

What drives crude oil prices?

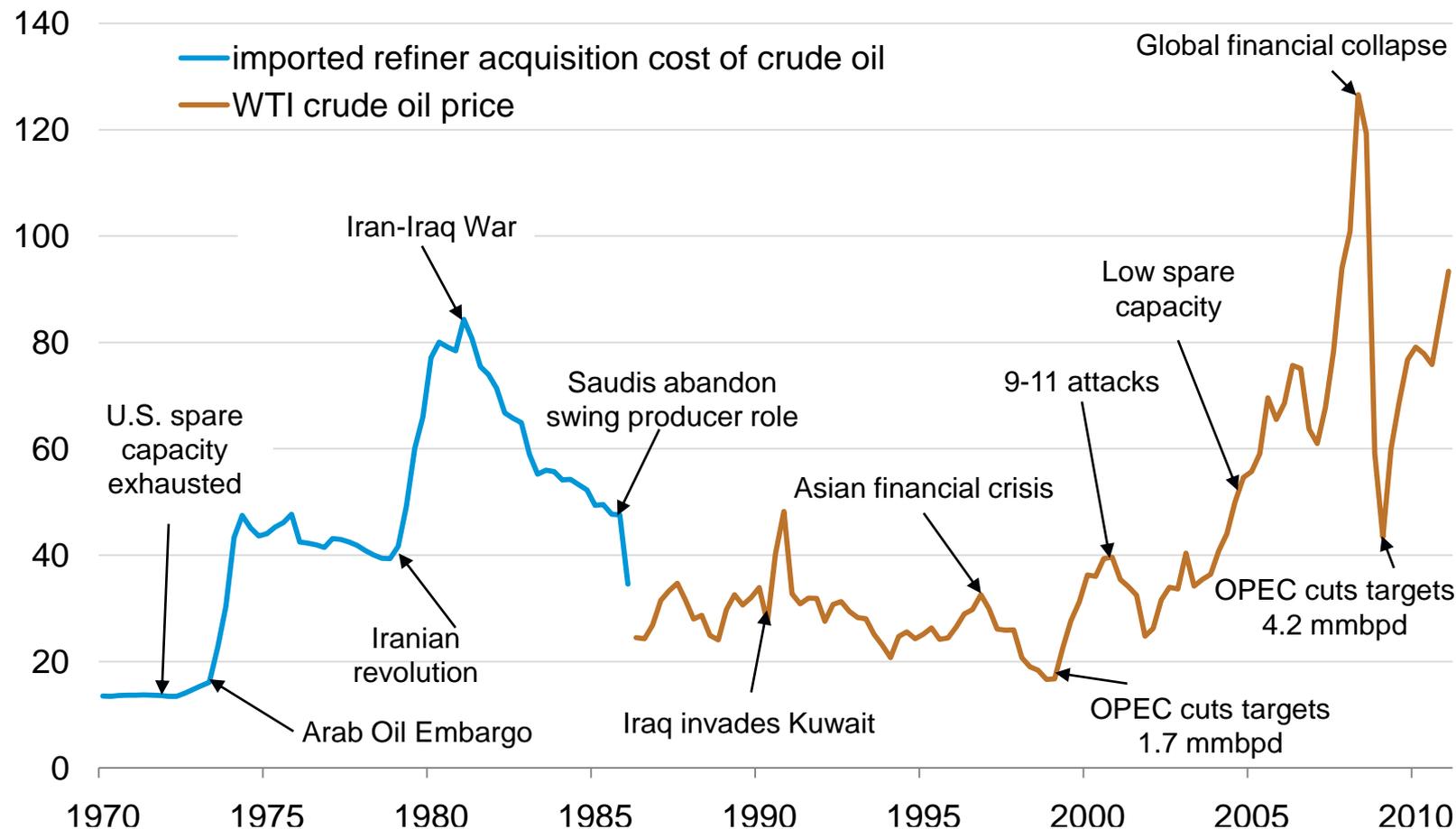
*An analysis of 7 factors that influence oil markets,
with chart data updated monthly and quarterly*



August 29, 2011 | Washington, DC

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

price per barrel
(real 2010 dollars, quarterly average)

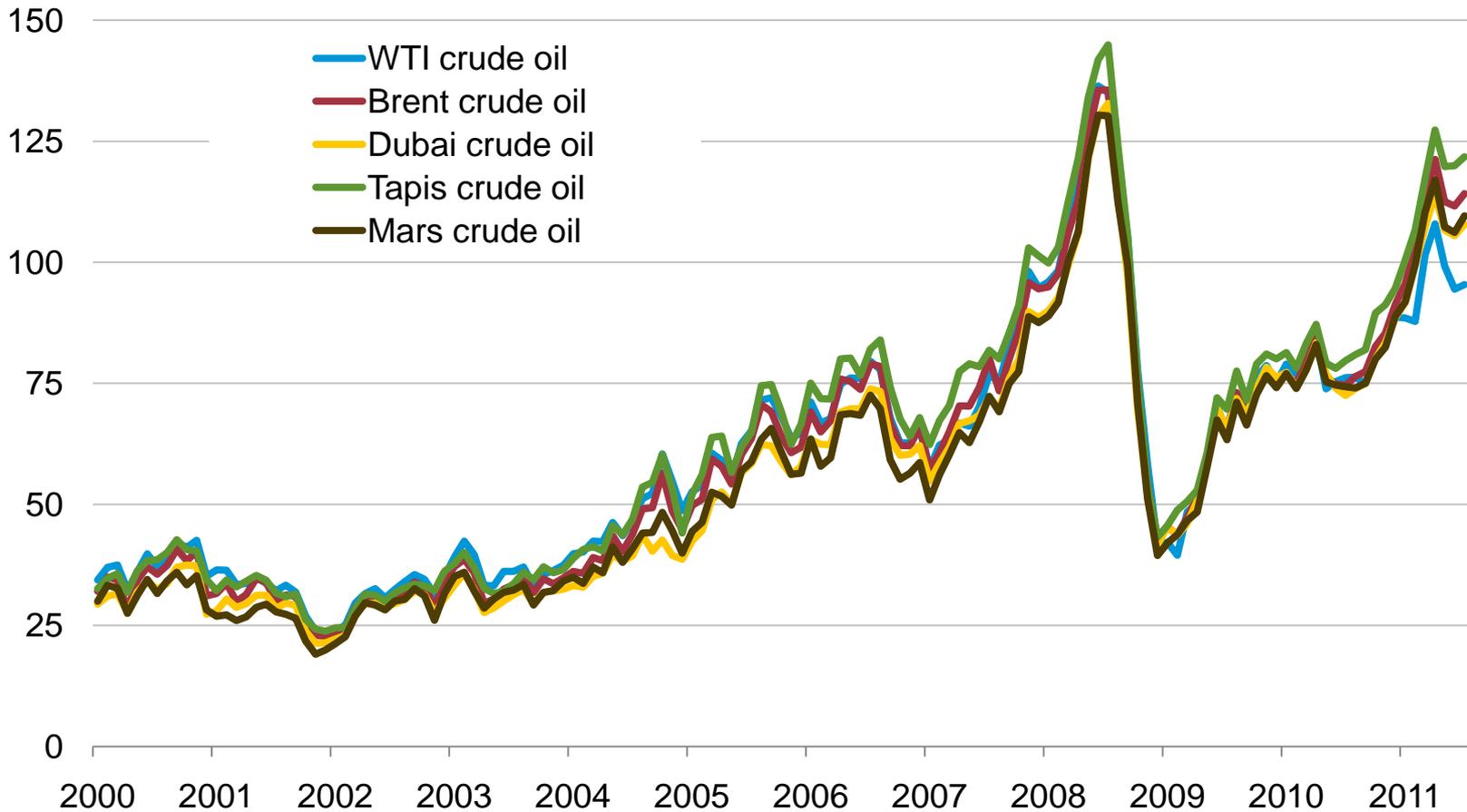


Sources: U.S. Energy Information Administration, Thomson Reuters

World oil prices move together due to arbitrage

dollars per barrel

real 2010 dollars, monthly average



Sources: Bloomberg, Thomson Reuters, monthly average spot price through July 2011

