

Commodity Markets Outlook

Under the Shadow of Geopolitical Risks

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Guiding Questions

Commodity Market Developments

- 1 What is the outlook for energy prices and the risks to the outlook?
- 2 What is the outlook for agricultural and food prices, the risks to the outlook and recent trends in food insecurity?
- 3 What is the outlook for metal and critical minerals prices and the risks to the outlook?

Special Focus

- 4 What could be the immediate impact of a major escalation of the Middle-East conflict on oil prices and commodity markets?

Key message: falling prices, greater risks

➤ **OUTLOOK: Commodity prices will continue falling in 2024 and 2025. Slower global growth amid ample supplies; metals could see increased demand in 2025**

- **Energy prices** falling nearly 30% in 2023, 5% in 2024 and 1% in 2025. **Brent prices** falling to \$84/bbl in 2023, down from \$100/bbl in 2022, before easing to \$81/bbl in 2024 and \$80/bbl in 2025.
- **Agricultural prices** are projected to decline 7% in 2023, followed by a further 2% in 2024 and 2025, in response to good crops, and impact of El Niño waning off, respectively.
- **Metal prices** are projected to decline 12% in 2023 and 5% in 2024 as weak demand by China persists and increase by 6% in 2025, on the back of increasing demand outlook.

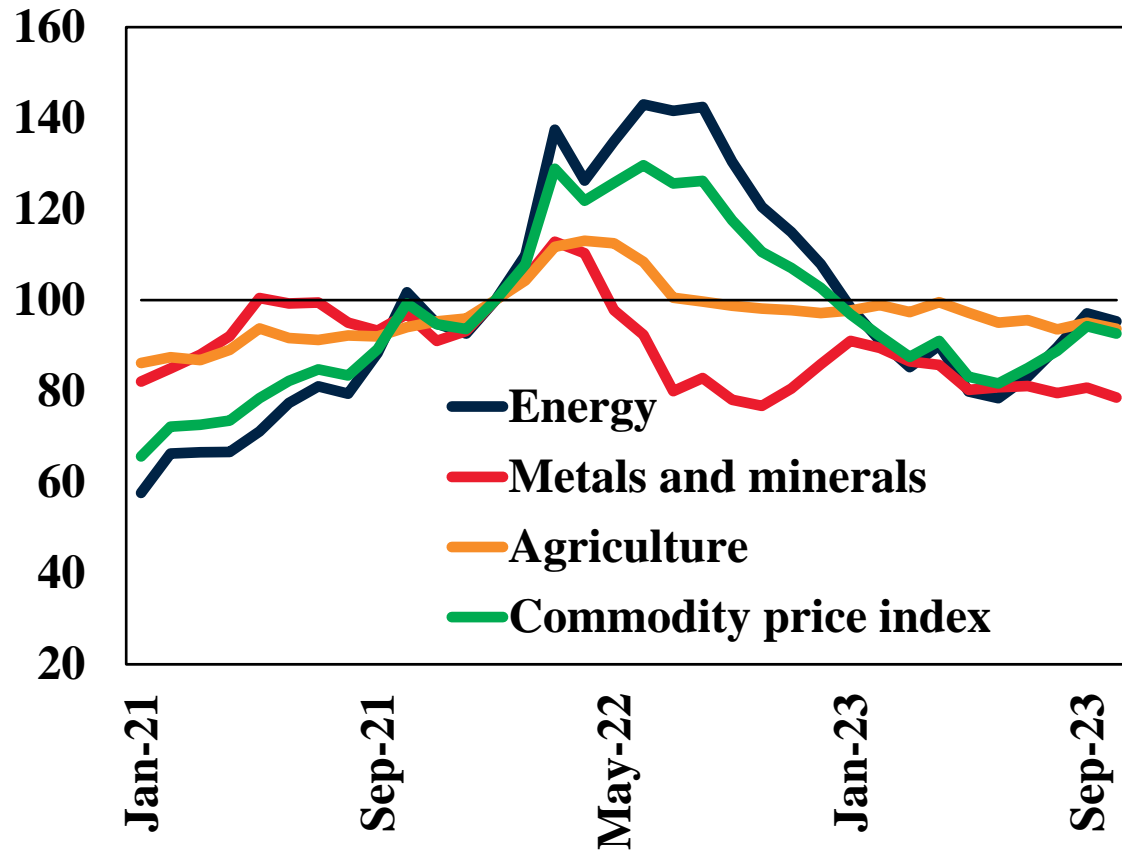
➤ **RISKS:**

- **Energy:** Escalation of Middle East conflict (oil + gas), slowdown of economic activity (all), continuation of OPEC+ cuts (oil), trade issues (gas) and weather-induced demand surges (natural gas + coal).
- **Agriculture:** impact of higher-than-expected *energy prices* on food prices and food insecurity. *El Niño* could worsen the outlook for edible oils and tropical commodities. **Trade restrictions** and exports from the **Black Sea** are receding risks.
- **Metals:** Slower-than-expected demand from China associated with its property sector.

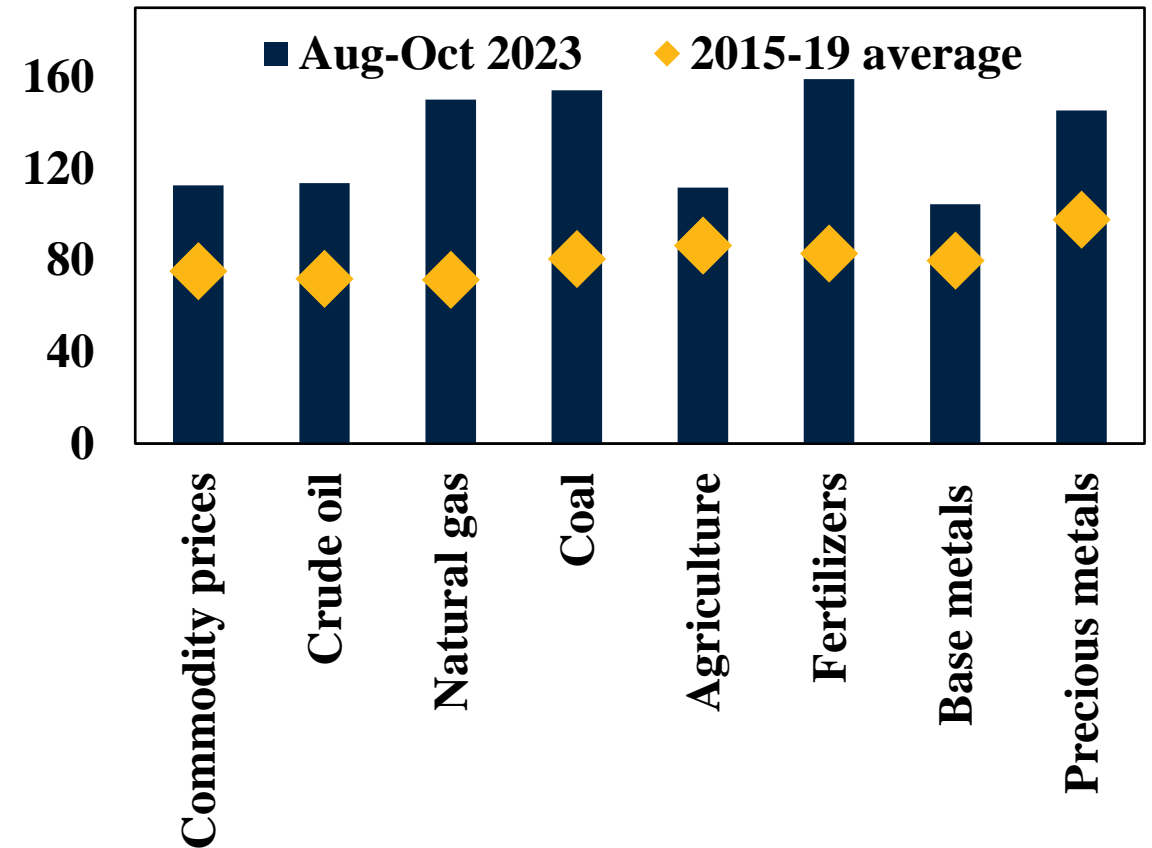
Commodity prices are falling, but still historically high

45 percent above pre-COVID levels (25 percent in inflation-adjusted terms)

Commodity prices
(index, January 2022=100)



Commodity price levels
(index, 2010=100)



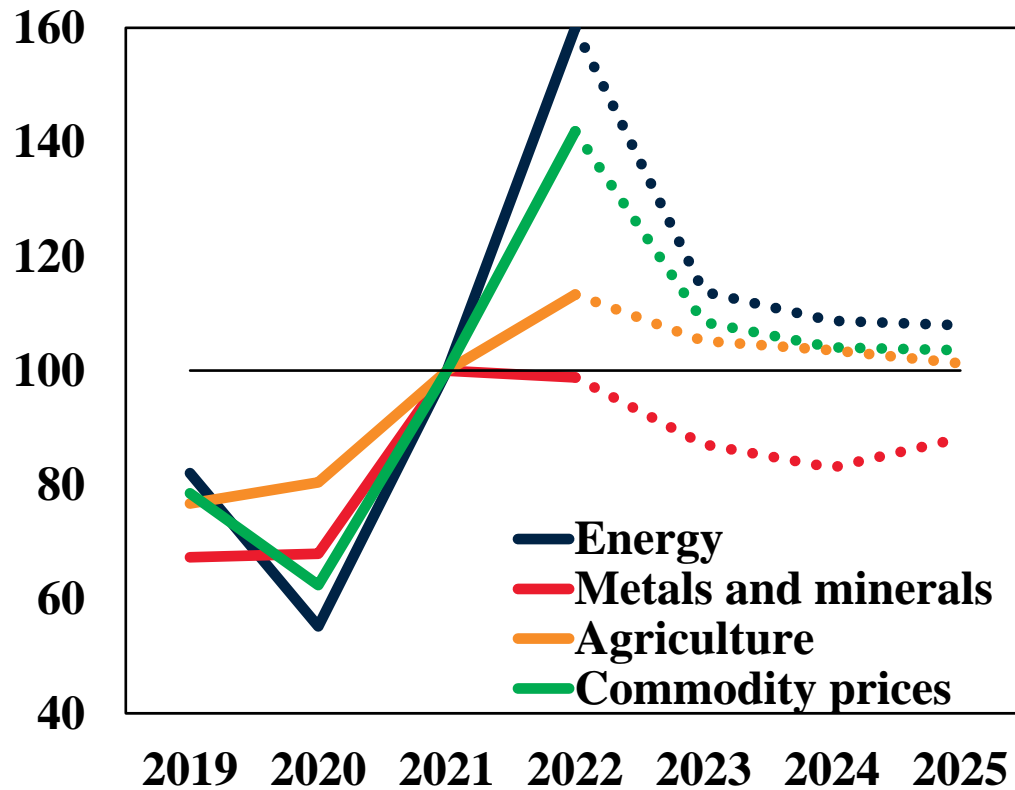
Sources: World Bank.

Left Panel. Monthly data, last observation is October 2023. Right Panel. Crude oil refers to Brent benchmark. Natural gas refers to EU natural gas benchmark. Coal refers to the Australian benchmark.

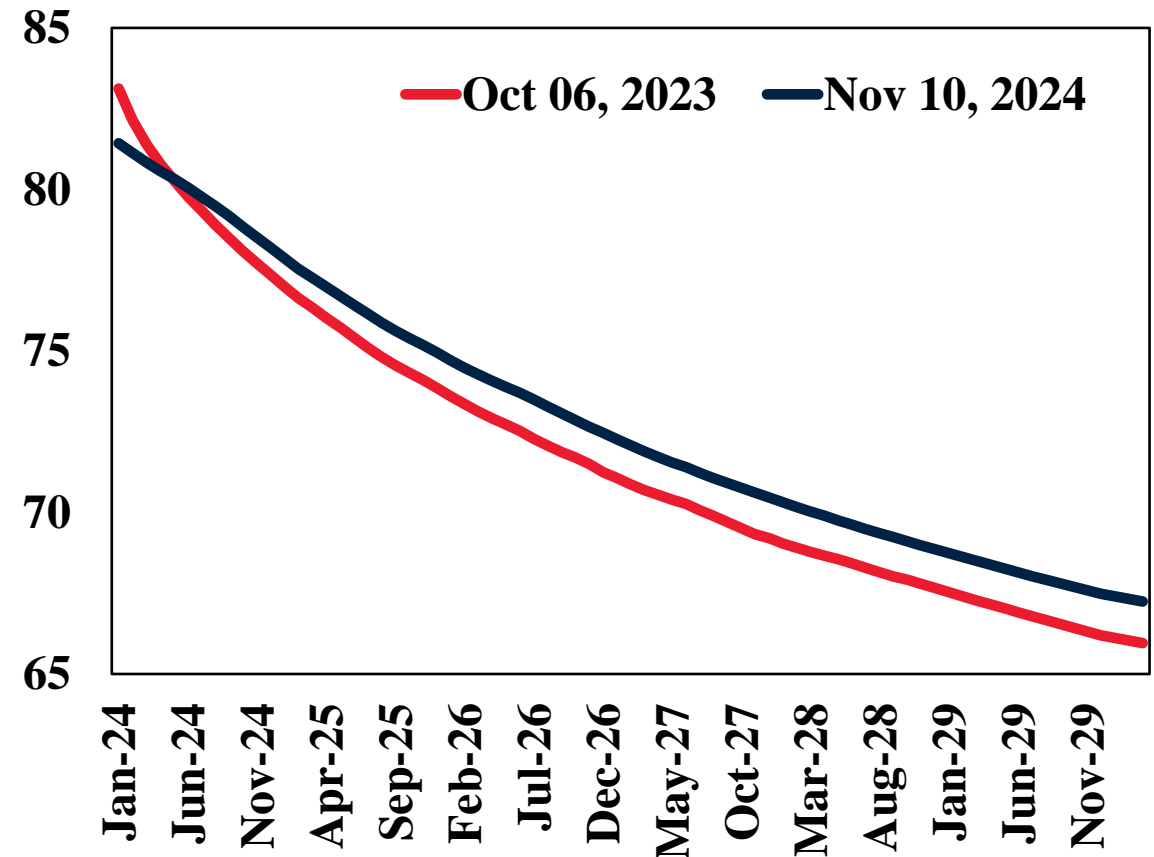
Commodity prices will continue falling in 2024 and 2025

Slower global growth amid ample supplies; metals could see increased demand in 2025

Commodity price forecasts
(Index, 100 = 2021)



Brent future prices
(US/bbl)



Sources: Bloomberg; World Bank.

Left Panel. Commodity price forecasts as based on Commodity Markets Outlook Report, October 2023 edition. Right Panel. Brent futures prices on the day before (October 6, 2023) the conflict and the latest observation (November 10, 2023).

Energy

1

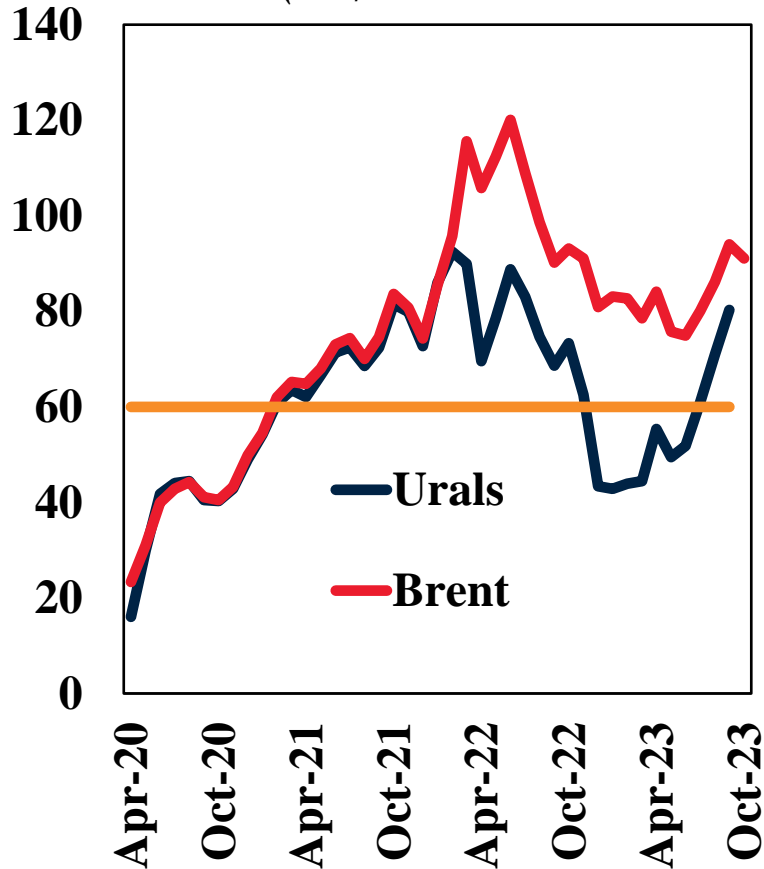
What is the outlook for energy prices and the risks to the outlook?

Energy prices

Steady decline from 2022 peaks despite recent rebound amid higher uncertainty

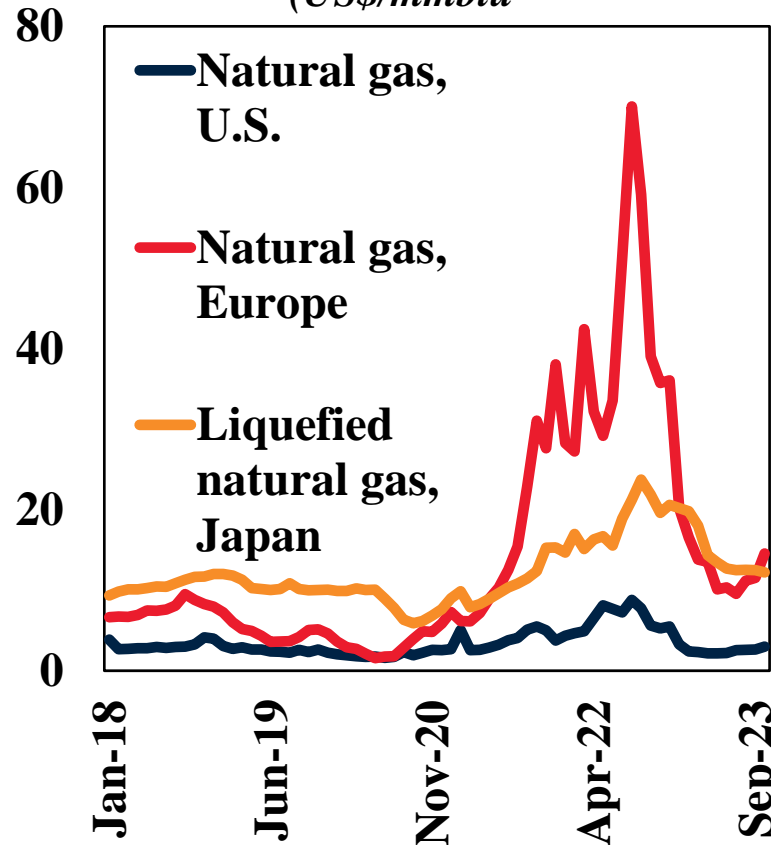
Brent vs. Urals prices

(US\$/mmbtu)



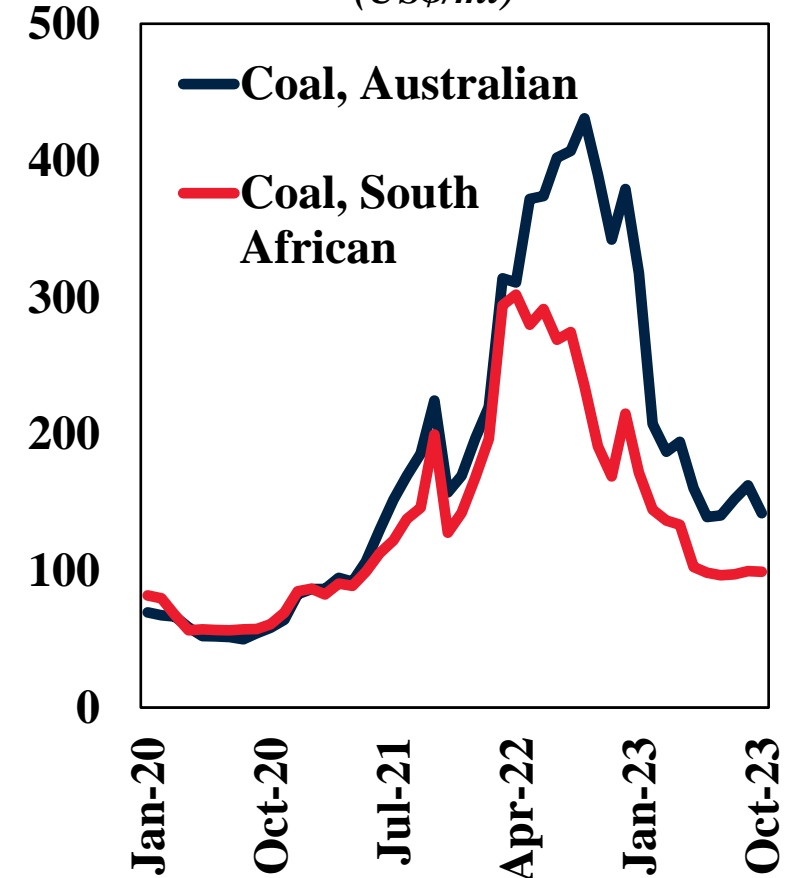
Natural gas prices

(US\$/mmbtu)



