

# What drives crude oil prices?

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

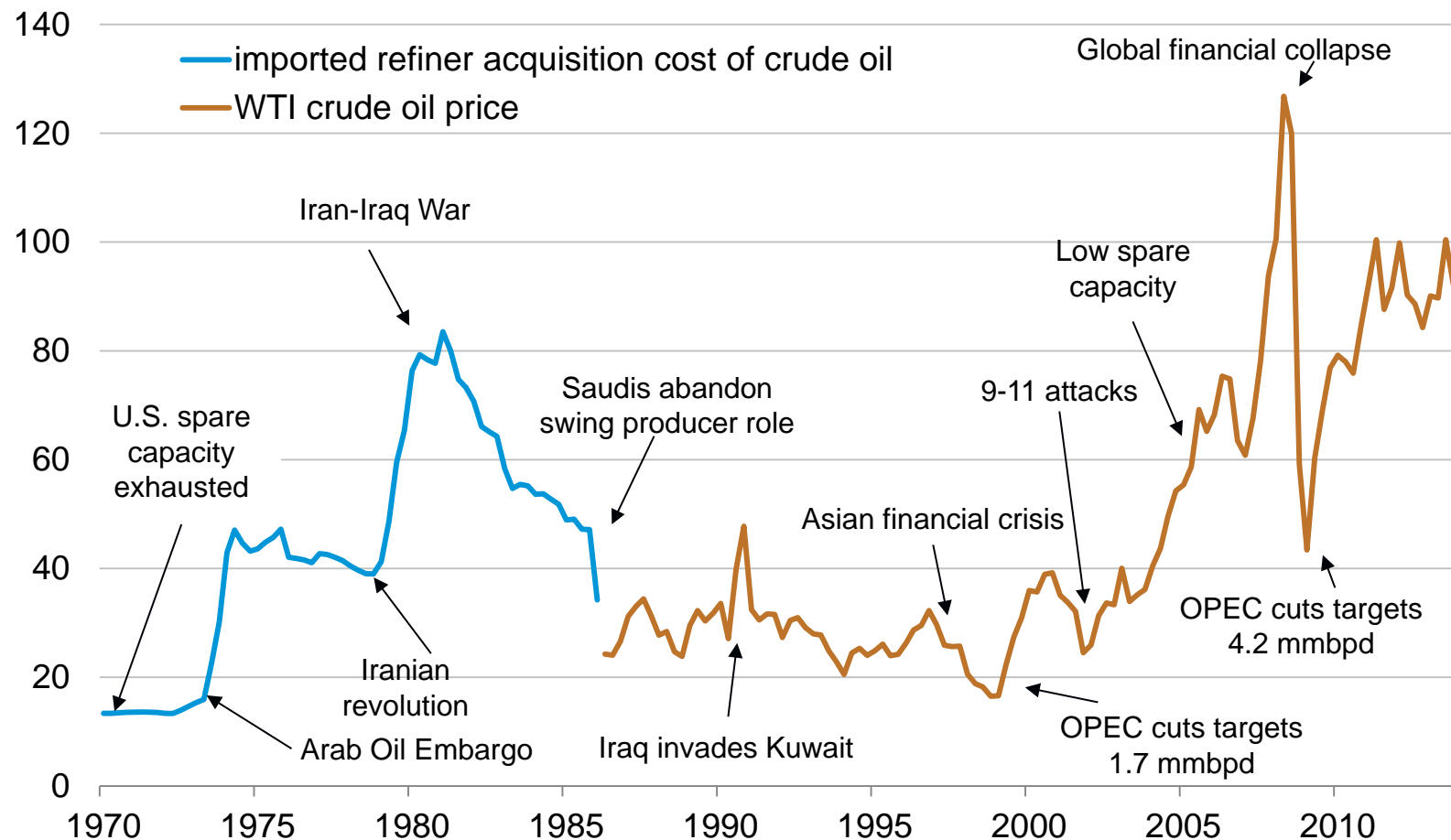


*May 6, 2014 / Washington, DC*

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

price per barrel

(real 2010 dollars, quarterly average)