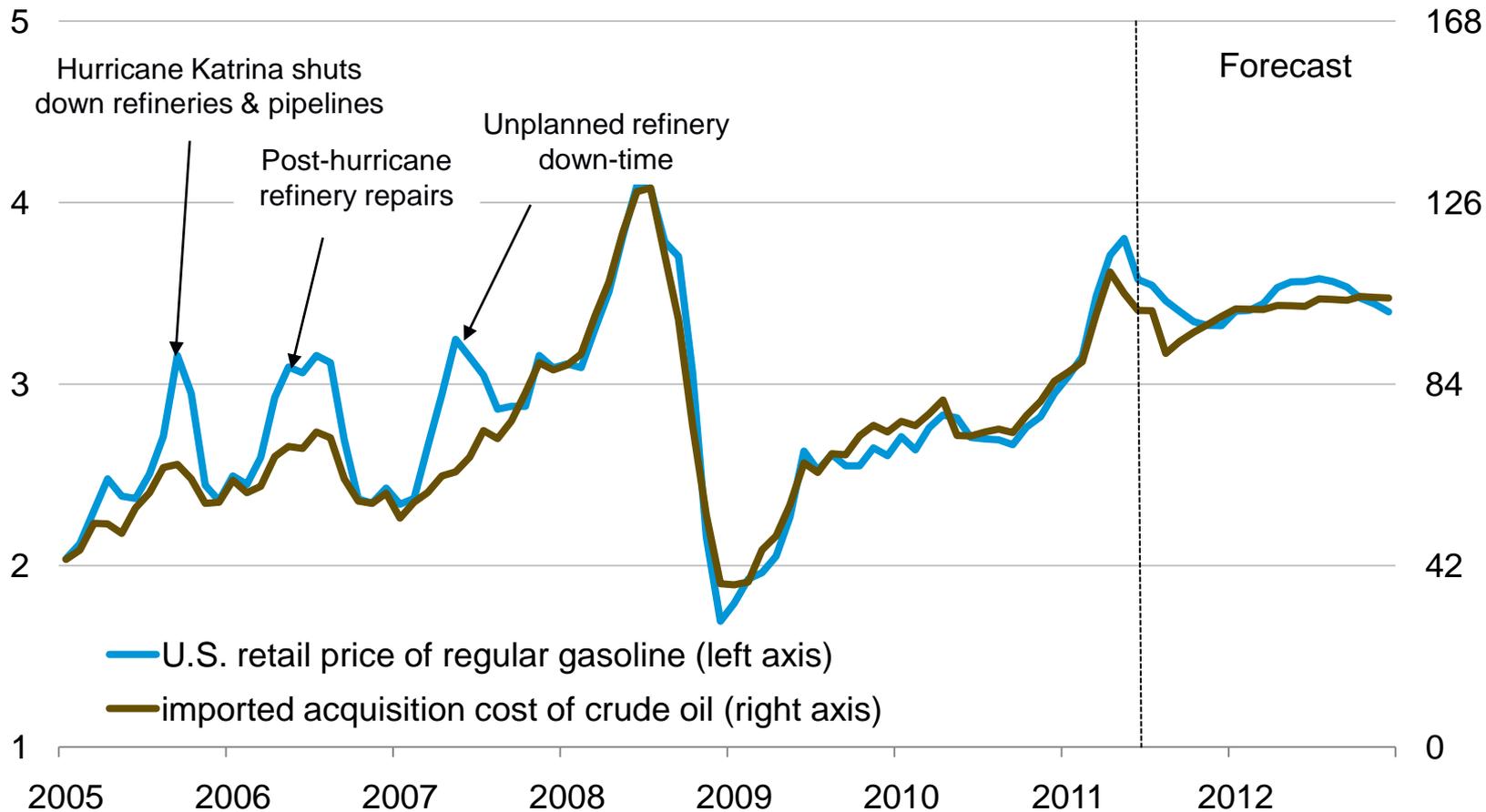
Crude oil prices are the primary driver of petroleum product prices

price per gallon

real 2010 dollars, monthly average

price per barrel

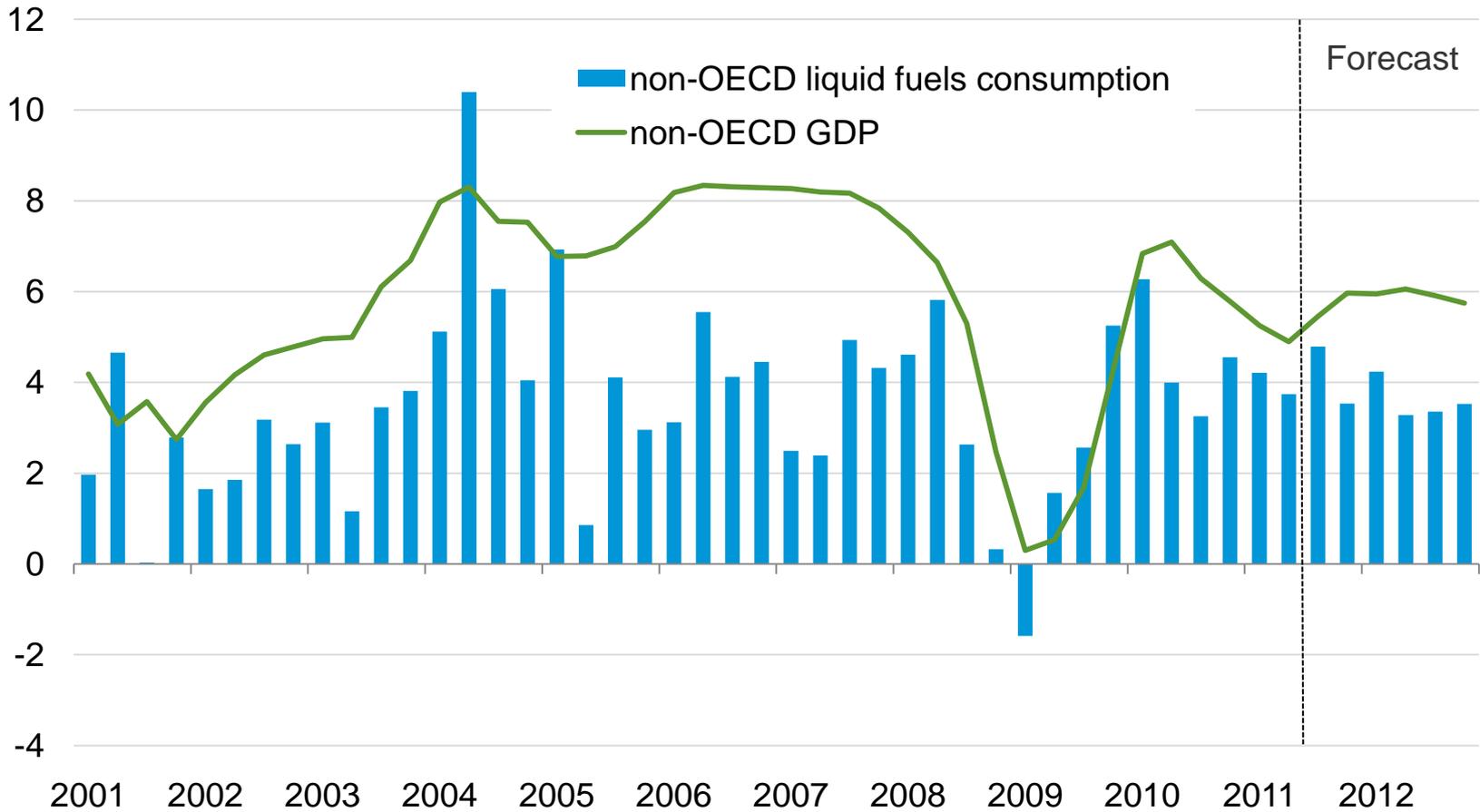
real 2010 dollars, monthly average



Sources: EIA Short Term Energy Outlook (August 2011), Thomson Reuters

Economic growth has a strong impact on oil consumption

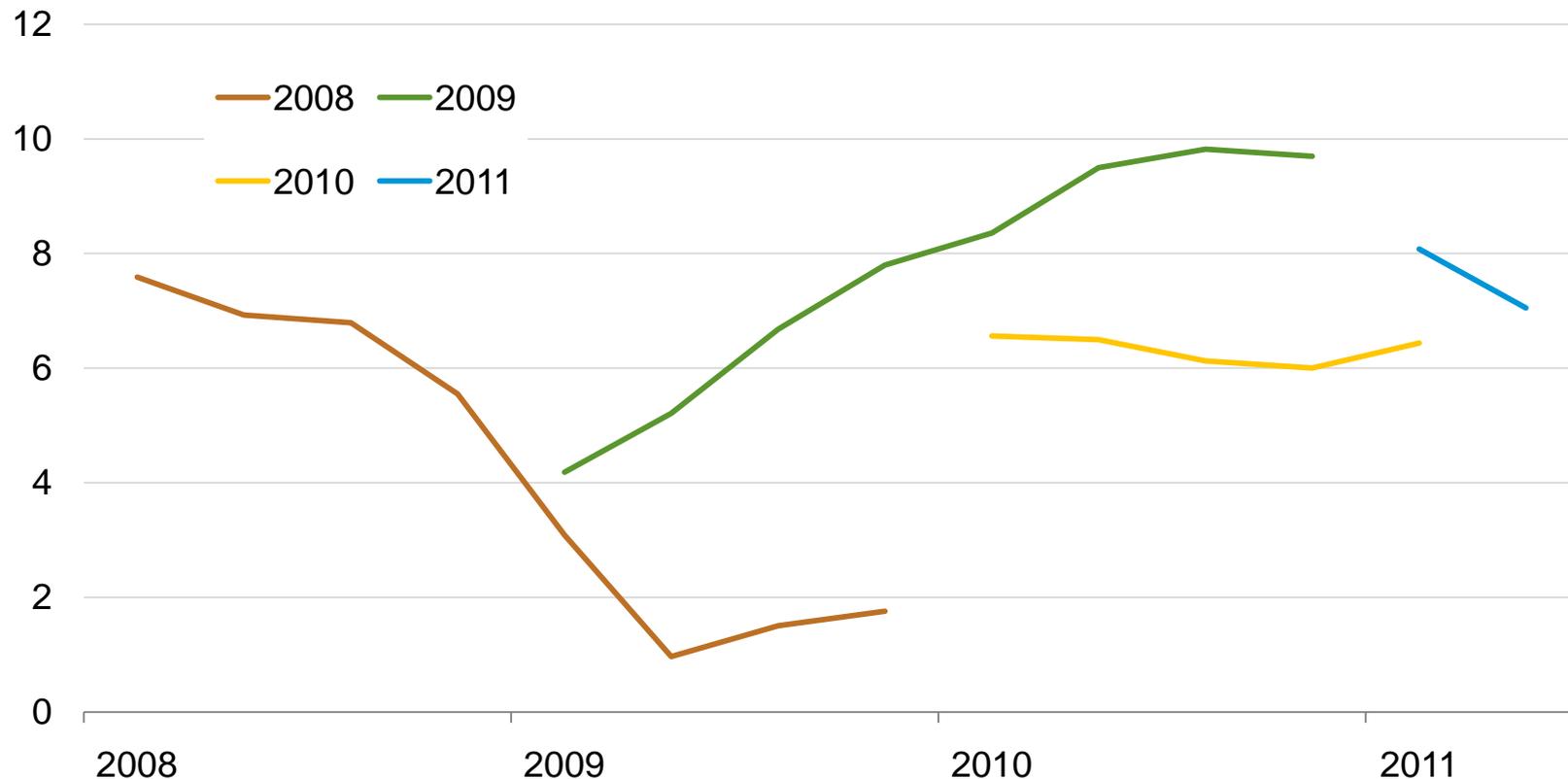
percent change (year-on-year)