Coal prices

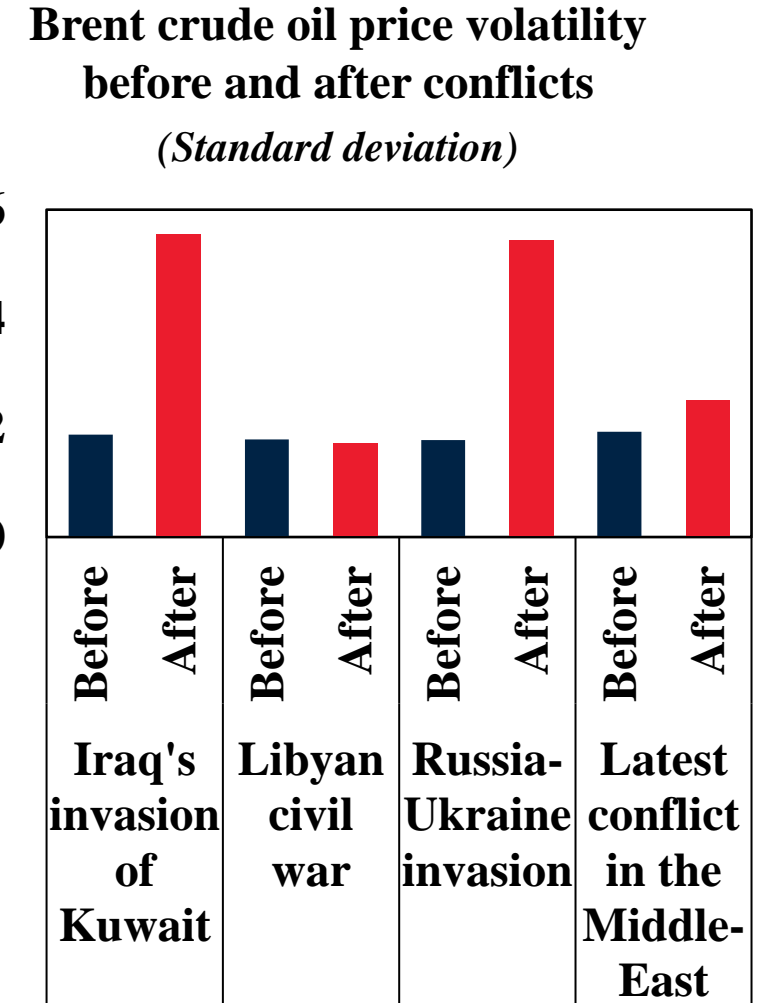
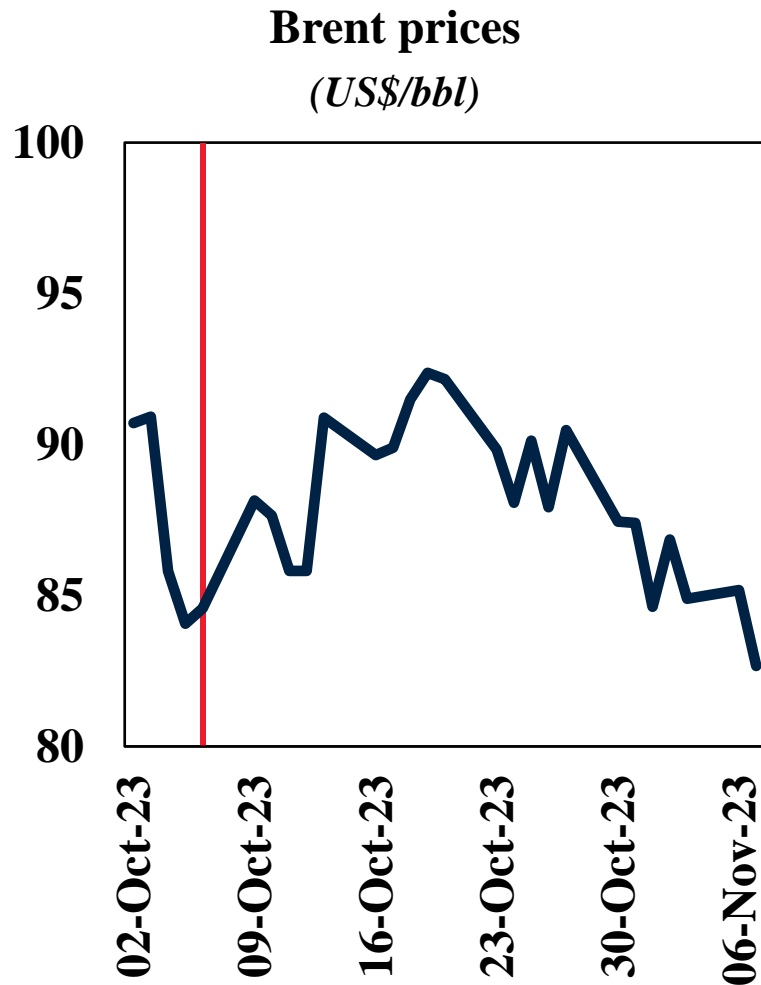
(US\$/mt)



Sources: Bloomberg; Energy Information Administration; World Bank.
Note: Monthly data, last observation is October 2023.

Short term energy prices

The conflict in the Middle East has so far had a limited impact on energy prices



Sources: Bloomberg; World Bank.

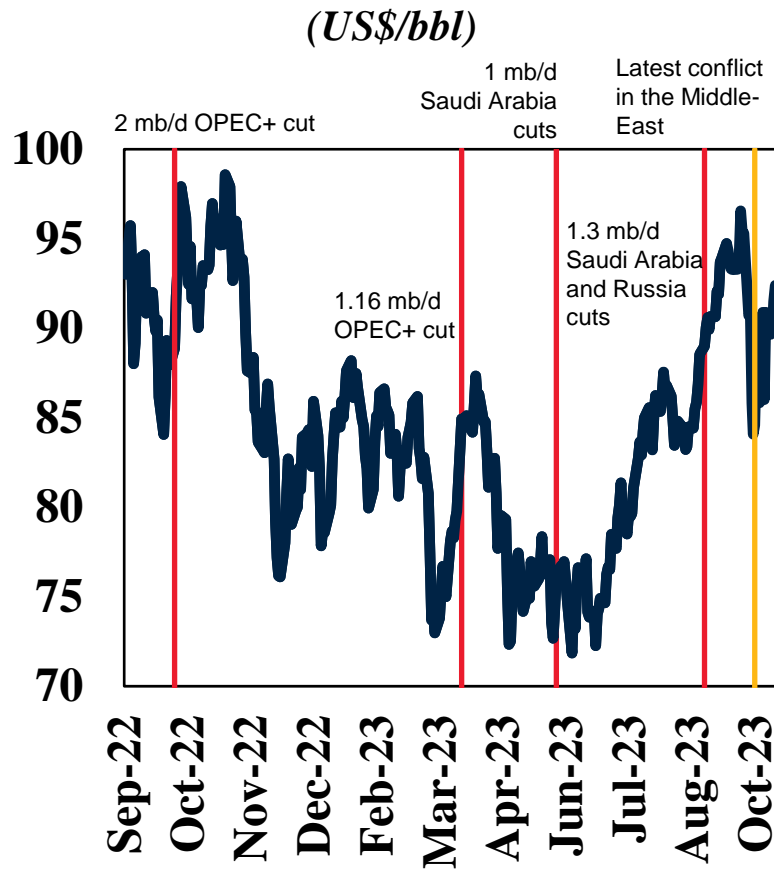
Left and Center Panel. Daily data, last observation is November 7, 2023. Red line indicates the day before the start of the conflict in the Middle East (October 6, 2023).

Right Panel. 30-day volatility in Brent crude oil prices, before and after geopolitical events. For Hamas conflict, the period 'after' consists of data from October 9 to November 7, 2023 (30 days).

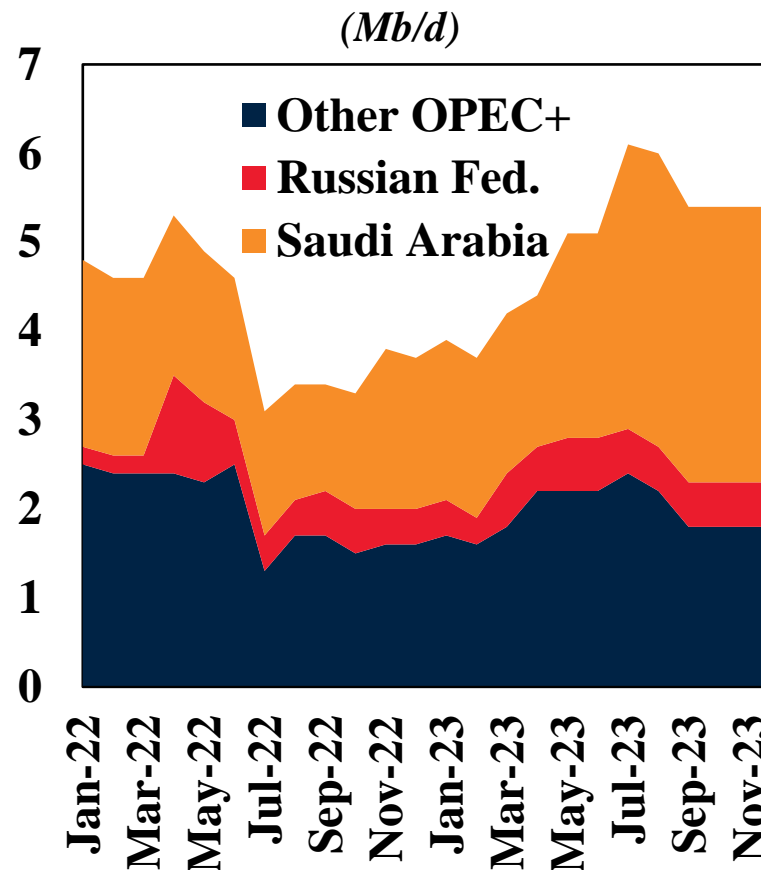
Oil production

Shrinking supply amid stable flows from Russia and increasing U.S. production

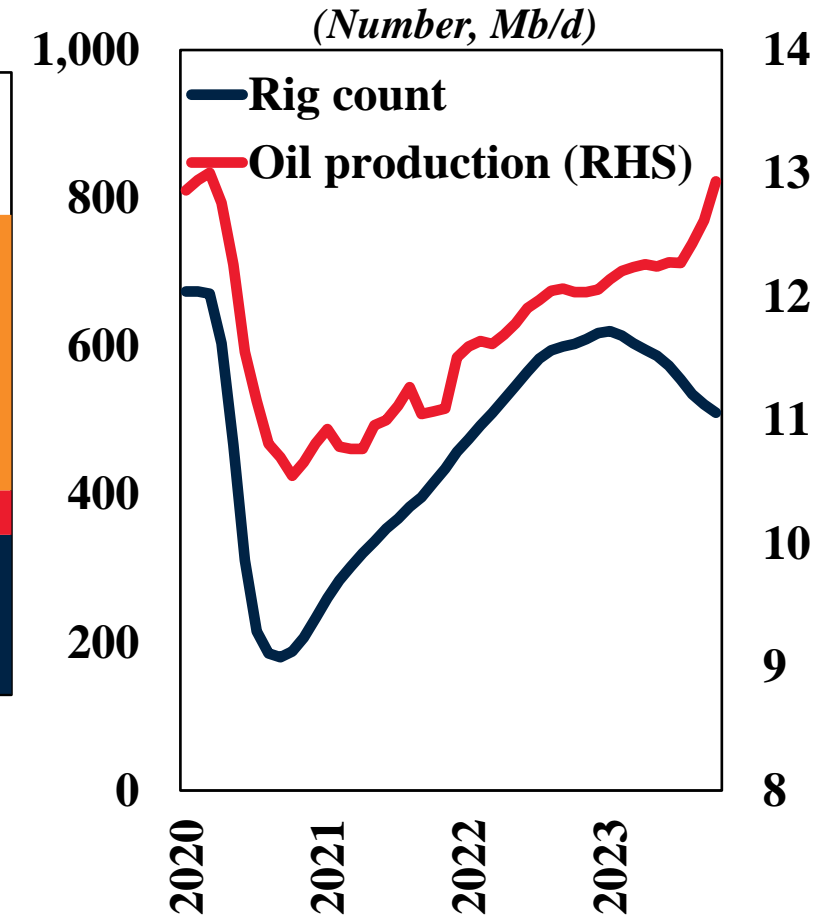
Oil price and important events



OPEC+ spare capacity



U.S. rig count and production



Sources: Baker Hughes; International Energy Agency; U.S. Energy Information Administration; World Bank.

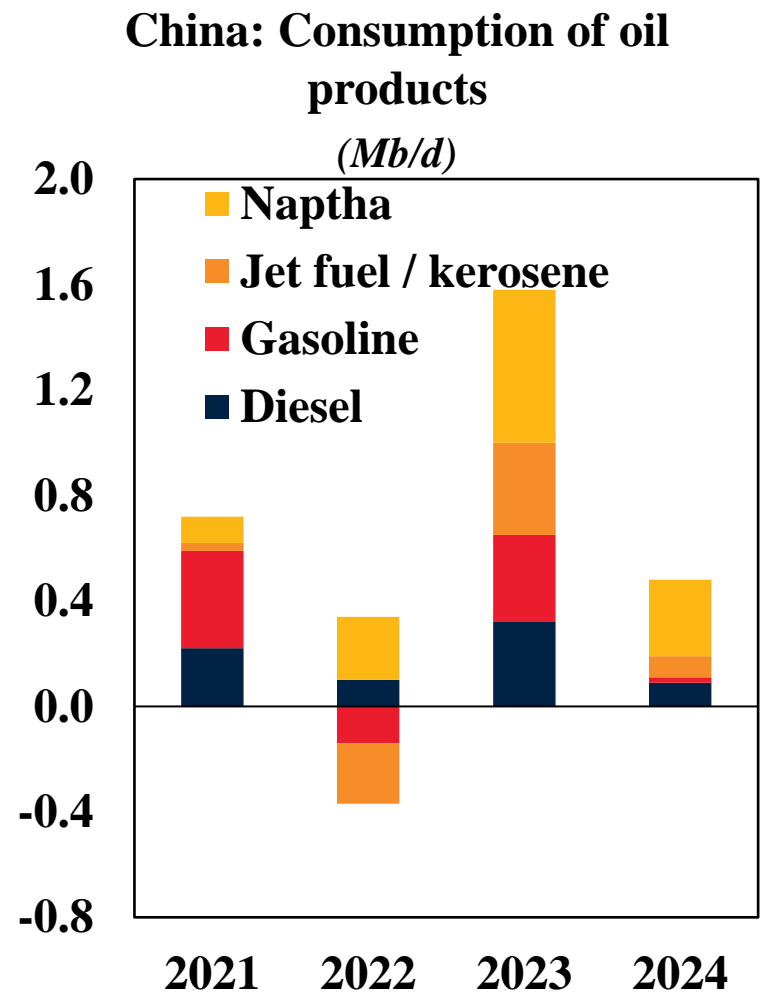
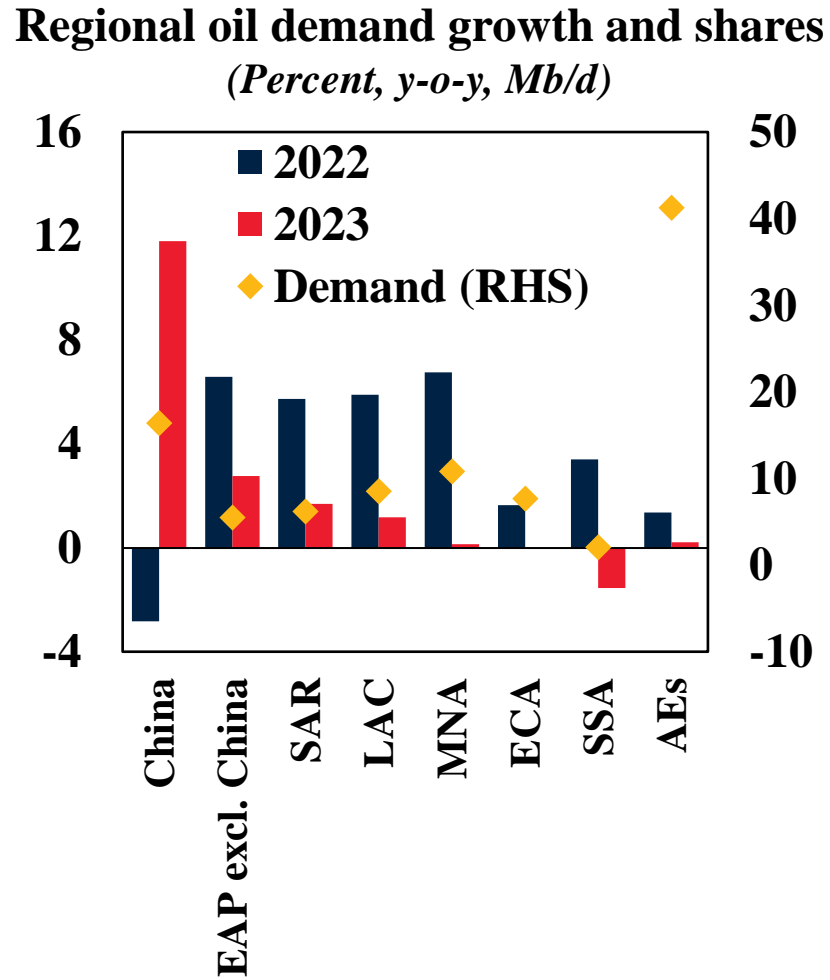
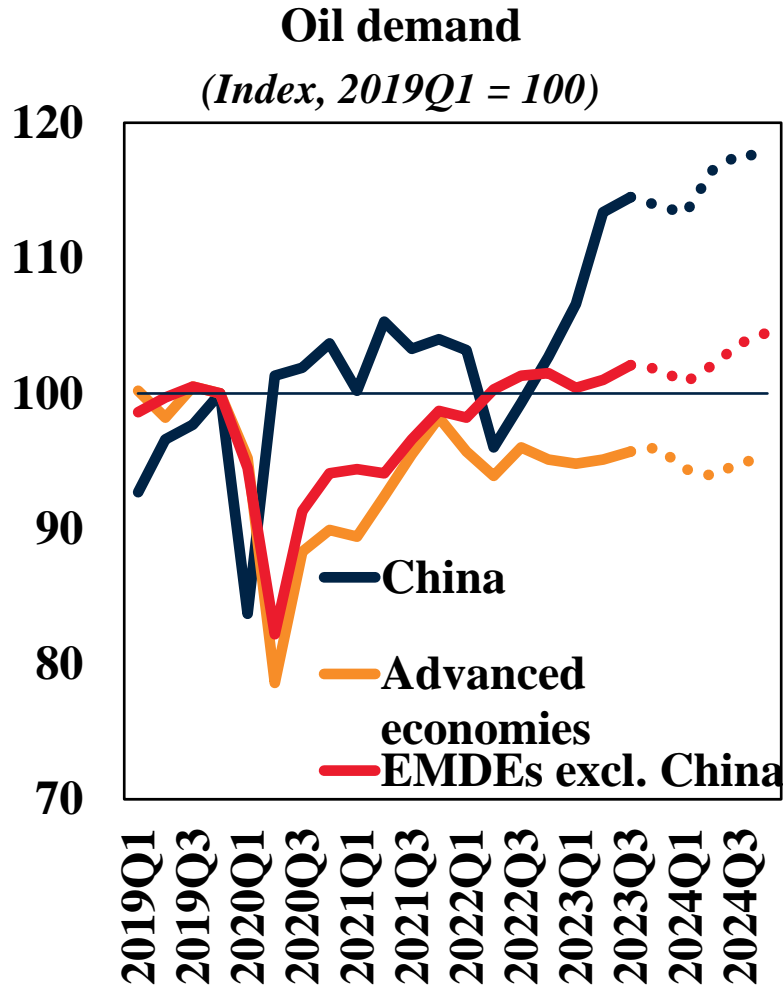
Left Panel: Daily Brent prices and important events. Red lines show two mb/d cuts by OPEC+, 1.16 mb/d cuts by OPEC+; 1 mb/d cut (Saudi Arabia) and extension of previous cuts to the end of 2024, and 1.3 mb/d cut extension (Saudi Arabia and Russia). The yellow line shows the start of the conflict. The last observation is November 7, 2023. Center Panel.

Spare capacity for OPEC+ members as reported in IEA's Oil Market Monthly reports until September 2023, extended to December 2023 assuming no change in supply. Other OPEC+ includes Algeria, Angola, Congo, Equatorial Guinea, Gabon, Iraq, Kuwait, Nigeria, and the United Arab Emirates. Azerbaijan, Kazakhstan, Mexico, Oman, and others.

Right Panel. 3-month rolling average of rig count and oil production. The last observation is October 13, 2023, for rig count and October 06, 2023, for oil production.

Resilient oil demand

Broad recovery of demand from China and faster than expected growth of the U.S.



Sources: International Energy Agency; World Bank.

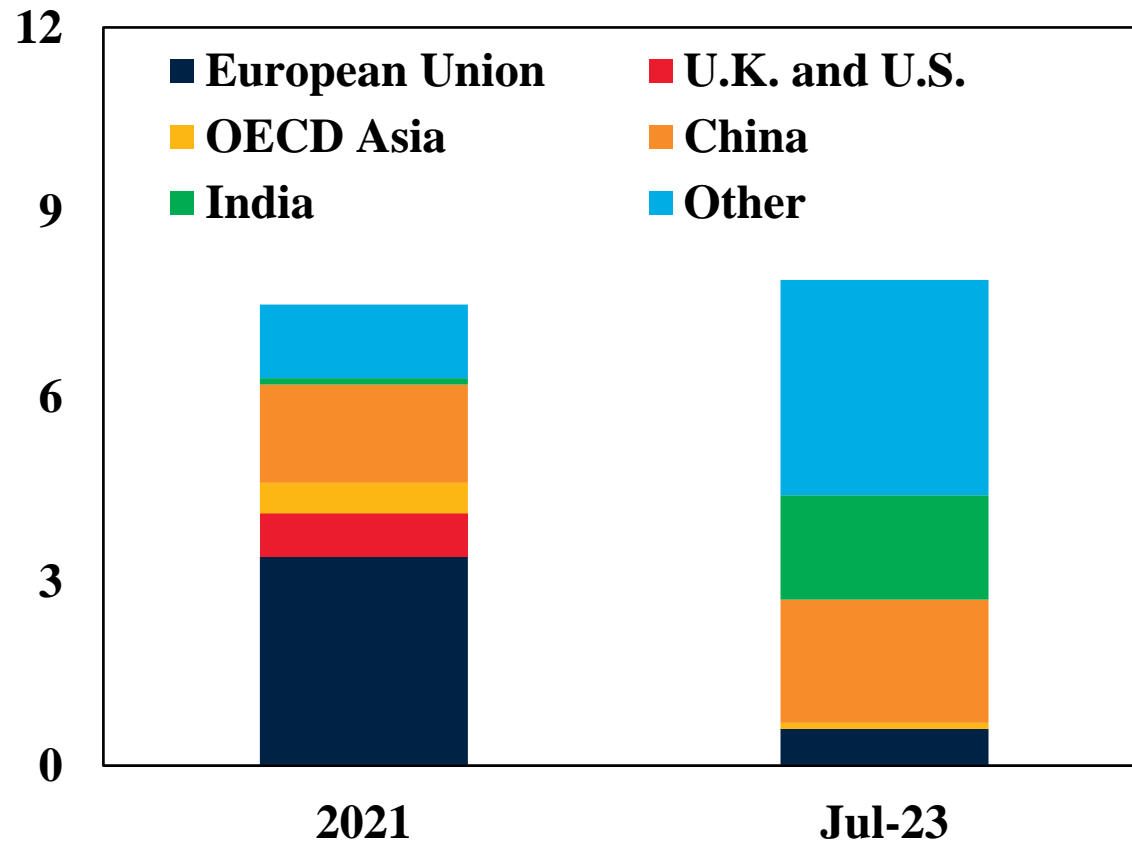
Left Panel. Annual and quarterly data for 2023 are IEA forecasts. Center Panel. AEs = advanced economies; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia. Bars show the percent year-on-year change of oil demand. Orange diamond shows demand for oil per region, in million barrel per day (mb/d). Right Panel. Data for 2023 and 2024 indicate IEA forecasts.