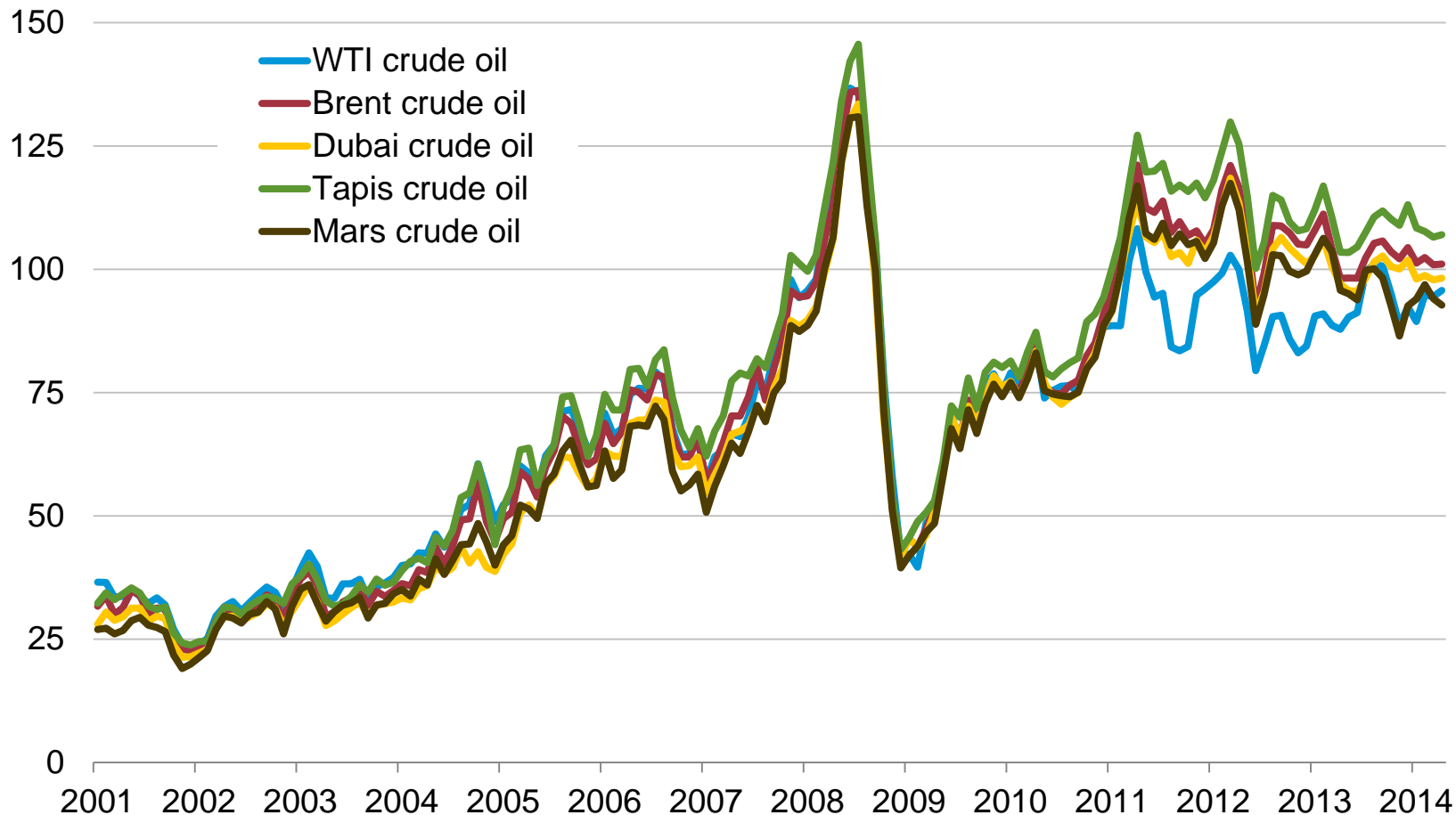


Sources: U.S. Energy Information Administration, Thomson Reuters

# World oil prices move together due to arbitrage

dollars per barrel

real 2010 dollars, monthly average



Sources: Bloomberg, Thomson Reuters

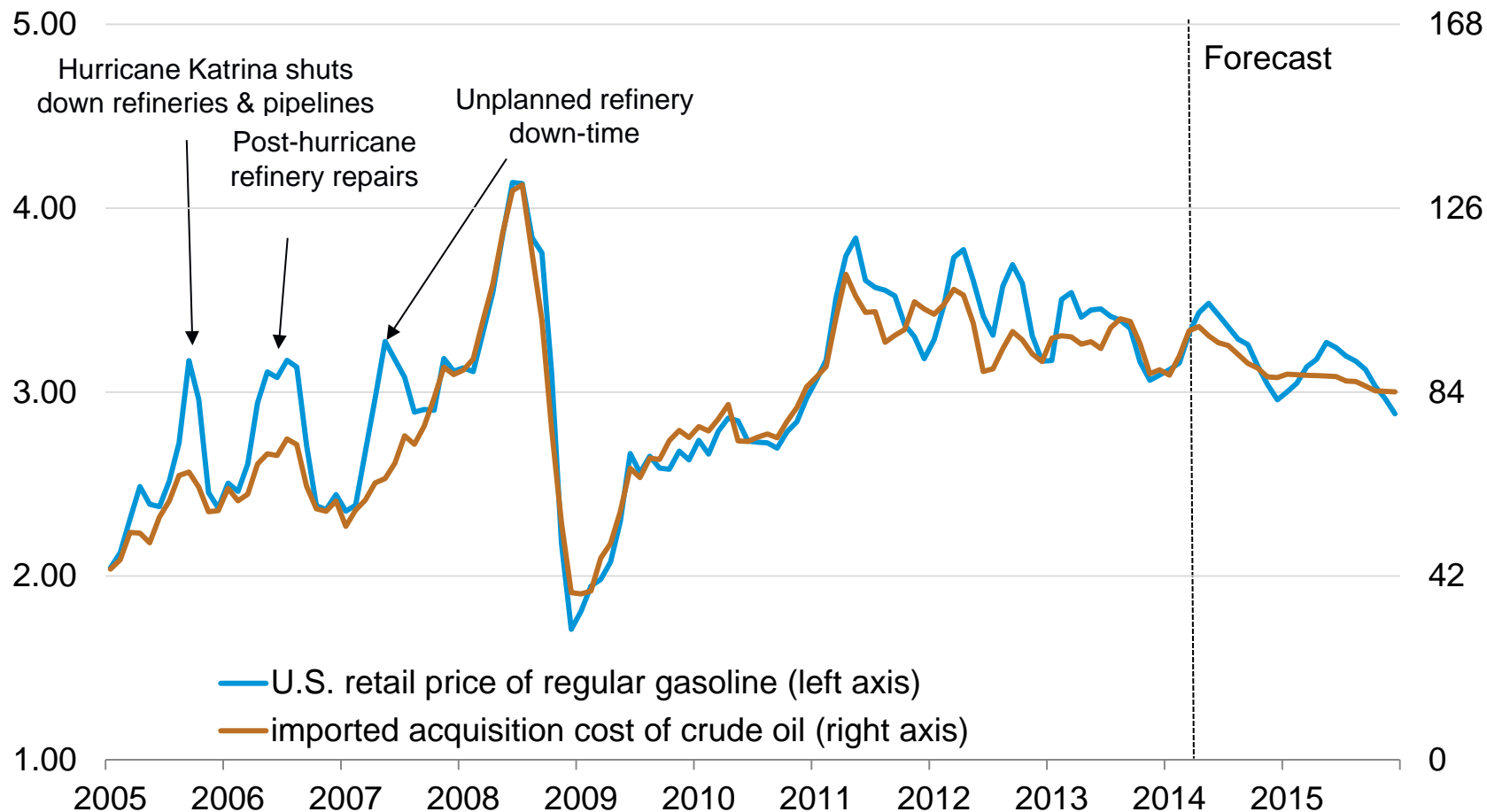
# Crude oil prices are the primary driver of petroleum product prices

price per gallon

real 2010 dollars, monthly average

price per barrel

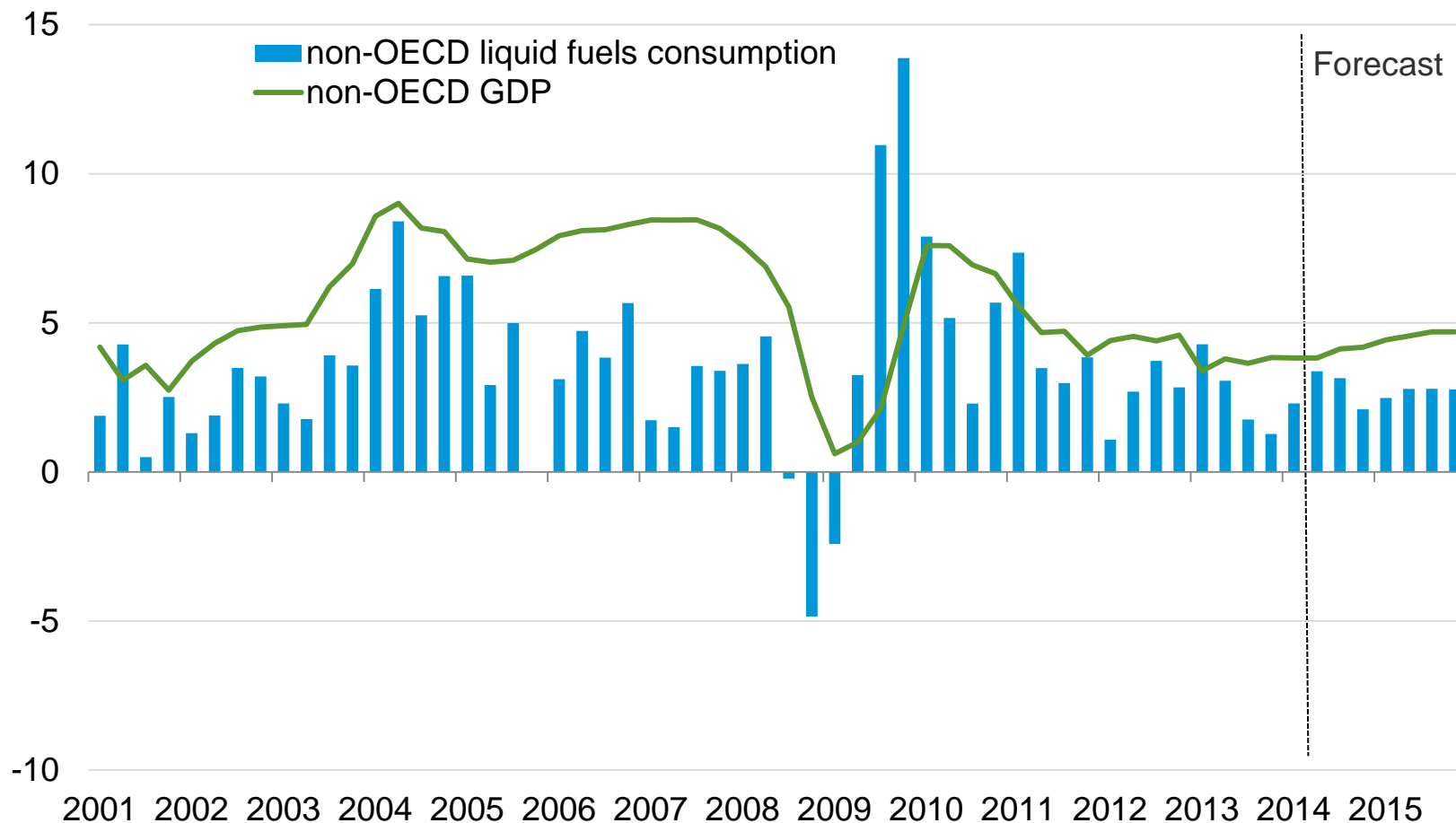
real 2010 dollars, monthly average



Sources: EIA Short Term Energy Outlook, Thomson Reuters

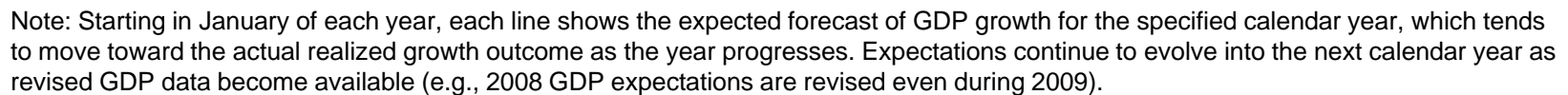
# Economic growth has a strong impact on oil consumption

percent change (year-on-year)



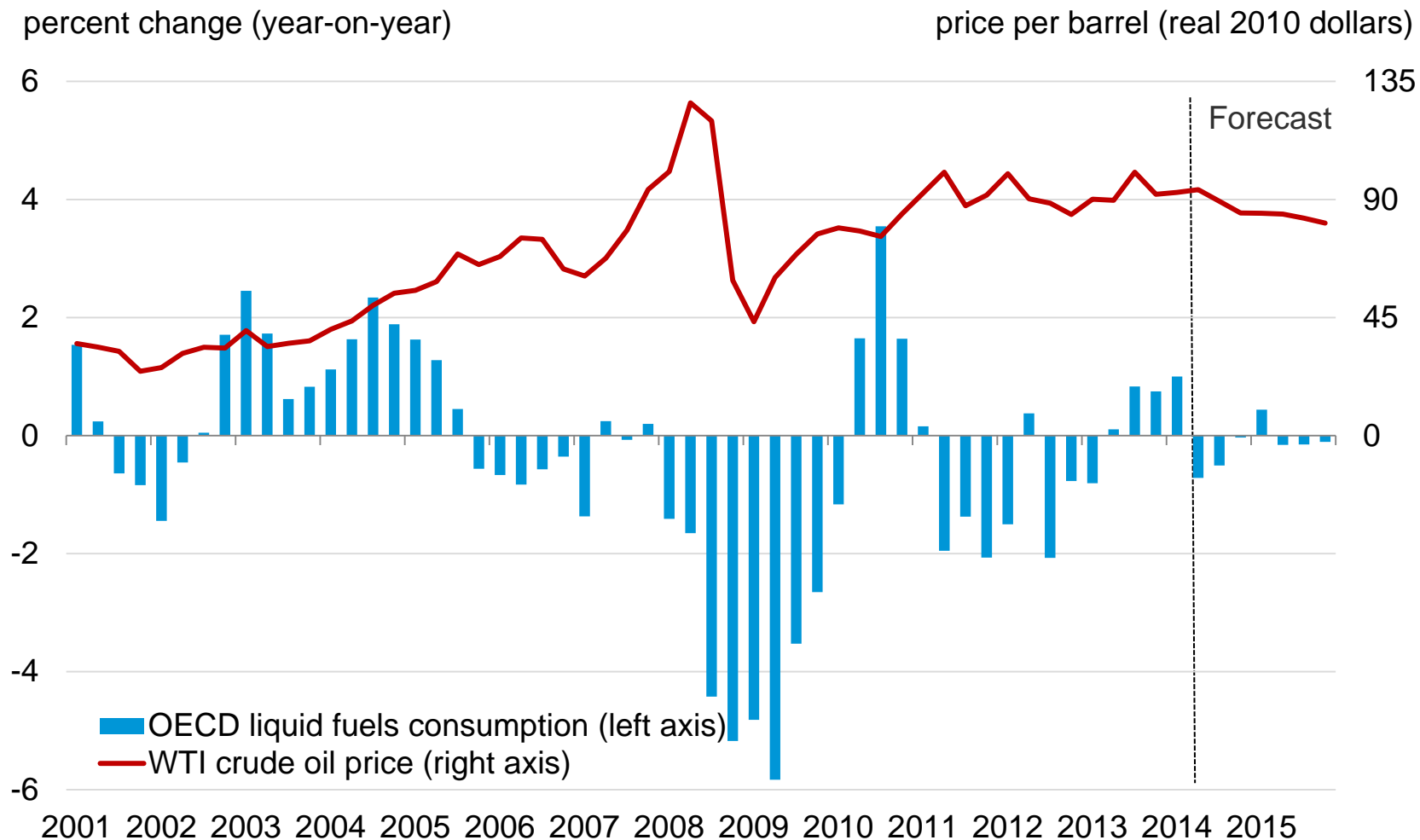
Sources: EIA Short Term Energy Outlook, Thomson Reuters

