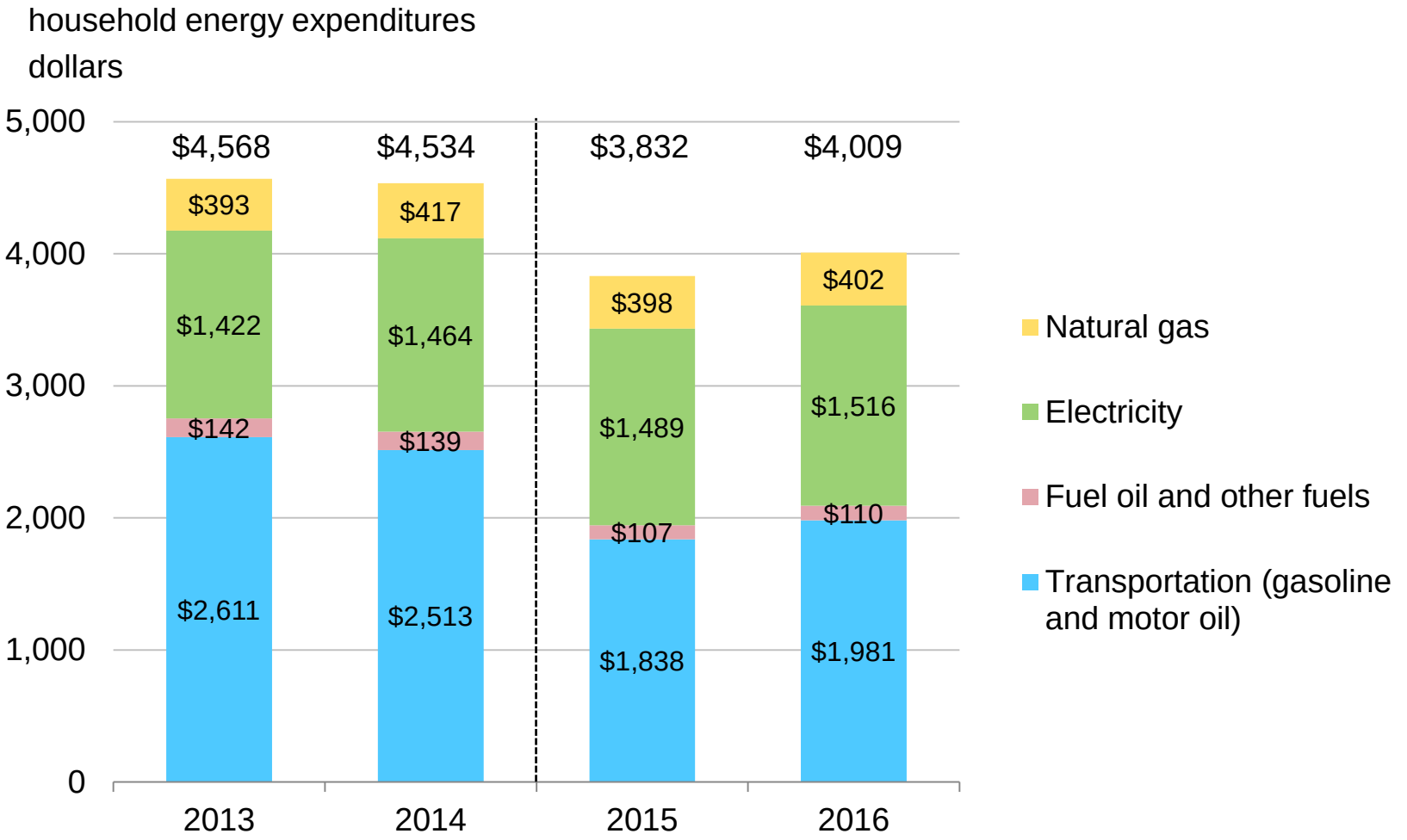
Source: EIA, International Monetary Fund (IMF), individual country investment authorities

U.S. gasoline demand is forecast to increase 1.4% percent in 2015 reflecting a combination of factors



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

Average household energy expenditures fall by 15% in 2015, then increase somewhat in 2016 (based on EIA price forecast)