Oil trade redirection following Russia's invasion of Ukraine

Reconfiguration of trade network; increasing role of the 'dark fleet'

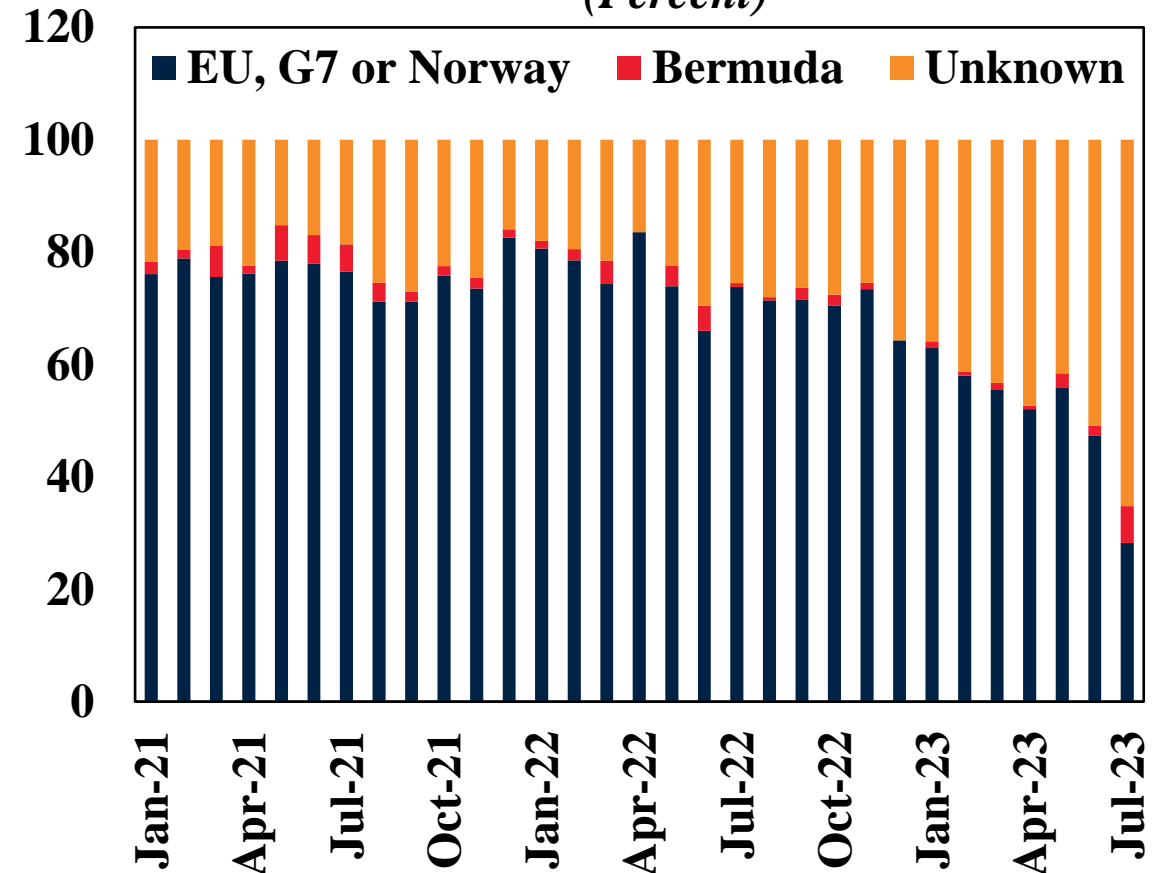
Oil exports from Russia, by destination

(Mb/d)



Tanker ownership carrying Russian crude oil

(Percent)



Sources: Eurostat; Bruegel (database); World Bank. .

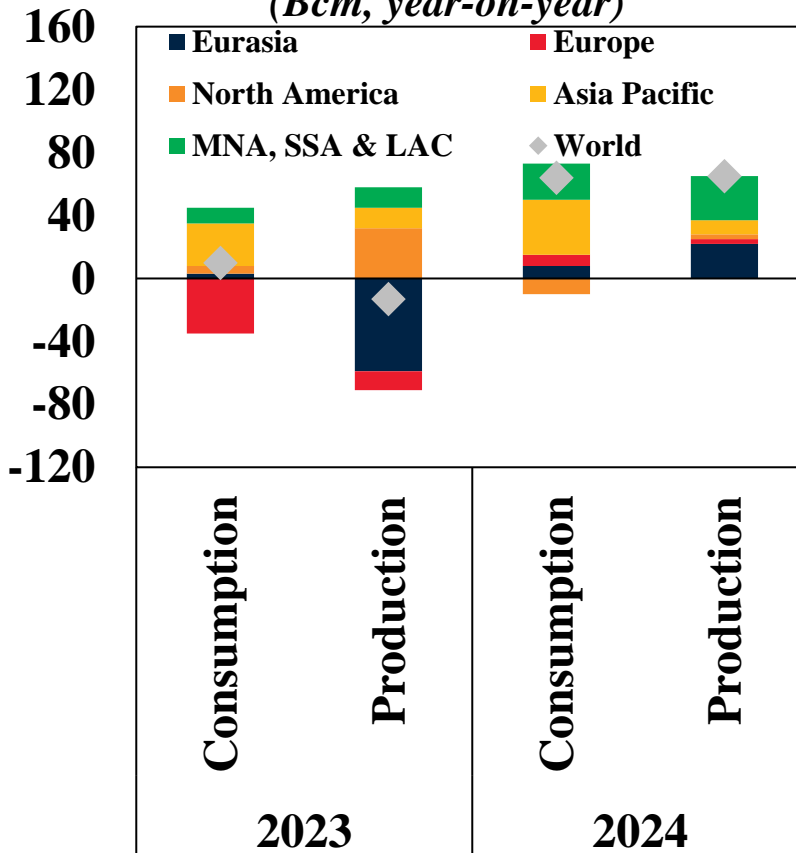
Left Panel: Monthly series. Area represents share in Russia's total export of mineral fuels. Last observation is January 2023. Right Panel: Country of origin of tanker ownership carrying Russian crude oil by departure month. Last observation is July 2023.

Natural gas consumption and storage

Stable global consumption amid decreasing EU demand and record storage levels

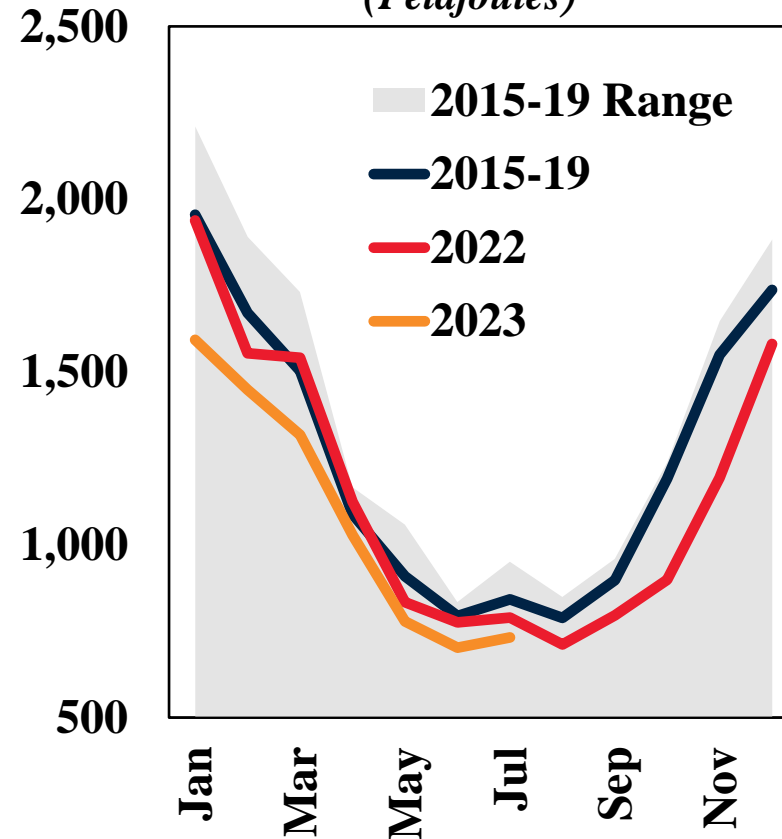
World consumption and production of natural gas

(Bcm, year-on-year)



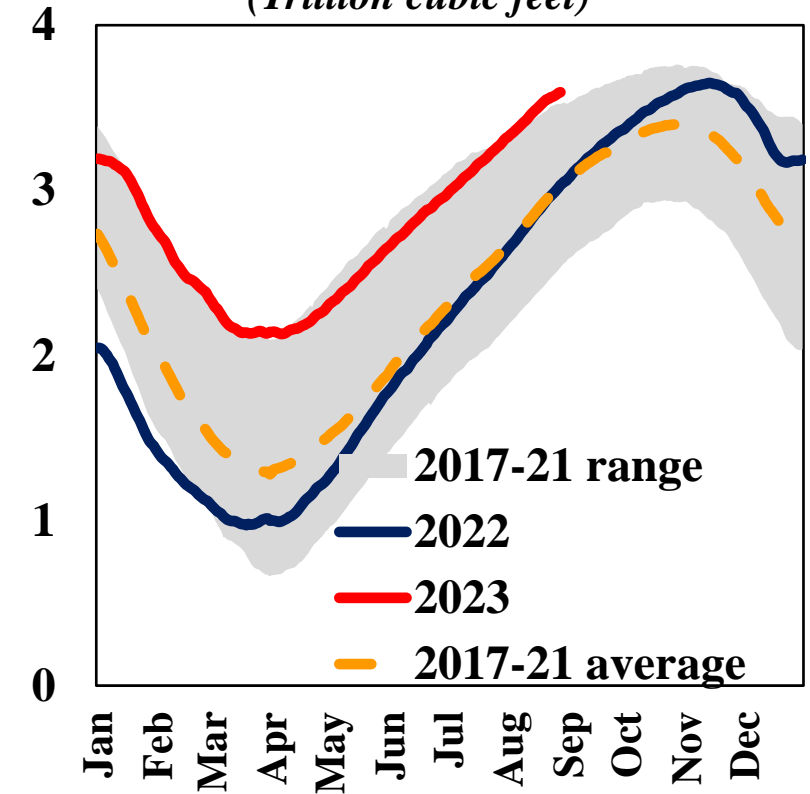
European natural gas consumption

(Petajoules)



European natural gas inventories

(Trillion cubic feet)



Sources: Eurostat; Gas Infrastructure Europe (AGSI+); International Energy Agency; World Bank.

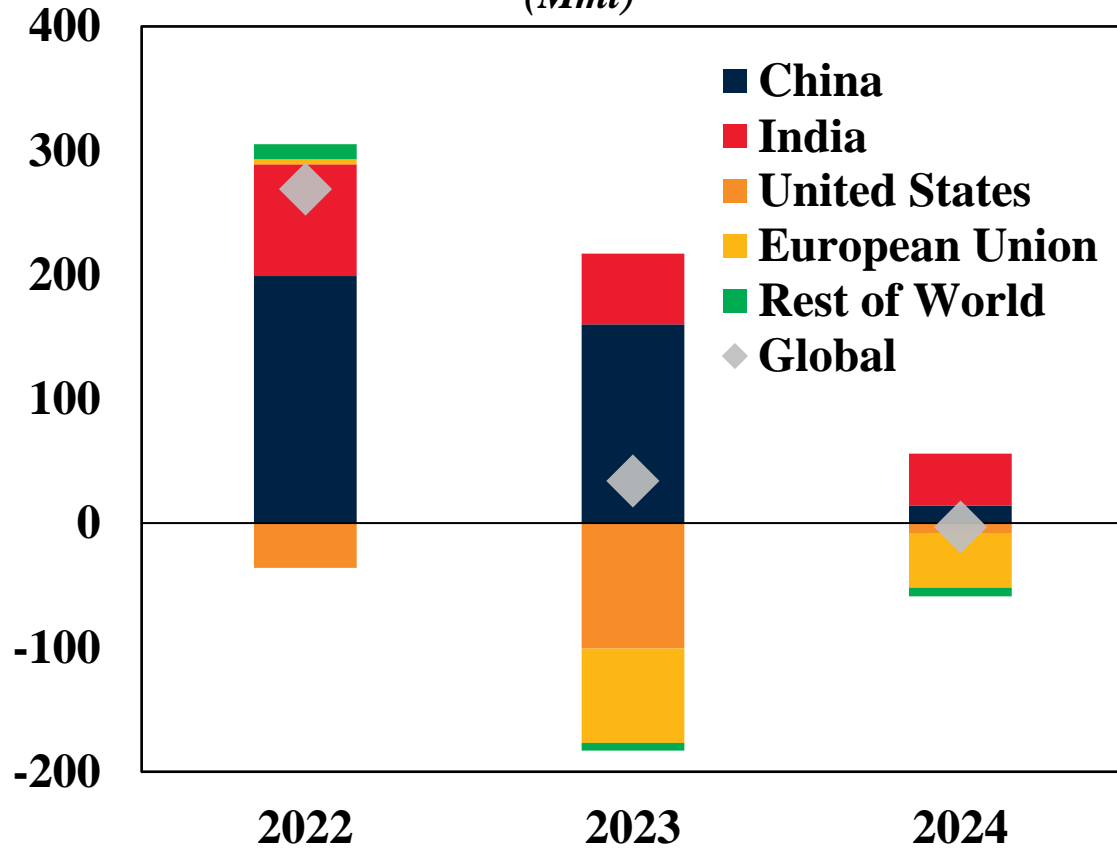
Left Panel: Right Panel: MNA = Middle East and North Africa, SSA = Sub Saharan Africa, LAC = Latin America and the Caribbean. The graph shows the change in levels for production and consumption by regions. Middle Panel. Monthly data. Last observation is August 2023. Right Panel. Includes 20 European Union countries and the United Kingdom. Last observation is October 14, 2023.

Coal consumption and production

Plateauing demand amid a well-supplied market

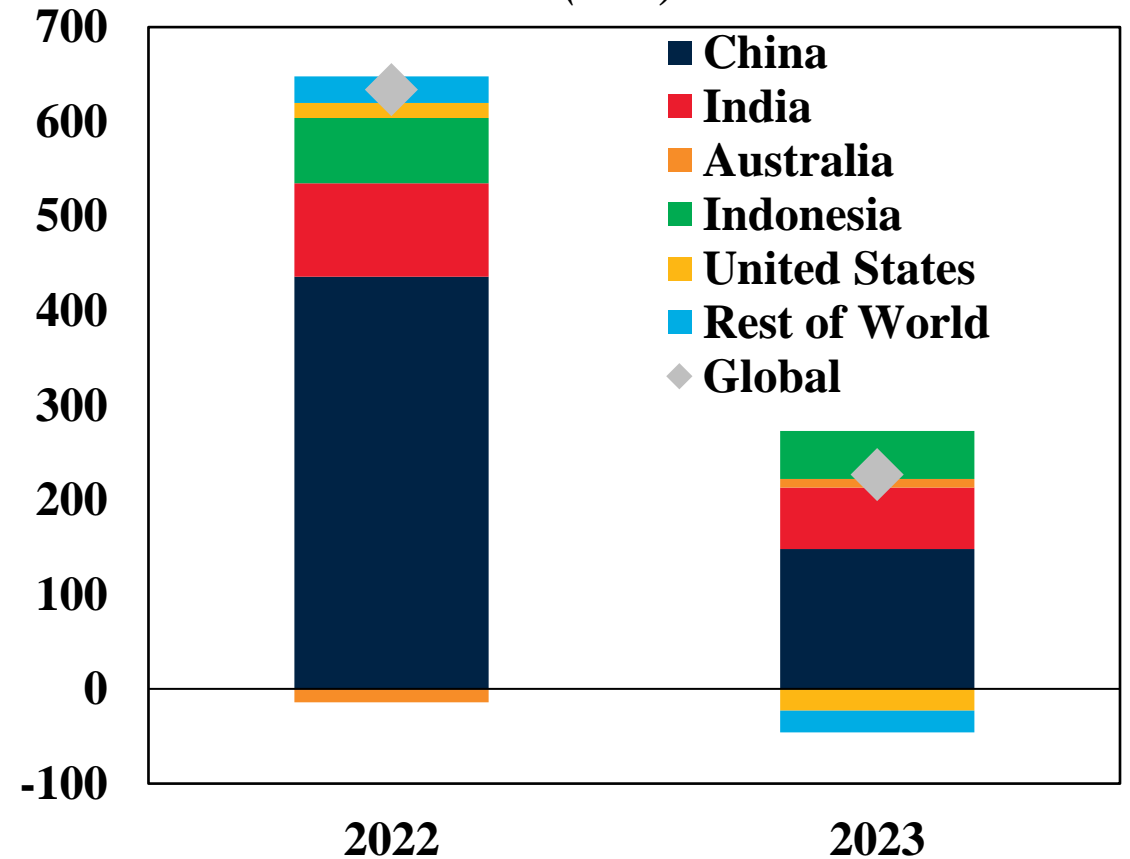
Coal demand growth

(Mmt)



Coal production

(Mmt)



Sources: International Energy Agency; World Bank.

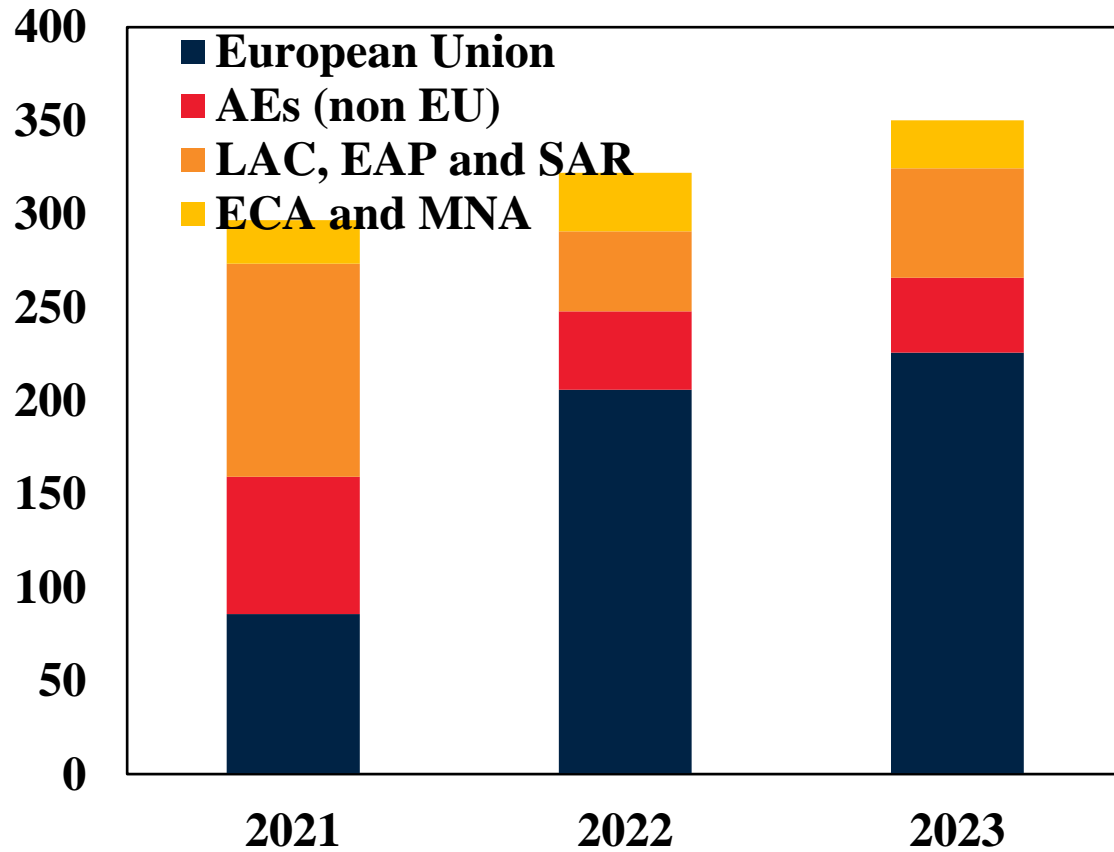
Note. Annual data. Data for 2023 and 2024 are IEA forecasts.

Coal and natural gas trade

Reconfiguration of international trade becoming entrenched

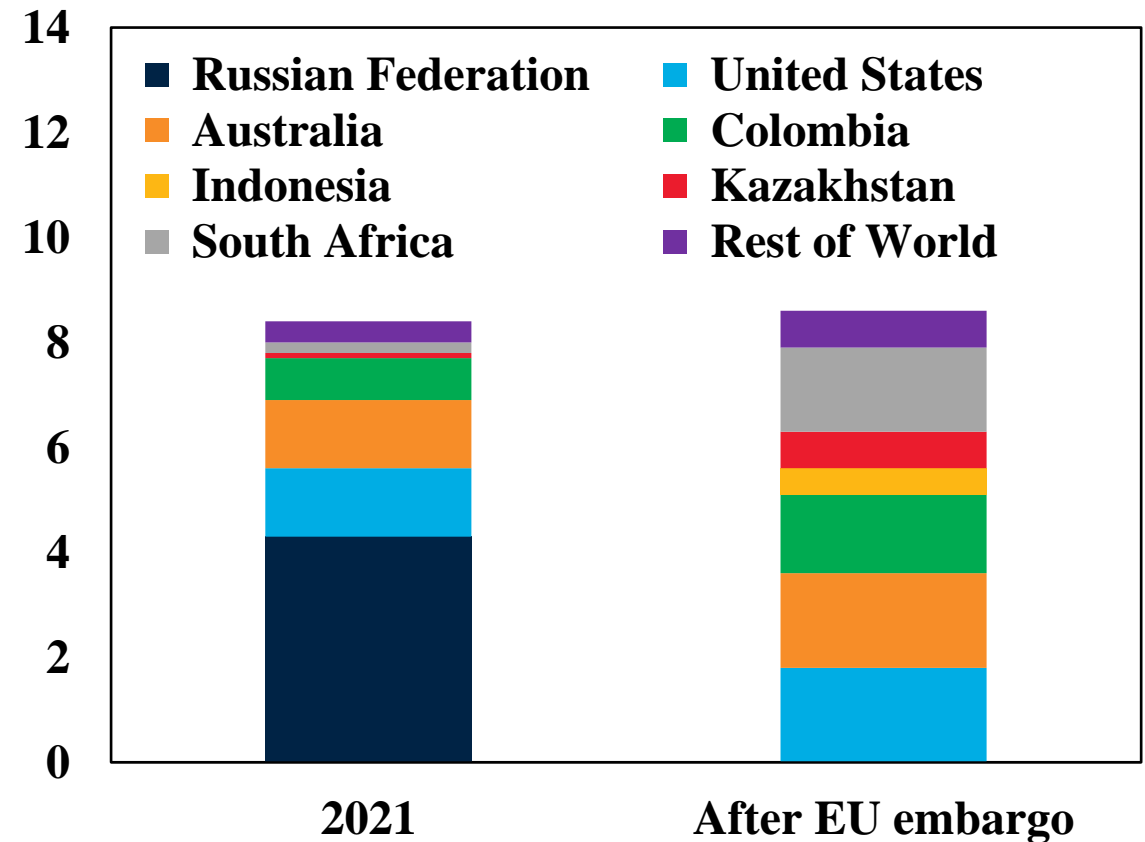
Destination of U.S. LNG exports

(Billion cubic feet)



Coal imports to Europe

(percent)



Sources: Eurostat; U.S. Energy Information Administration; World Bank.

