

What drives crude oil prices?

*An analysis of 7 factors that influence oil markets,
with chart data updated monthly and quarterly*

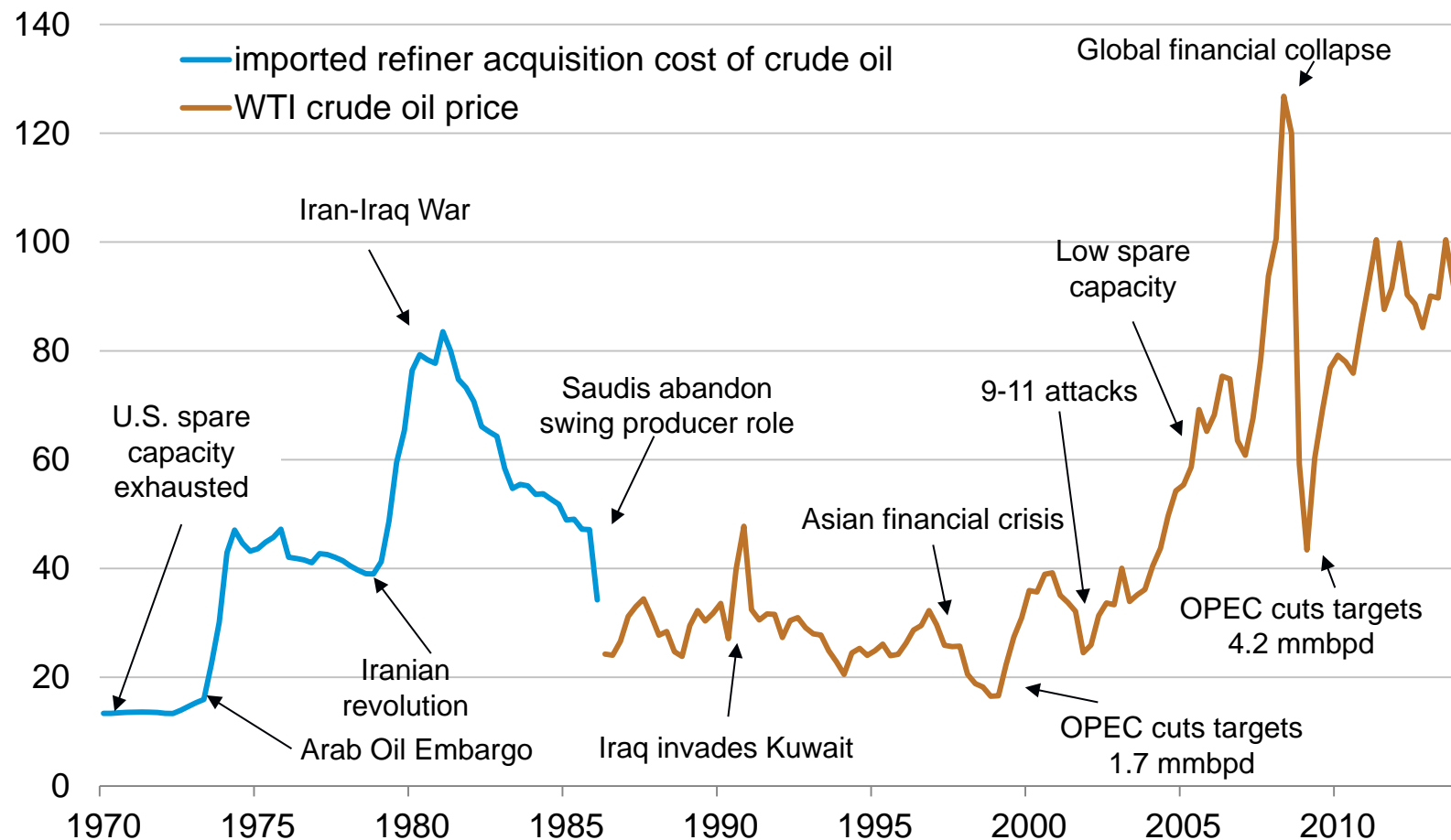


May 6, 2014 / Washington, DC

Crude oil prices react to a variety of geopolitical and economic events

price per barrel

(real 2010 dollars, quarterly average)