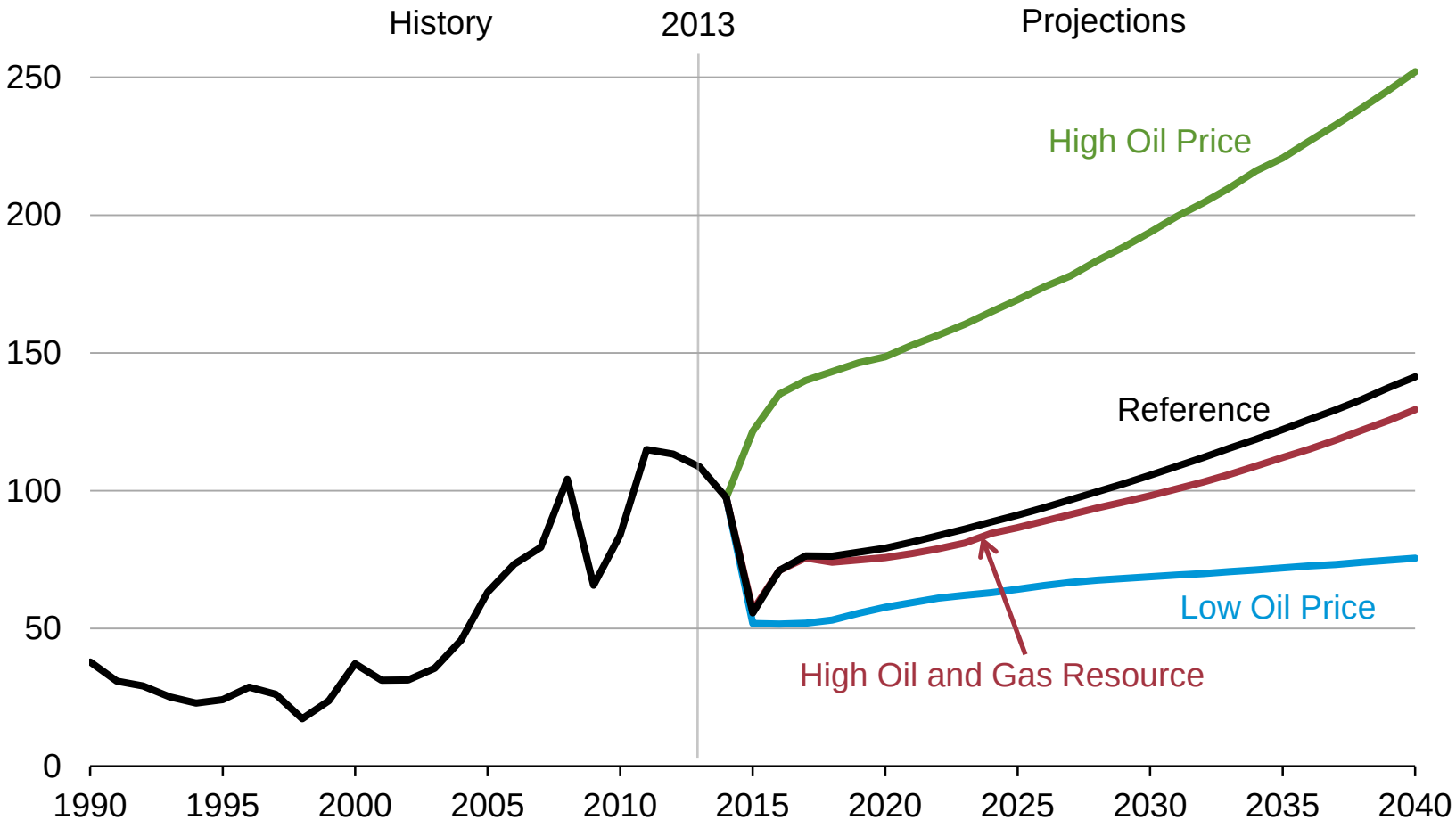


Sources: 2013 expenditures and income from BLS Consumer Expenditure Survey. The average household in the BLS survey (called a consuming unit) averages 2.5 people and 1.3 income earners. Expenditures for 2014-16 based on average prices from EIA Short-Term Energy Outlook, May 2015