Left Panel: AEs = advanced economies; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia. LNG = liquefied natural gas. Averages of monthly exports. Last observation is July 2023. Right Panel. Monthly averages. The 'After EU embargo period' covers observations between September 2022 and June 2023. Last observation is June 2023.

Risks faced by the oil price

In addition to geopolitics, price may be affected by reduced supply or waning economic growth

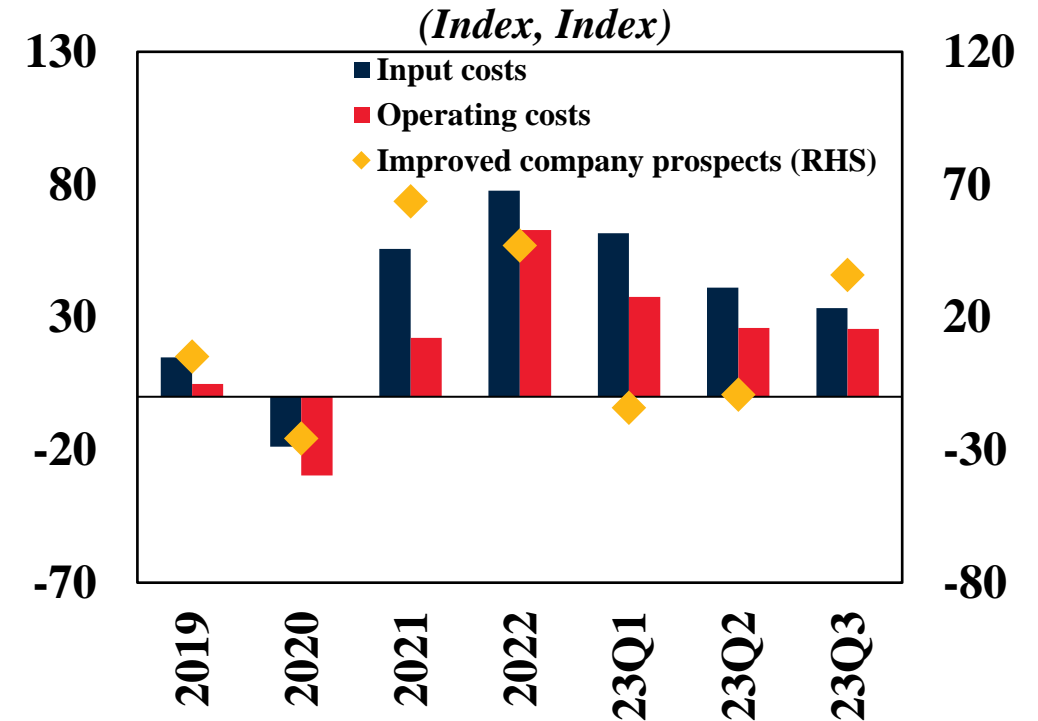
Upside risks

- Escalation of Middle East conflict (see separate section)
- Continuation of OPEC+ cuts
- Slowdown in supply from U.S. shale

Downside risks

- Slowdown in economic activity, especially in China

Costs and sentiment of United States oil companies



Sources: Dallas Fed.; World Bank.

Note. Based on the Dallas Fed quarterly survey of about 200 oil and gas firms located or headquartered in the Eleventh District—Texas, southern New Mexico, and northern Louisiana—which operate regionally, nationally or internationally. LHS index shows the difference between the percentage of firms reporting an increase in costs and those reporting a decrease in costs. RHS index shows the difference between the percentage of firms reporting an improvement in outlook and those reporting a deterioration..

Risks faced by natural gas and coal prices

Natural gas price potentially affected by a tight market while coal appears to be well-supplied

NATURAL GAS

Upside risks

- Escalation of the Middle East conflict
- Trade issues: unexpected maintenance, industrial actions, sabotages
- El Nino: increased summer demand in the United States and winter demand in Northern Europe

Downside risks

- Ineffective stimulus package in China and slowing global growth

COAL

Upside risks

- Weather disruptions of mining activities
- Heat waves and droughts increasing power demand

Downside risks

- Ineffective stimulus package in China and slowing global growth
- Excess supply in the market

Long-term: climate policies and increasing renewable energy

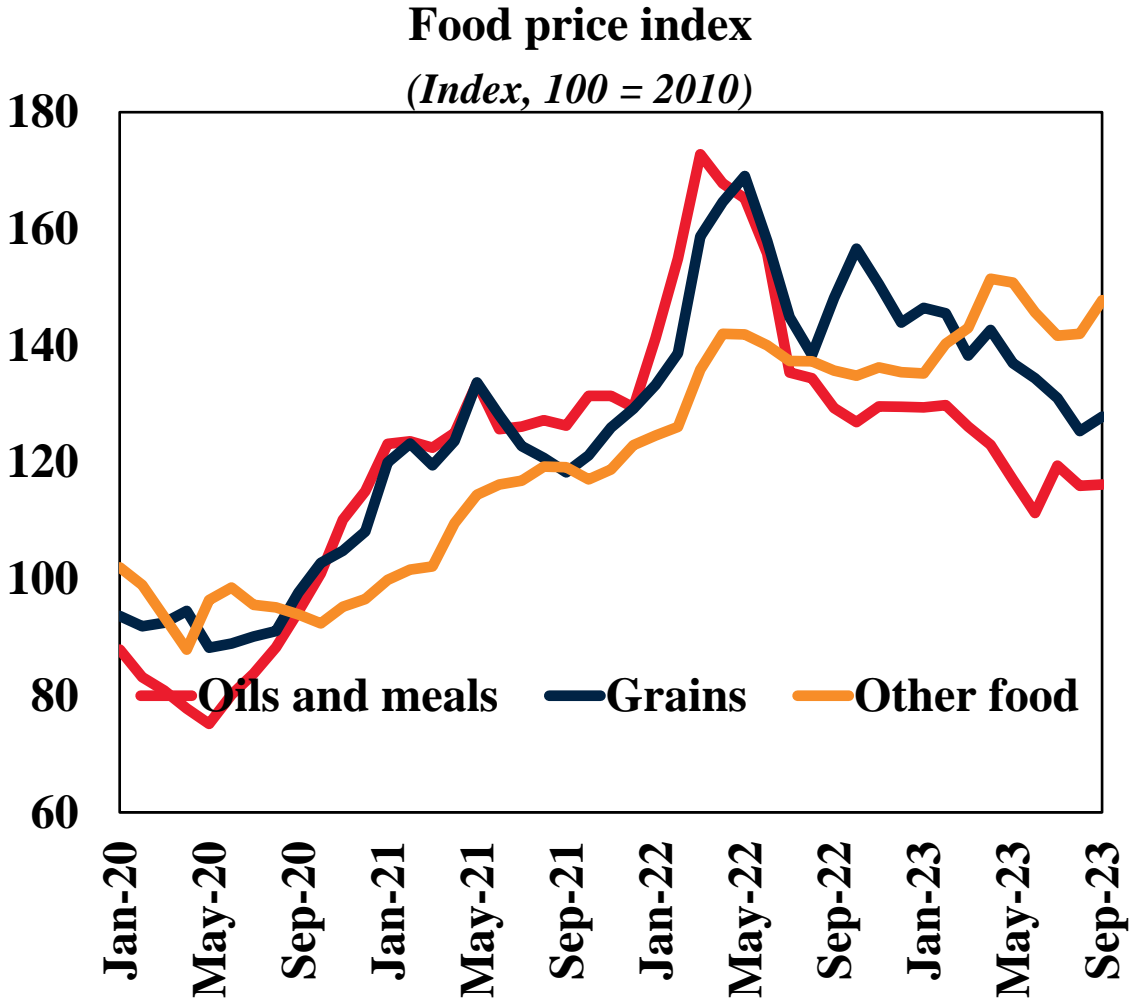
Agriculture

2

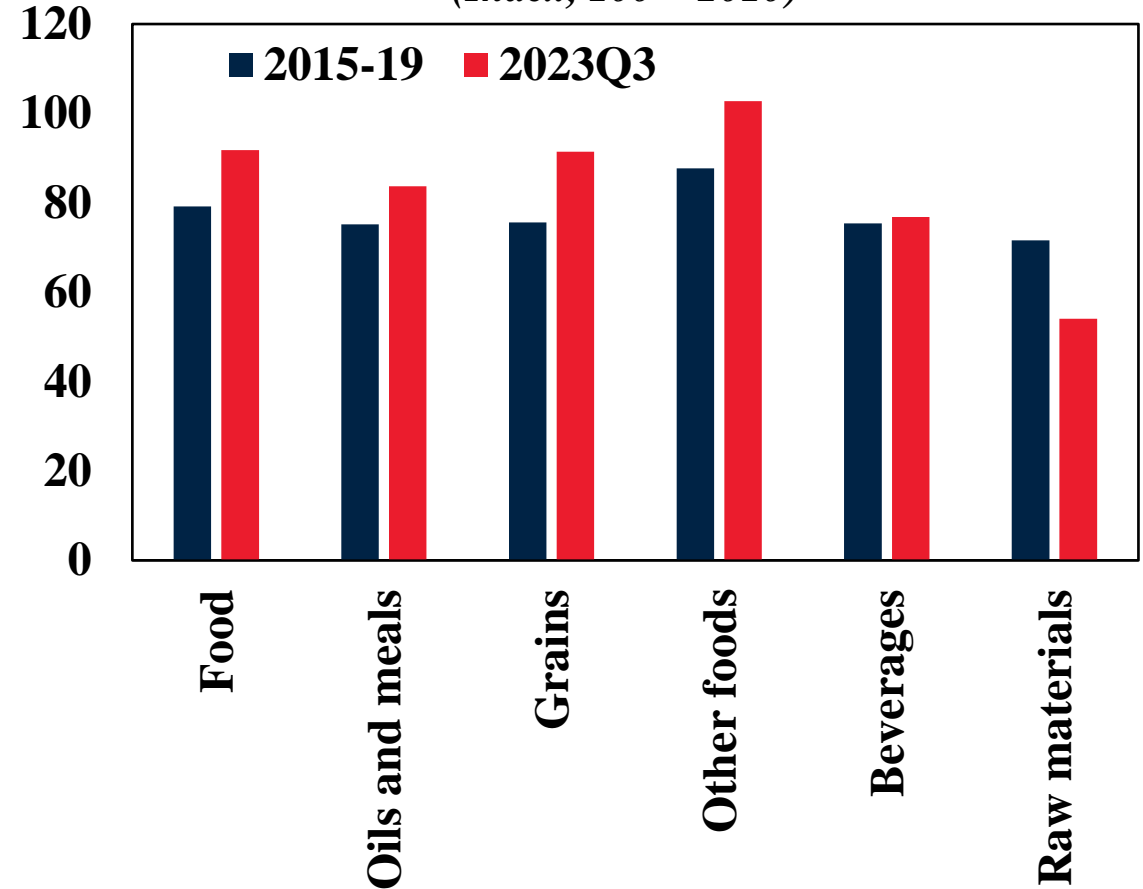
What is the outlook for agricultural and food prices, the risks to the outlook and recent trends in food insecurity?

Falling food prices overall

though agricultural prices are still at historically high levels in real terms



Inflation-adjusted agricultural price indexes
(Index, 100 = 2010)

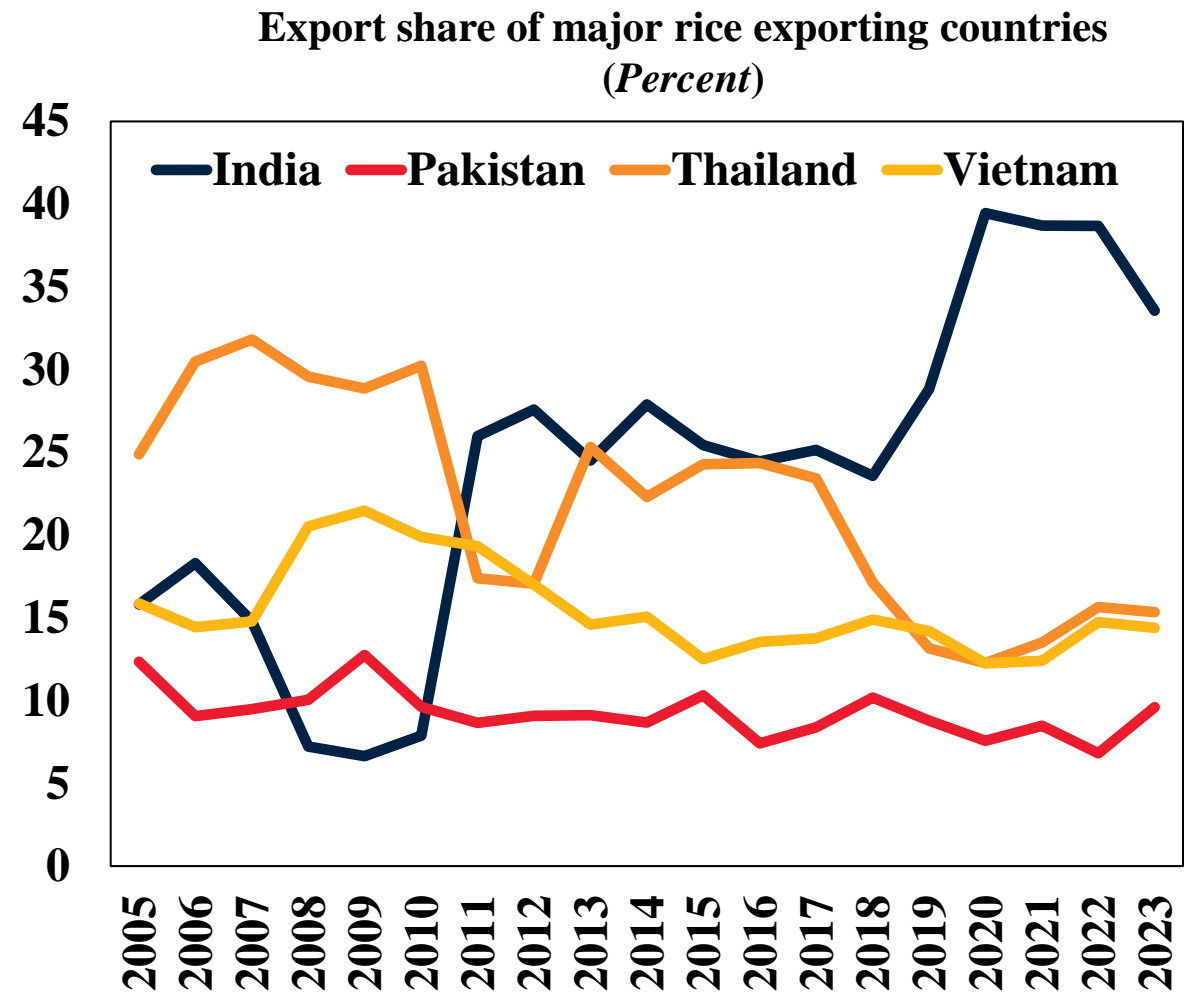
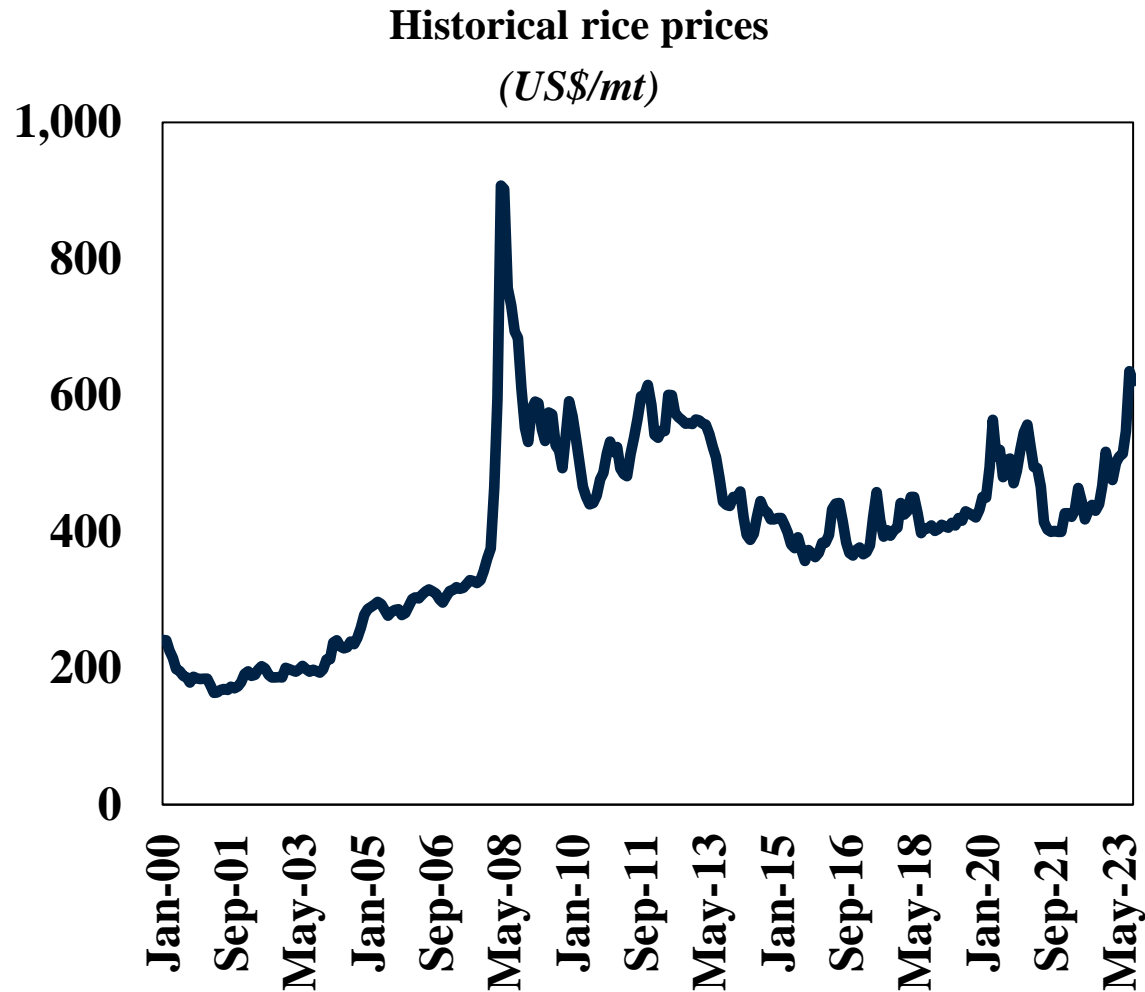


Source: World Bank.

Note: Monthly data. Last observation is September 2023.

El Niño and India's trade restrictions pushed rice prices up

Rice prices soared by 18 percent in 2023Q3 (q on q)

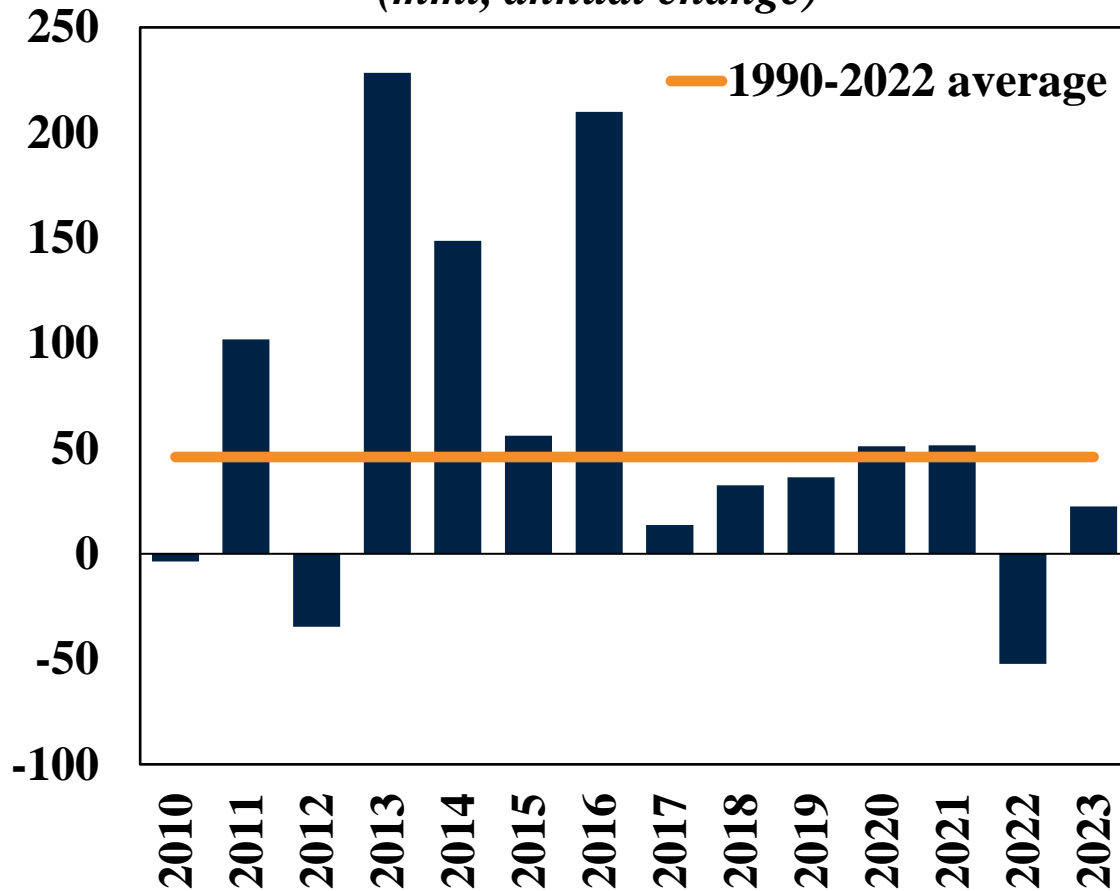


Sources: Bloomberg; S&P Global, U.S. Department of Agriculture; World Bank.
Note: Rice refers to Thai 5% benchmark. mt = metric tons.