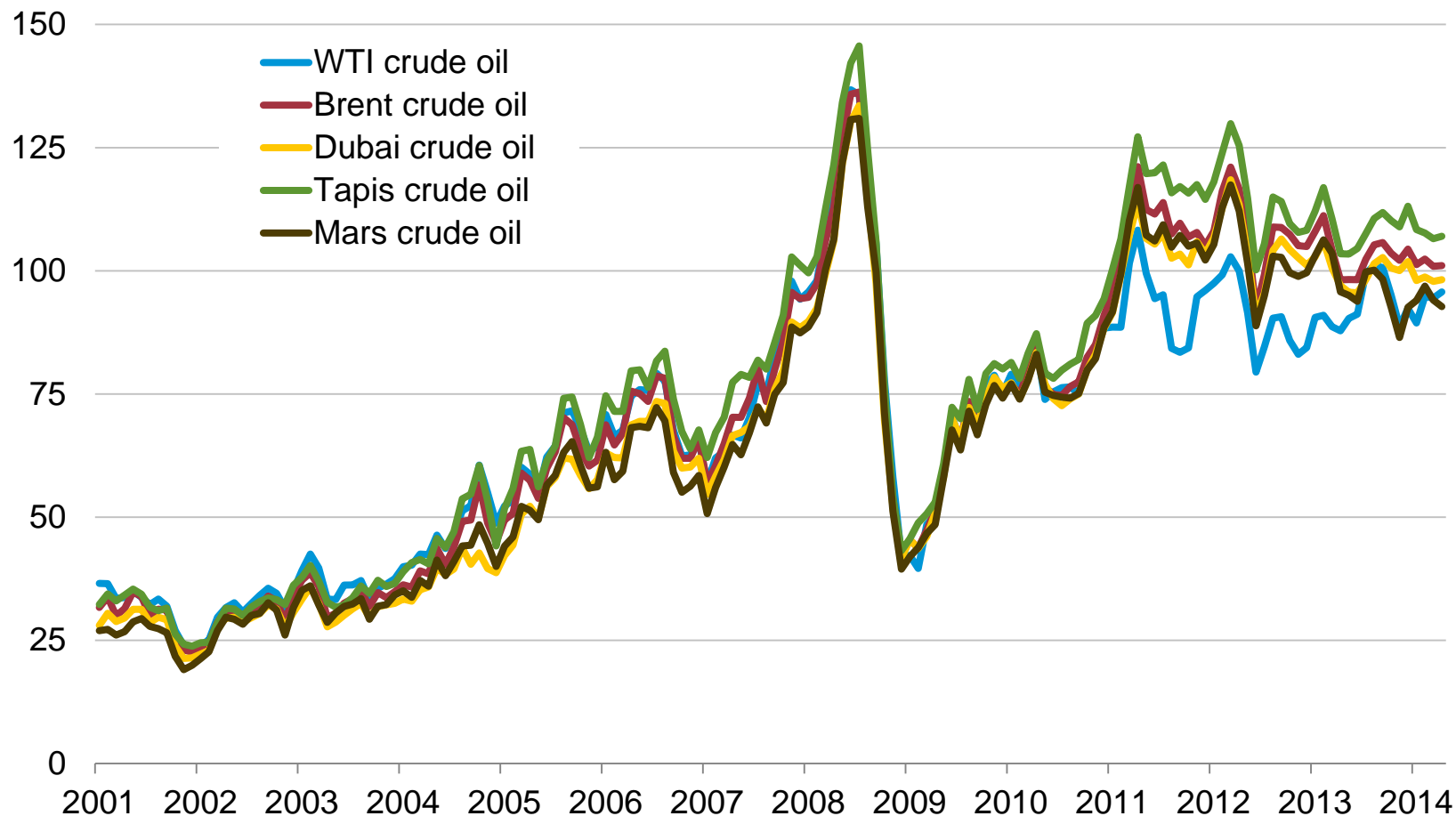


Sources: U.S. Energy Information Administration, Thomson Reuters

World oil prices move together due to arbitrage

dollars per barrel

real 2010 dollars, monthly average



Sources: Bloomberg, Thomson Reuters

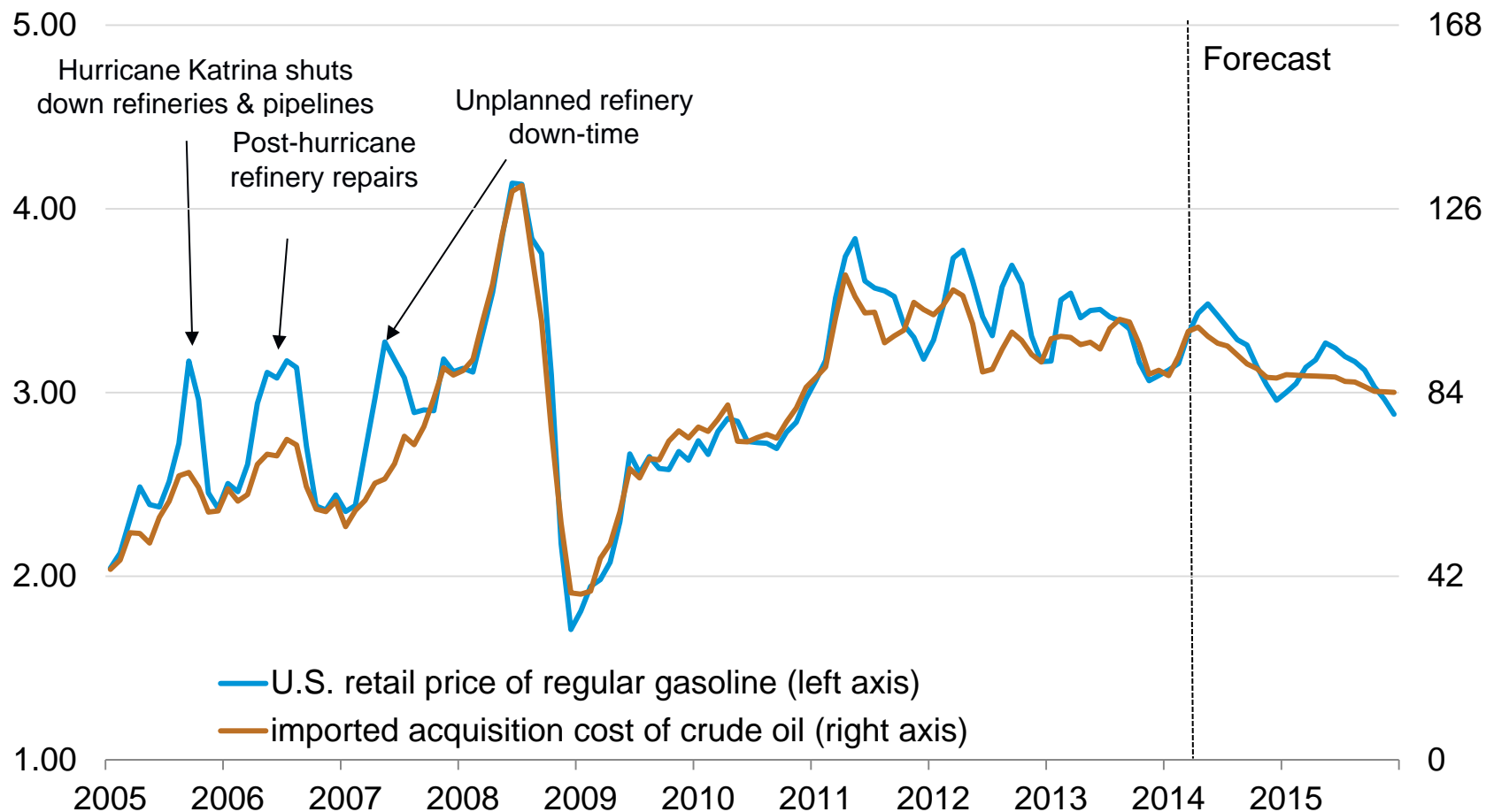
Crude oil prices are the primary driver of petroleum product prices

price per gallon

real 2010 dollars, monthly average

price per barrel

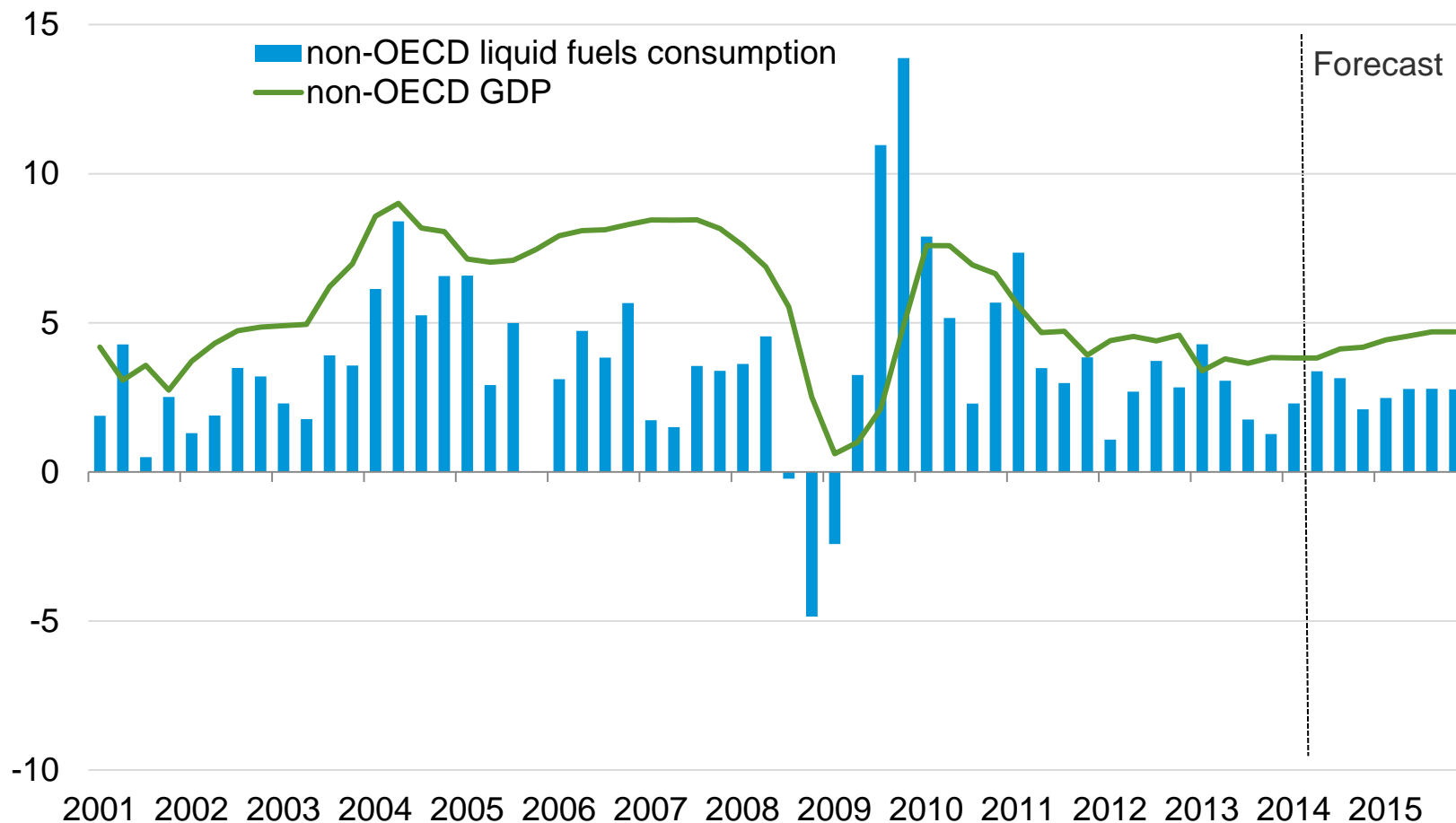
real 2010 dollars, monthly average



Sources: EIA Short Term Energy Outlook, Thomson Reuters

Economic growth has a strong impact on oil consumption

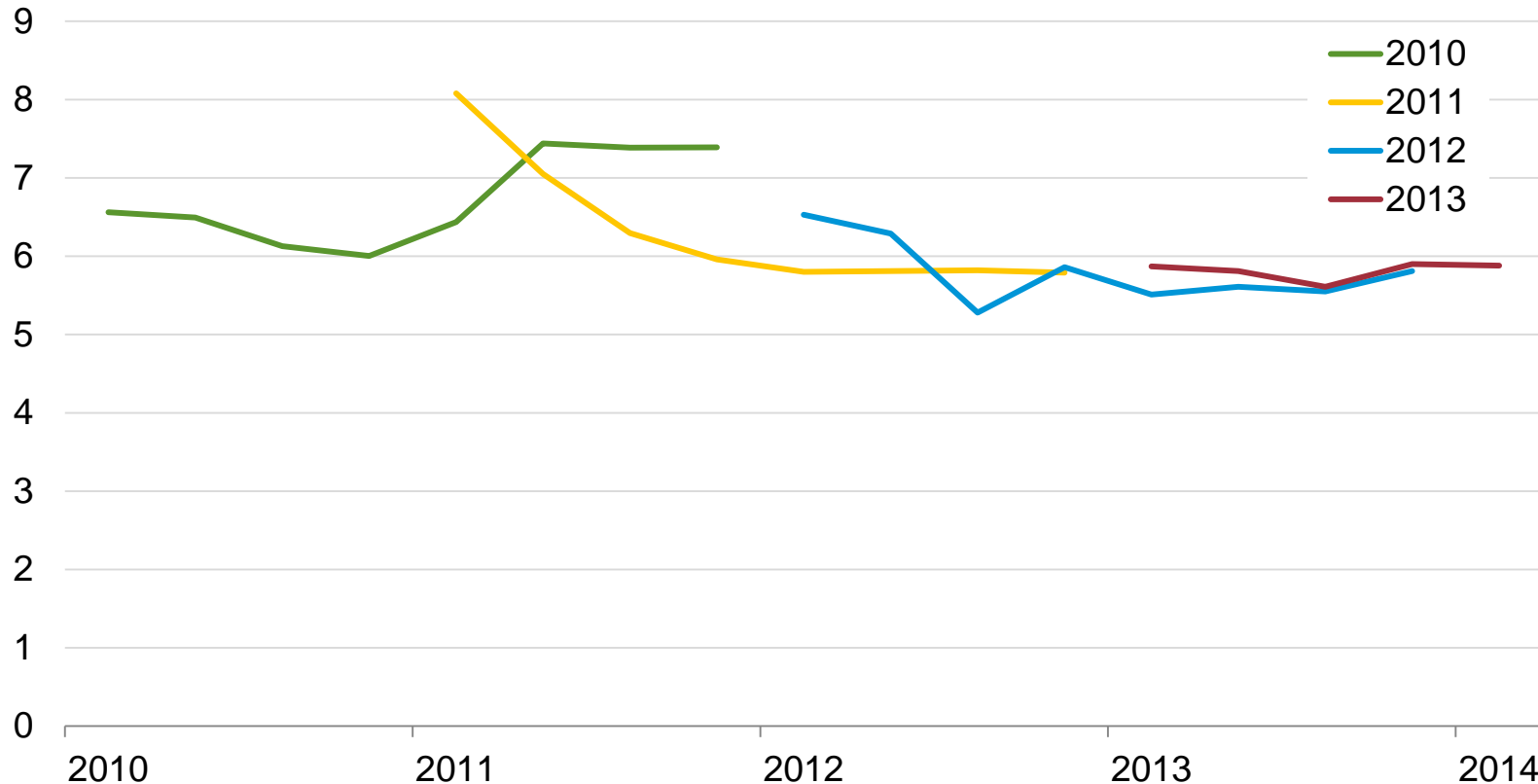
percent change (year-on-year)