Longer-term perspective

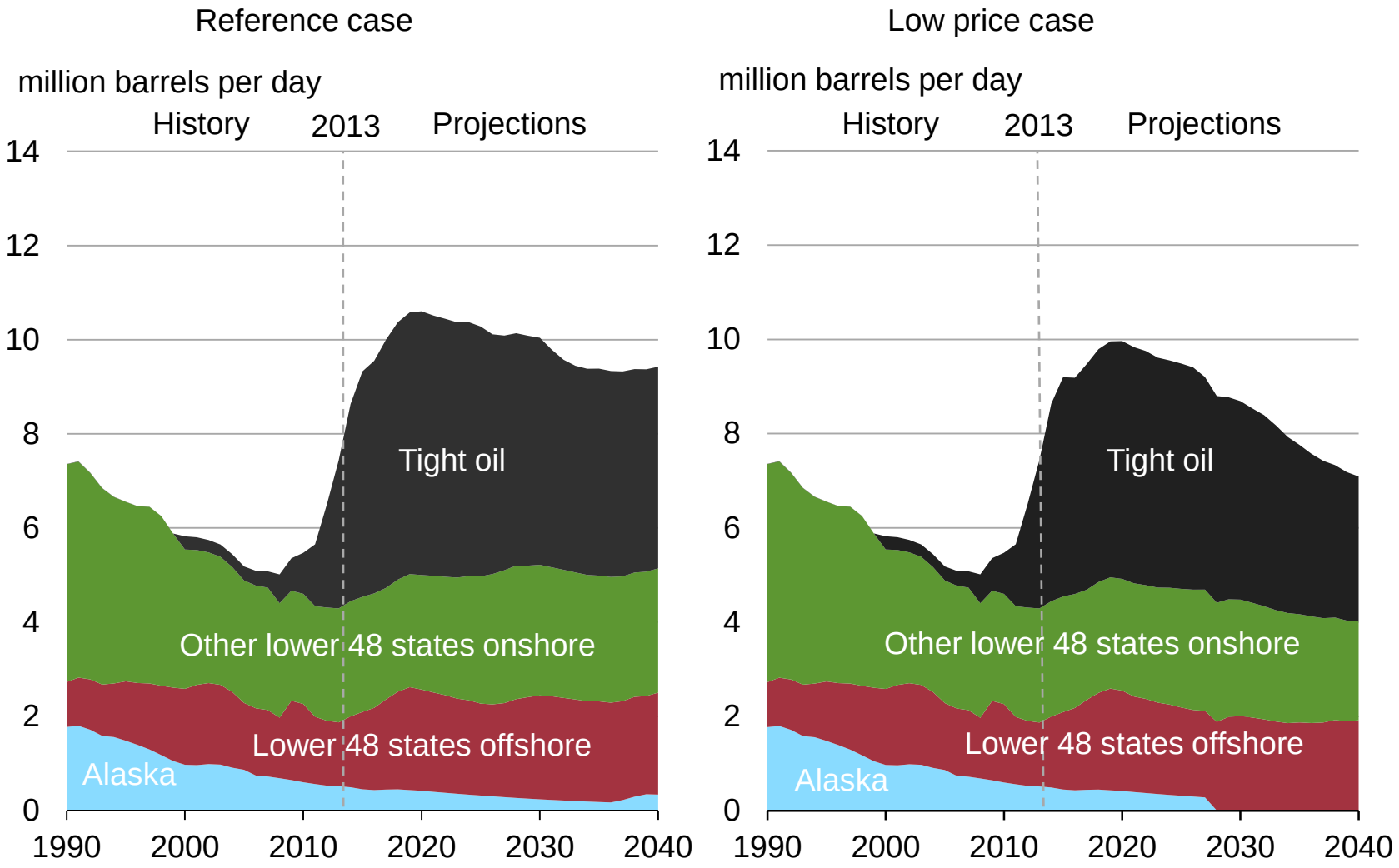
EIA's long-term price scenarios cover a wide range of potential prices

Brent crude oil spot price
2013 dollars per barrel



Source: EIA, Annual Energy Outlook 2015

Lower oil prices, if sustained, have a significant impact on projected U.S. production



Source: EIA, Annual Energy Outlook 2015

Can OPEC cohere? – comparison of change in world liquid fuel balances for two 12-year historical periods with EIA projections for 2013-25 from AEO2015 (million barrels per day)