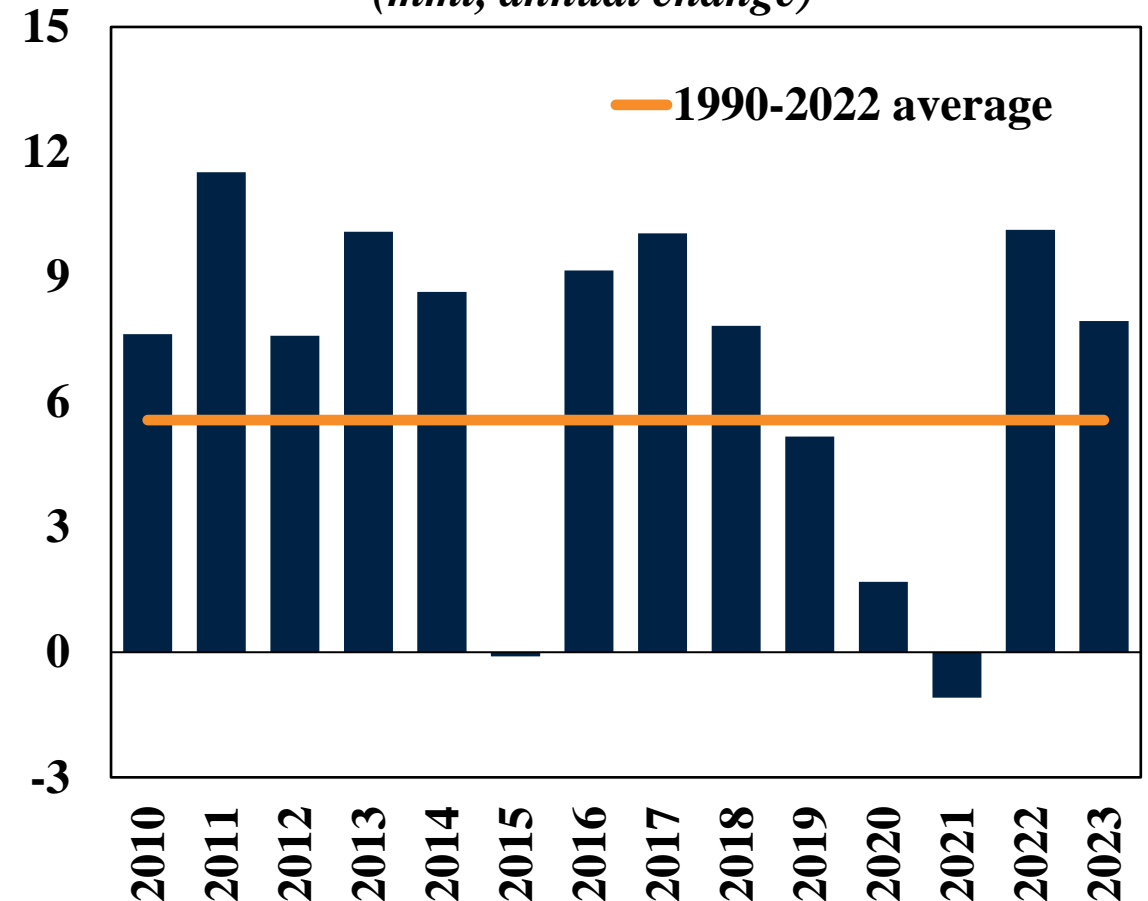
Improved supply outlook for grains and edible oil

Eased the pressure on markets from Russia's withdrawal from the Black Sea Grain Initiative

Grains Supply
(mmt, annual change)



Edible oils supply
(mmt, annual change)

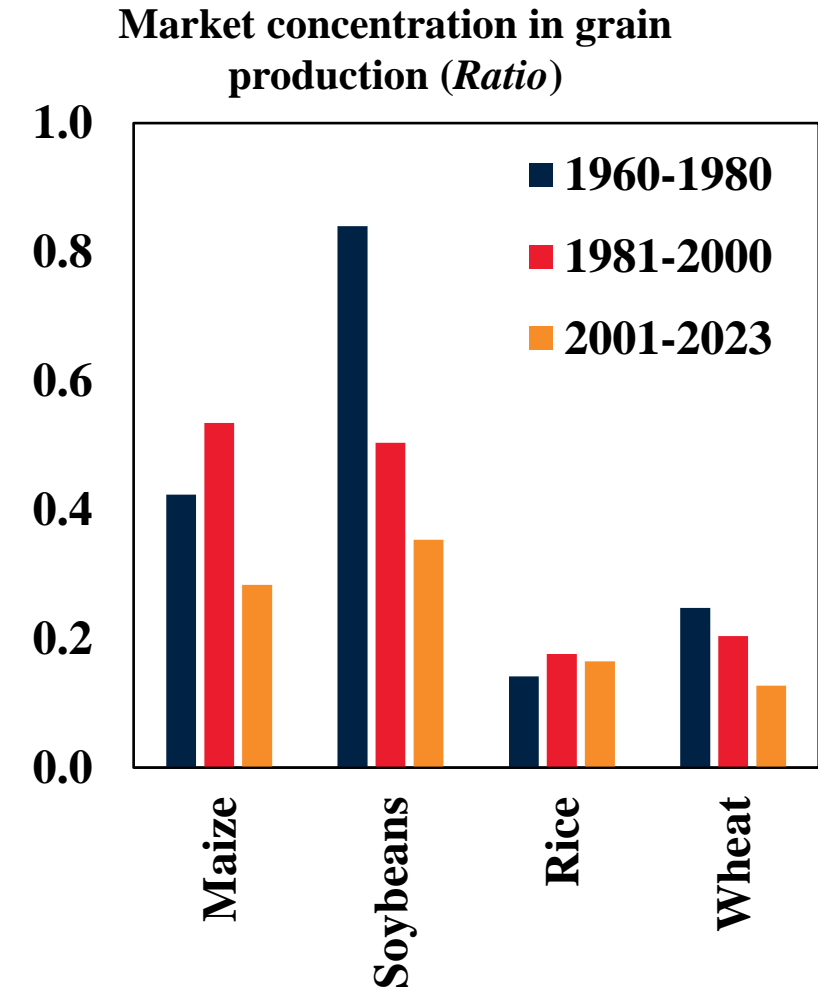
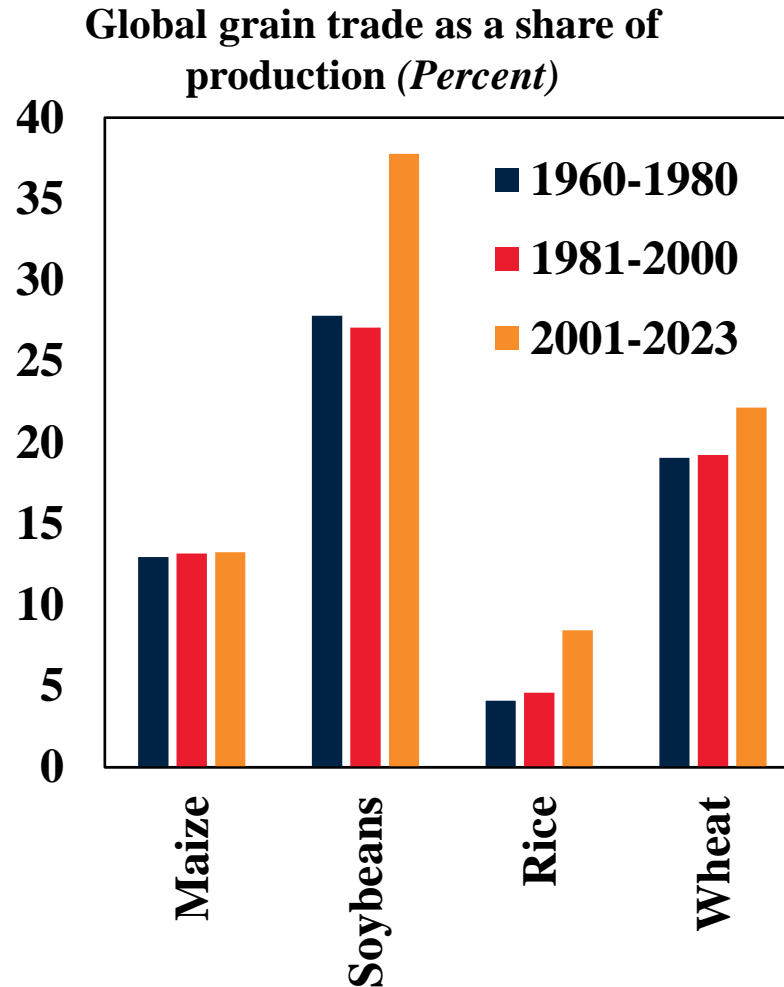
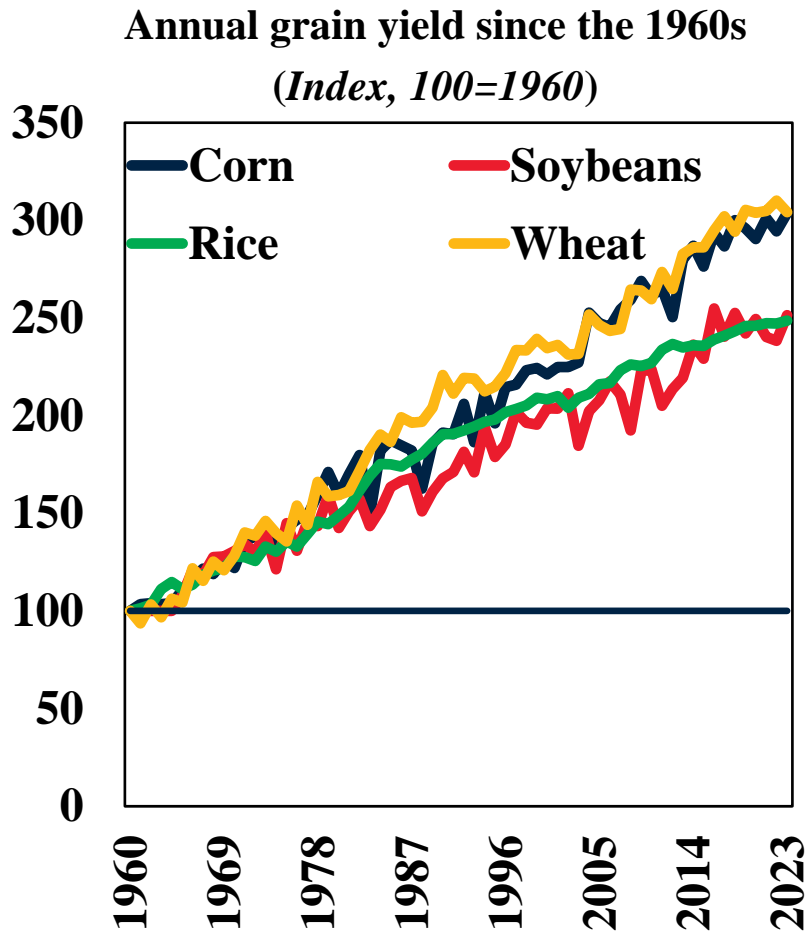


Sources: World Agricultural Supply and Demand Estimates; World Bank

Note: Years represent crop season (for example, 2019 refers to 2019-20). Supply is the sum of beginning stocks and production. Data updated in October 2023..

Favorable long-term trends in global grain markets

Yield and trade's share of production increasing; markets becoming less concentrated

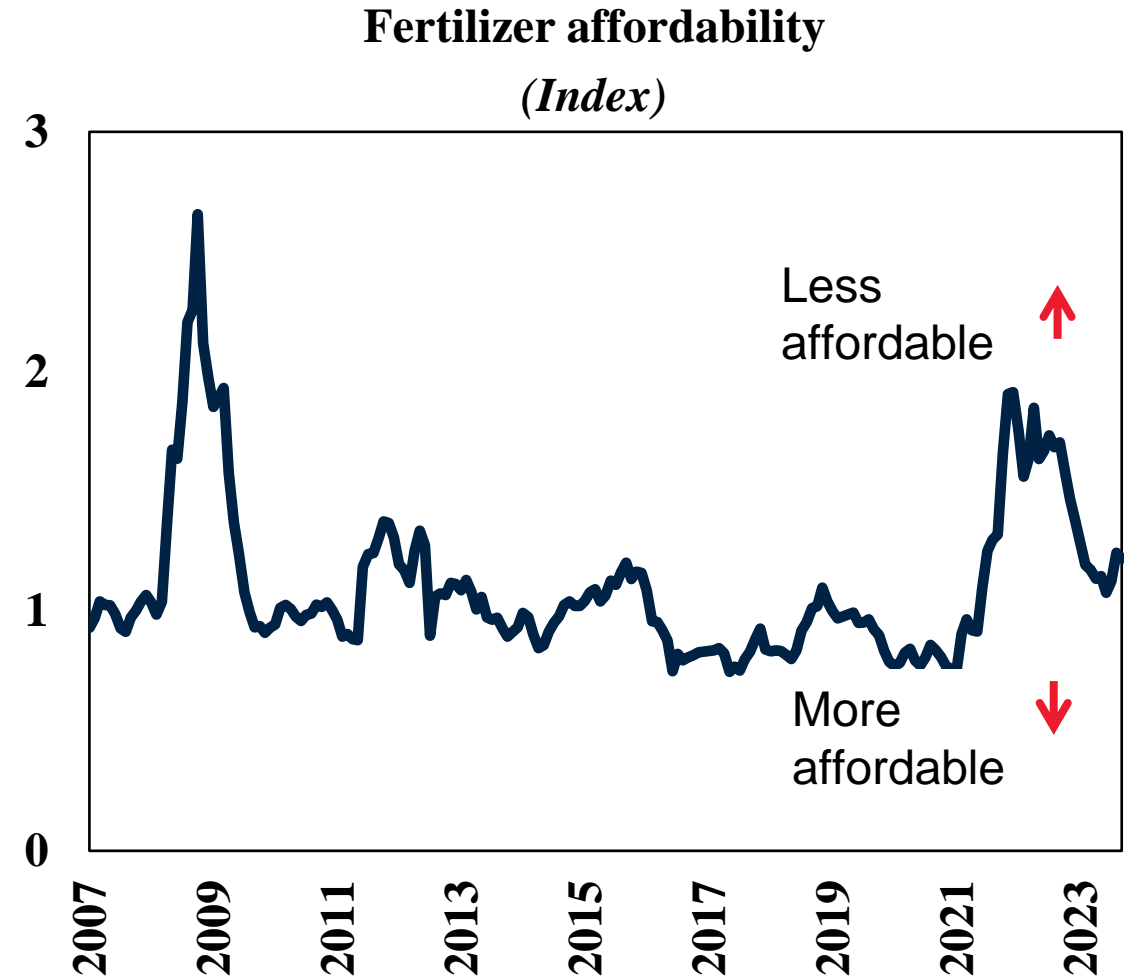
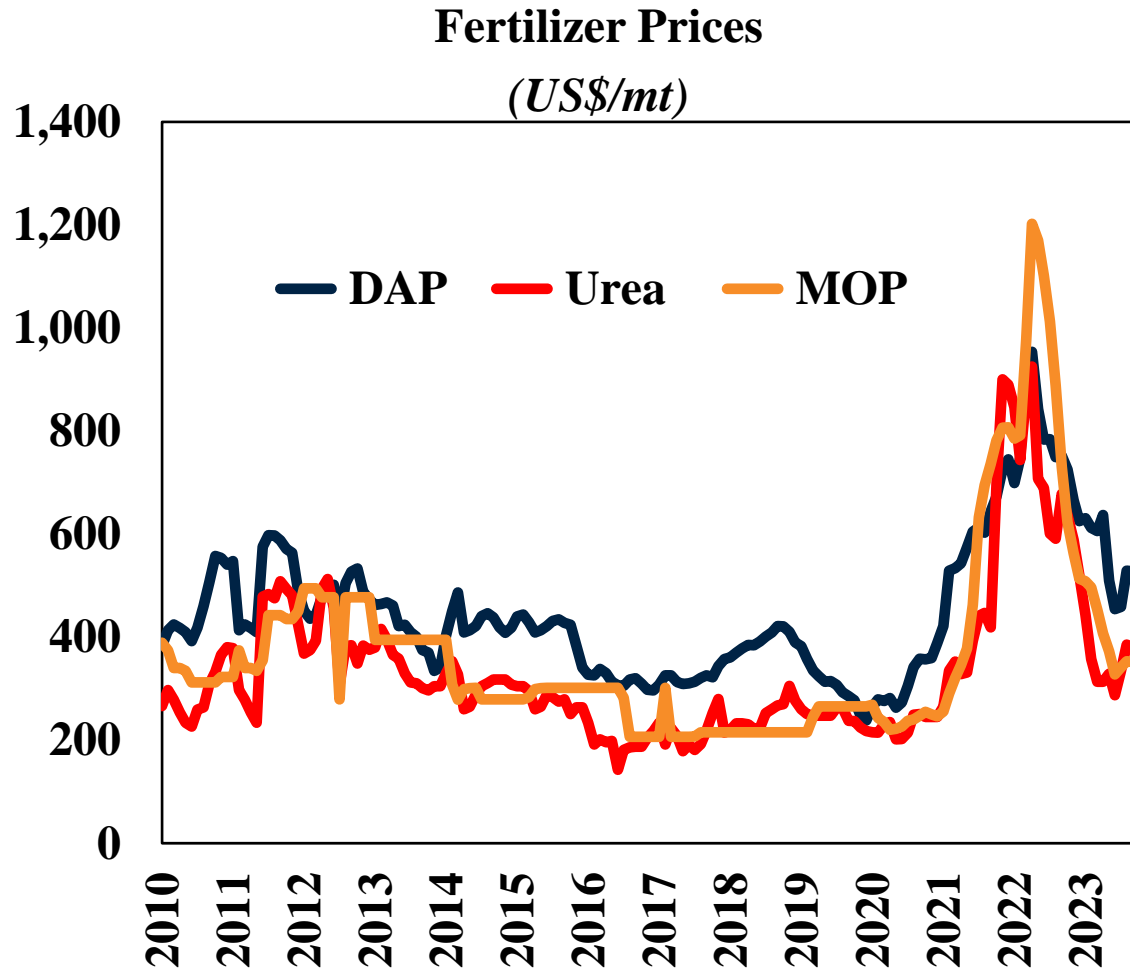


Sources: U.S. Department of Agriculture; World Bank.

Left panel: Years represent crop season (for example, 2021 refers to 2021-22). Data as of October 2023. Yields show production data over area harvested using annual data since 1960. Crop year 2023/24 as based on USDA forecasts. Center panel: Global trade refers to exports. Right panel: Herfindahl-Hirschman index (HHI) of market concentration. An HHI reading below 0.15 is considered competitive; an HHI of 0.15 to 0.25 is moderately concentrated; and an HHI above 0.25 indicates high market concentration.

Falling fertilizer prices with recent uptick

Although prices and affordability levels still well above pre-pandemic levels



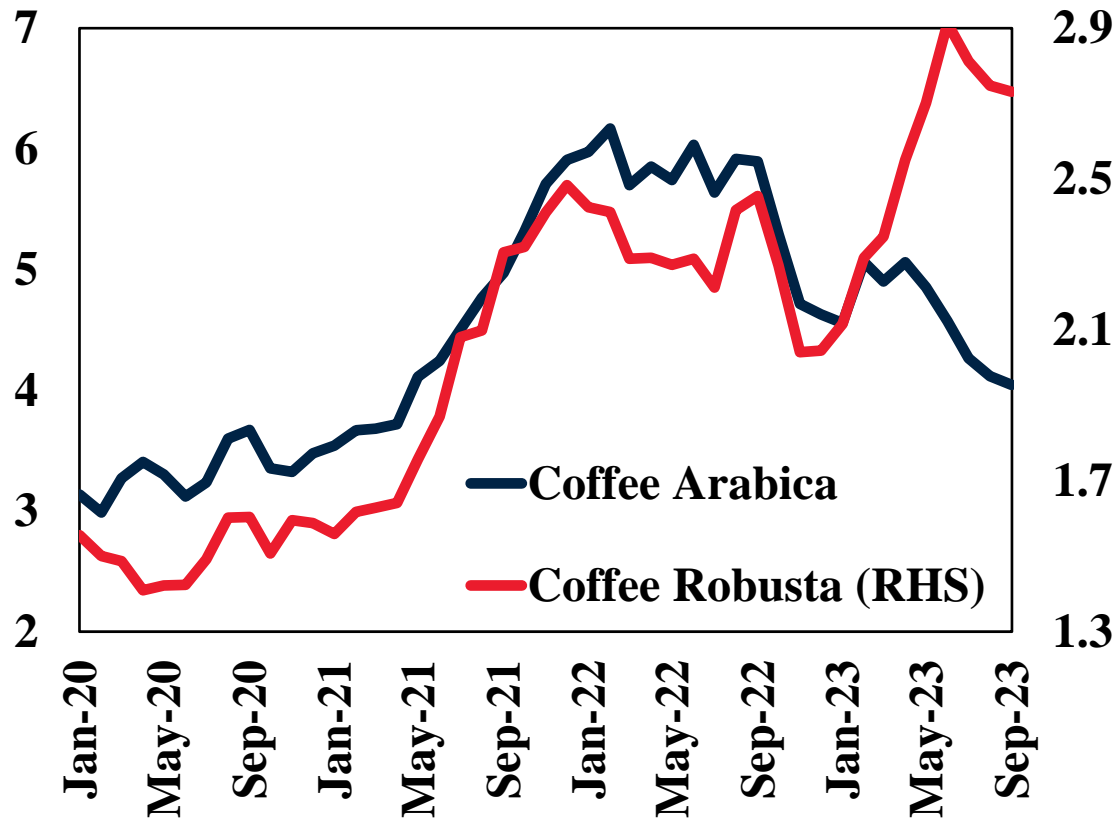
Sources: Bloomberg; General Administration of Customs (China); UN Comtrade; World Bank.

Left Panel DAP = diammonium phosphate; MOP = muriate of potassium; mt = metric tons. Monthly series. Last observation is September 2023.. Right Panel: Ratio of Fertilizer prices over Food price index. Last observation is September 2023.