Sources: EIA Short Term Energy Outlook, Thomson Reuters

Changes in expectations of economic growth can affect oil prices

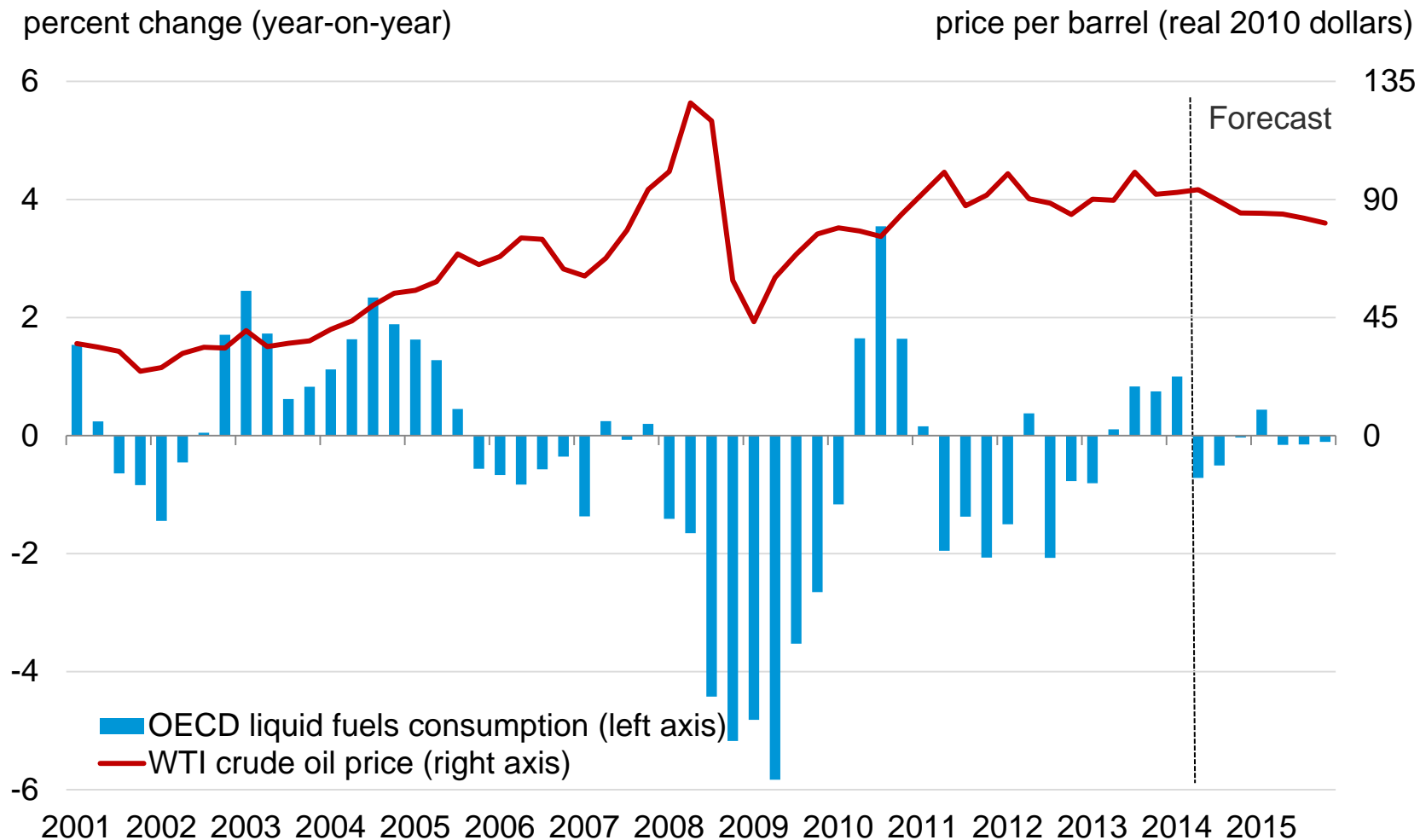
percent GDP growth in Asia, excluding Japan
(annual expectations)



Note: Starting in January of each year, each line shows the expected forecast of GDP growth for the specified calendar year, which tends to move toward the actual realized growth outcome as the year progresses. Expectations continue to evolve into the next calendar year as revised GDP data become available (e.g., 2008 GDP expectations are revised even during 2009).