	Actual		Projected AEO 2014 Reference & HOGR Cases
	1973–85	2000–12	2013–25
World Liquids Demand	+3	+12	+12 to +13
OECD	-4	-2	+1
Non-OECD	+7	+15	+11
World Liquids Supply	-1	+12	+11 to +12
Non-OPEC Supply	+13	+ 6	+10 to +15
OPEC Production	-14	+ 6	-3 to +2

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

For more information

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

Annual Energy Outlook | www.eia.gov/forecasts/aeo

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

International Energy Outlook | www.eia.gov/forecasts/ieo

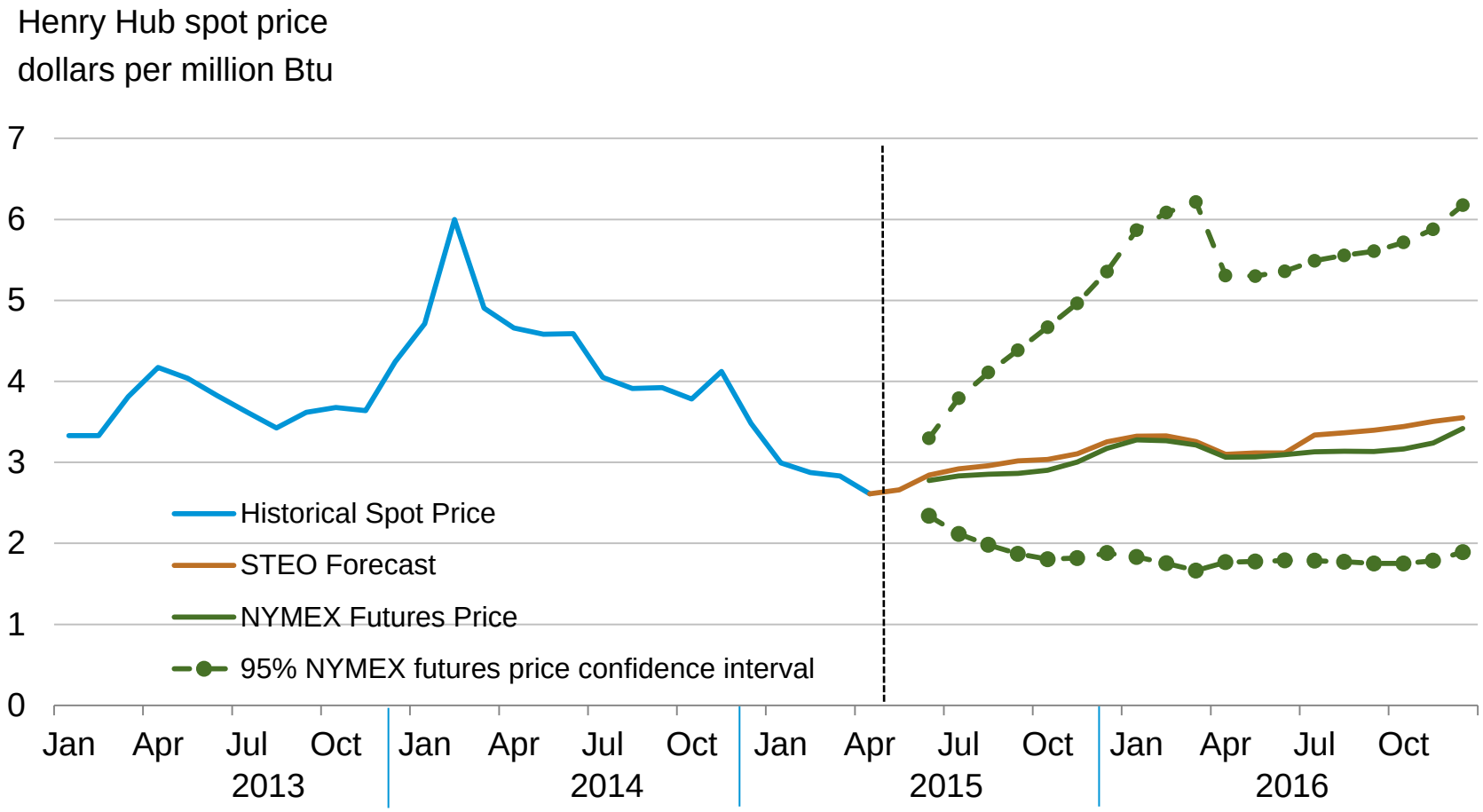
Today In Energy | www.eia.gov/todayinenergy