Sources: EIA Short Term Energy Outlook (August 2011), IHS Global Insight

Economic growth in Asian economies surprised to the upside in 2009 and to the downside in 2008

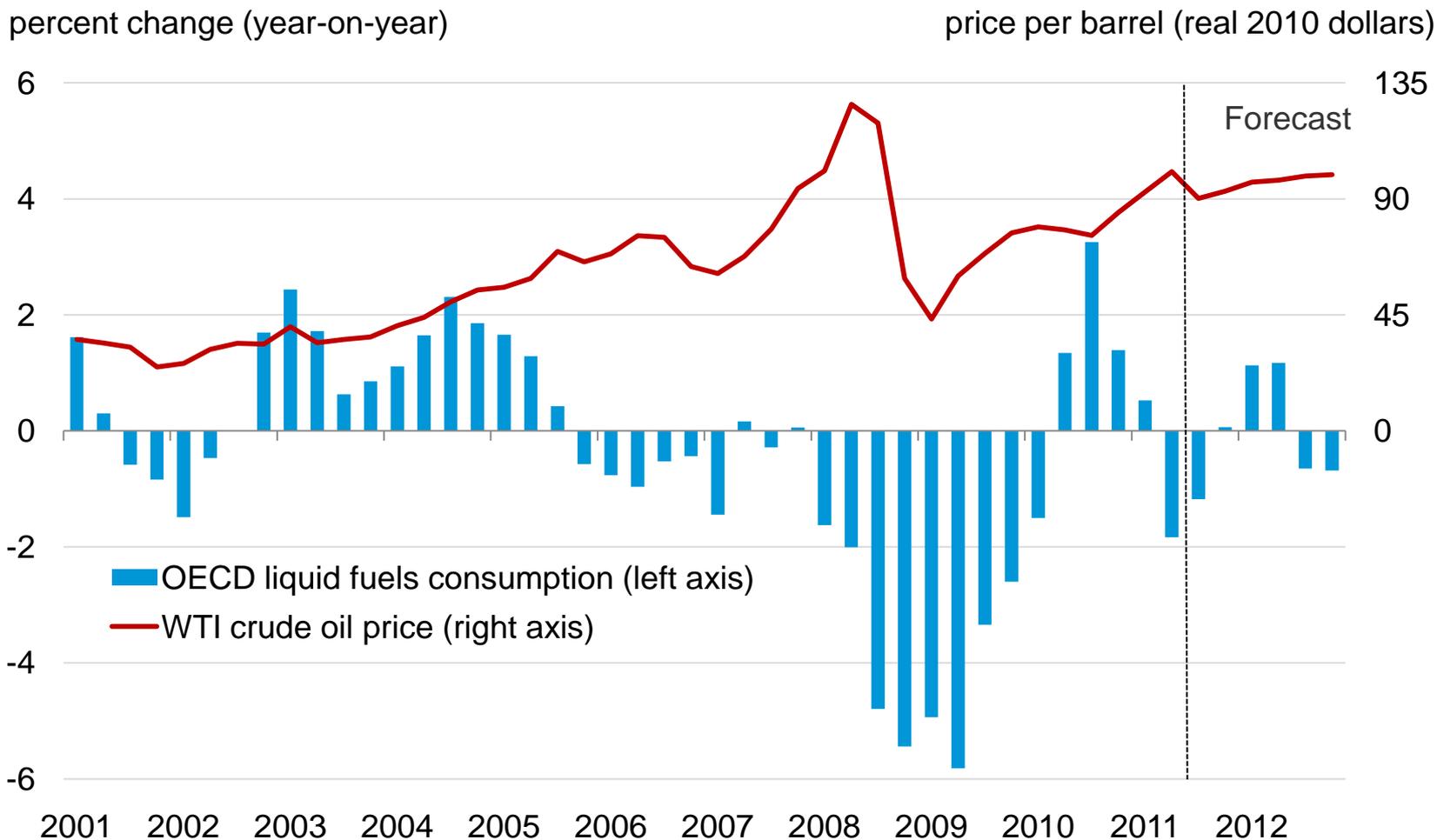
percent GDP growth in Asia, excluding Japan
(annual expectations)



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).

