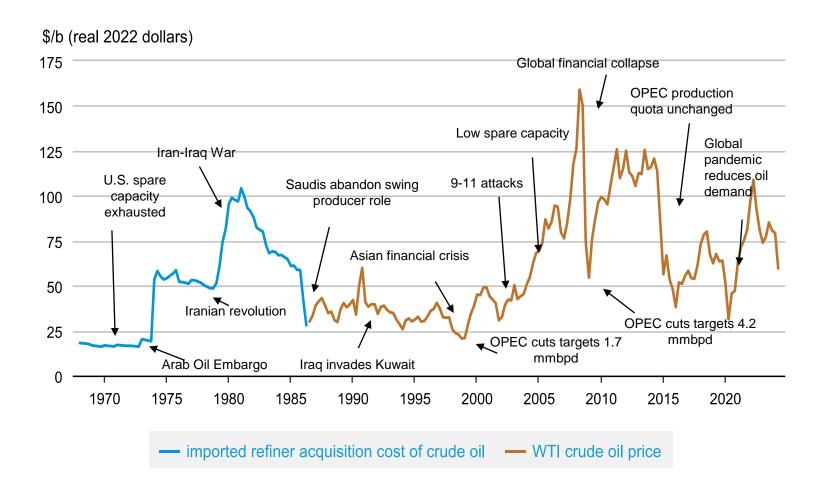
### What drives crude oil prices?

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

July 9, 2024 / Washington, DC



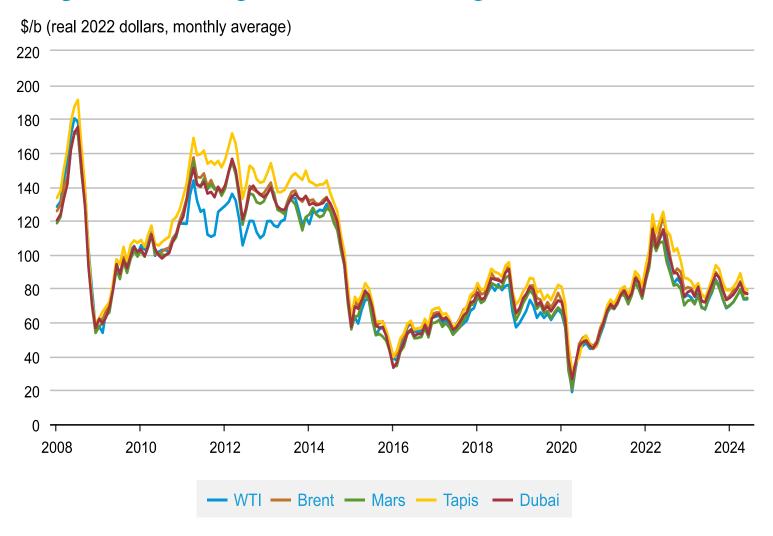
#### Crude oil prices react to a variety of geopolitical and economic events



Data sources: U.S. Energy Information Administration, Refinitiv An LSEG Business



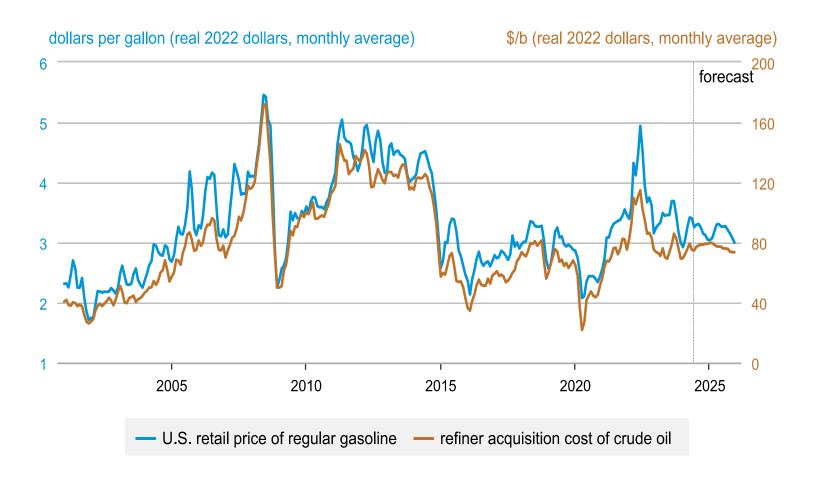
#### World oil prices move together due to arbitrage