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



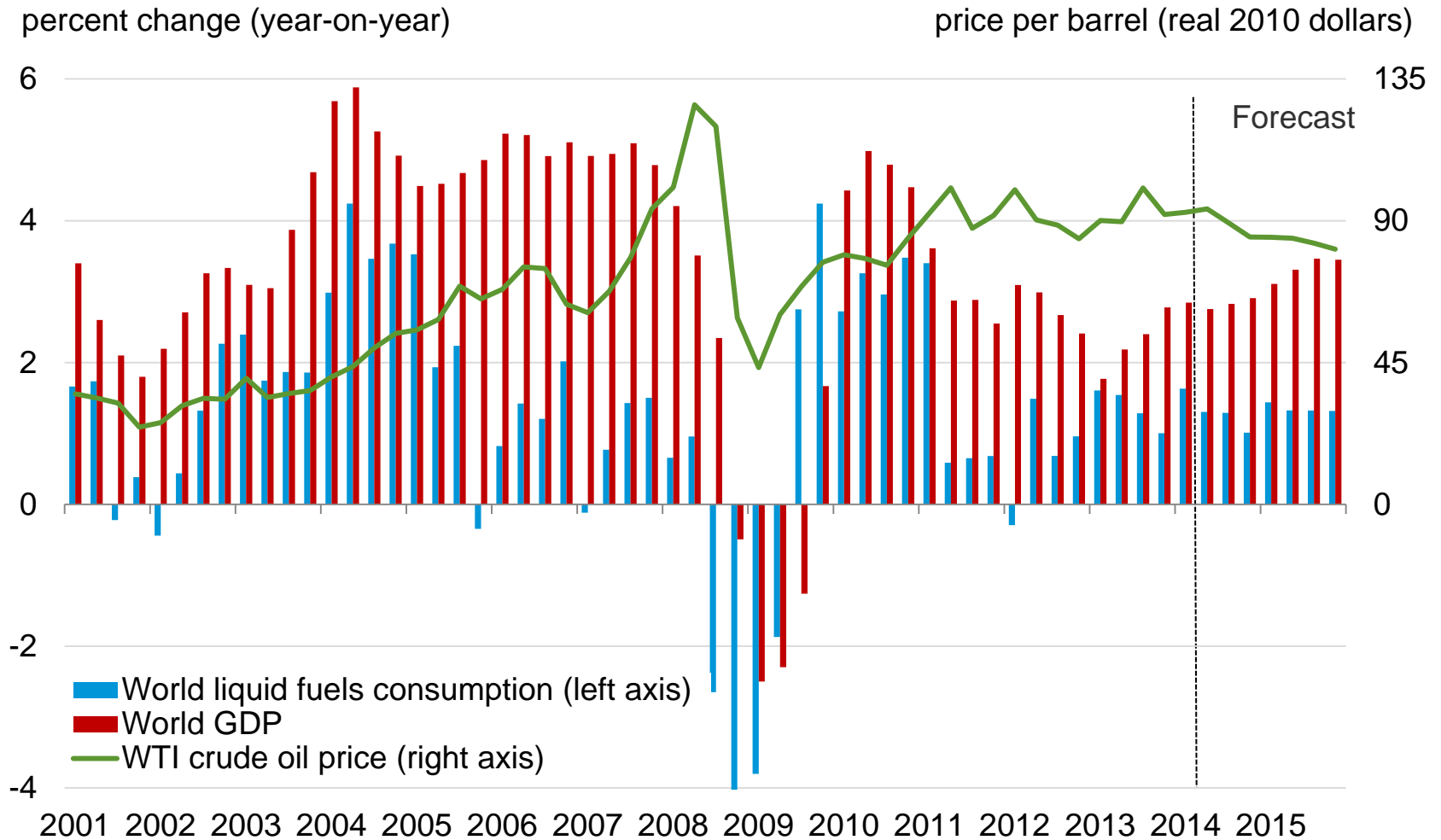
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# In OECD countries, price increases have coincided with lower consumption



Sources: EIA Short Term Energy Outlook, Thomson Reuters

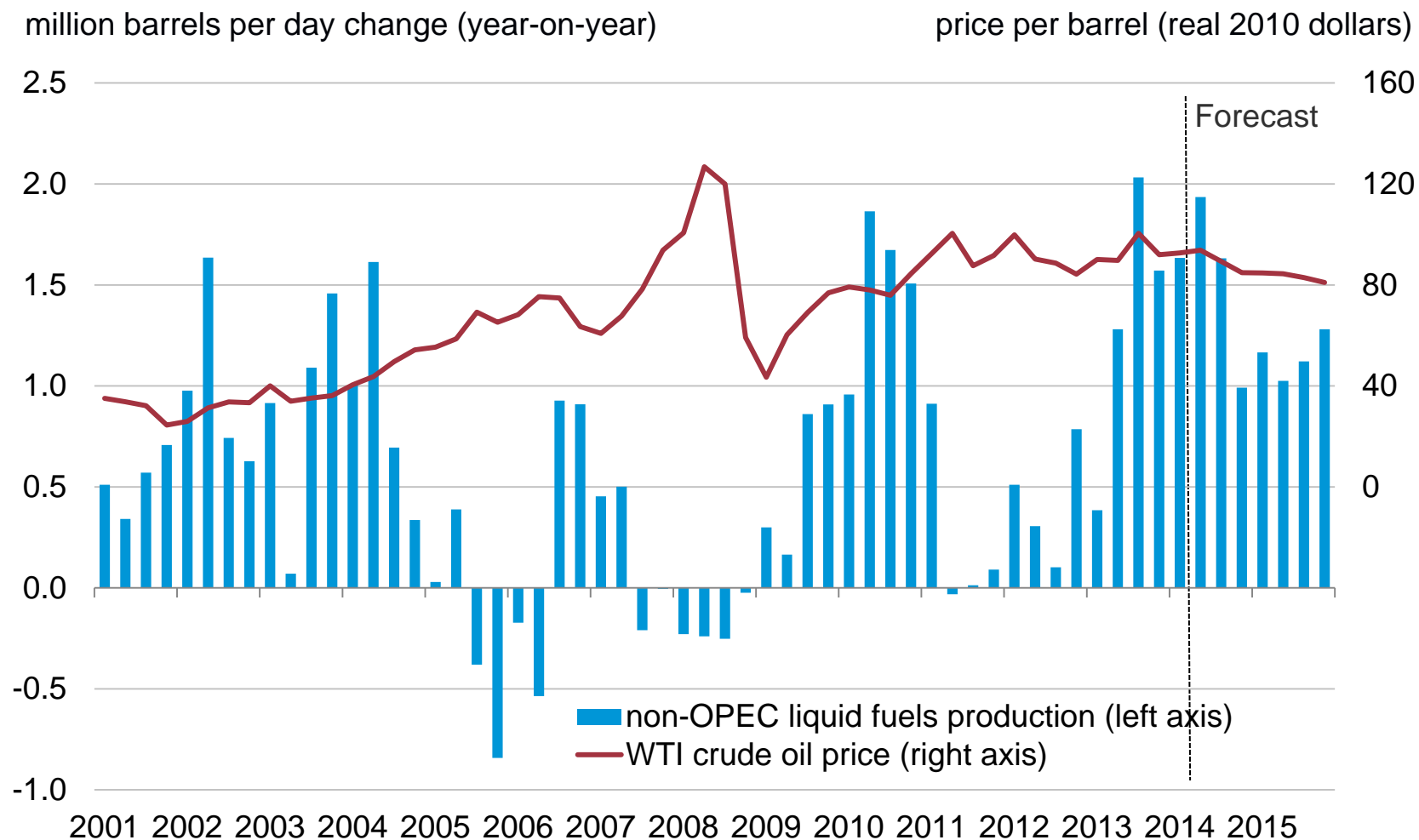
# Rising oil prices held down global oil consumption growth from 2005-2008, despite high economic growth