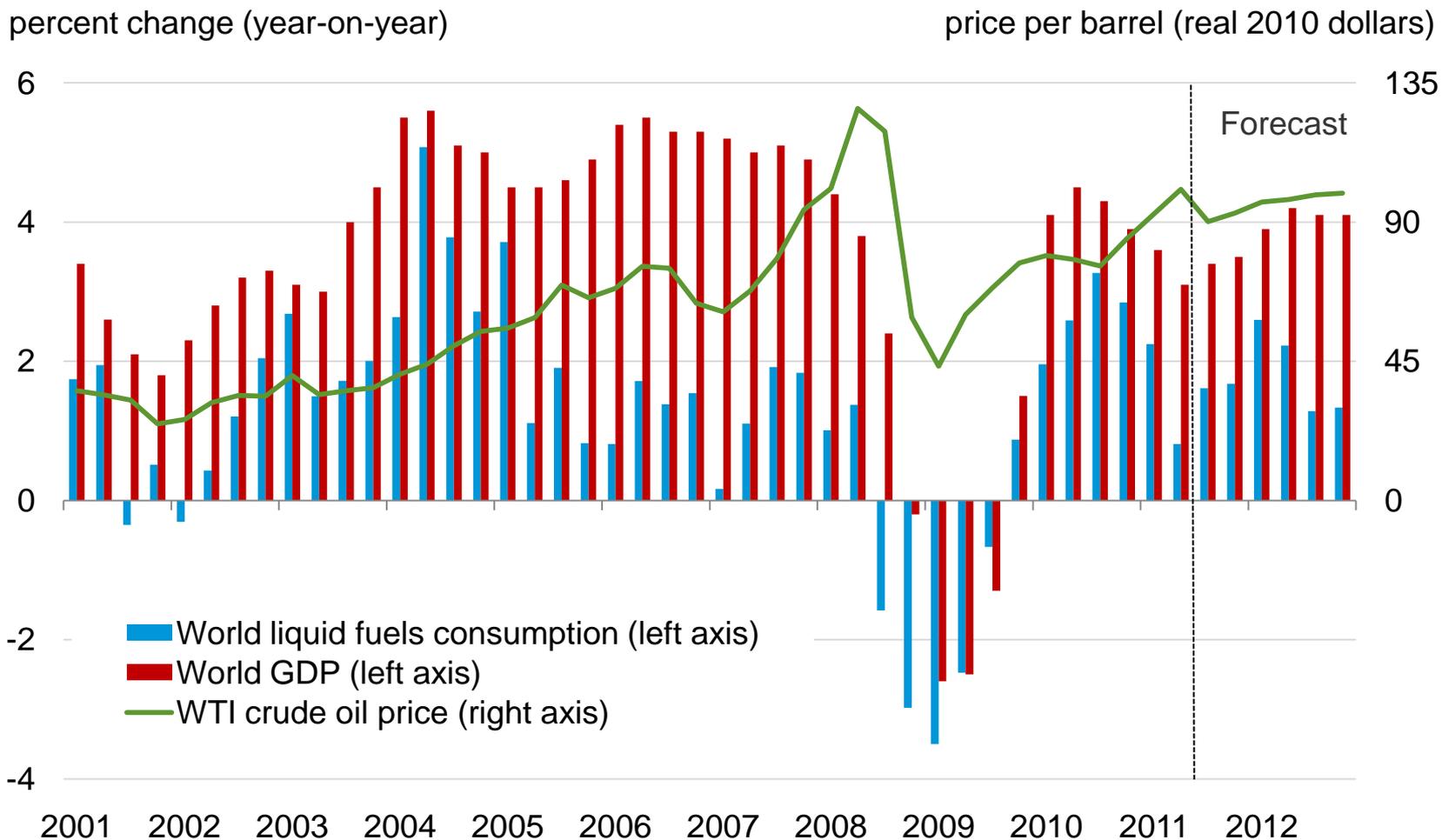
Source: IHS Global Insight

In OECD countries, price increases have coincided with lower consumption



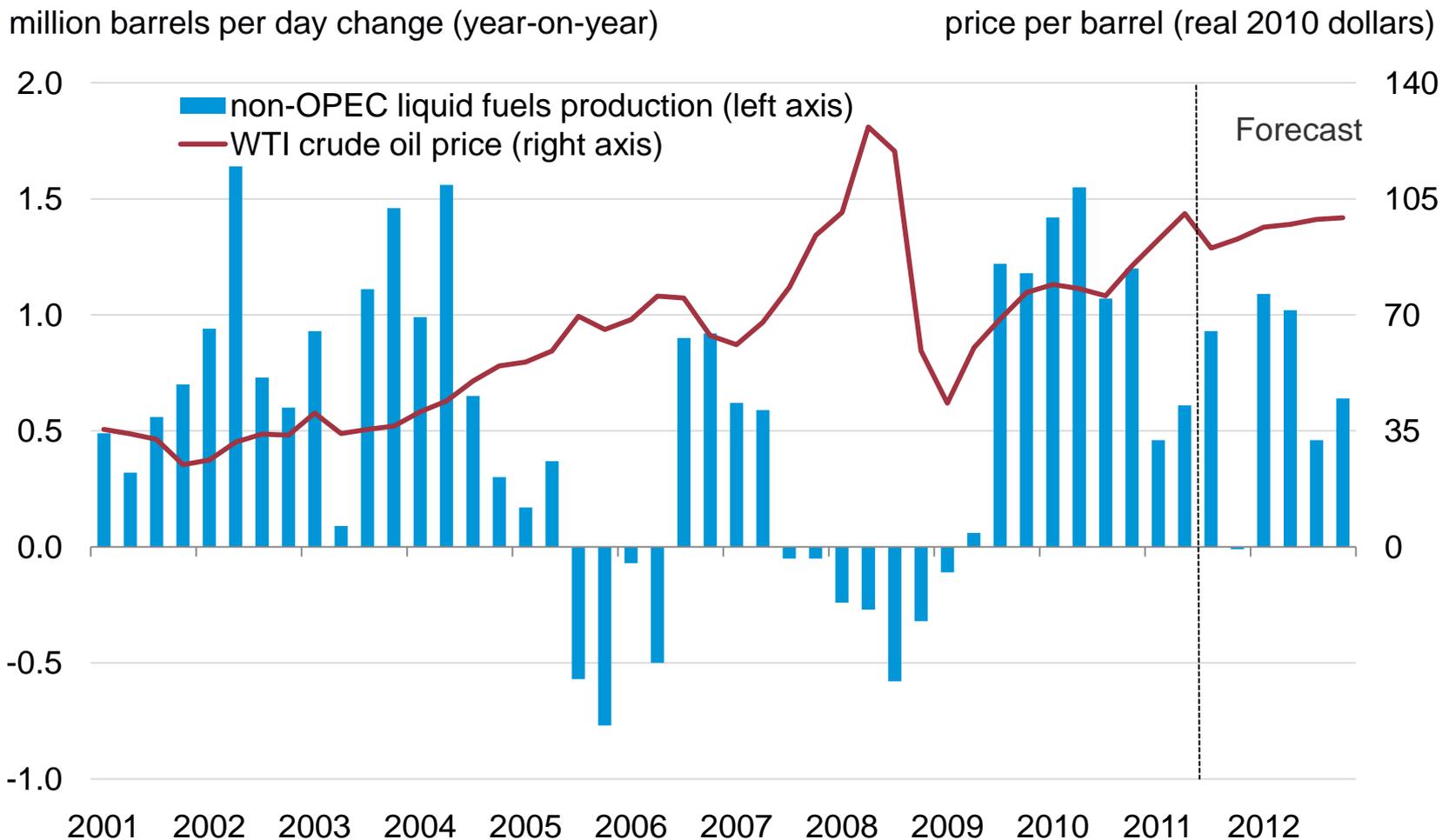
Sources: EIA Short Term Energy Outlook (August 2011), Thomson Reuters

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



Sources: EIA Short Term Energy Outlook (August 2011), Thomson Reuters

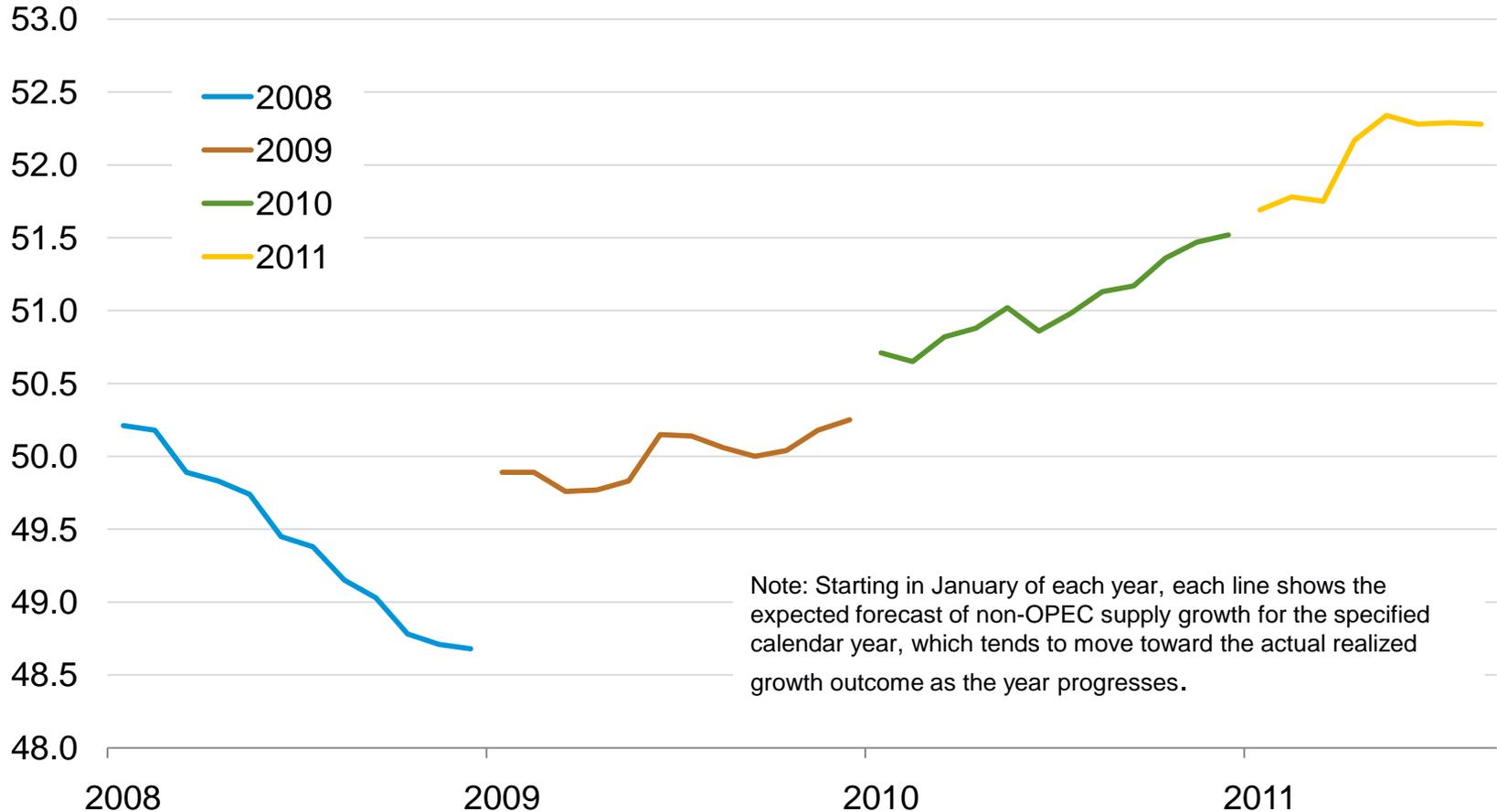
Non-OPEC production grew rapidly in 2009-2010. EIA expects these increases to slow in 2011-2012.



Sources: EIA Short Term Energy Outlook (August 2011), Thomson Reuters

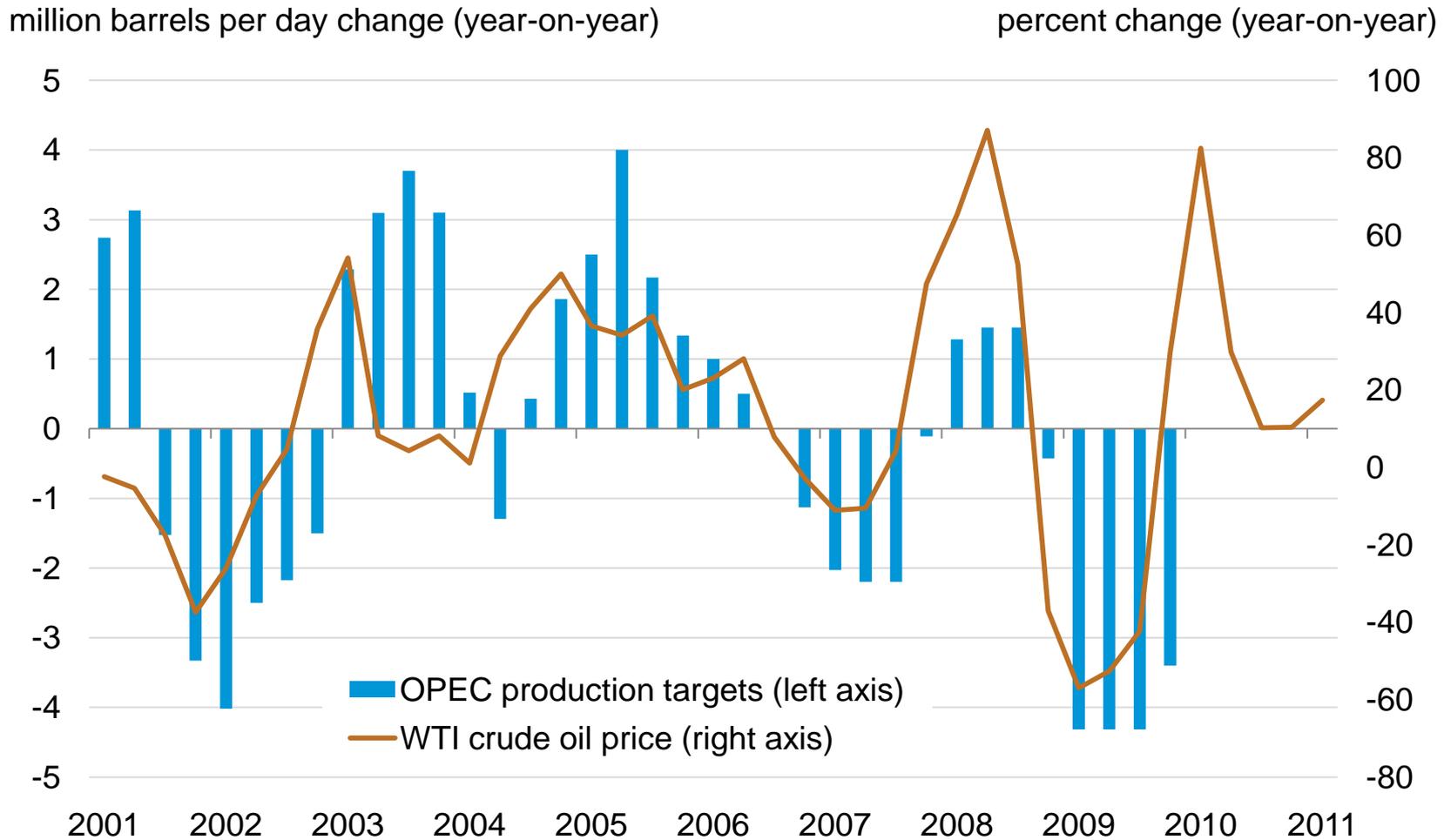
Non-OPEC supply expectations were adjusted upward in 2009-2010 after production decreased during downturn