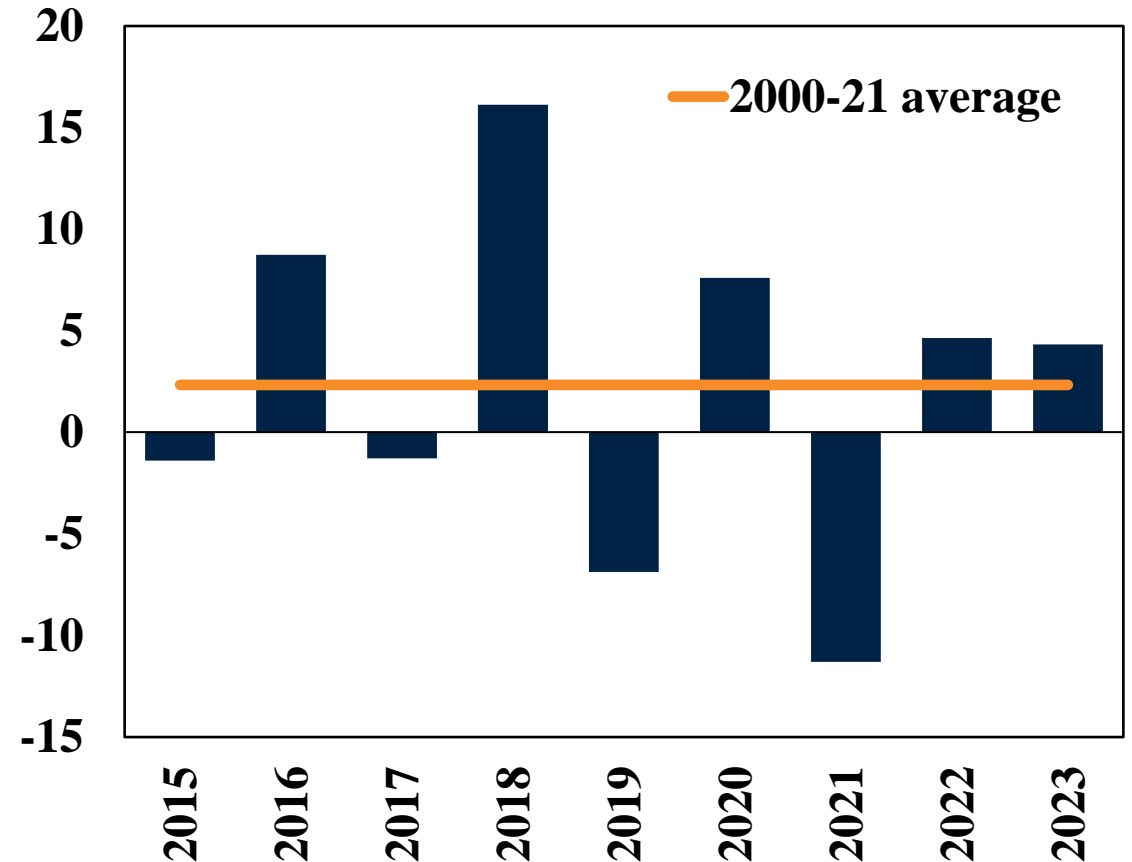
Prices of Coffee Robusta strengthened while Arabica weakens

Bumper harvest from Brazil and concerns in Vietnam

Coffee prices
(US\$/kg, US\$/kg)



Global coffee production
(Millions of 60 kg bags, annual change)



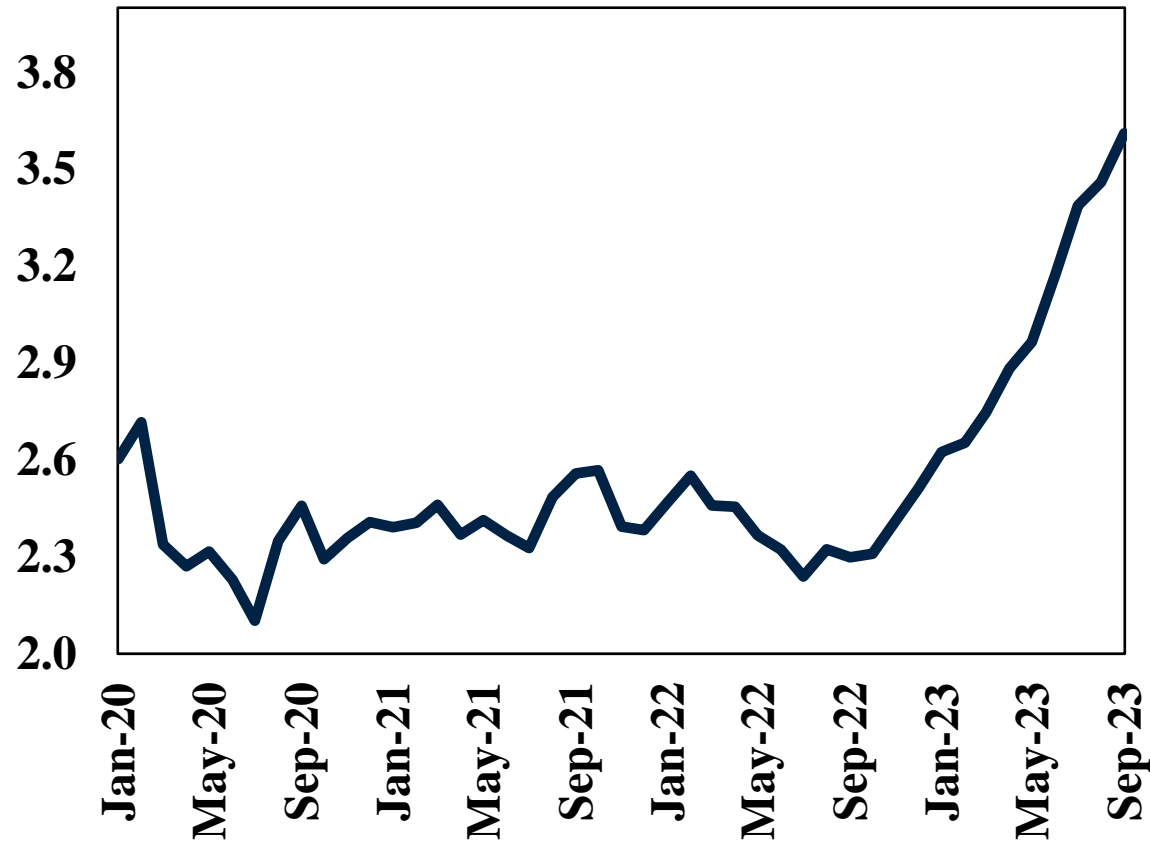
Sources: Bloomberg; U.S. Department of Agriculture, World Bank.

Left Panel: Monthly data. Last observation is September 2023. Right Panel: Years represent crop season (for example, 2021 refers to 2021-22). Data updated as of September 2023.

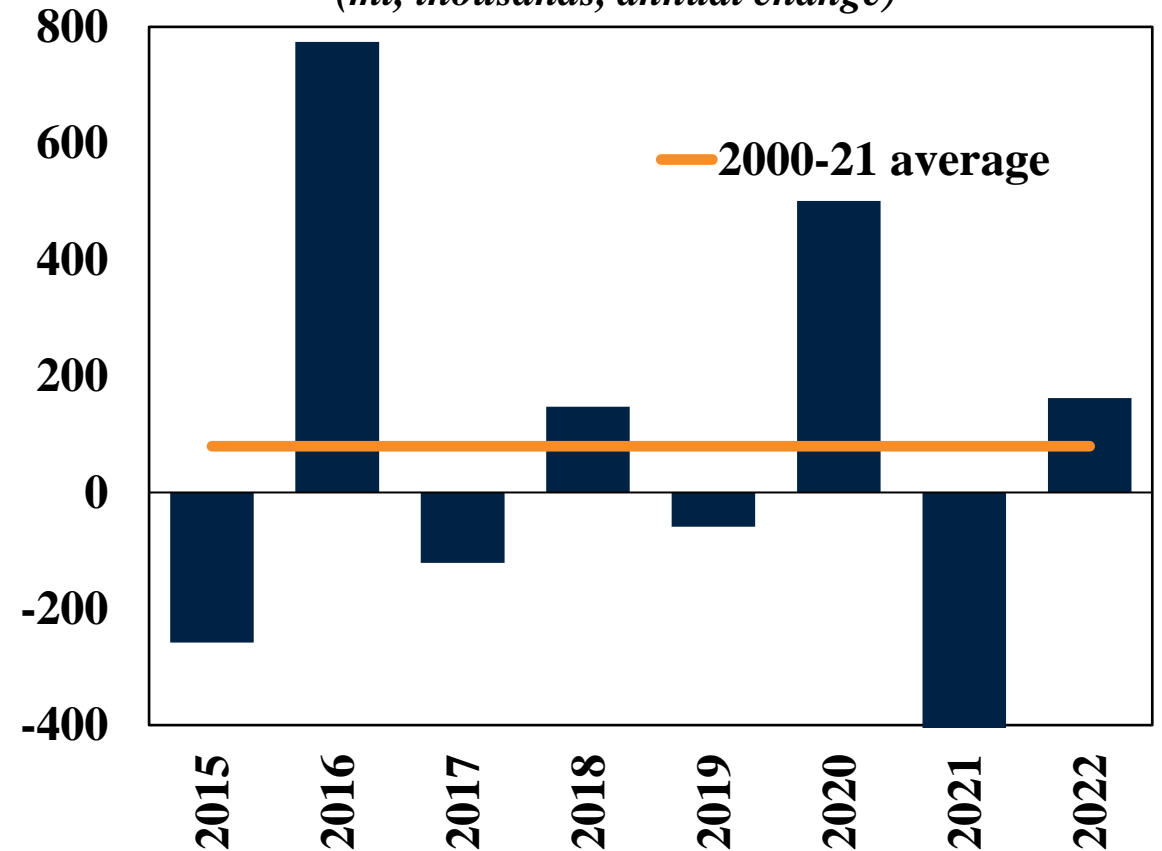
Cocoa prices increased 16 percent in 2023Q3

Excessive rainfall, floods, and black-pod disease challenging production in West Africa

Cocoa prices
(US\$/kg)



Cocoa production
(mt, thousands, annual change)



Sources: Bloomberg; International Cocoa Organization (ICCO); World Bank.

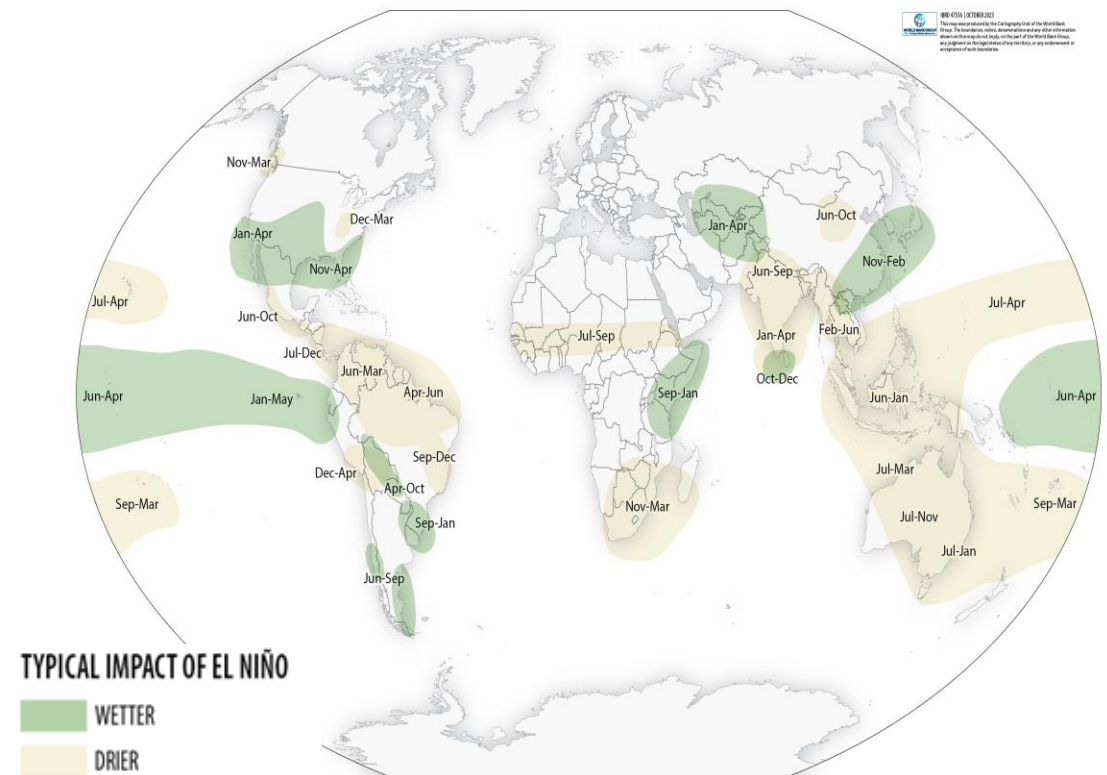
Left panel: Monthly data. Last observation is September 2023. Right Panel: Years represent crop season (for example, 2021 refers to 2021-22). Data updated as of September 2023. Data for 2022-23 is ICCO forecast.

Outlook and risks to the agricultural price forecast

Energy prices, El Niño, and trade restrictions are the major risks

- Higher-than-expected **energy prices** could pass through to food prices, prolonging challenges associated with food insecurity.
- **El Niño** could worsen the outlook for edible oils and tropical commodities.
- **Trade restrictions** and exports from the *Black Sea* are receding risks.

El Niño brings dry and wet conditions to different regions

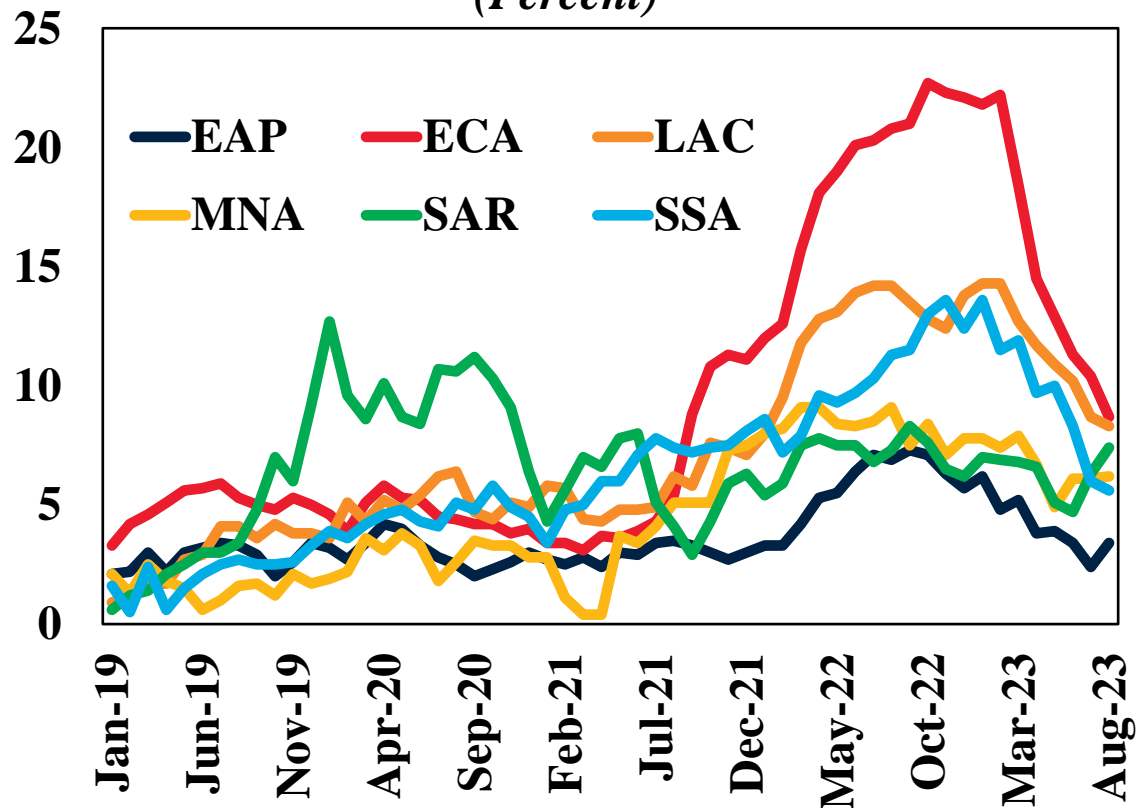


Sources: National Oceanic Atmospheric Administration (NOAA); World Bank. The map shows how El Niño shifts rainfall patterns in different parts of the world. The regions and seasons shown on the map indicate typical but not guaranteed impacts of El Niño.

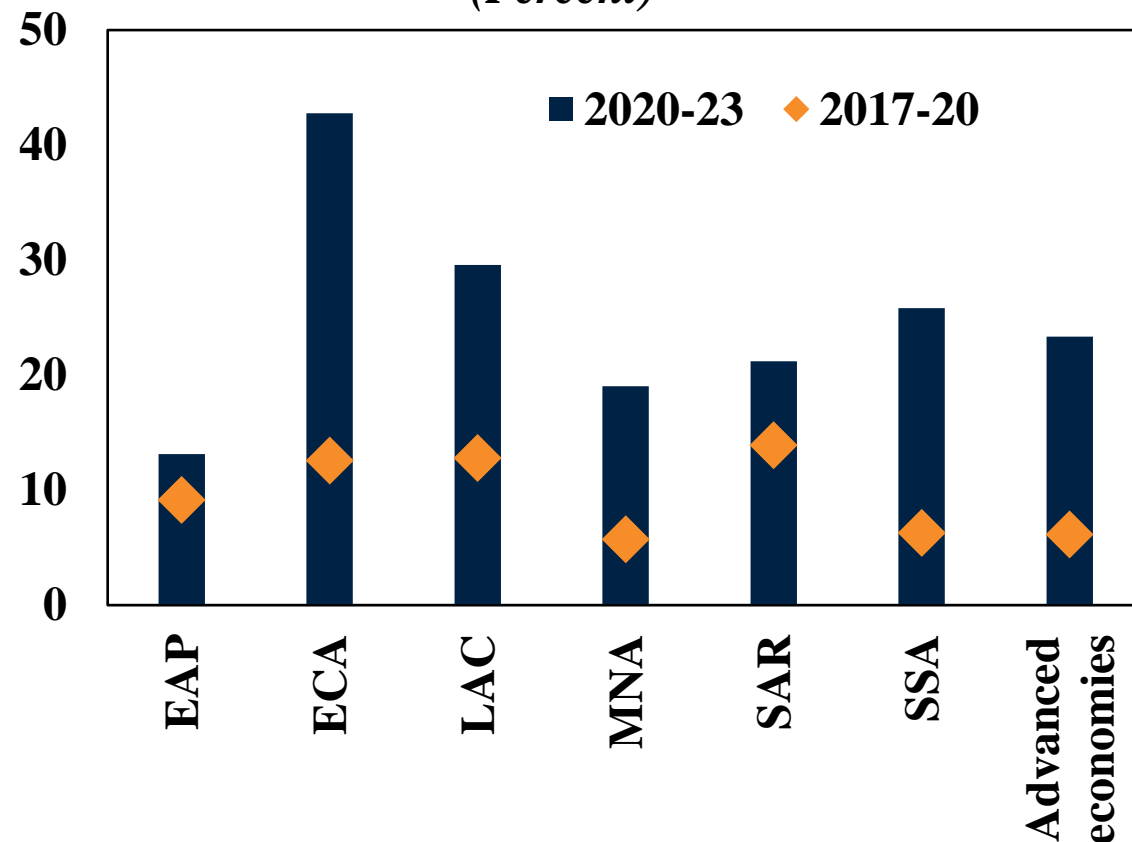
Food price inflation affecting almost all countries

Cumulative food inflation since 2020 has been much higher than in the preceding 3 years

Regional food price inflation
(Percent)



Cumulative 3-year regional food inflation
(Percent)