Sources: EIA Short Term Energy Outlook, Thomson Reuters



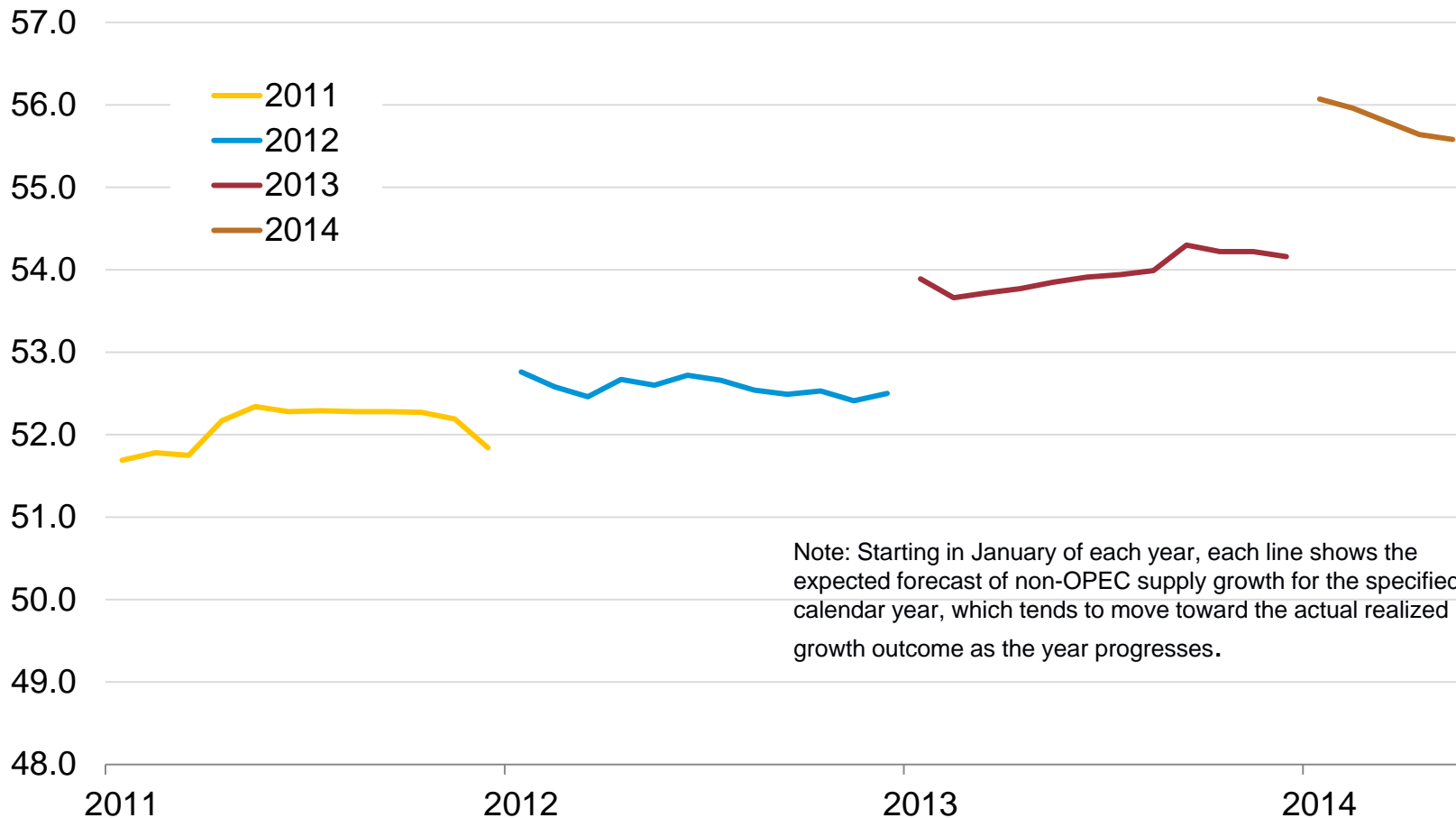
# EIA expects strong growth in non-OPEC production in 2014 and 2015



Sources: EIA Short Term Energy Outlook, Thomson Reuters

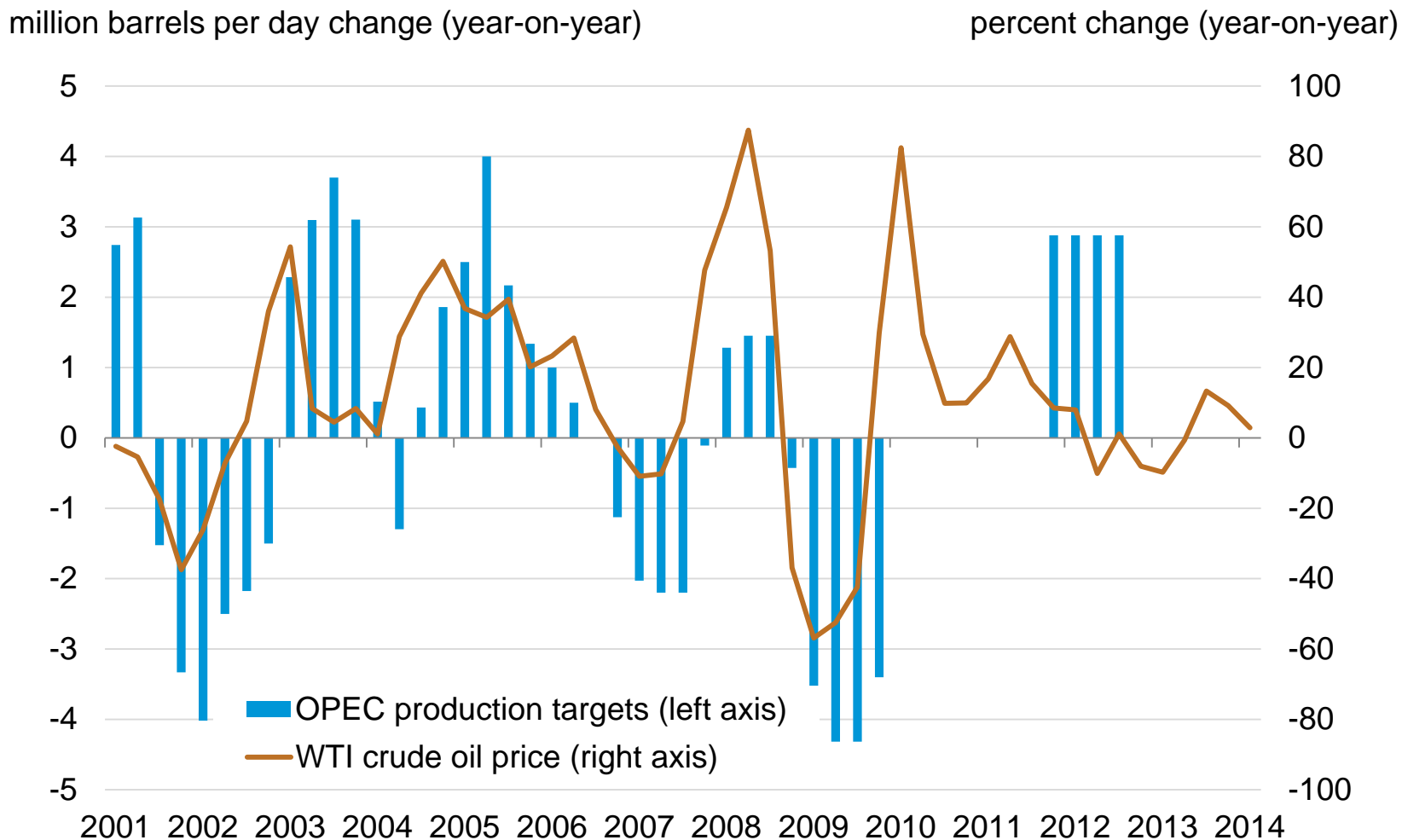
# Non-OPEC supply expectations indicate changes in market sentiment concerning oil supply