million barrels per day
annual average expectations



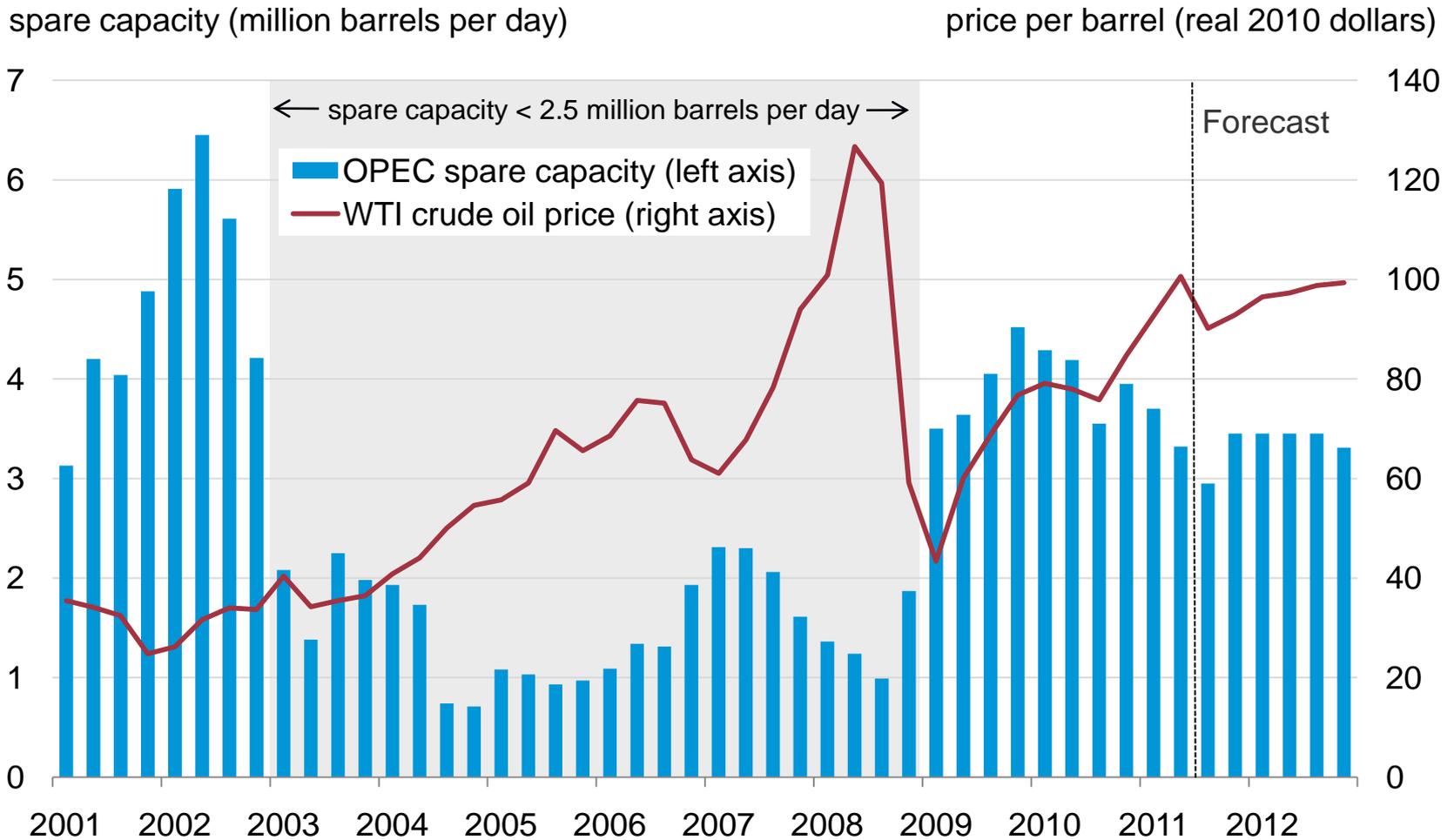
Source: EIA Short Term Energy Outlook (August 2011)

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



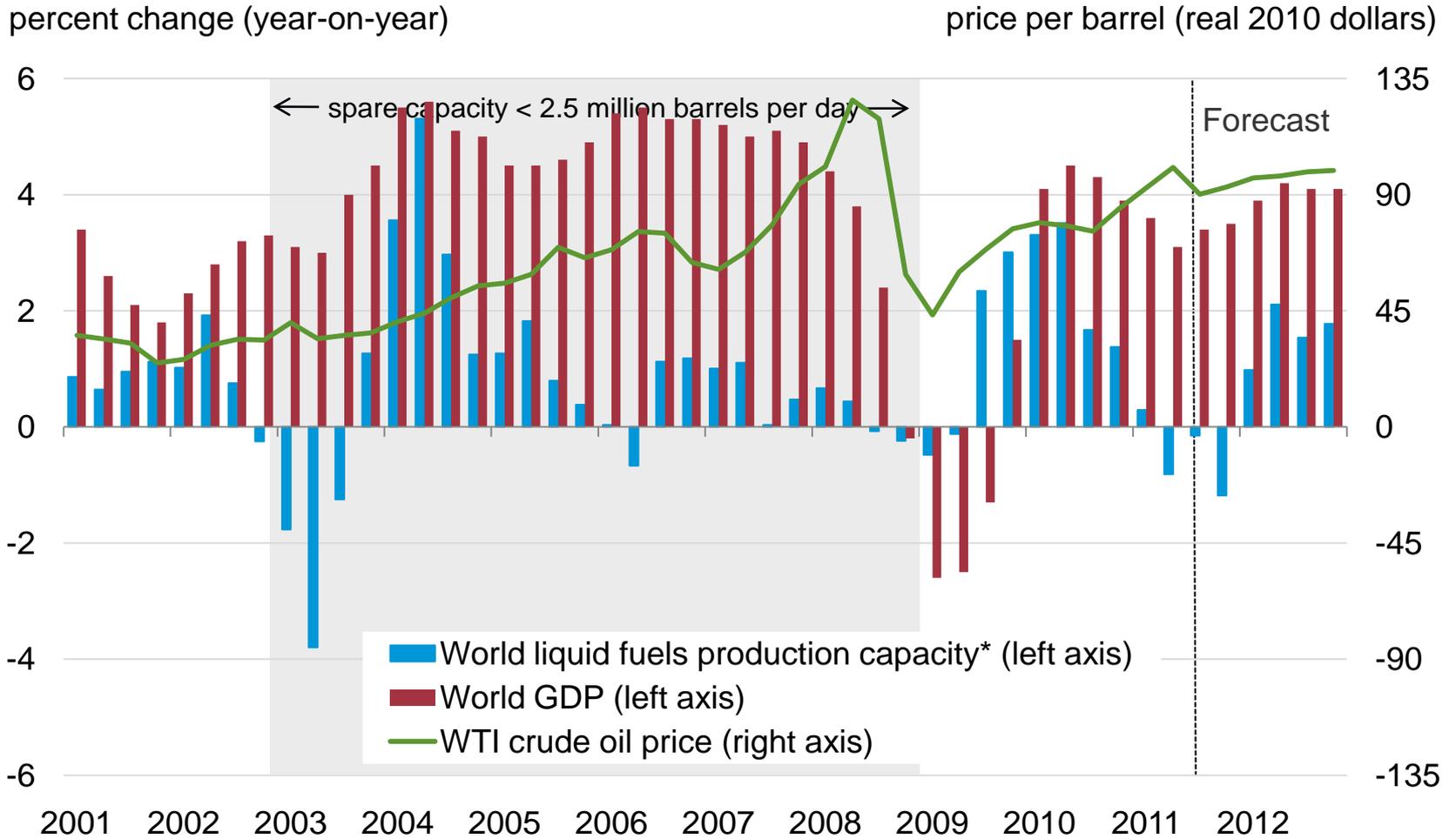
Sources: U.S. Energy Information Administration, Thomson Reuters