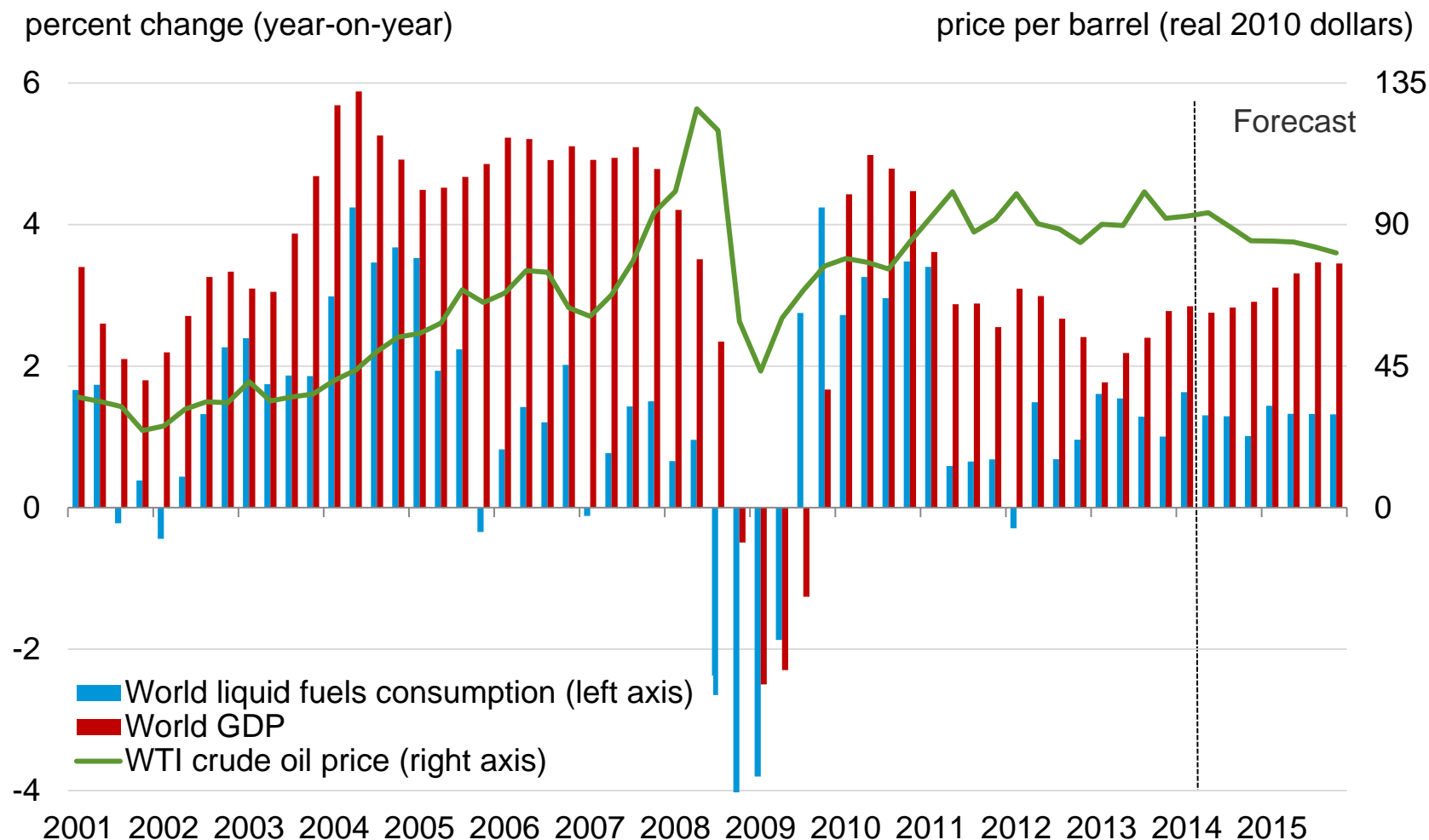
Source: IHS Global Insight

In OECD countries, price increases have coincided with lower consumption



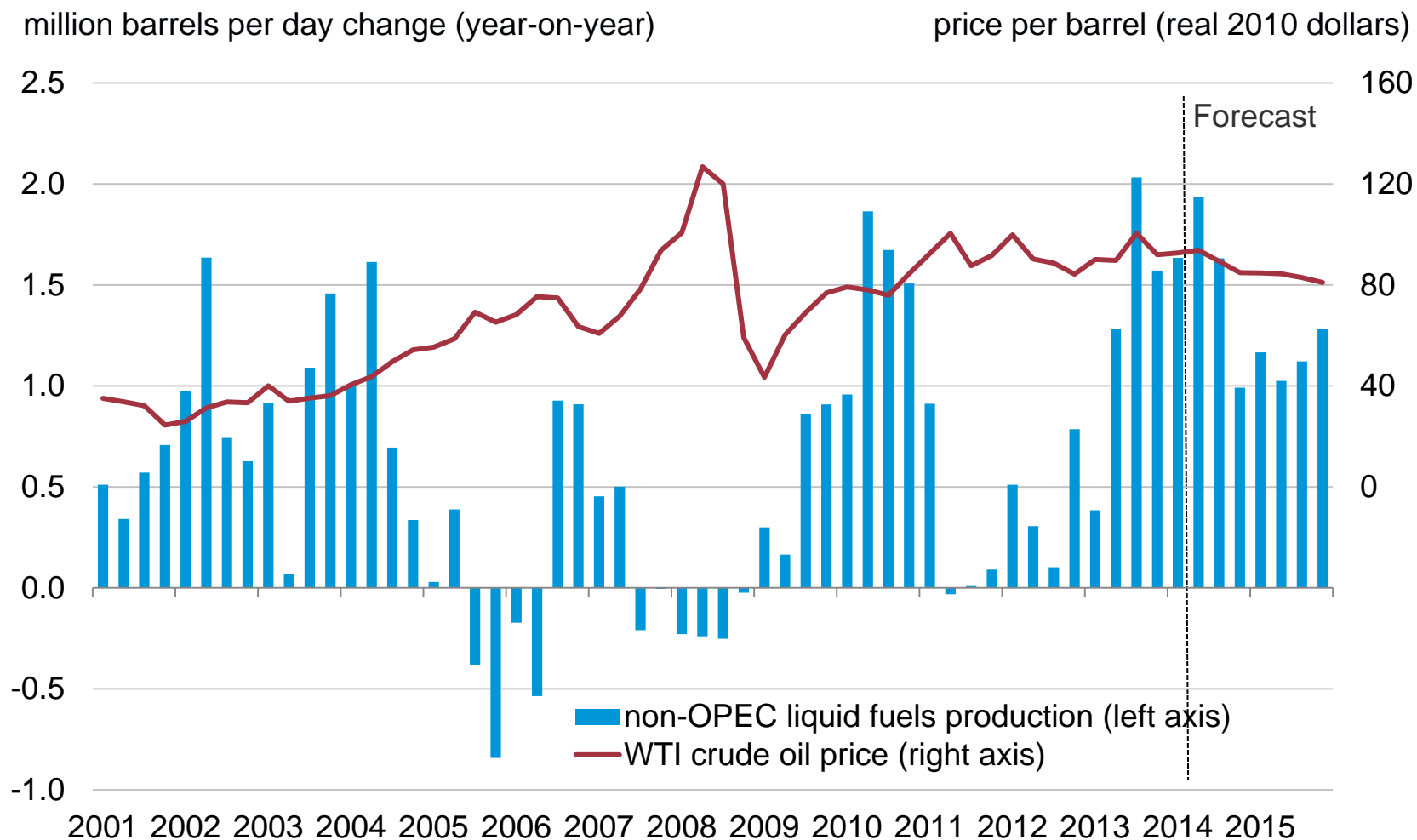
Sources: EIA Short Term Energy Outlook, Thomson Reuters

Rising oil prices held down global oil consumption growth from 2005-2008, despite high economic growth