million barrels per day  
annual average expectations



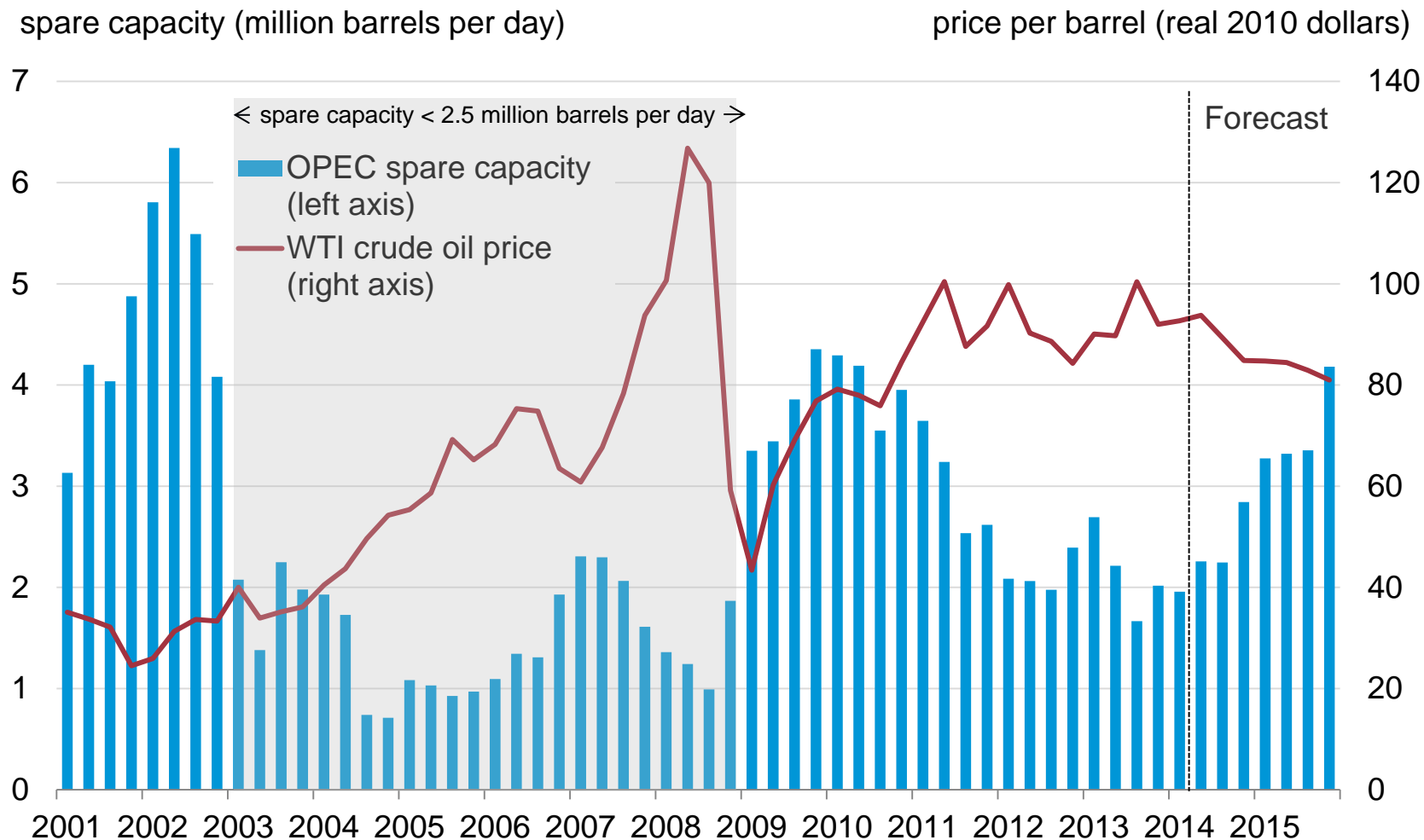
Sources: EIA Short Term Energy Outlook

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



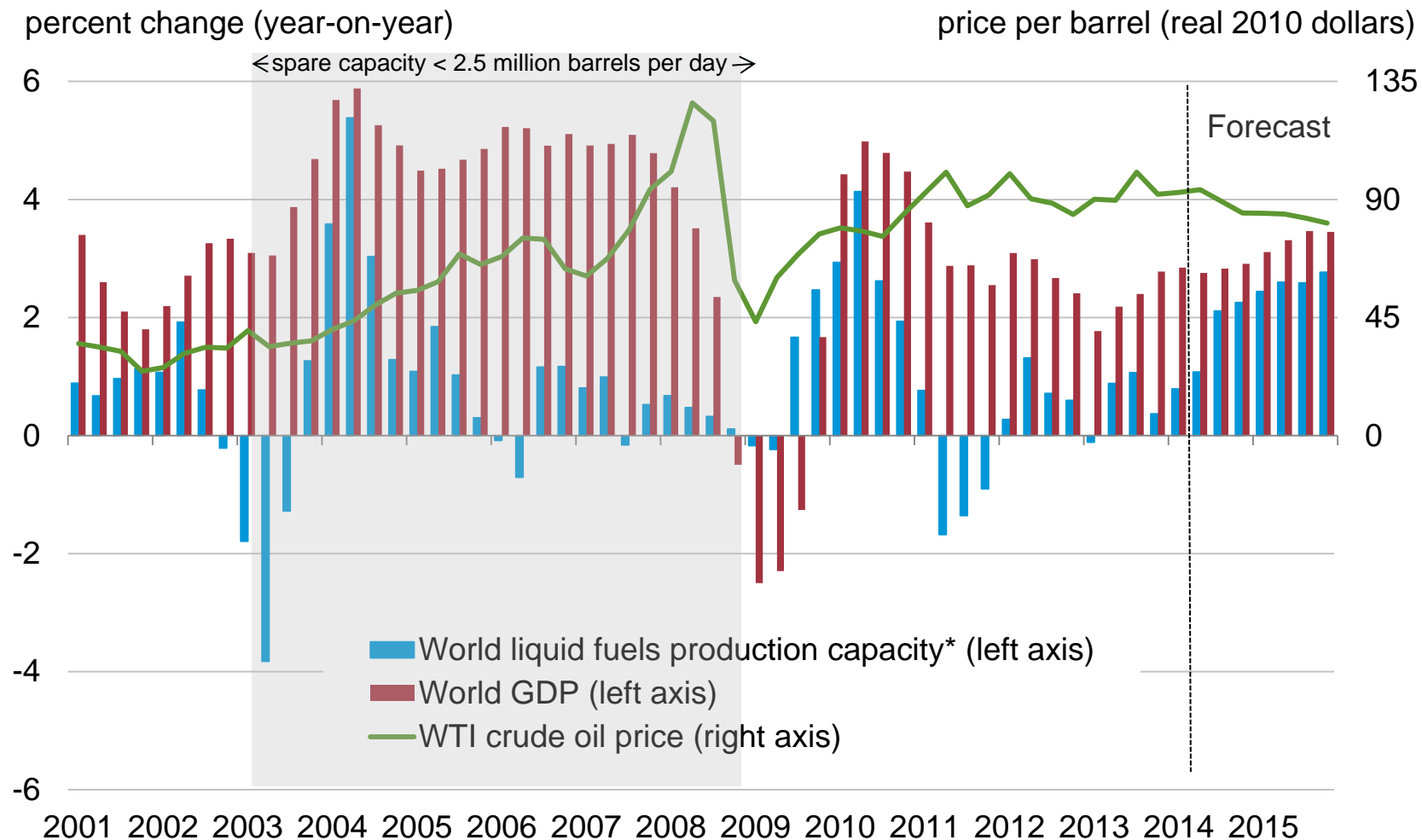
Sources: U.S. Energy Information Administration, Thomson Reuters

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



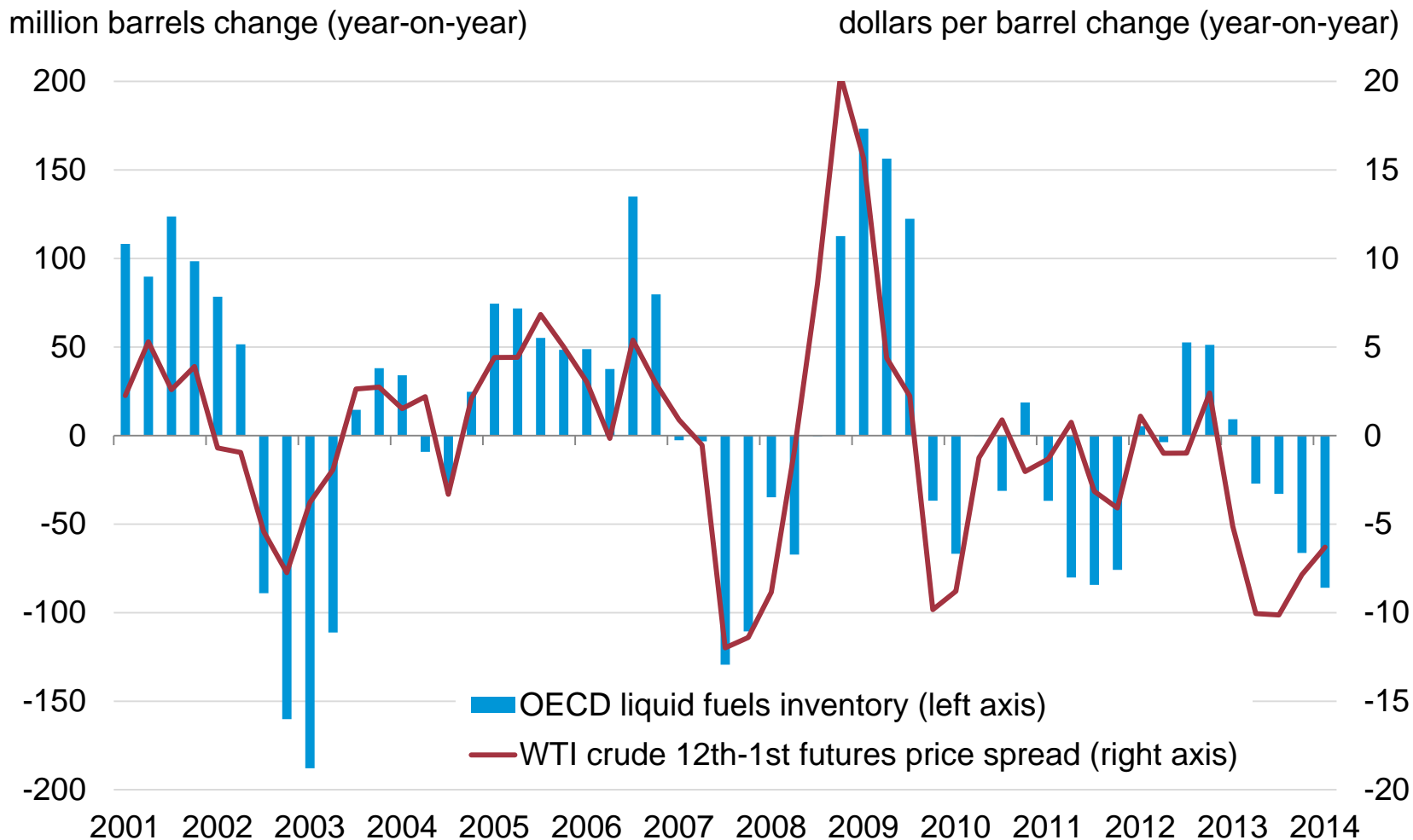
Sources: EIA Short Term Energy Outlook, Thomson Reuters