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



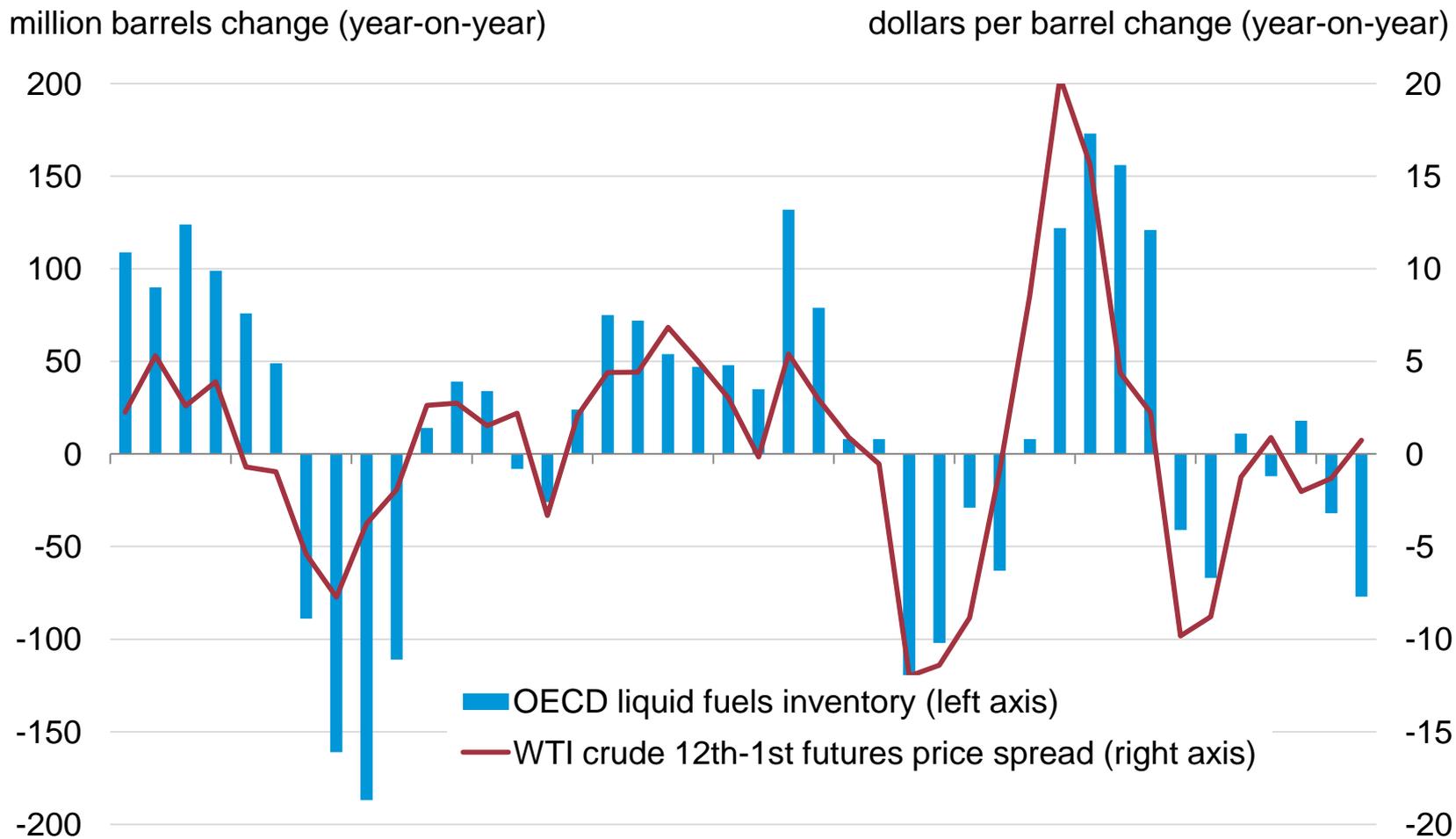
Sources: EIA Short Term Energy Outlook (August 2011), Thomson Reuters

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 (August 2011), Thomson Reuters

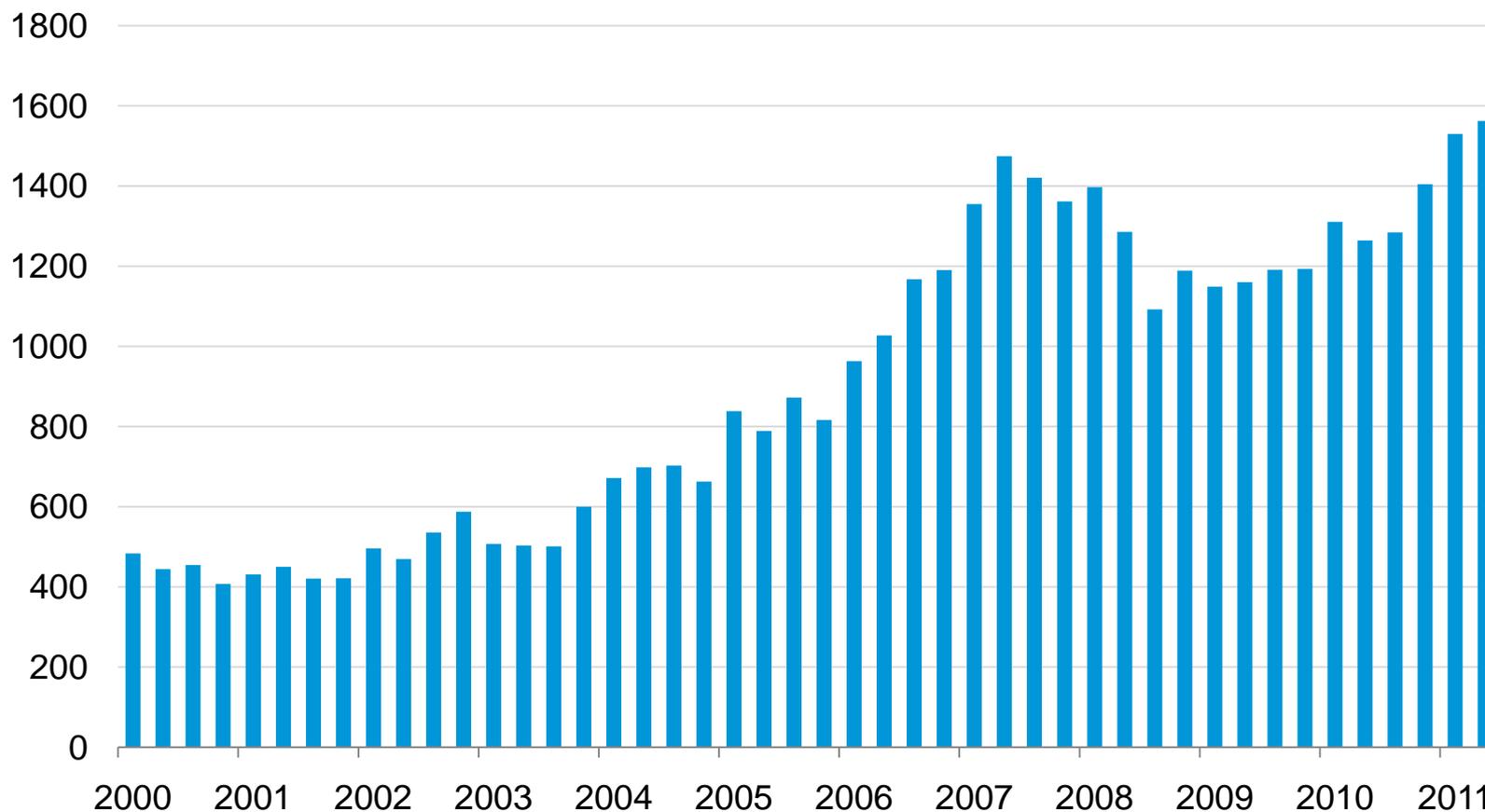
Inventory builds go hand-in-hand with increases in future oil prices *relative to current prices* (and vice versa)



Sources: EIA Short Term Energy Outlook (August 2011), Thomson Reuters

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

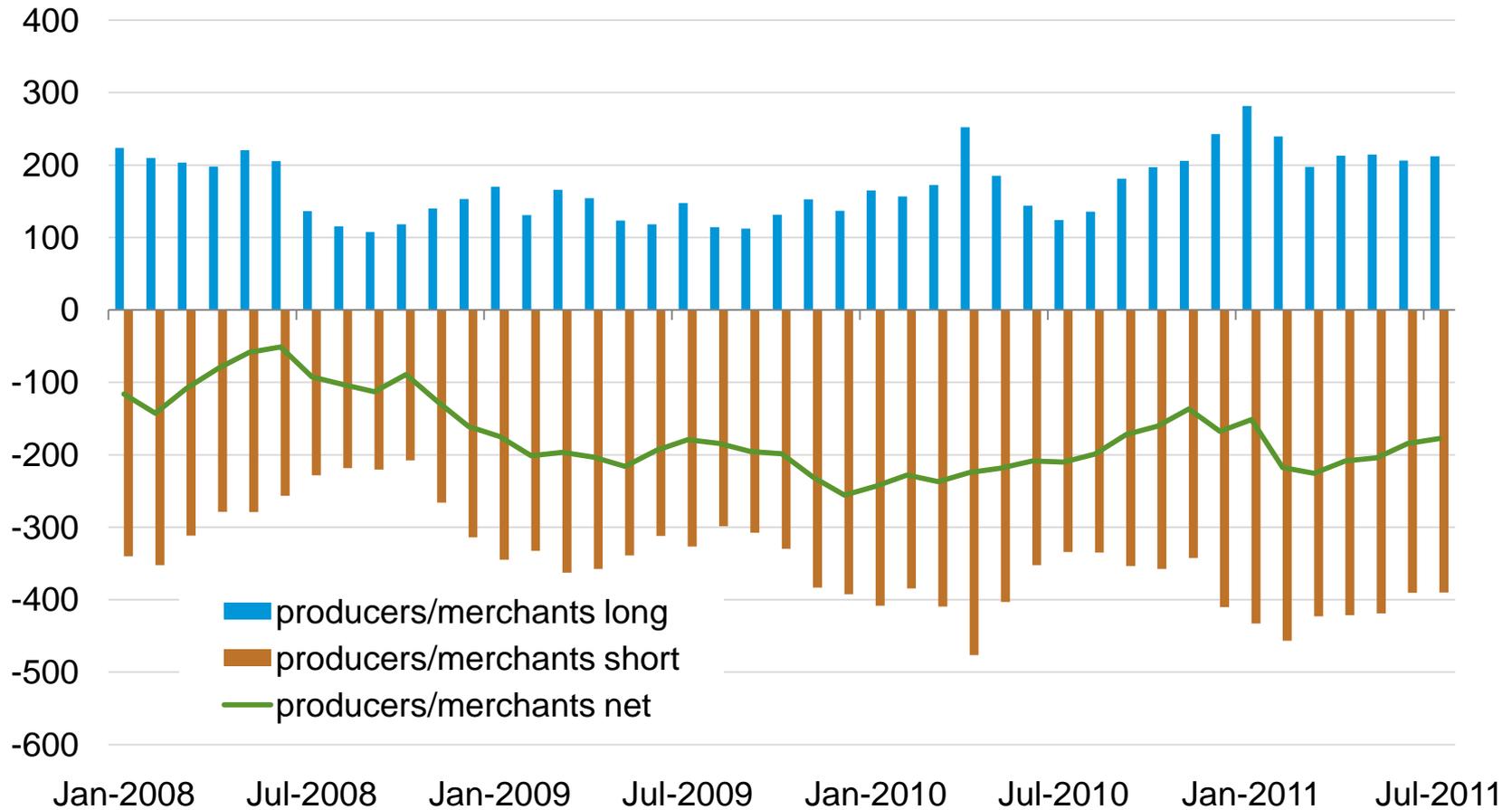
average daily open interest in crude oil futures
number of contracts (thousands)