Data sources: Bloomberg, Refinitiv An LSEG Business

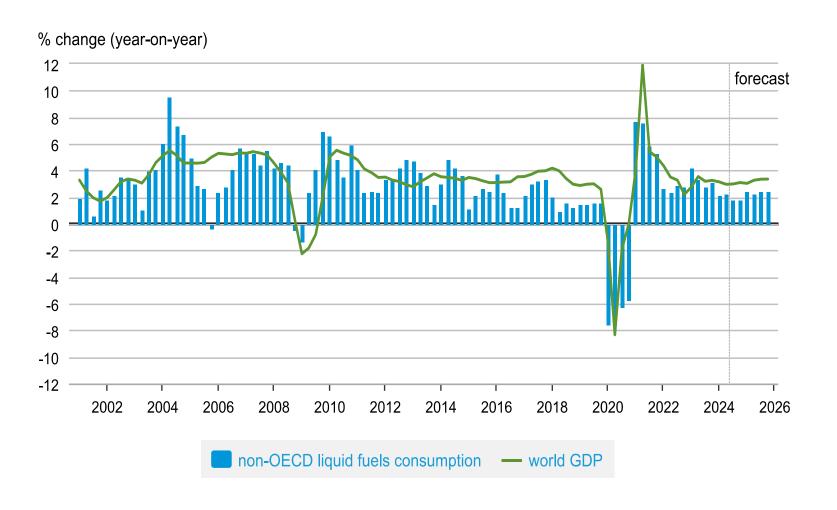


#### Crude oil prices are the primary driver of petroleum product prices





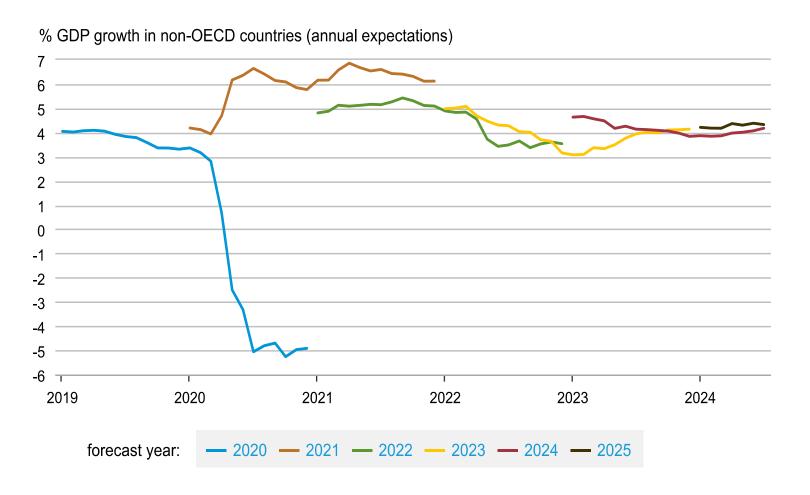
#### Economic growth has a strong impact on oil consumption