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

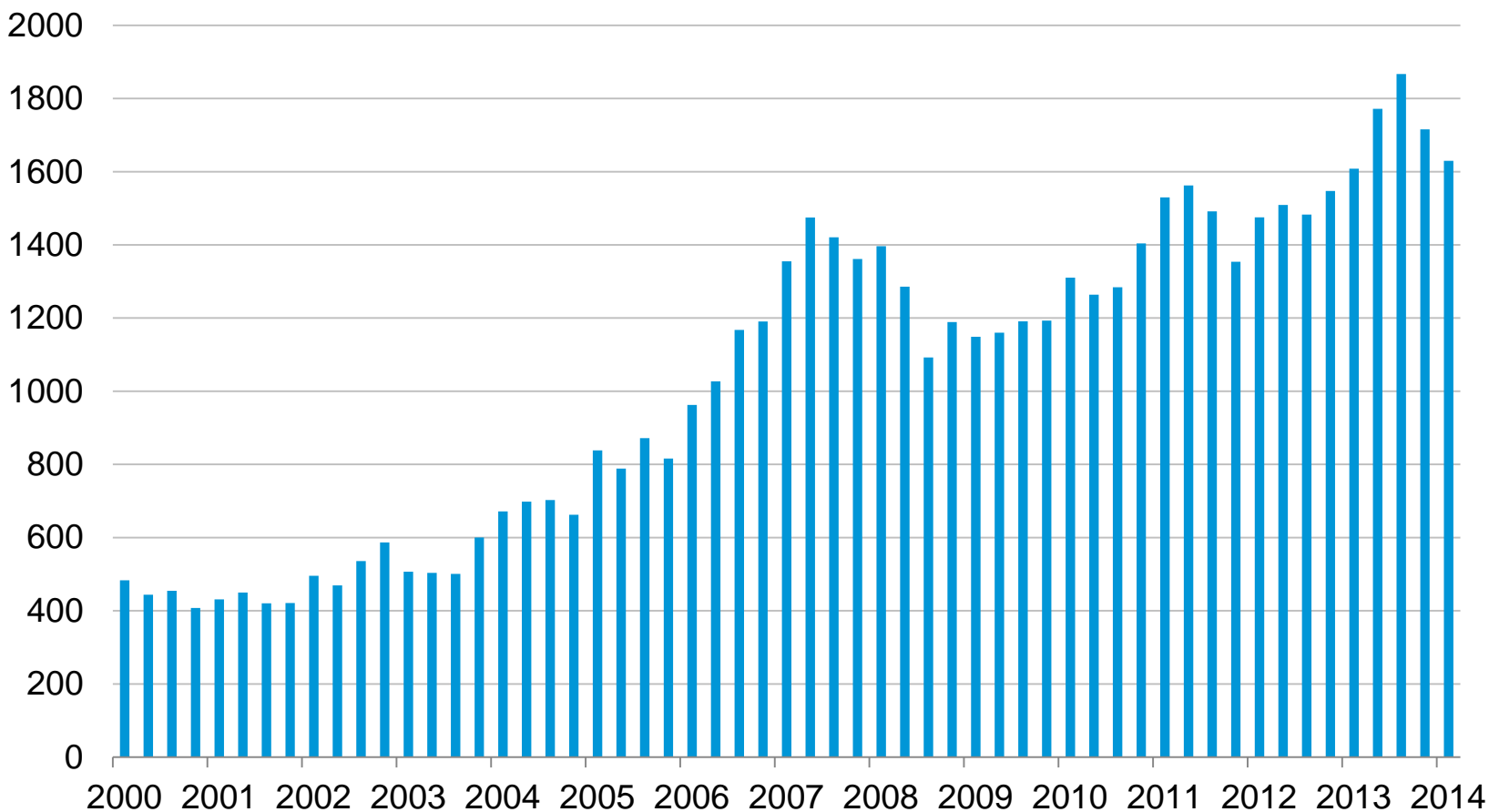
# Inventory builds go hand-in-hand with increases in future oil prices *relative to current prices* (and vice versa)



Sources: EIA Short Term Energy Outlook, Thomson Reuters

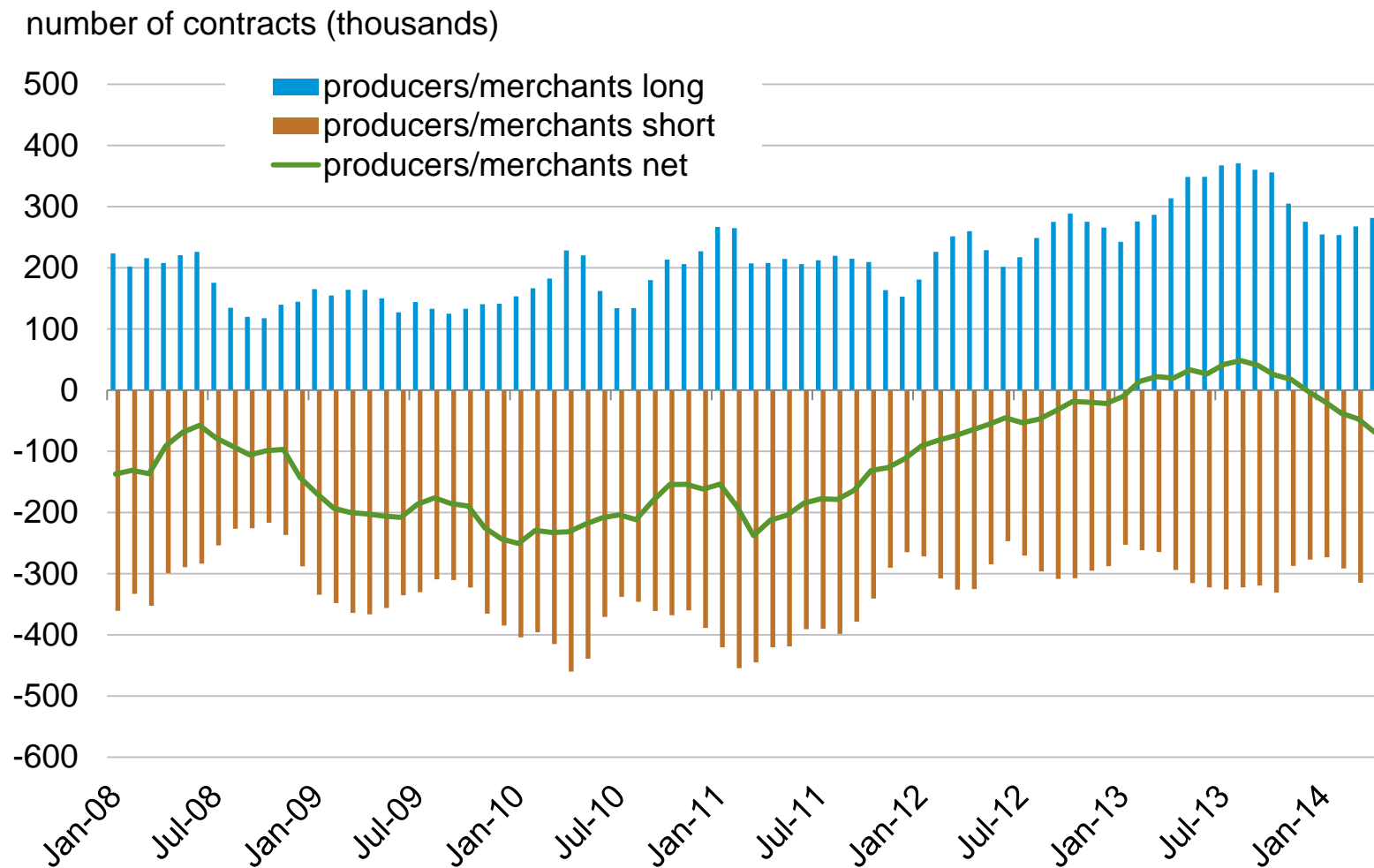
# Open interest in crude oil futures grew over the last decade as more participants entered the market