Source: Bloomberg

U.S. exchange-traded short positions by physical participants (producers, merchants, processors, and end users) consistently exceed longs

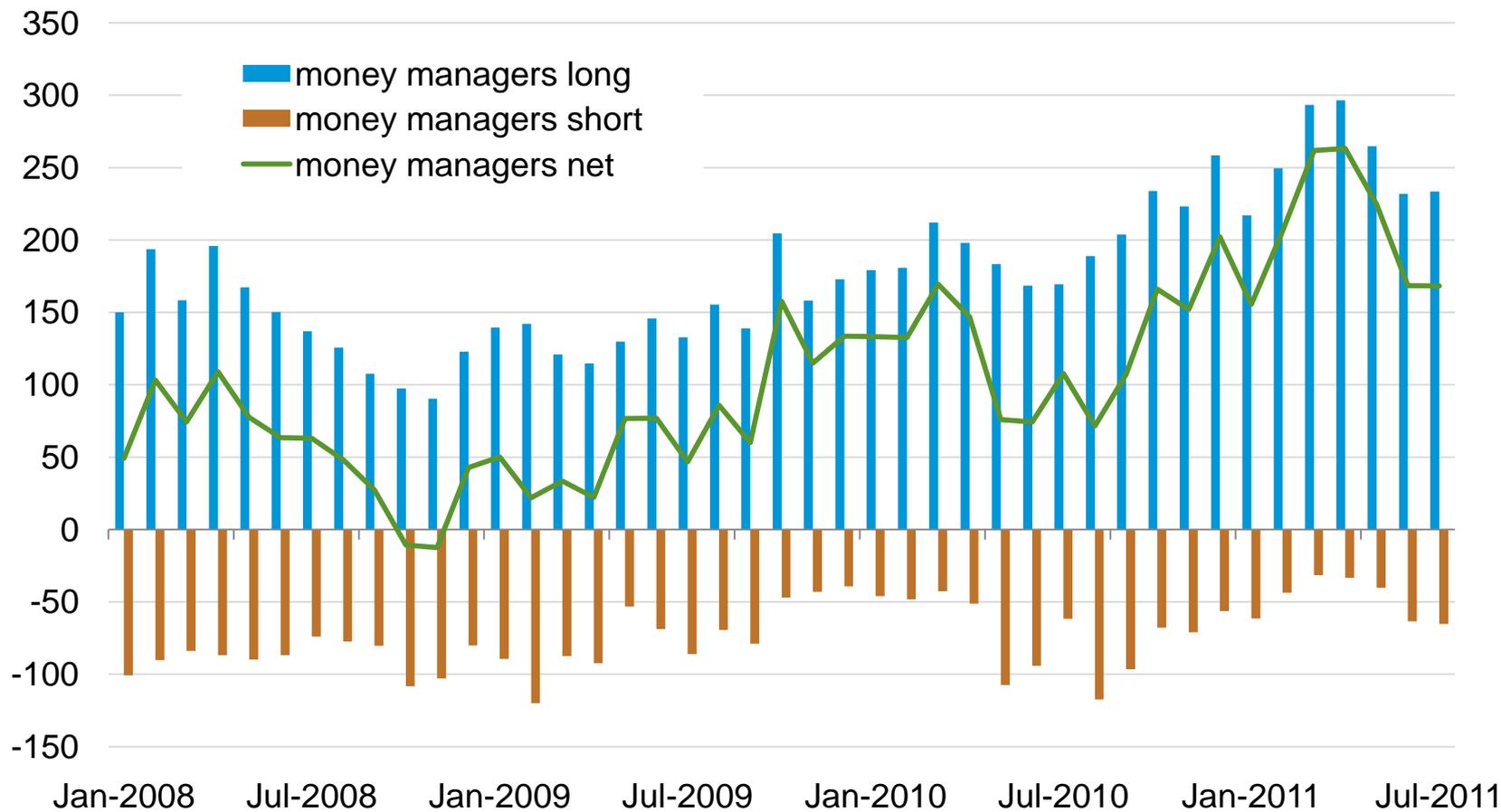
number of contracts (thousands)



Source: CFTC Commitment of Traders

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

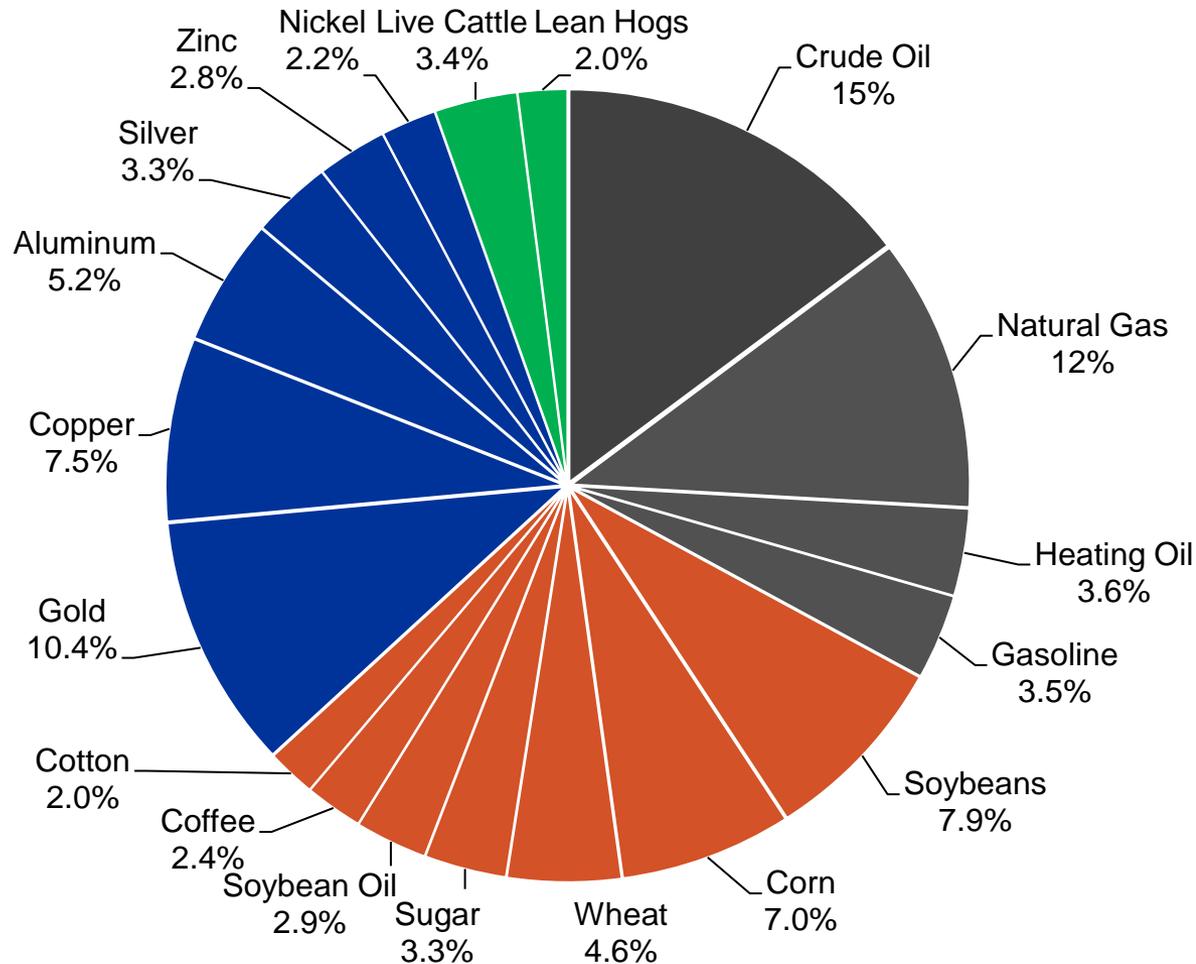
number of contracts (thousands)