Data sources: U.S. Energy Information Administration, Oxford Economics



#### Changes in expectations of economic growth can affect oil prices

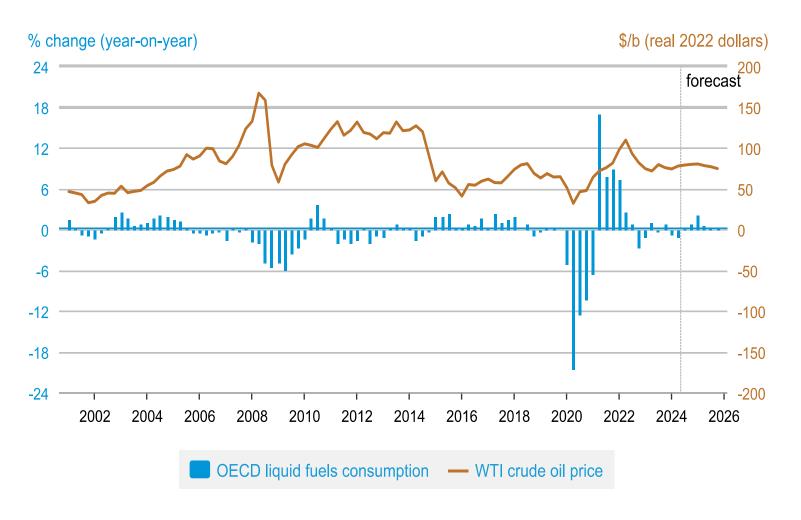


Note: Starting in January of each year, each line shows the expected forecast of GDP growth for the specified calendar year, which tends to move toward the actual realized growth outcome as the year progresses. Expectations continue to evolve into the next calendar year as revised GDP data become available (e.g., 2021 GDP expectations are revised even during 2022).