Sources: EIA Short Term Energy Outlook, Thomson Reuters

EIA expects strong growth in non-OPEC production in 2014 and 2015

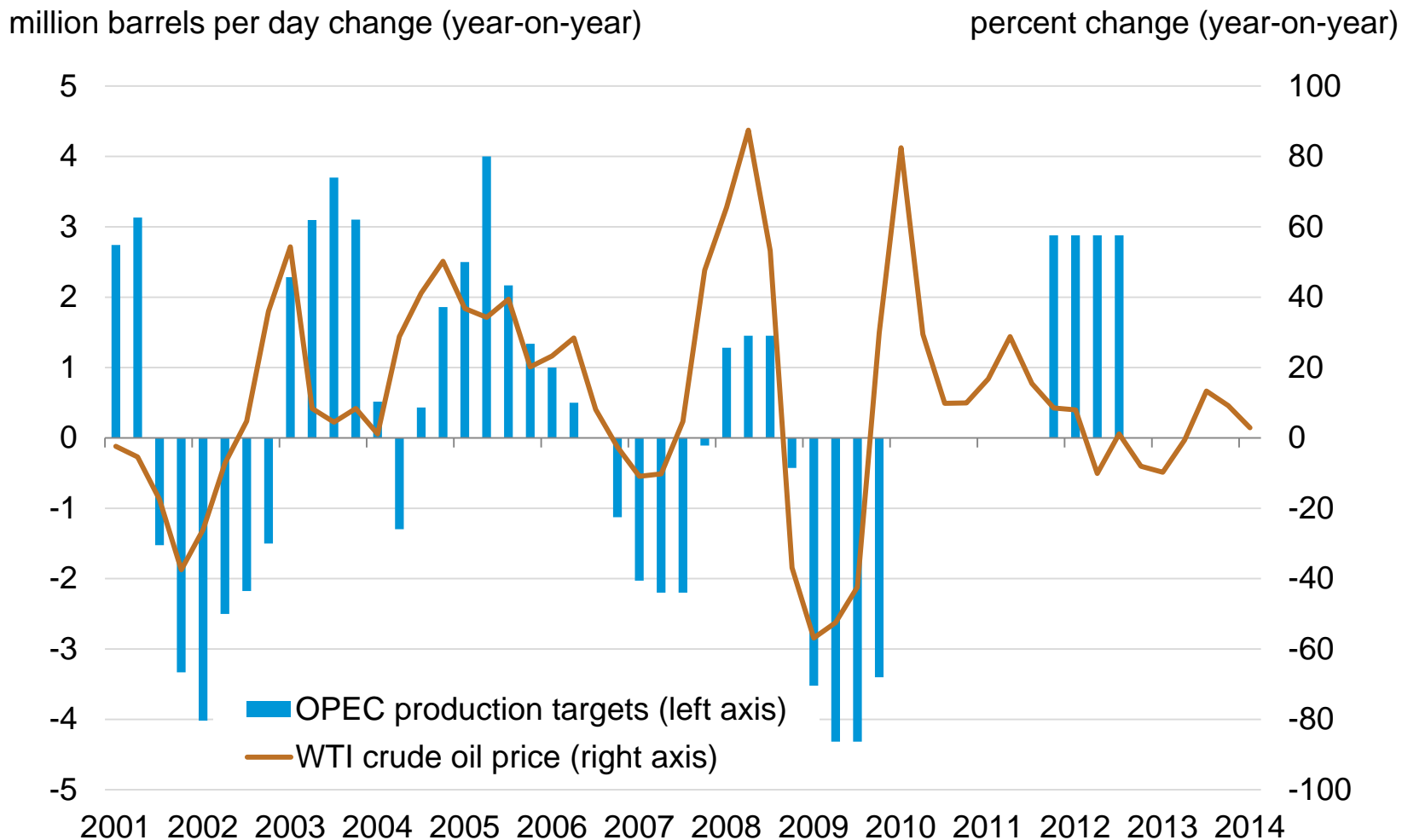


Sources: EIA Short Term Energy Outlook, Thomson Reuters

million barrels per day
annual average expectations

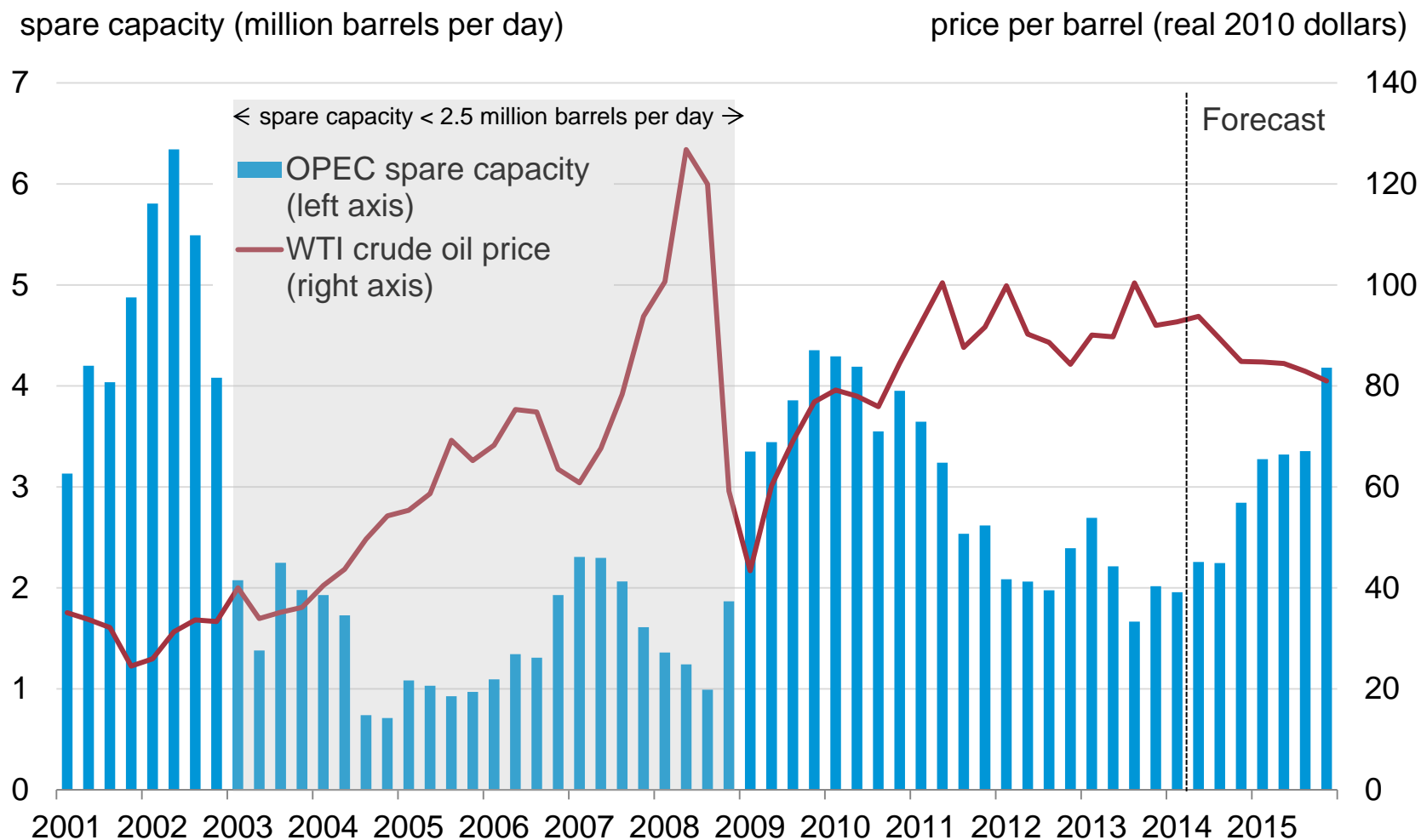


OPEC production often acts to balance the oil market. Cuts in OPEC production targets tend to lead to price increases.



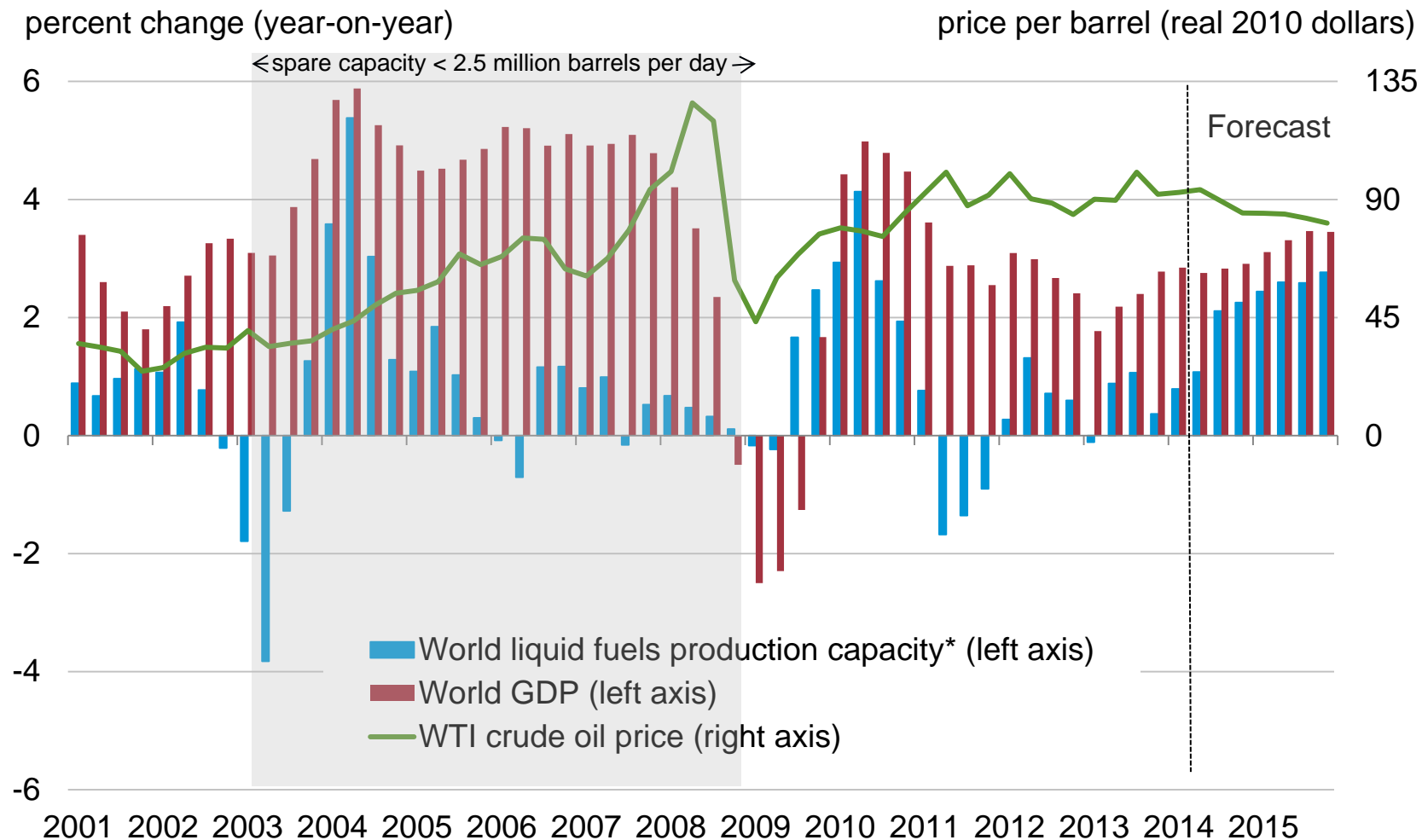
Sources: U.S. Energy Information Administration, Thomson Reuters

During 2003-2008, OPEC's spare production levels were low, limiting its ability to respond to demand and price increases



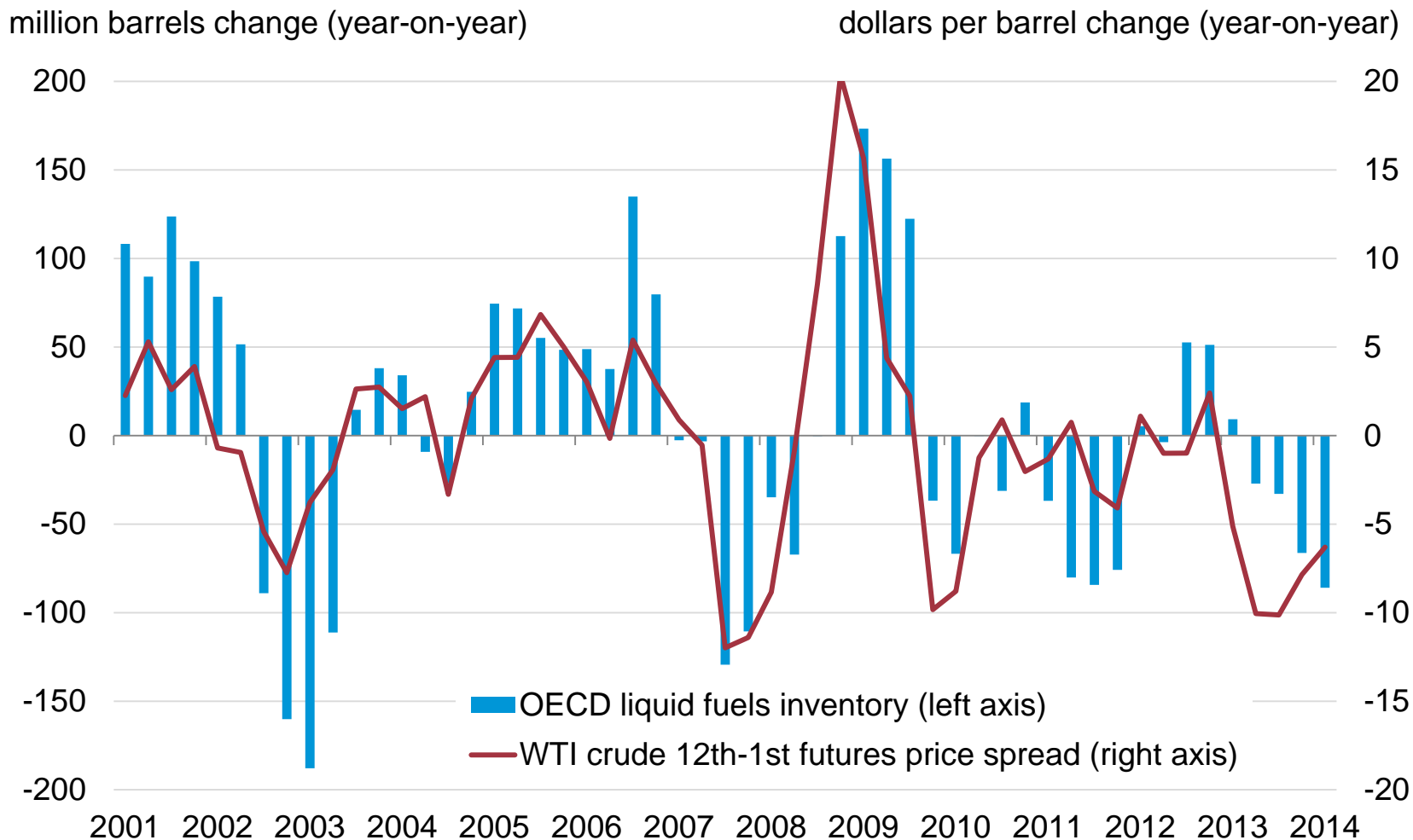
Sources: EIA Short Term Energy Outlook, Thomson Reuters