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



Source: Bloomberg

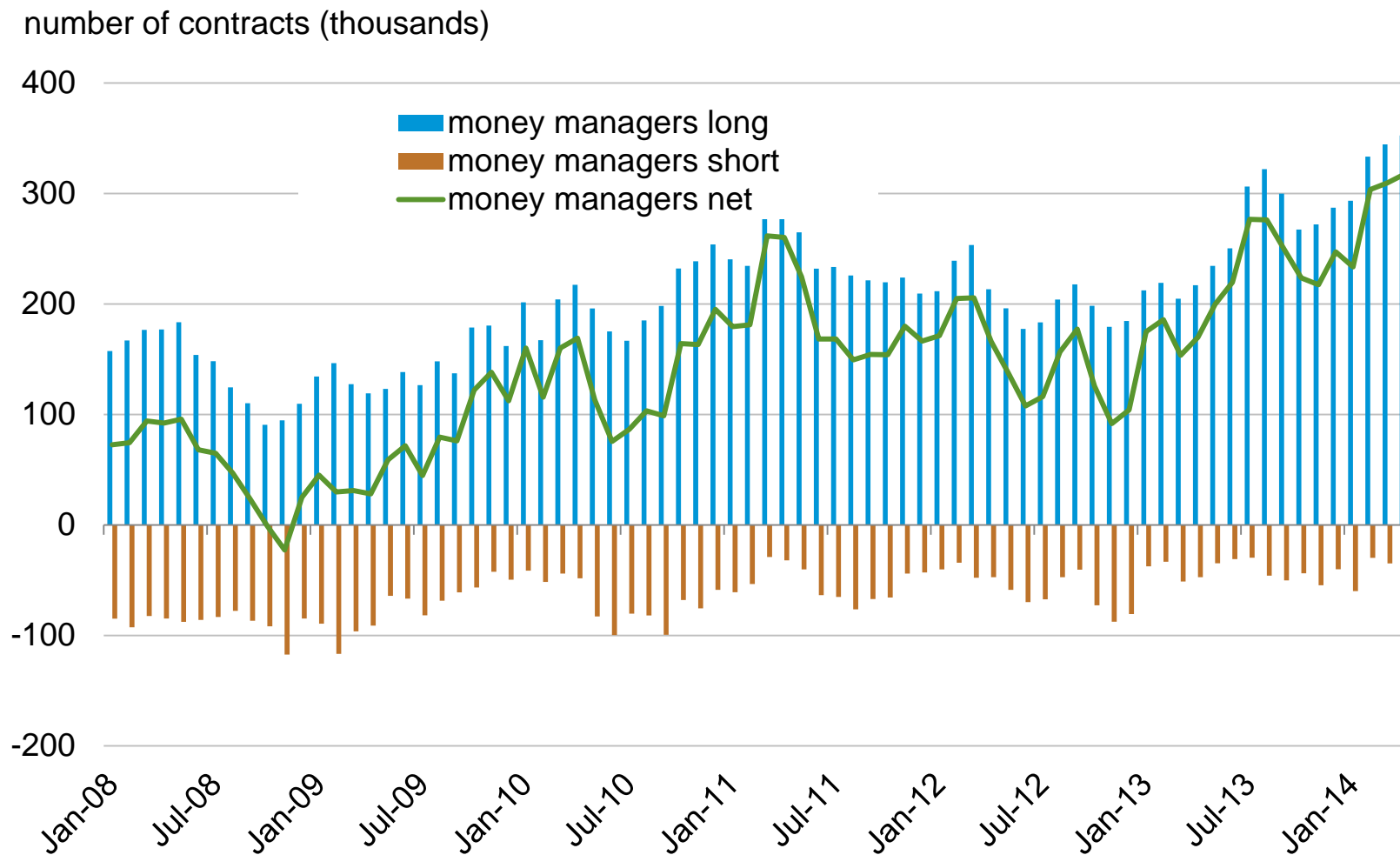
## Physical participants' (producers, merchants, processors, and end users) U.S. futures market contract positions



Source: CFTC Commitment of Traders



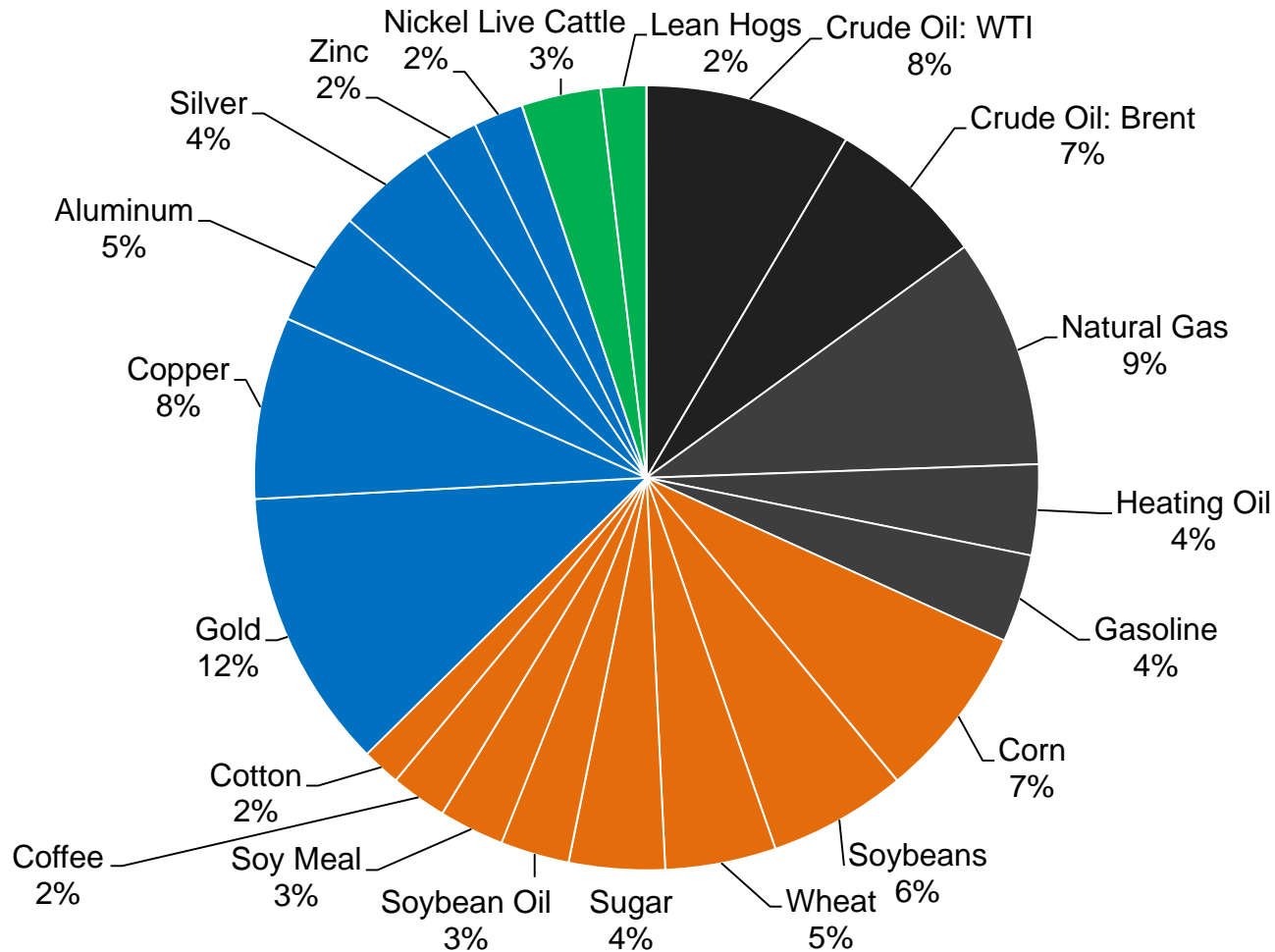
# Money managers tend to be net long in the U.S. oil futures market



Source: CFTC Commitment of Traders

# Crude oil plays a major role in commodity investment

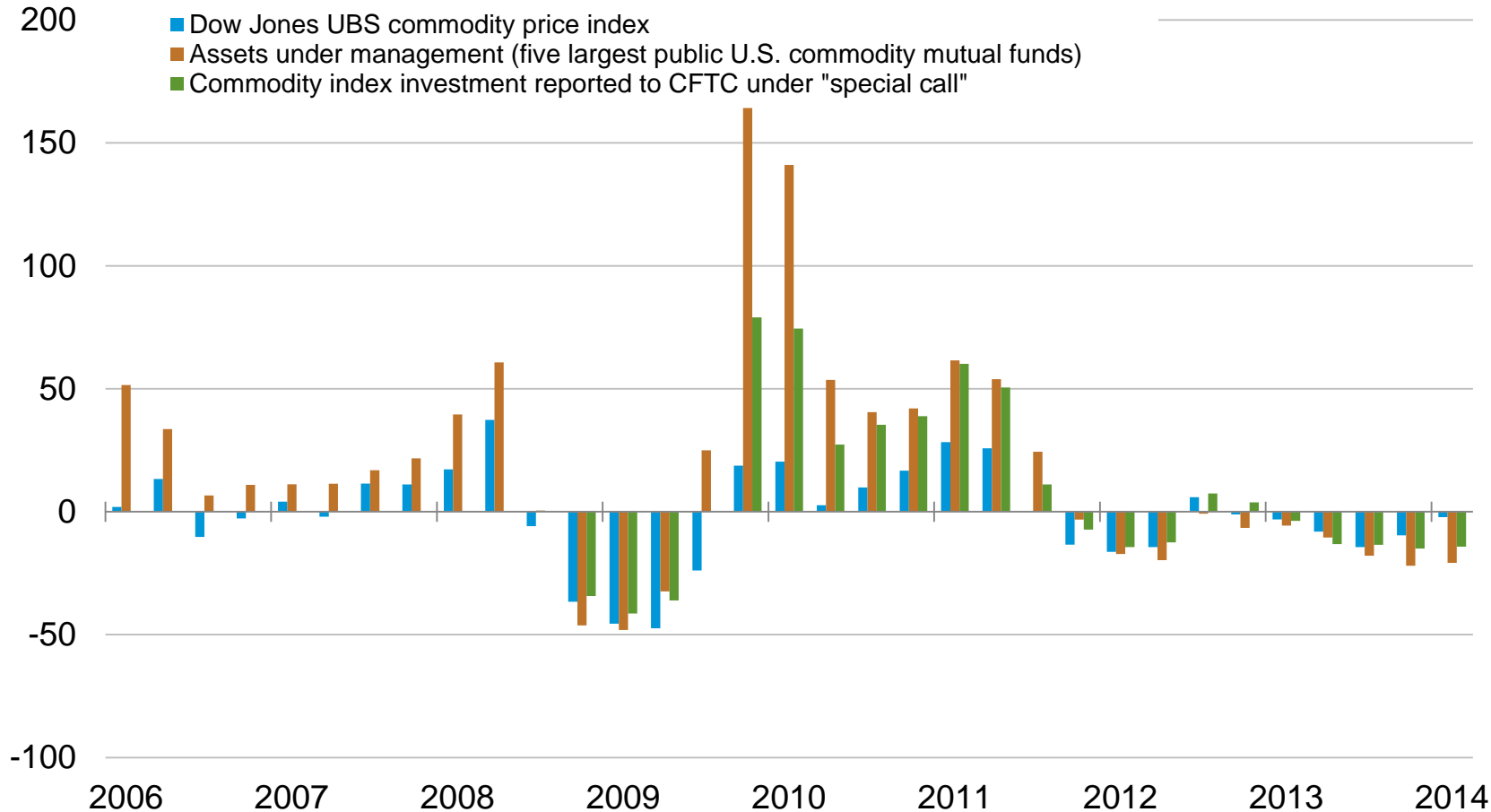
2014 Target Weights of the Dow Jones - UBS Commodity Index