Data source: Oxford Economics

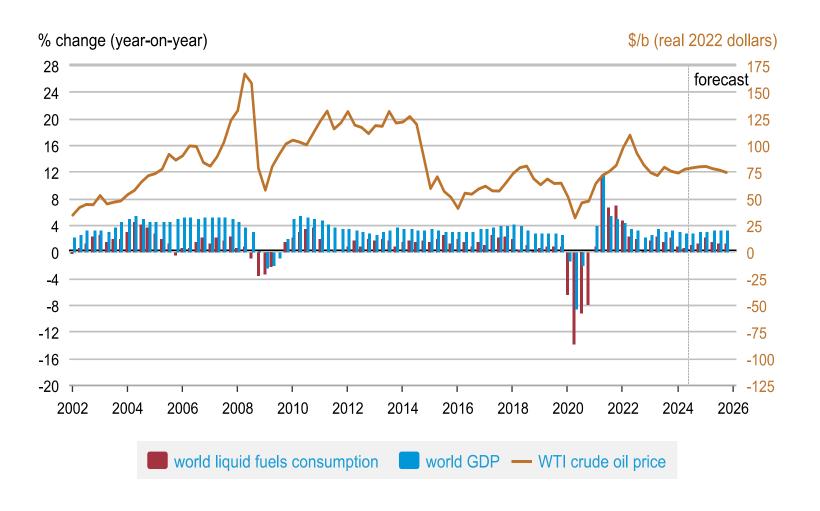


### In OECD countries, price increases have coincided with lower consumption



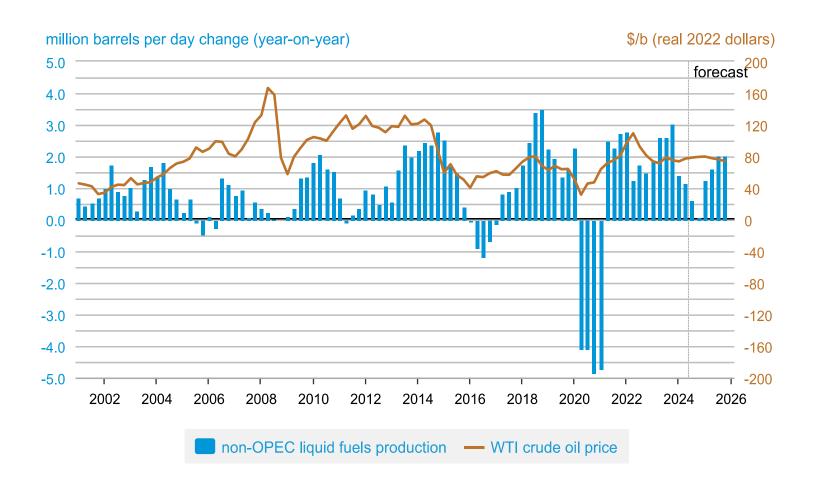


### Rising oil prices held down global oil consumption growth from 2005-2008, despite high economic growth



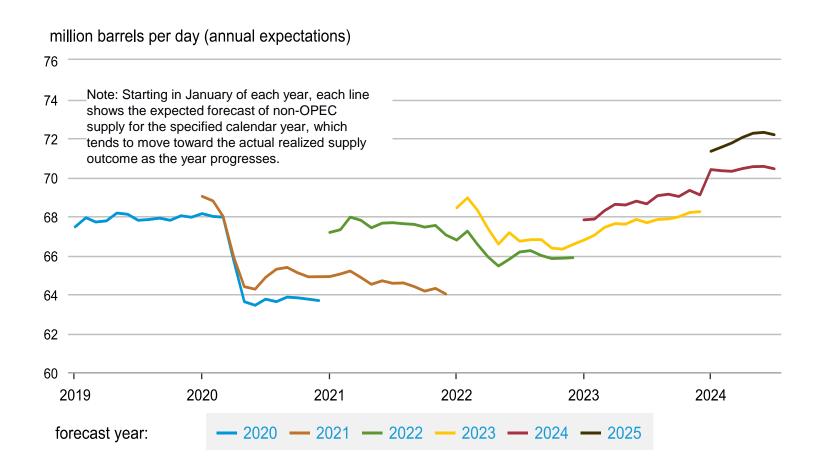


#### Changes in non-OPEC production can affect oil prices



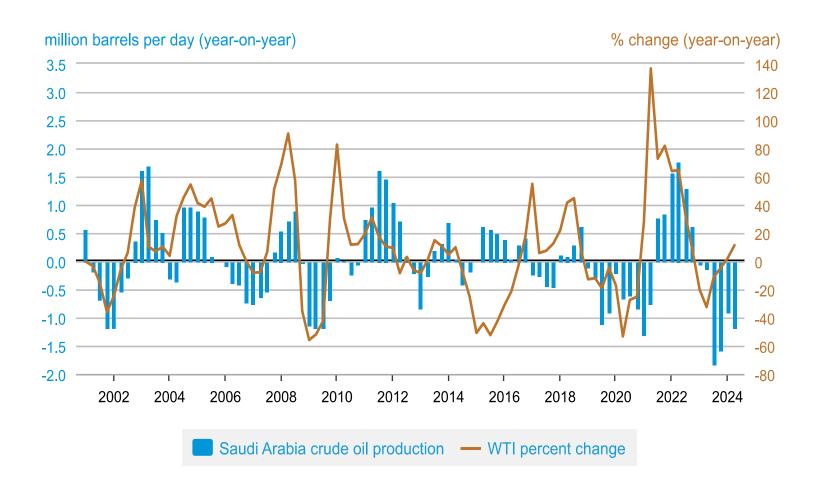


### Non-OPEC supply expectations indicate changes in market sentiment concerning oil supply





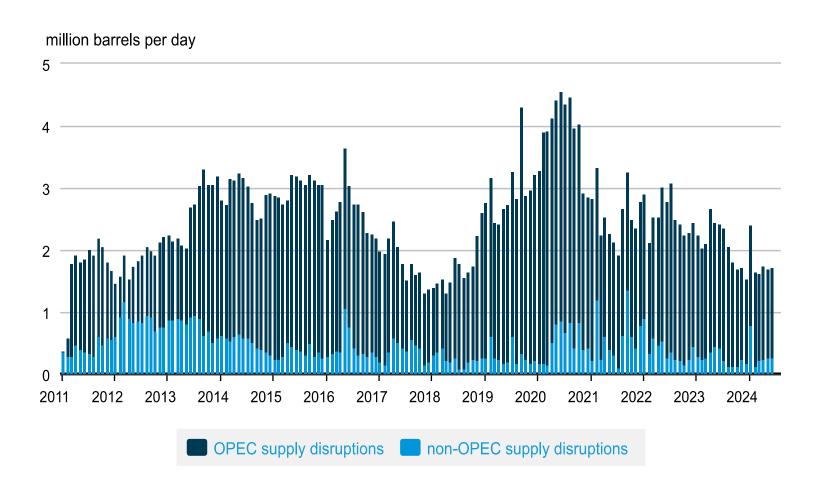
#### Changes in Saudi Arabia crude oil production can affect oil prices