Monthly Energy Review | www.eia.gov/totalenergy/data/monthly

State Energy Portal | www.eia.gov/state

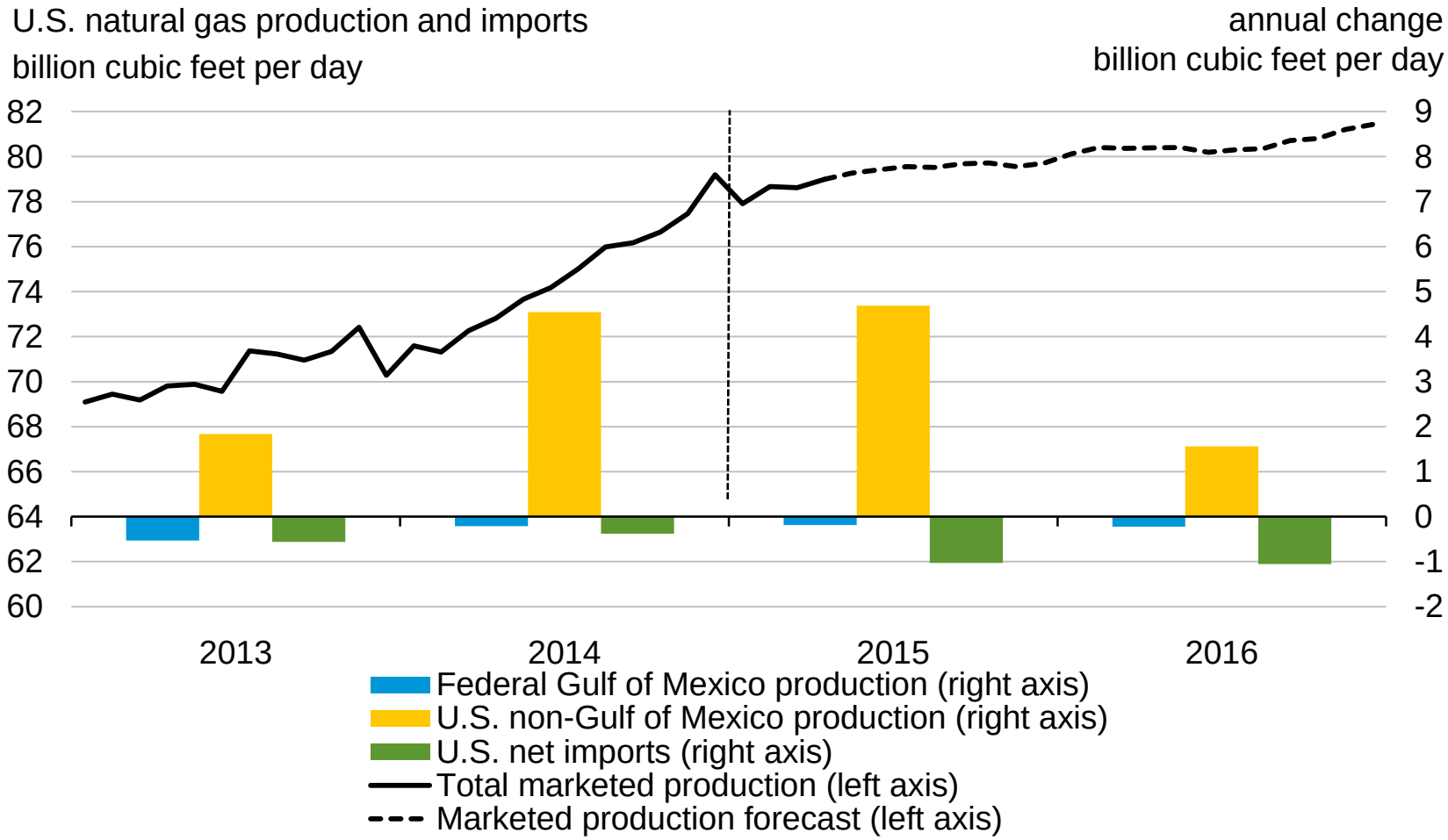
Drilling Productivity Report | www.eia.gov/petroleum/drilling