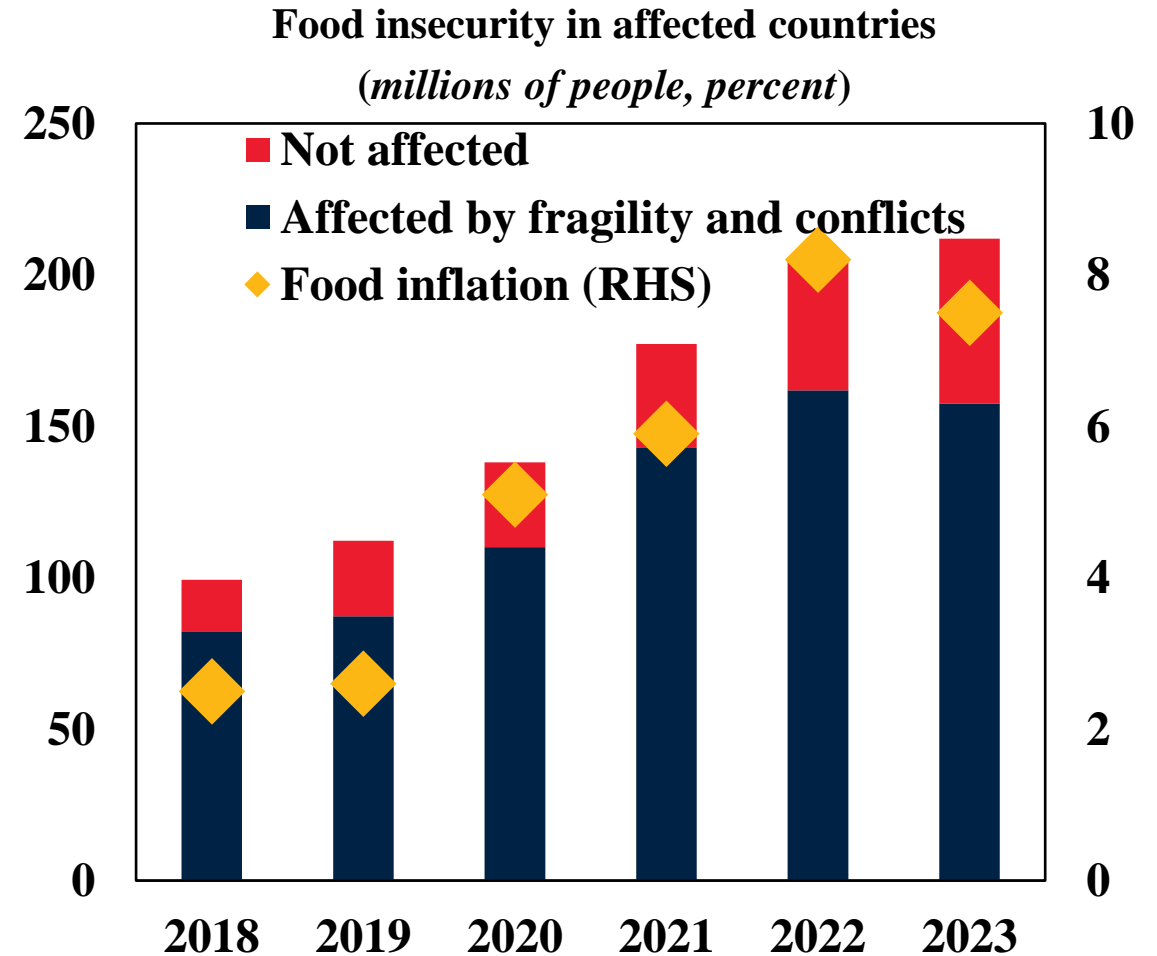
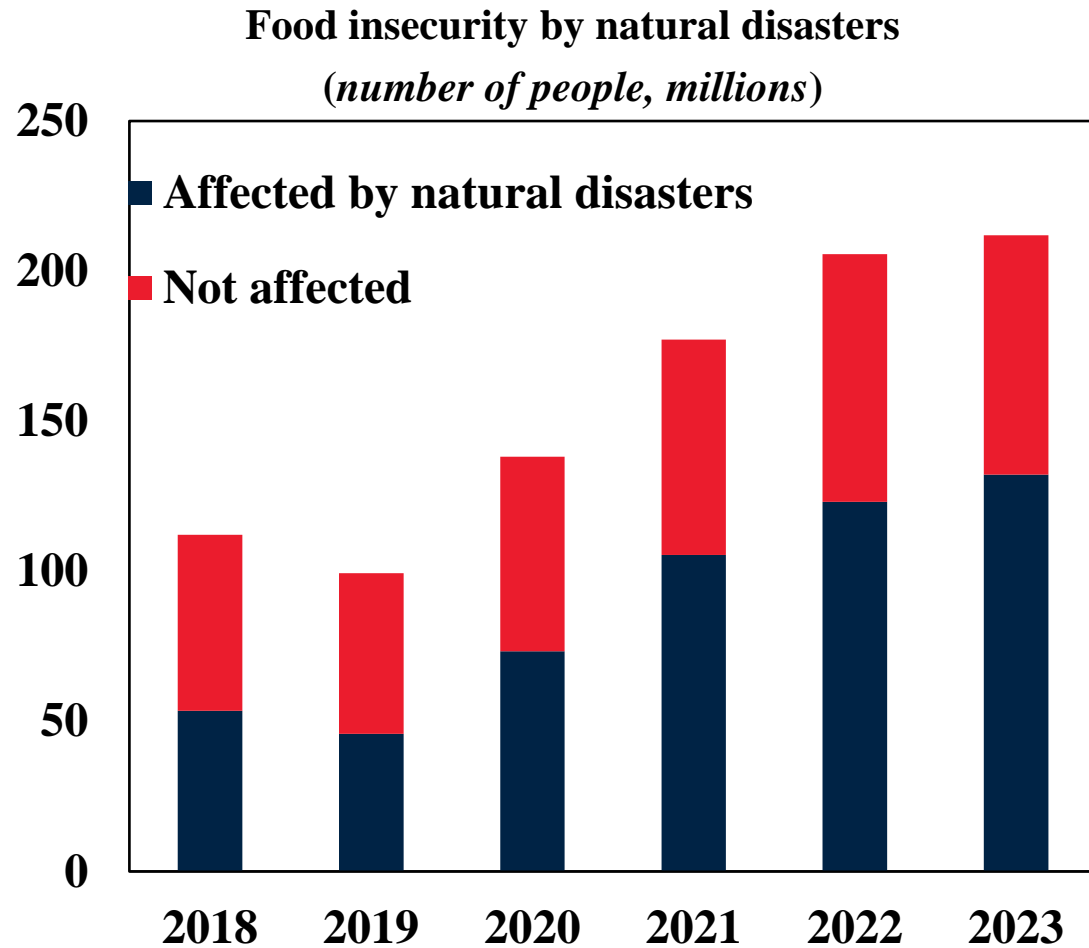


Sources: Food and Agriculture Organization of the United Nations; World Bank; World Food Program.

Note: . EAP = East Asia and Pacific; ECA = Europe and Central Asia; MNA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa. HICs = high-income countries; UMCs = upper-middle income countries; LMCs = low-middle income countries; LICs = low-income countries. Left panel: Sample includes 107 EMDES; Data available up to Aug 2023. Right panel: Sample includes 144 countries. Blue bars refer to median value of food inflation between Aug 2020-23; The diamonds refer to median value of food inflation from Aug 2017-20.

Food insecurity has worsened in 2023

Adverse weather, fragility, and conflicts despite a decline in food inflation



Sources: Food and Agriculture Organization of the United Nations; World Bank; World Food Programme.

Bars represent the number of people worldwide that face crisis or more severe (IPC3+) food insecurity. Sample includes 19 economies in fragile and conflict affected areas. Left panel. Natural disasters are floods, droughts, or wildfires that affect at least 4 million people, as recorded in the EM-DAT database. Right Panel. Year-on-year food price inflation data, regional medians for MNA (15 countries), SAR (7 countries) and SSA (25 countries). Food inflation data for 2023 is the average of January to August 2023.

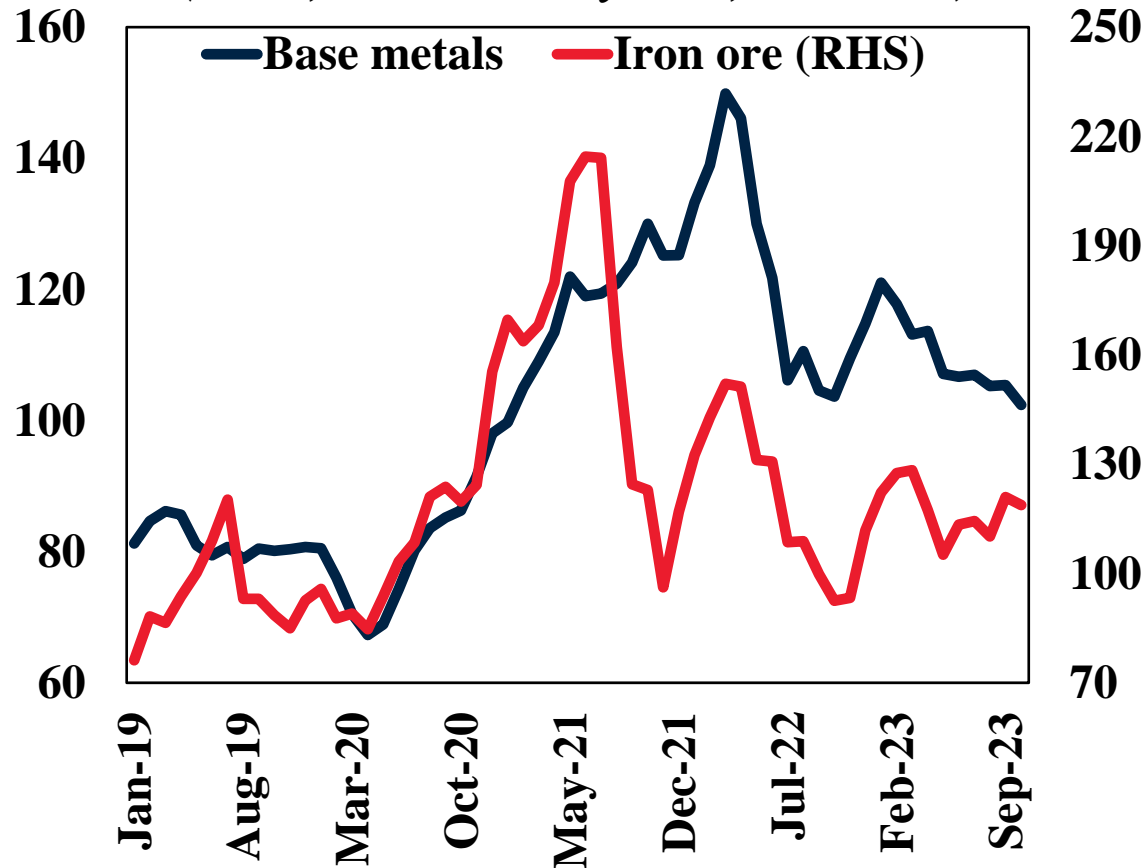
Metals and minerals

3 What is the outlook for metal and critical minerals prices and the risks to the outlook?

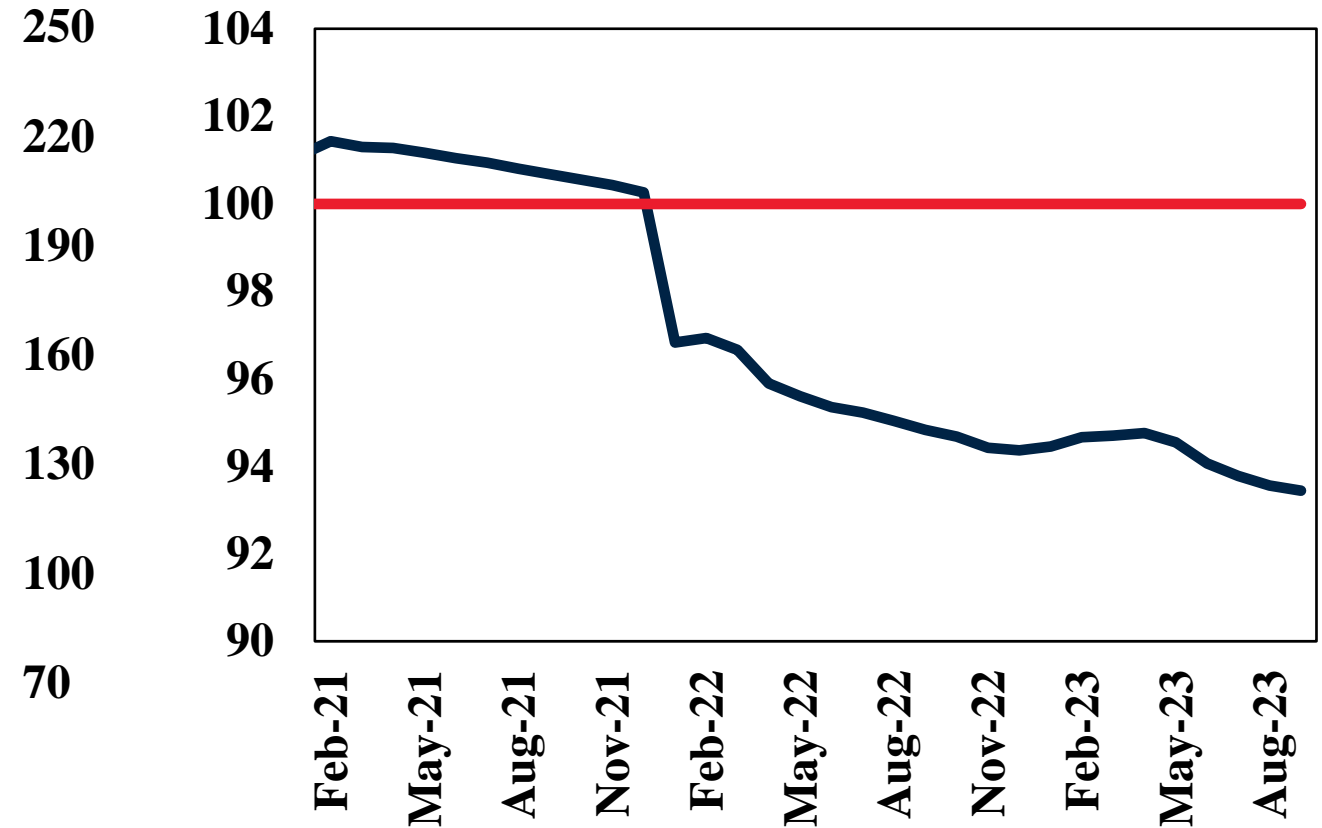
Metal prices have seen broad-based declines

Improved supply conditions, concerns about China's real state sector

Base metal index and iron ore prices
(Index, 100 = January 2022, US\$/dmtu)



China real estate climate indicator
(Index, +100 = expansion)



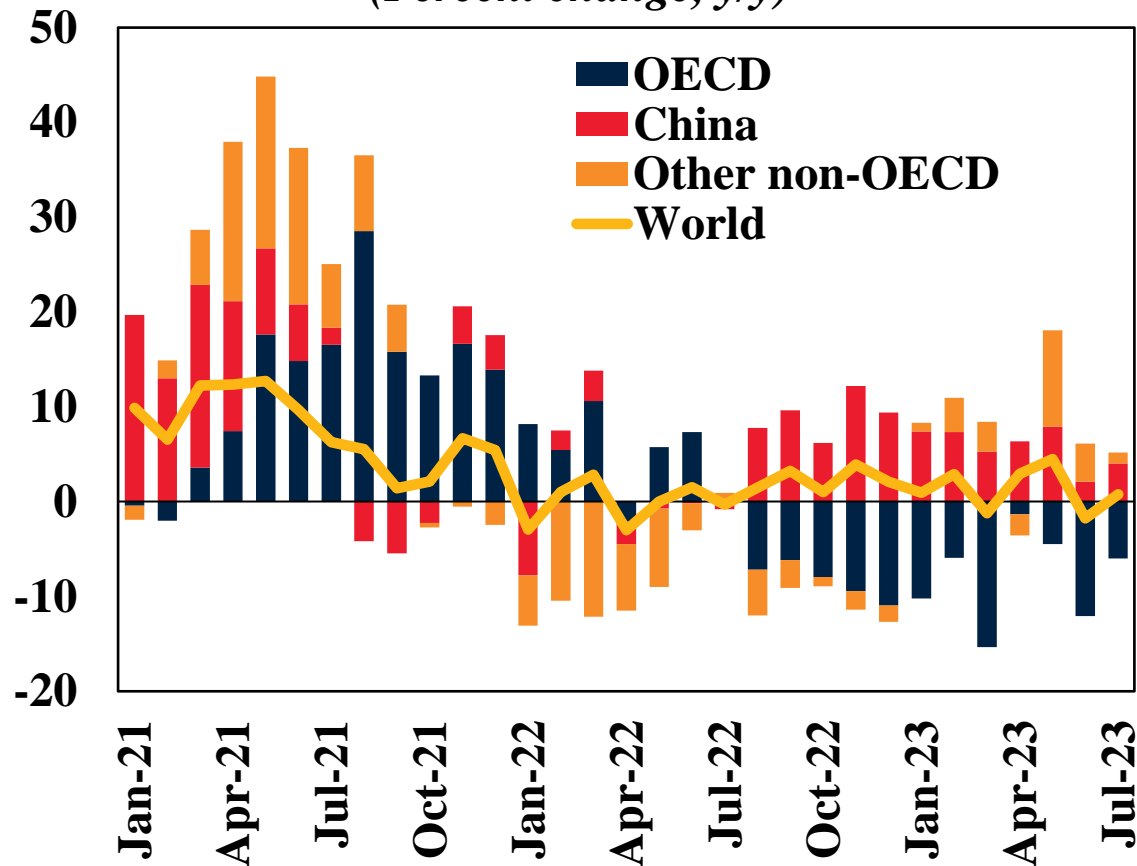
Sources: Bloomberg; Haver Analytics; National Bureau of Statistics China; World Bank.

Note: Left Panel. Last observation is October 2023. Right Panel. A reading above 100 indicates economic growth and a reading below 100 indicates a slowdown in China's real estate market. Last observation is September 2023.

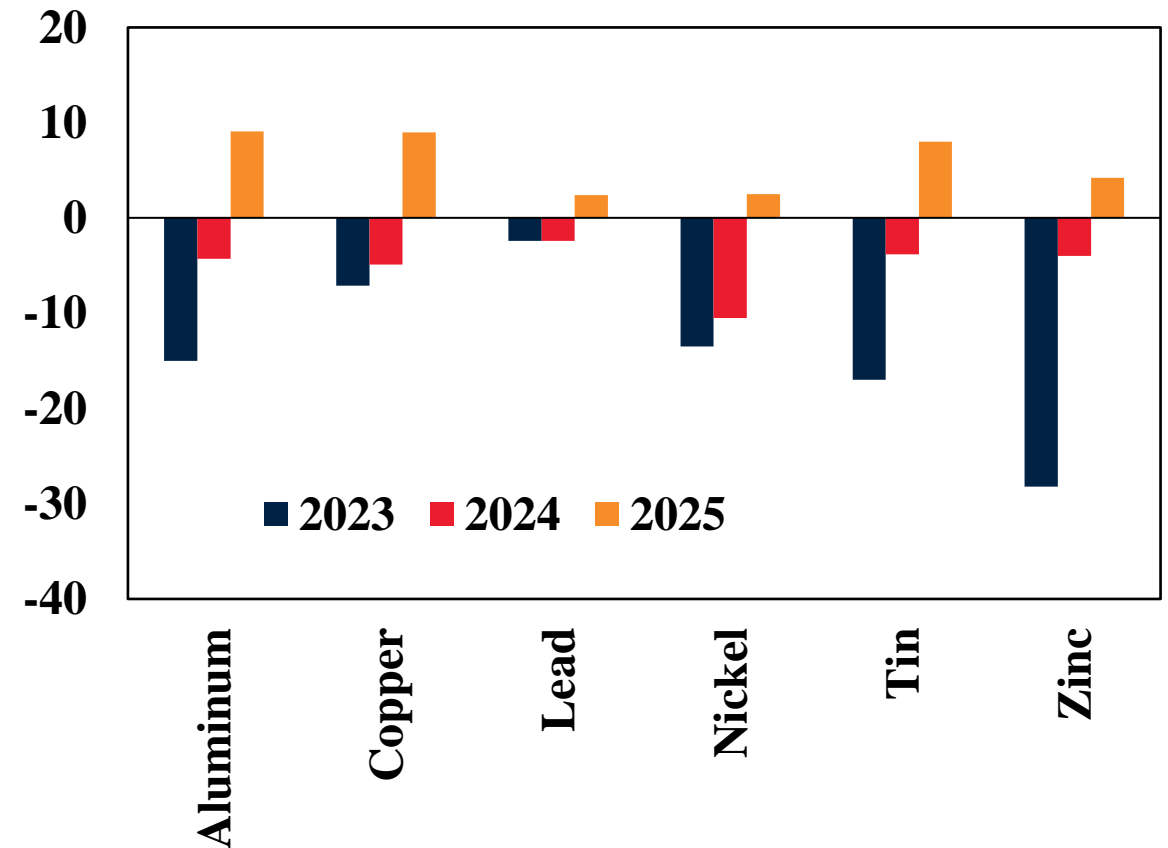
Metal demand and price forecasts

Demand remained subdued; most prices are forecast to fall further

Metals demand growth
(Percent change, y/y)



Changes in base metals prices
(Percent change, y-o-y)



Sources: Haver Analytics; World Bureau of Metal Statistics; World Bank.

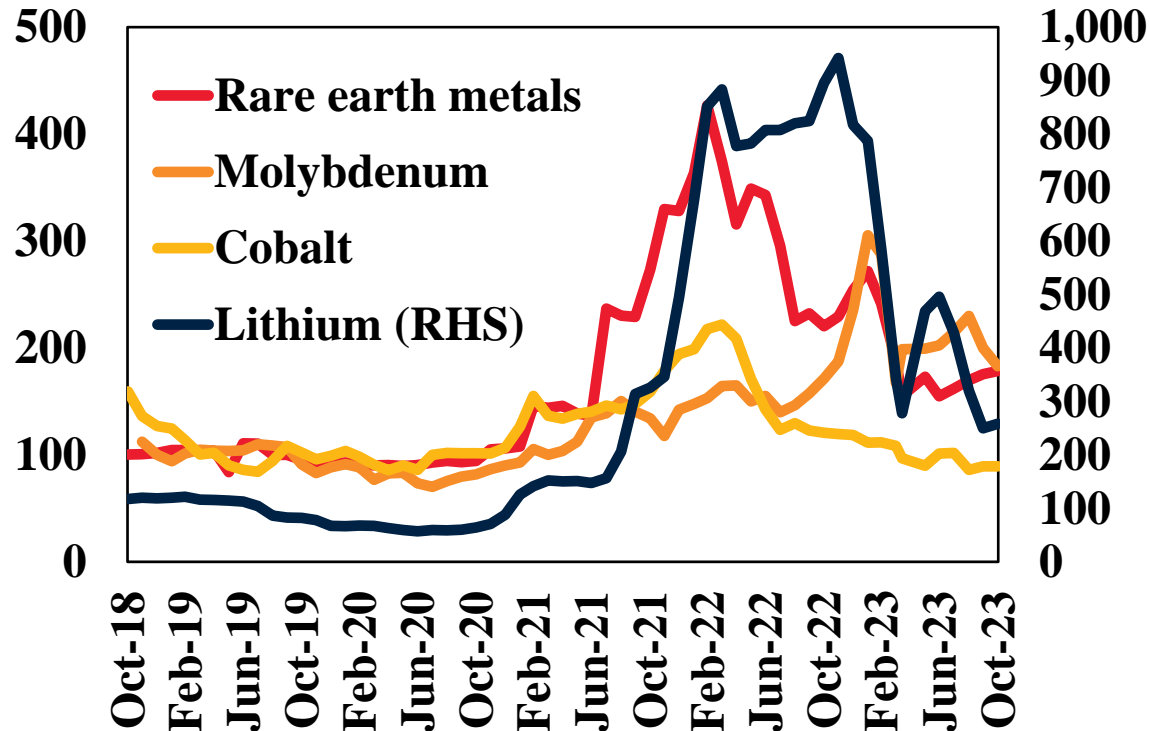
Left Panel. Chart shows year-on-year percent change in metal consumption since January 2021. OECD = Organization for Economic Co-operation and Development. Right Panel. Year-on-year price changes in base metal prices.