Data sources: U.S. Energy Information Administration, Refinitiv An LSEG Business



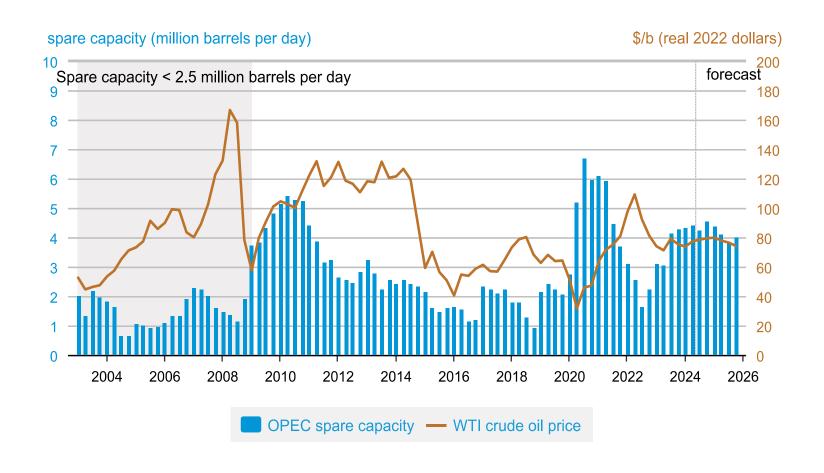
## Unplanned supply disruptions tighten world oil markets and push prices higher



Data sources: U.S. Energy Information Administration

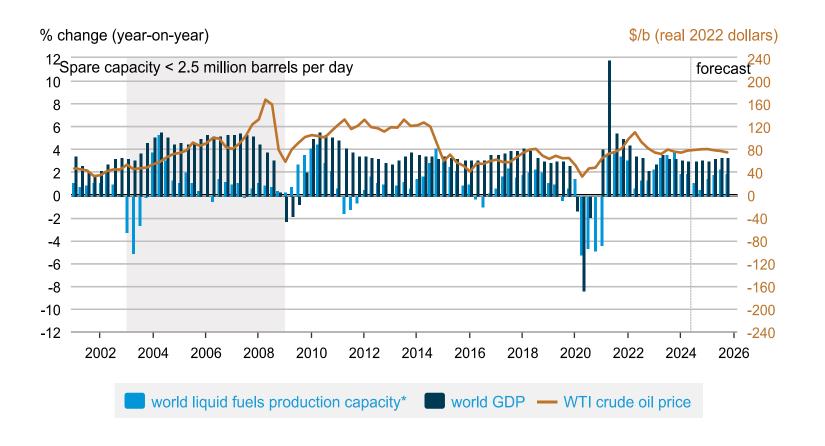


# During 2003-2008, OPEC's spare production levels were low, limiting its ability to respond to demand and price increases