Henry Hub spot prices are expected to average $2.93/million Btu in 2015 and $3.32/million Btu in 2016



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

Natural gas production is expected to increase by 4.5 bcf/day in 2015 and by 1.3 bcf/day in 2016



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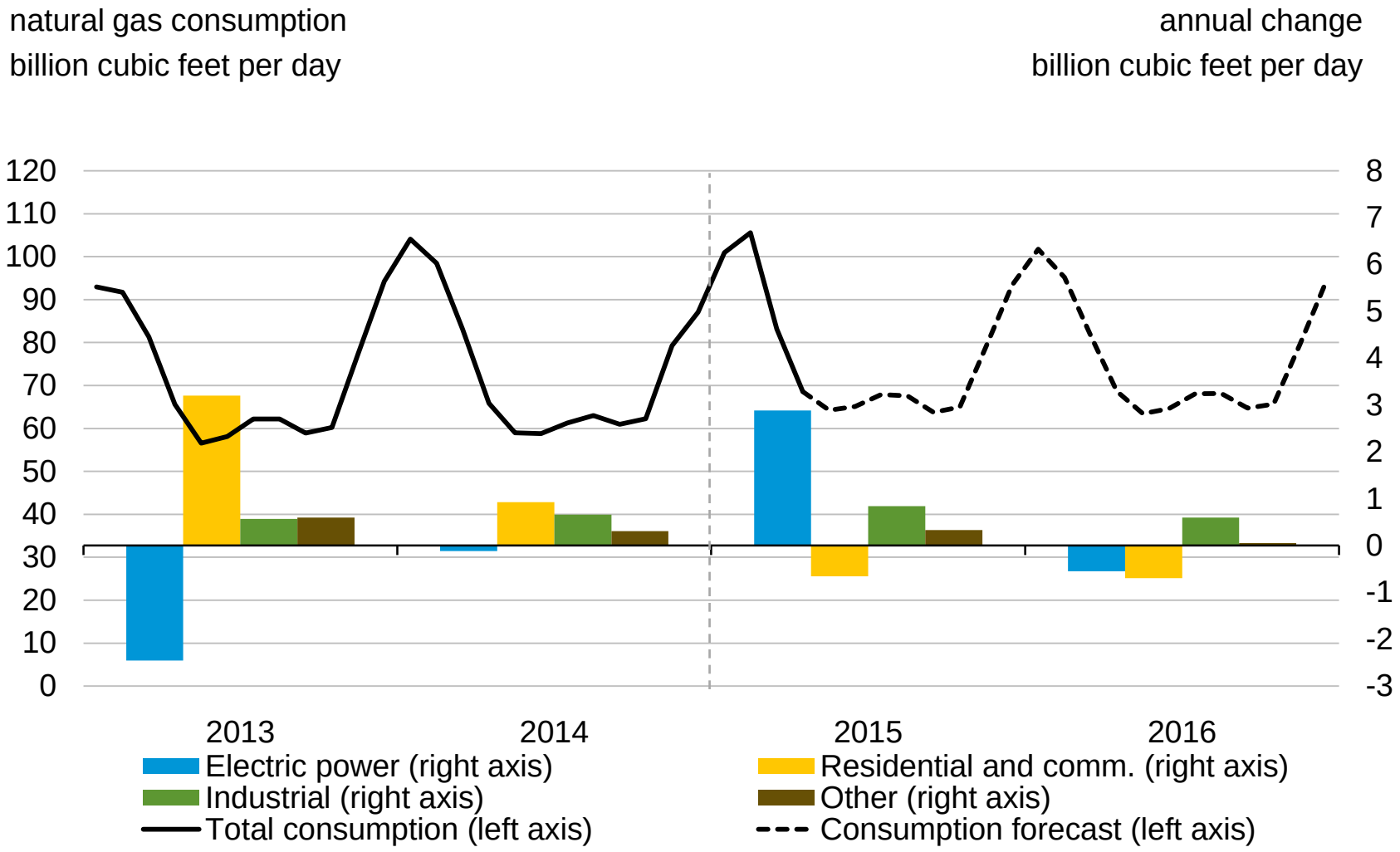
Industrial and power sectors drive natural gas consumption growth in the forecast