Source: Dow Jones Indexes, CME Group

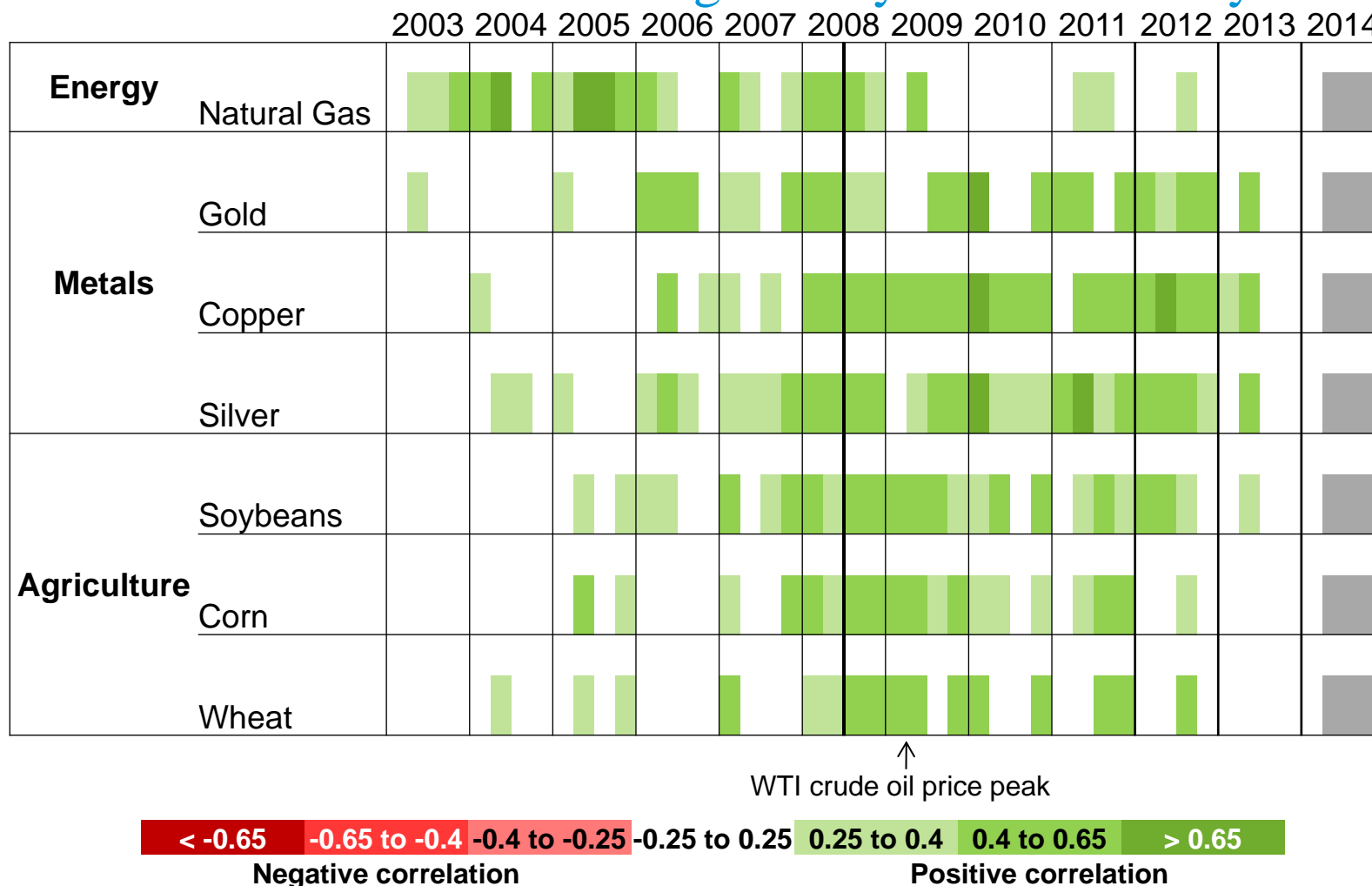
# Commodity index investment flows have tended to move together with commodity prices

percent changes (year-on-year)



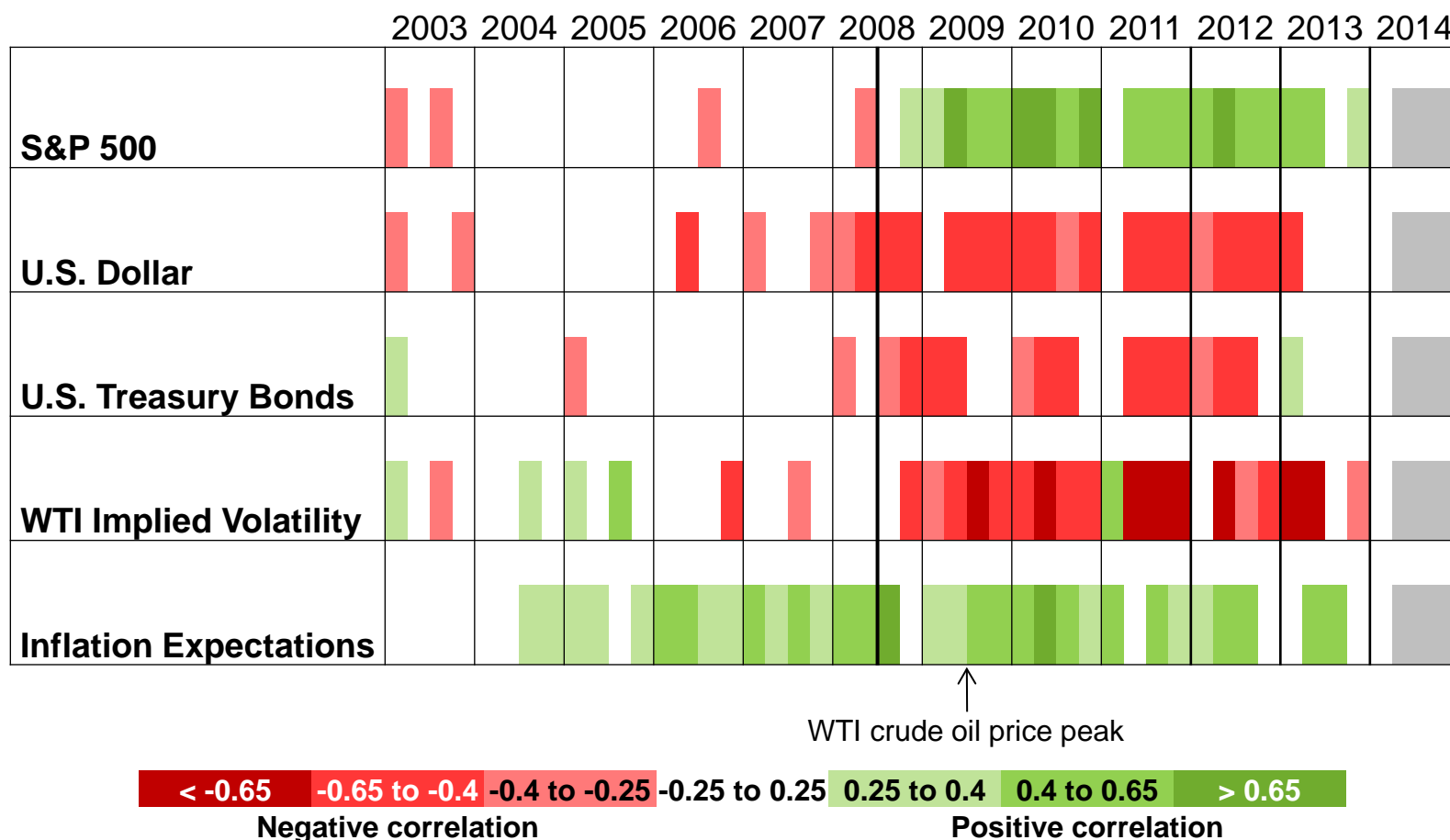
Source: CFTC Special Call Report

## 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](http://www.eia.gov)

Short-Term Energy Outlook | [www.eia.gov/steo](http://www.eia.gov/steo)

Annual Energy Outlook | [www.eia.gov/aeo](http://www.eia.gov/aeo)

International Energy Outlook | [www.eia.gov/ieo](http://www.eia.gov/ieo)

Monthly Energy Review | [www.eia.gov/mer](http://www.eia.gov/mer)

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