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

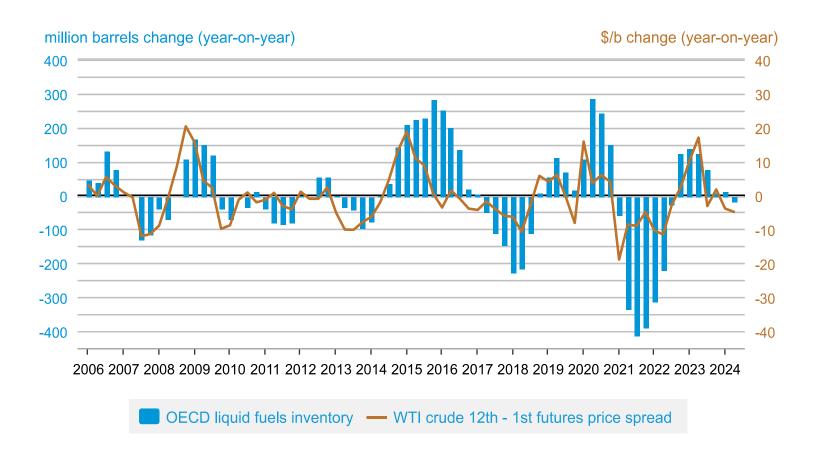


Data source: Short-Term Energy Outlook

\*World Capacity = OPEC capacity plus non-OPEC production

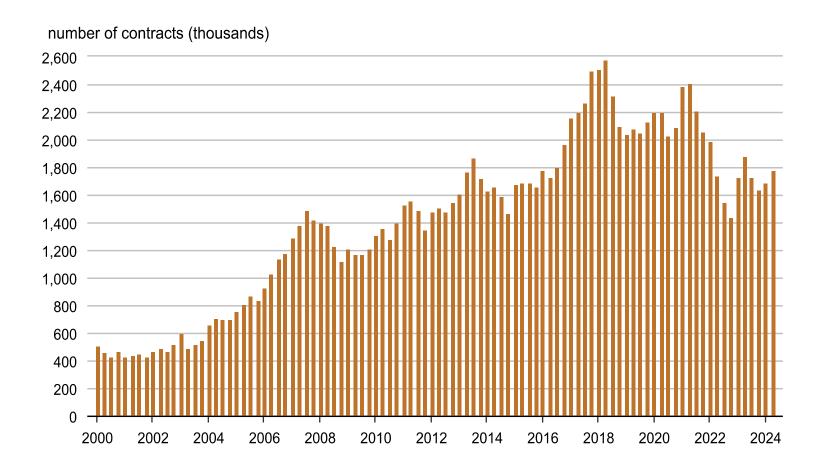


### Inventory builds go hand-in-hand with increases in future oil prices *relative to* current prices (and vice versa)





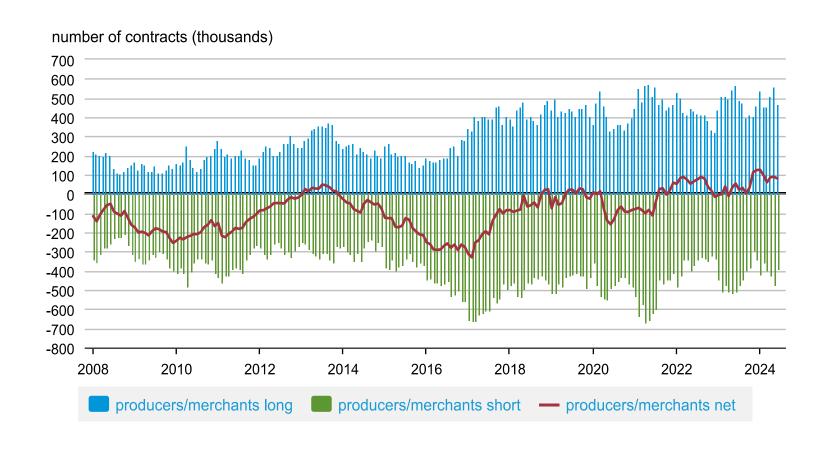
### Open interest in crude oil futures grew over the last decade as more participants entered the market



Data source: Bloomberg



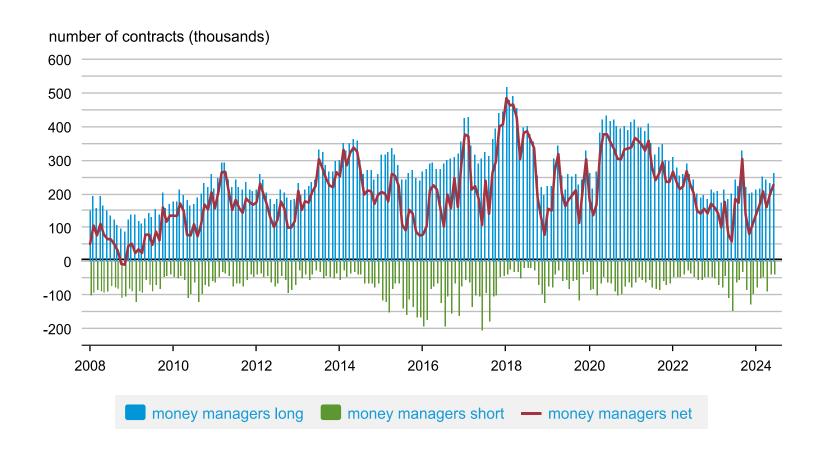
### Physical participants' (producers, merchants, processors, and end users) U.S. futures market contract positions