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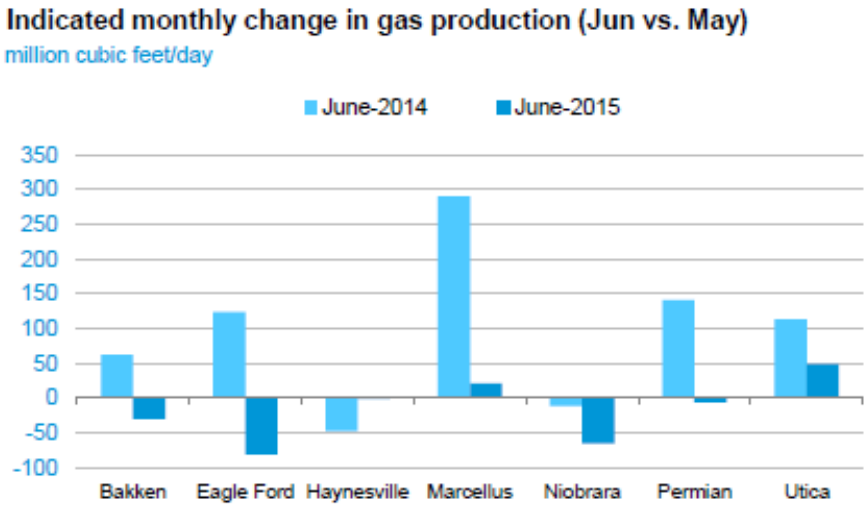

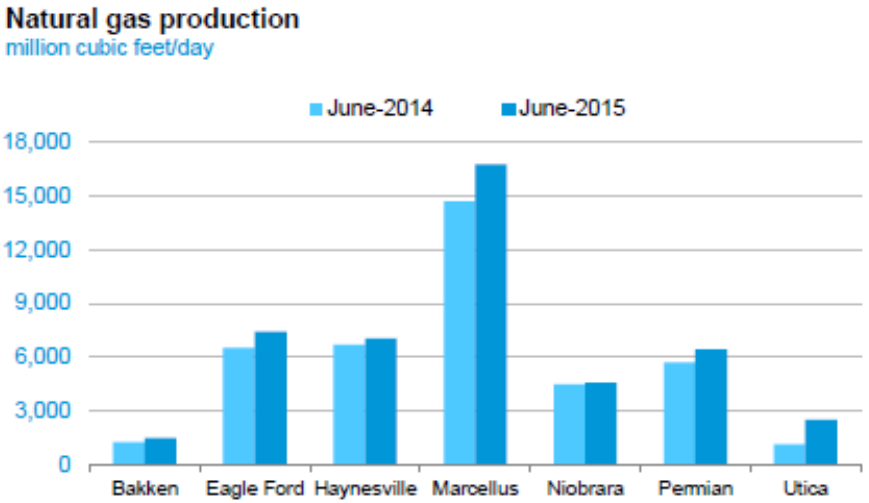

New condensate splitter projects in the United States

Project	Capacity (Mbbl/sd)	State	Est. Cost[2] ($MM)	Completion	Status
Kinder Morgan - Galena Park	50	Texas	180	2015	under construction
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Marathon - Canton	25	Ohio	180	2015	under construction
Kinder Morgan - Galena Park	50	Texas	200e	2017	proposed
Buckeye/Trafigura – Corpus Christi	50	Texas	200	2016	proposed
Magellan – Corpus Christi	50	Texas	250e	2017	proposed
Magellan – Corpus Christi	50	Texas	200e	2018	proposed
Phillips 66 – Sweeny	75	Texas	242	2018	proposed
Targa - Houston Ship Channel	35	Texas	115	2018	proposed
Marathon - Catlettsburg	35	Kentucky	150	2016	front-end engineering design
CCI – Corpus Christi	100	Texas	500	2016	front-end engineering design

Note: Mbbl/sd = thousand barrels per stream day; MM = millions; e = Estimated costs, when stated costs not available from news reports or company filings.

Source: U.S. Energy Information Administration, compiled from industry sources as of January 2015.