The years 2003-2008 experienced periods of very strong economic and oil demand growth, slow supply growth and tight spare capacity



Sources: EIA Short Term Energy Outlook, Thomson Reuters

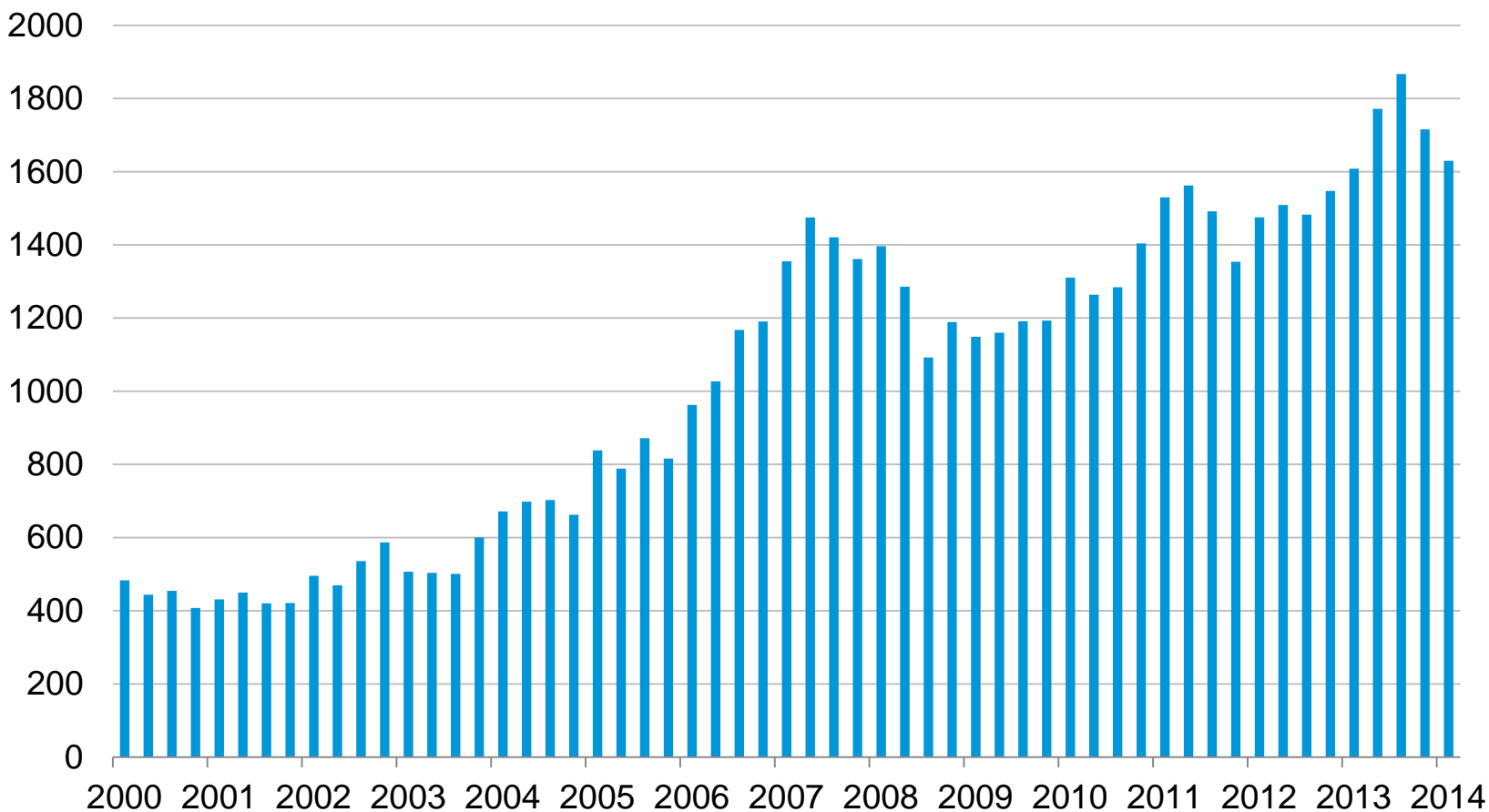
Inventory builds go hand-in-hand with increases in future oil prices *relative to current prices* (and vice versa)



Sources: EIA Short Term Energy Outlook, Thomson Reuters

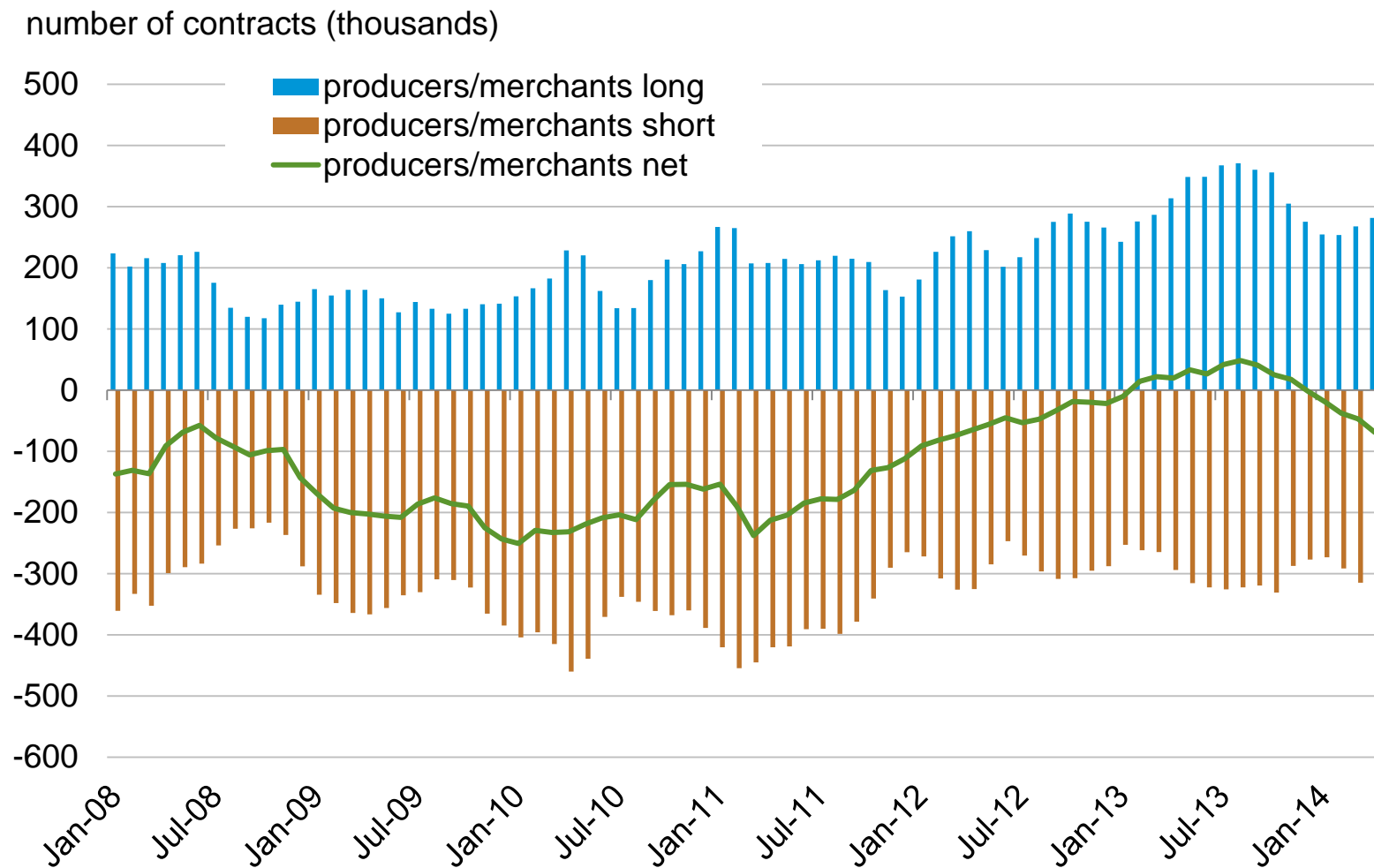
Open interest in crude oil futures grew over the last decade as more participants entered the market

average daily open interest in crude oil futures
number of contracts (thousands)