Data source: Commodity Futures Trading Commission, Commitments of Traders



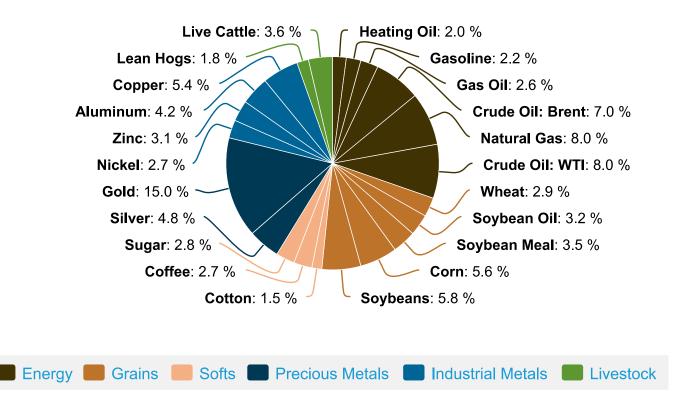
#### Money managers tend to be net long in the U.S. oil futures market



Data source: Commodity Futures Trading Commission, Commitments of Traders



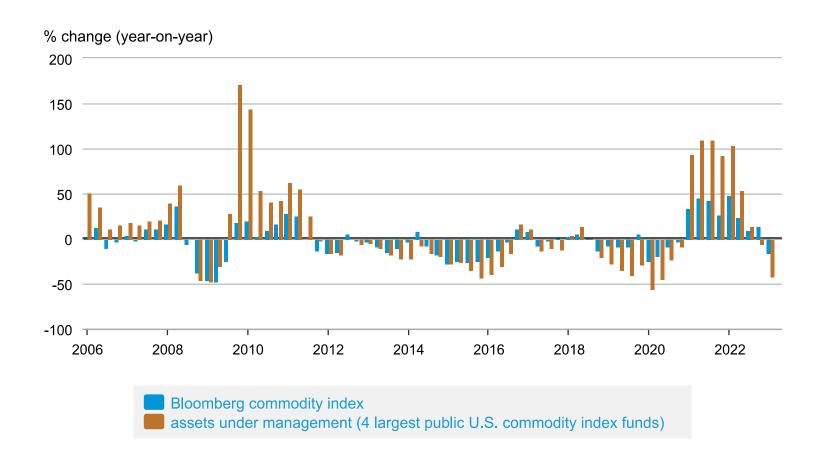
### Crude oil plays a major role in commodity investment Commodity index assets under management and Bloomberg commodity index level



Data source: Bloomberg



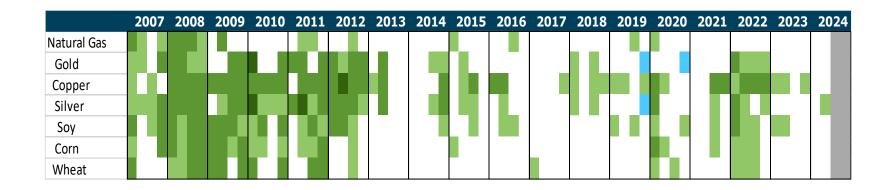
# Commodity index investment flows have tended to move together with commodity prices



Data source: Bloomberg



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

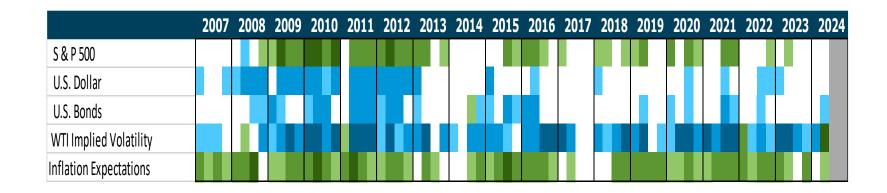


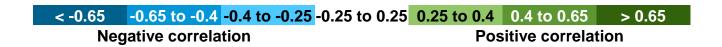


Note: Correlations computed quarterly



# 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 | <u>www.eia.gov/steo</u>

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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