Source: CFTC Commitment of Traders

Crude oil plays a major role in commodity investment

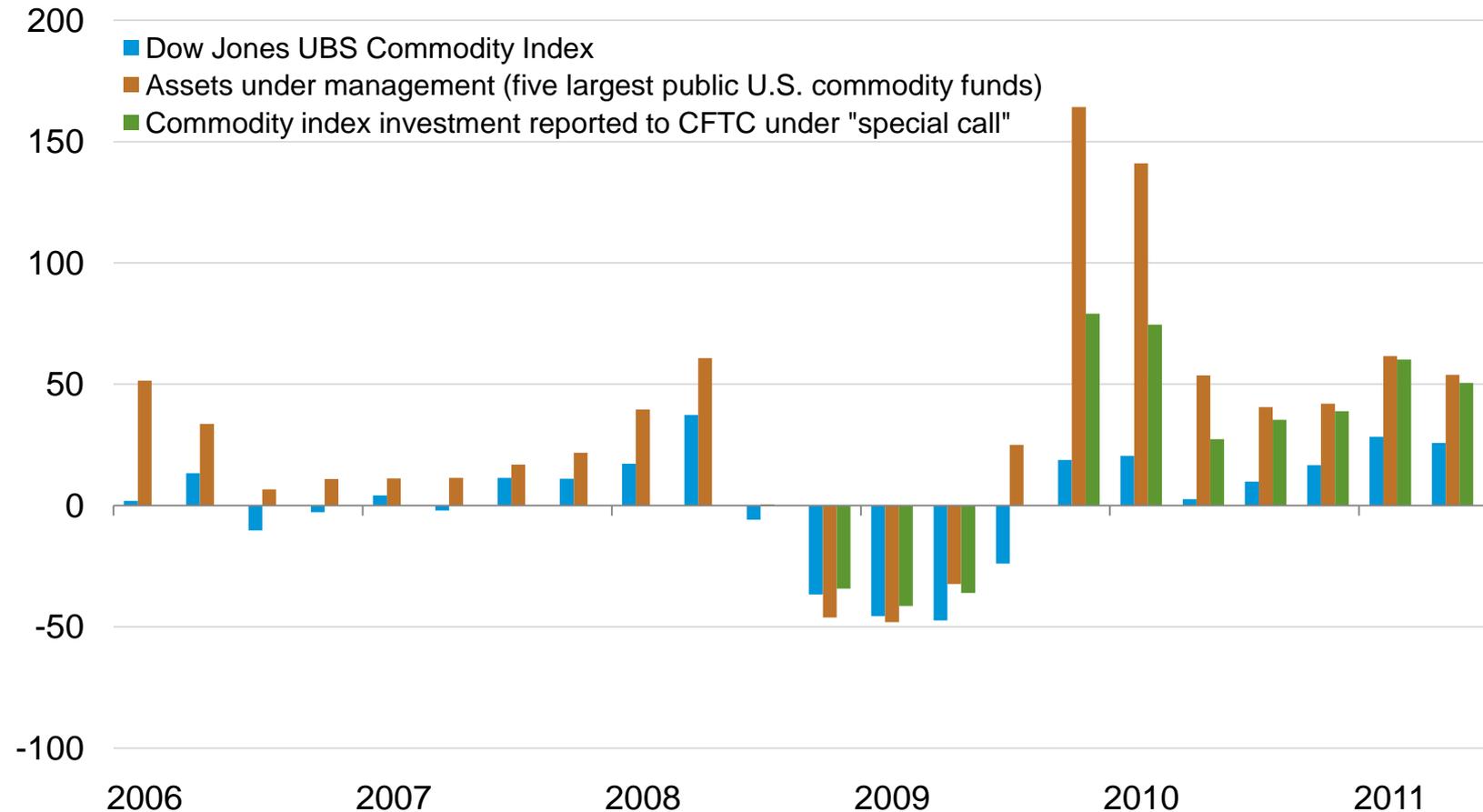
2011 Target Weights of the Dow Jones - UBS Commodity Index



Source: Dow Jones Indexes, CME Group

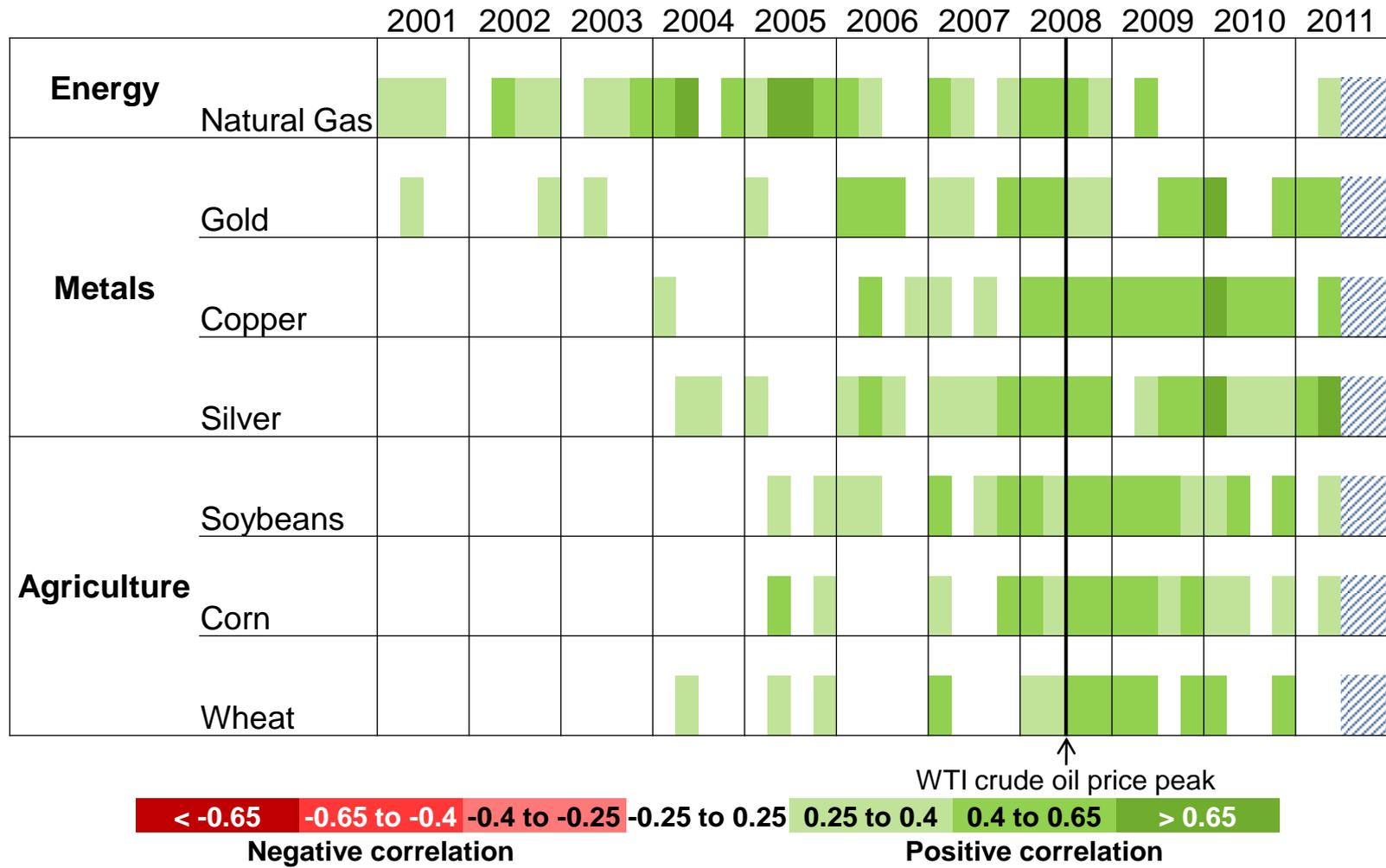
Commodity index investment flows have tended to move together with commodity prices

percent changes (year-on-year)



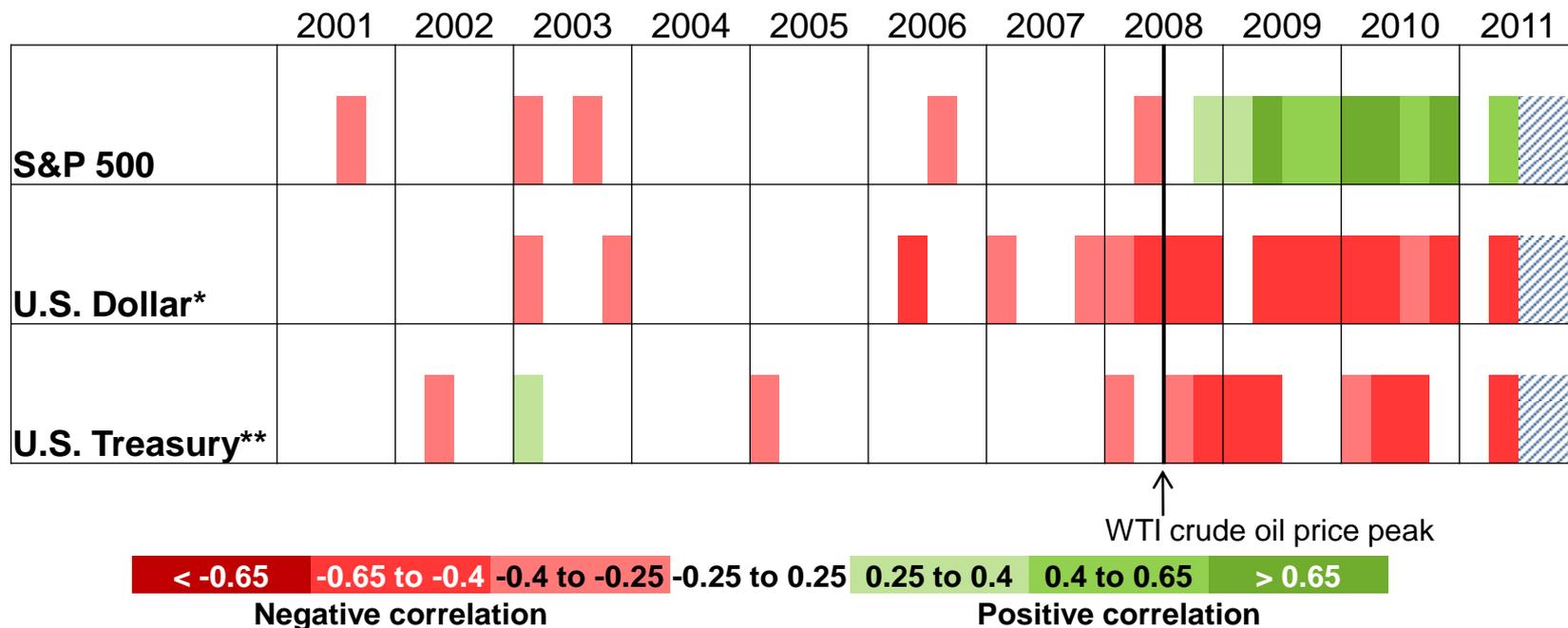
Source: CFTC Special Call Report

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



* U.S. Dollar Index (DXY), which is a weighted index of a basket of currencies, per U.S. dollar. As the dollar strengthens against other currencies, the value of the index rises.

** U.S. Treasury is based on the negative of the change in yield on 30-year U.S. government bonds because as yields rise, bond prices fall.

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

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