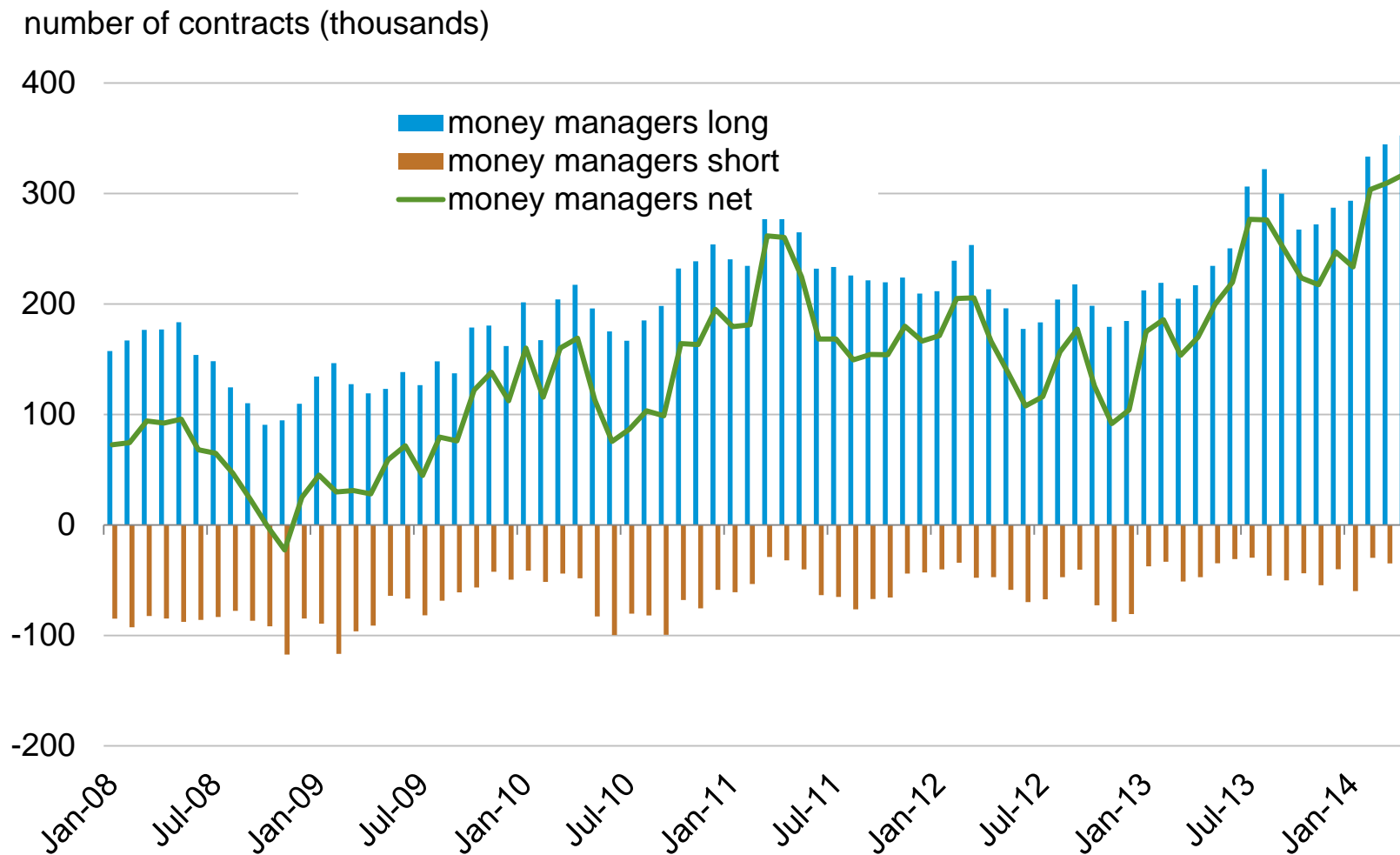
Source: Bloomberg

Physical participants' (producers, merchants, processors, and end users) U.S. futures market contract positions



Source: CFTC Commitment of Traders

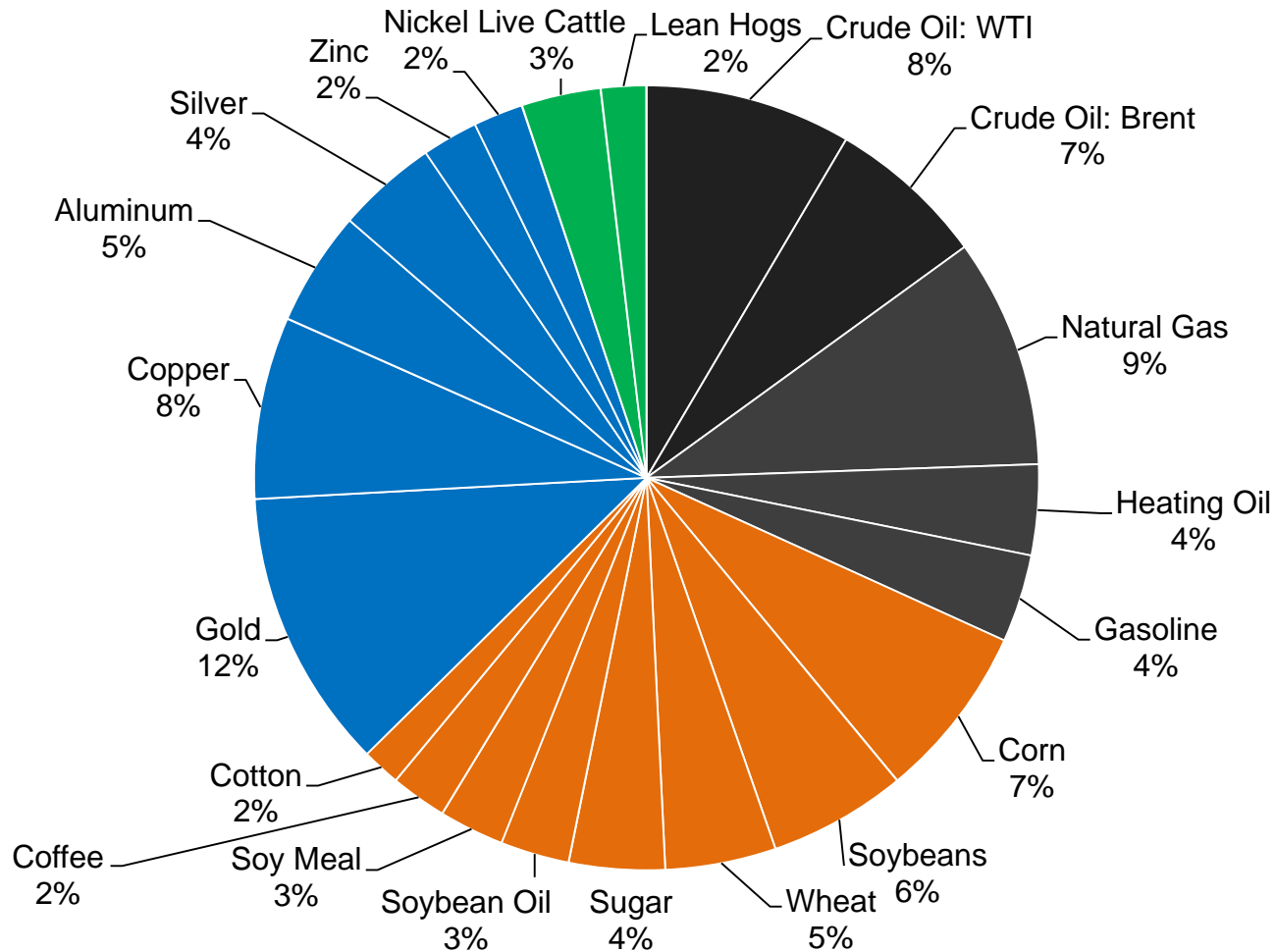
Money managers tend to be net long in the U.S. oil futures market



Source: CFTC Commitment of Traders

Crude oil plays a major role in commodity investment

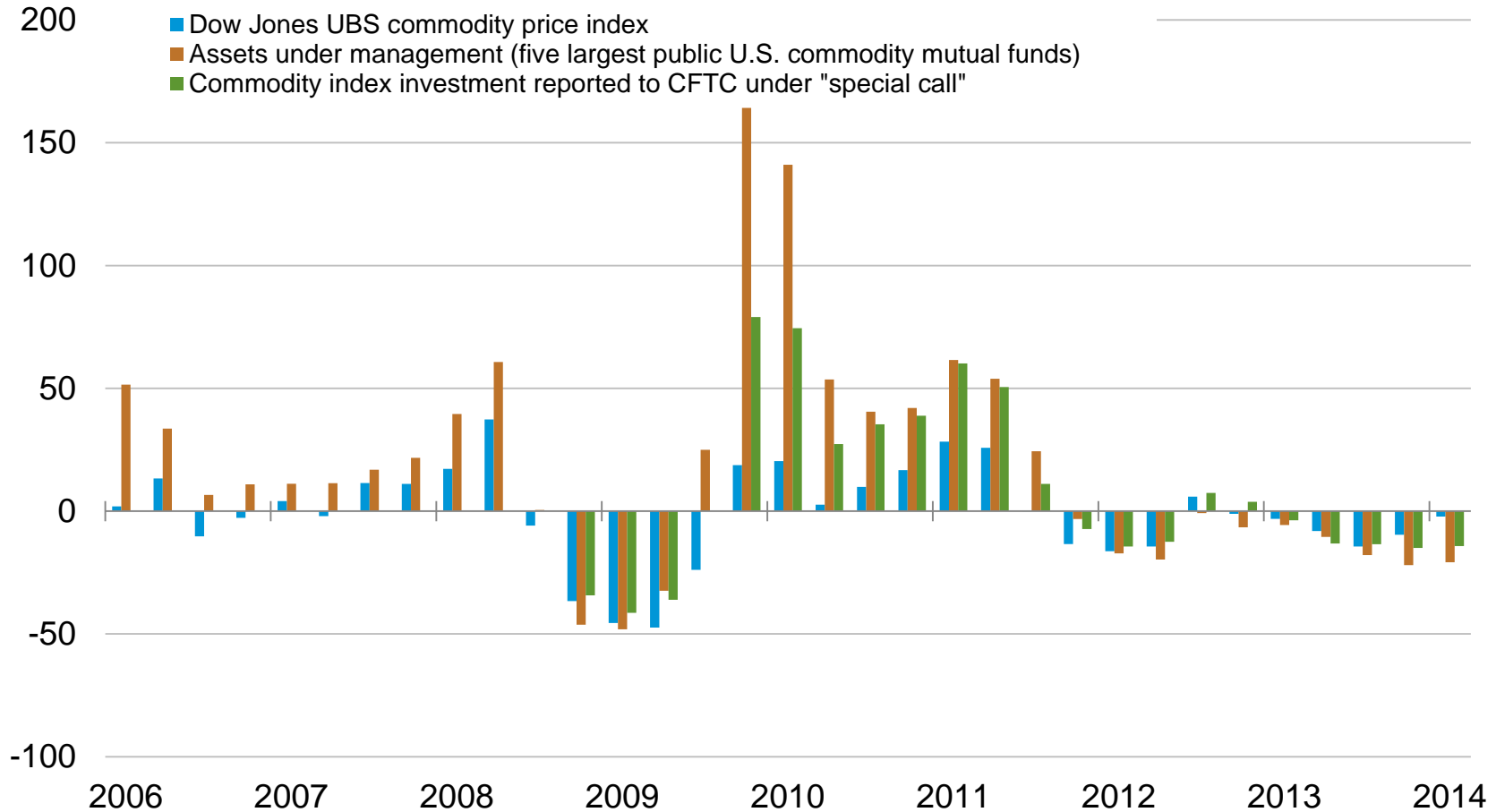
2014 Target Weights of the Dow Jones - UBS Commodity Index



Source: Dow Jones Indexes, CME Group

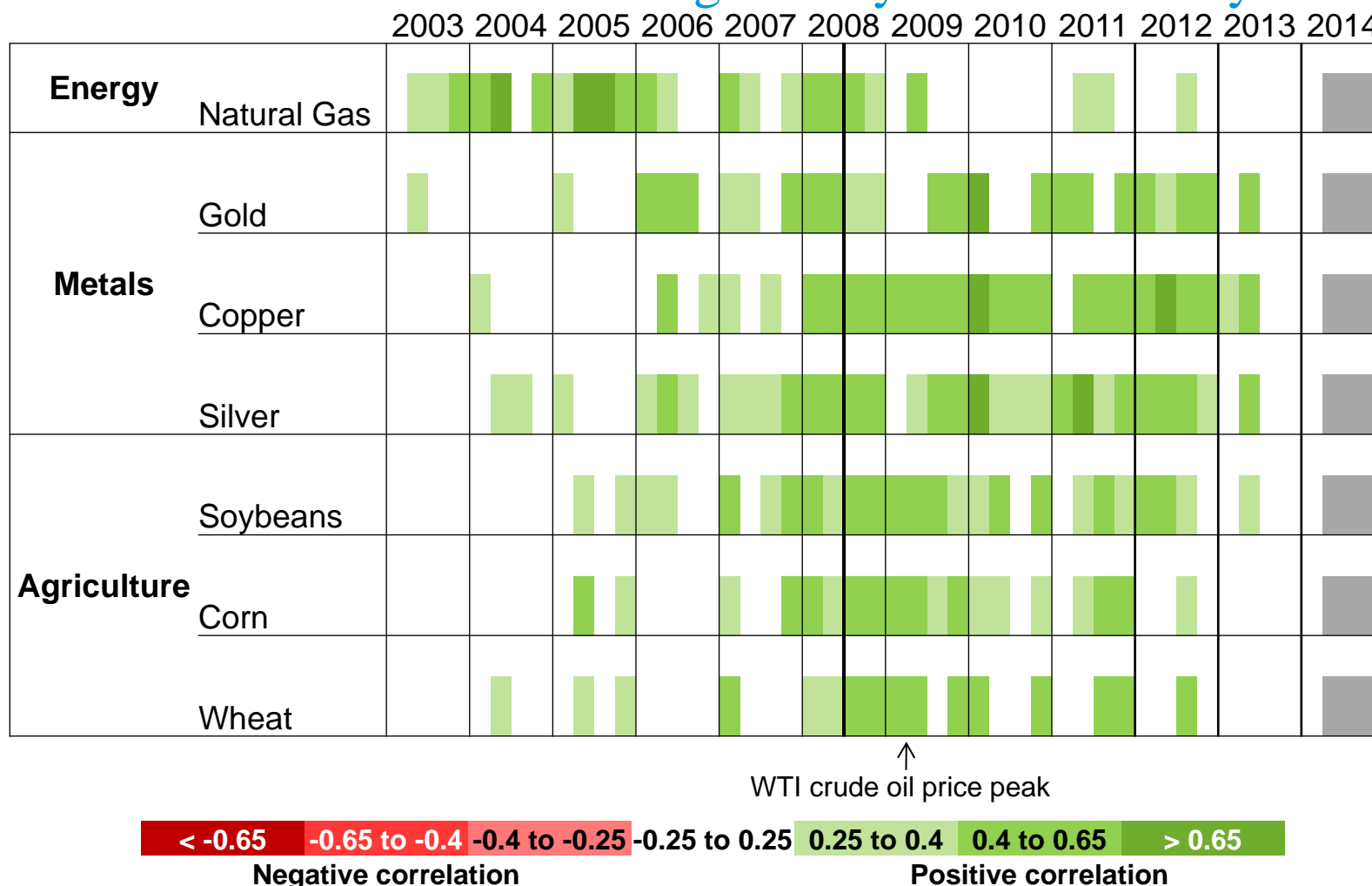
Commodity index investment flows have tended to move together with commodity prices

percent changes (year-on-year)



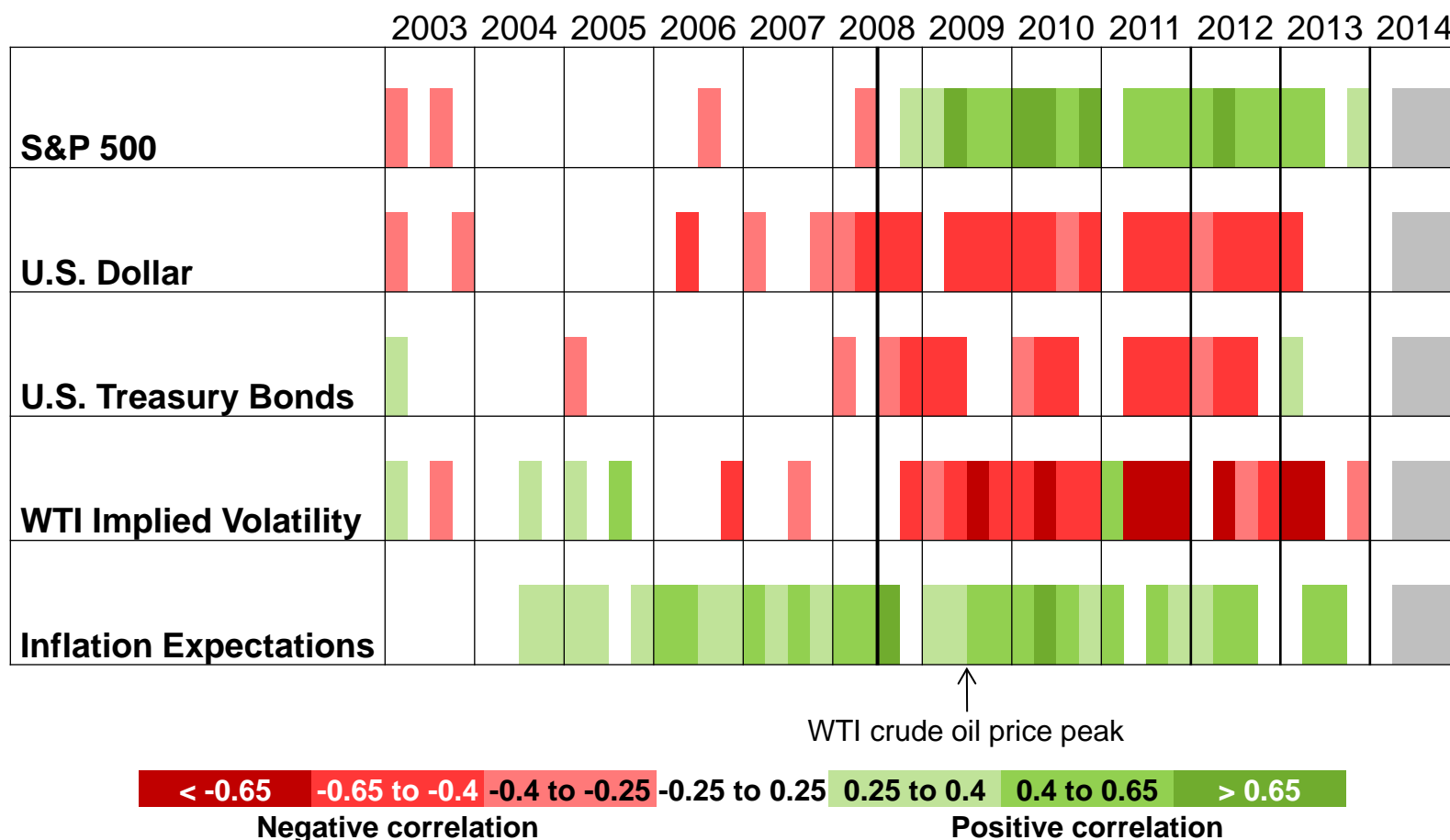
Source: CFTC Special Call Report

Correlations (+ or -) between daily price changes of crude oil futures and other commodities generally rose in recent years



Note: Correlations computed quarterly

Correlations (+ or -) between daily returns on crude oil futures and financial investments have also strengthened



Note: Correlations computed quarterly

For more information

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

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

Annual Energy Outlook | www.eia.gov/aeo

International Energy Outlook | www.eia.gov/ieo

Monthly Energy Review | www.eia.gov/mer

EIA Information Center

(202) 586-8800 | email: InfoCtr@eia.gov