Recent declines critical mineral prices

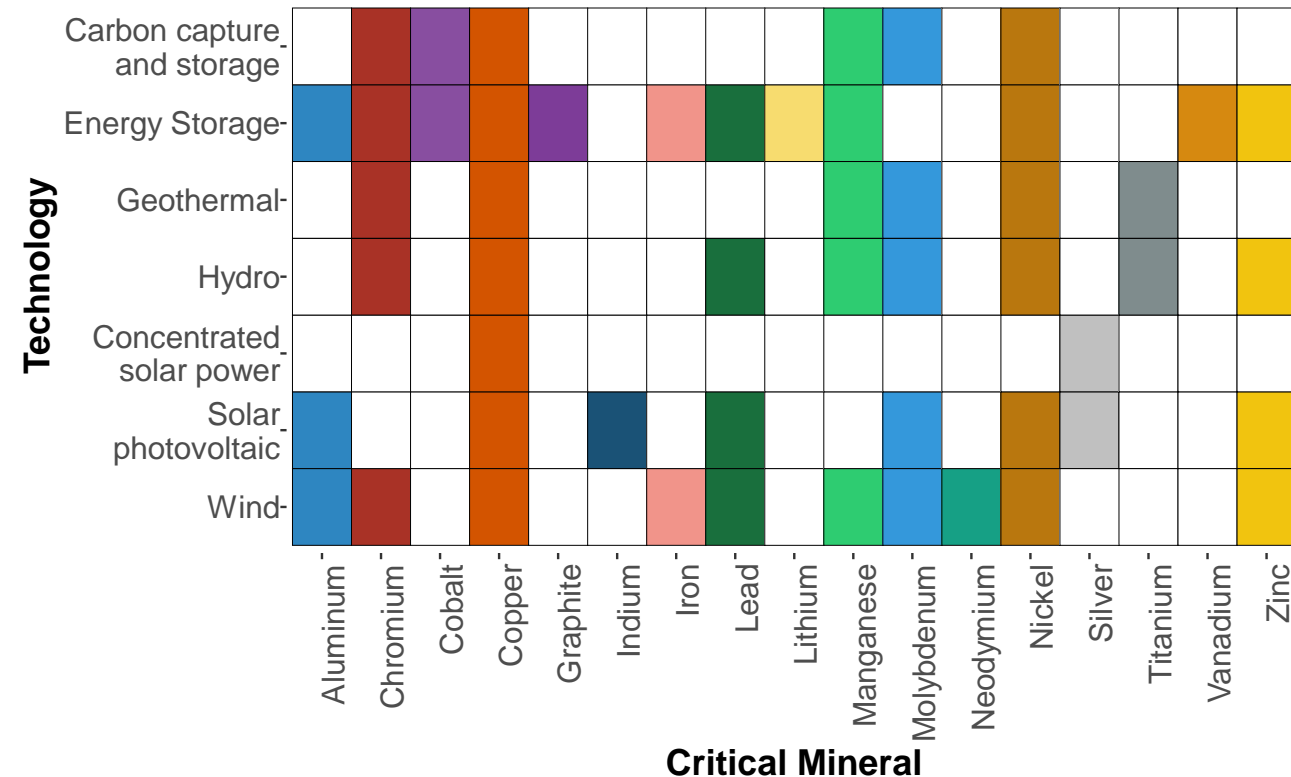
Driven by deceleration in economic activities, including demand for new EVs

Price indexes for selected critical minerals

(Index, 100 = 2019 avg.)



Critical mineral uses in renewable energy technology



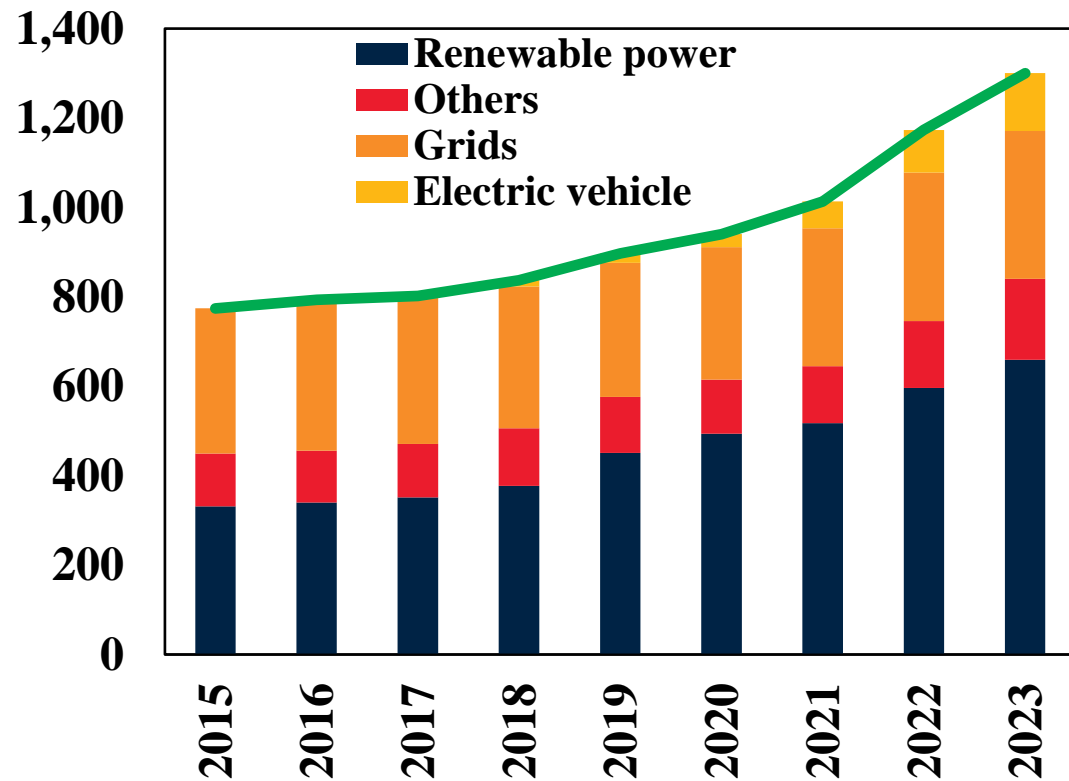
Sources: Bloomberg; World Bank

Left: Monthly data for Cobalt = China Shanghai Changjiang Cobalt; Lithium = China Lithium Carbonate 99% Battery Grade; Molybdenum = China Molybdenum Trioxide 51% Industrial Grade; and Rare Earth Metals = China Shanghai Rare Earth Carbonate REO >= 45%. Last observation is October 13, 2023. Right: Critical minerals shown correspond to the critical minerals' designation for use in renewable technologies identified in World Bank (2020b)

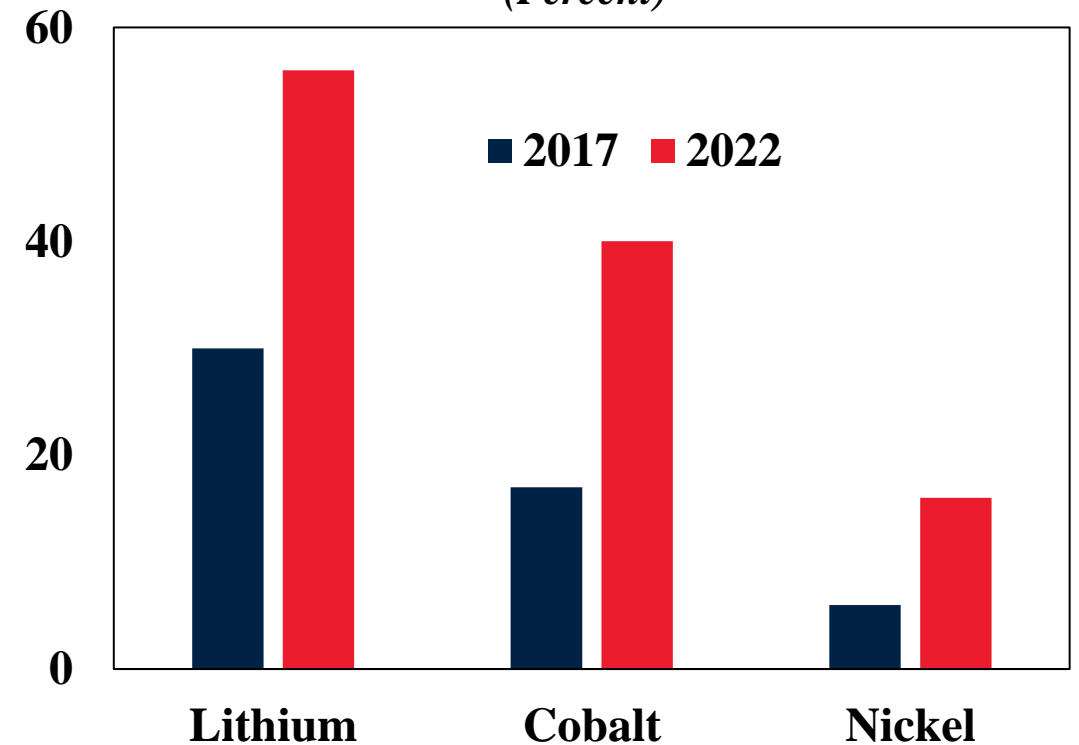
Current demand slowdown seen as temporary

Transition to sustainable energy, digitalization set to boost long-term demand

Clean energy investment
(US\$, billions)



Share of clean energy in total demand
for selected minerals
(Percent)



Source: International Energy Agency (IEA)

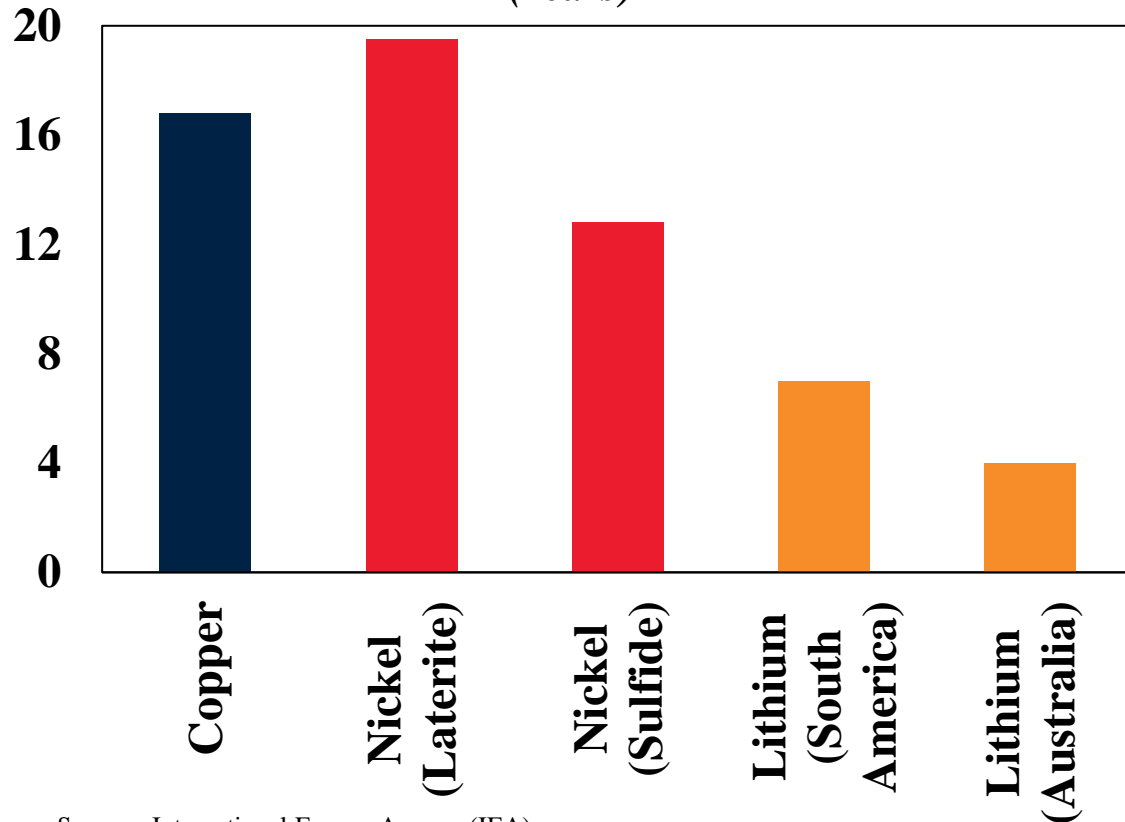
Left: Investment for 2023 is based on estimated values. Others = end-use renewable energy, electrification in building, transport, and industrial sectors, and battery storage. Right: Bars indicate the share of clean energy in total mineral demand.

Despite production growth, supply risks persist

Influenced by lengthy lead times and geographical concentration in refining

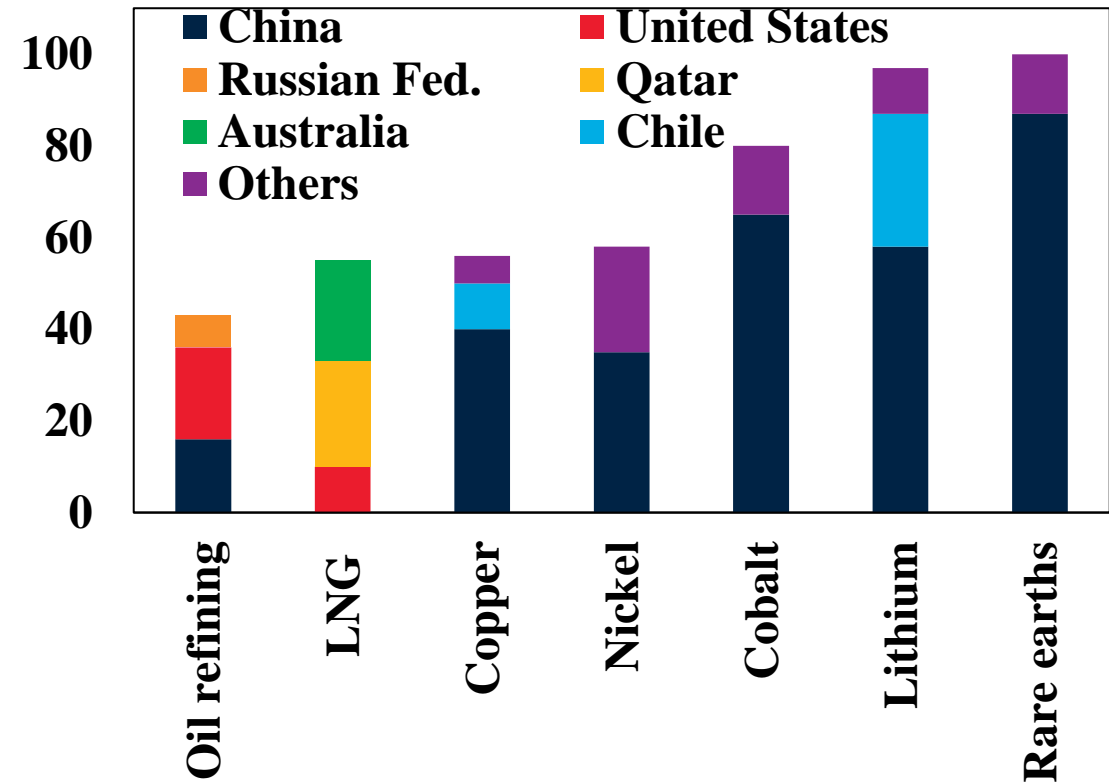
Discovery to production lead times for selected minerals

(Years)



Geographical concentration of commodity refining

(Percent)



Source: International Energy Agency (IEA)

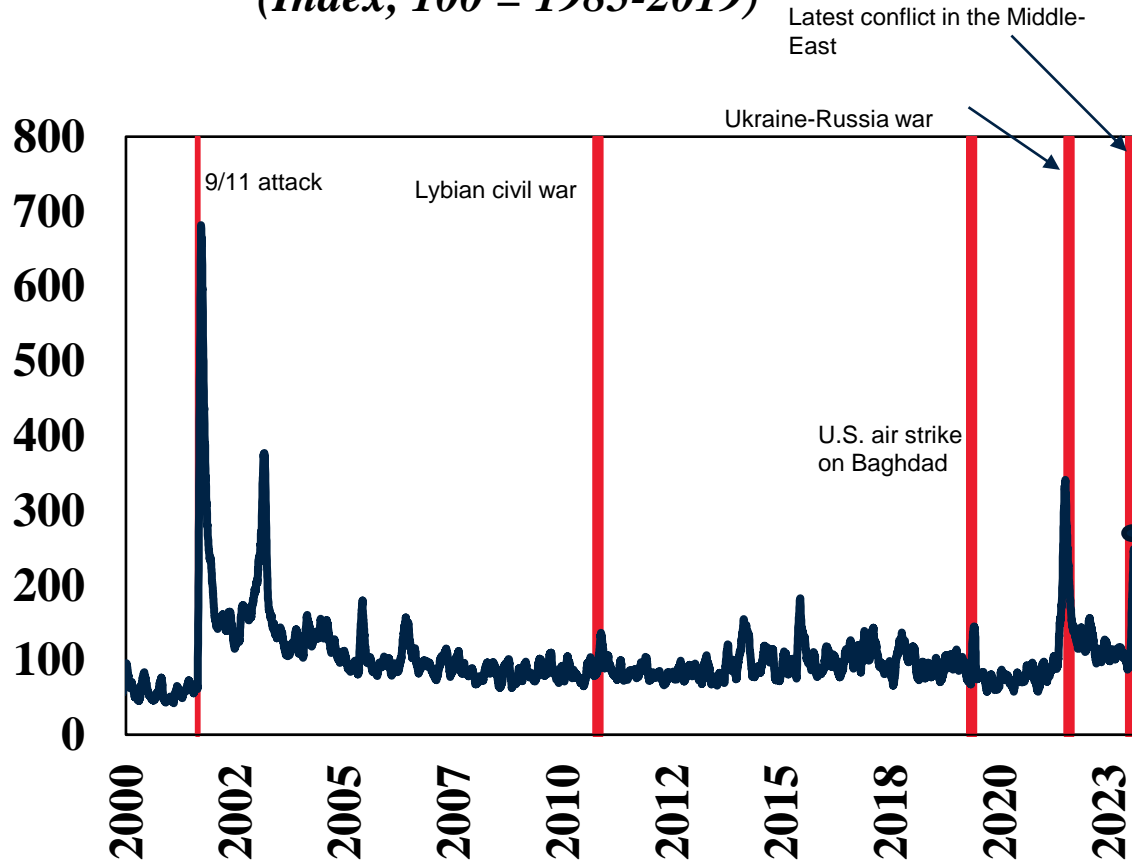
Left: Bars show the global average duration from discovery to production for selected minerals. Data from 2010 to 2019. Right: Percentage contribution of major producing countries in the total processing of selected critical minerals and fossil fuels in 2019.

Gold prices and geopolitical risks

Heightened global uncertainty can support higher gold prices

Geopolitical risks index and conflicts

(Index, 100 = 1985-2019)



Gold prices and conflicts

(US\$/toz)



Sources: Caldara, Dario and Matteo Iacoviello (2022) World Bank.

Note: Left panel. Geopolitical risk index (GPR) reflects automated text-search of electronic articles from 10 newspapers, related to adverse geopolitical events in each newspaper for each month.

A higher index is related to lower investment, stock prices, and employment. Daily data. Last observation is November 6, 2023. Red vertical lines show adverse geopolitical events. Right panel.

Daily data. Last observation is November 7, 2023. Red vertical lines show adverse geopolitical events.

Key risks to base metal price prospects

Risks tilted to the downside next year, despite the energy transition underway

Upside

- ***Production disruption*** (labor disputes, protests, power disruptions)
- ***Trade restrictions*** (export bans)
- Uncertain pace of the ***energy transition***

Downside

- ***Weaker than expected growth in China.*** China accounts for 60 percent of global metal demand. Mainly in the property and infrastructure sectors.
- ***Economic slowdown*** in advanced economies, If interest rates remain high
- Inflation and continued ***monetary tightening*** reducing demand for consumer durables and loan availability.

SPECIAL FOCUS

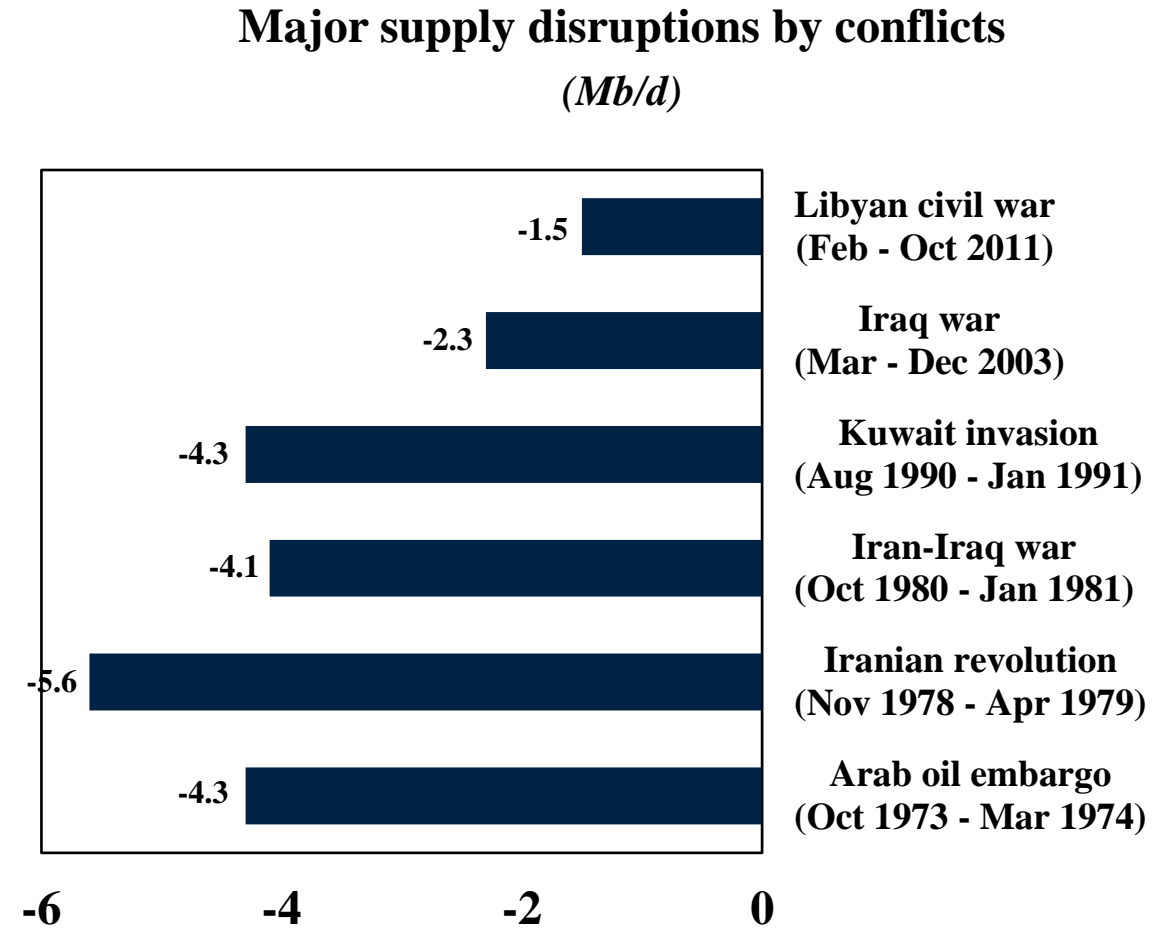
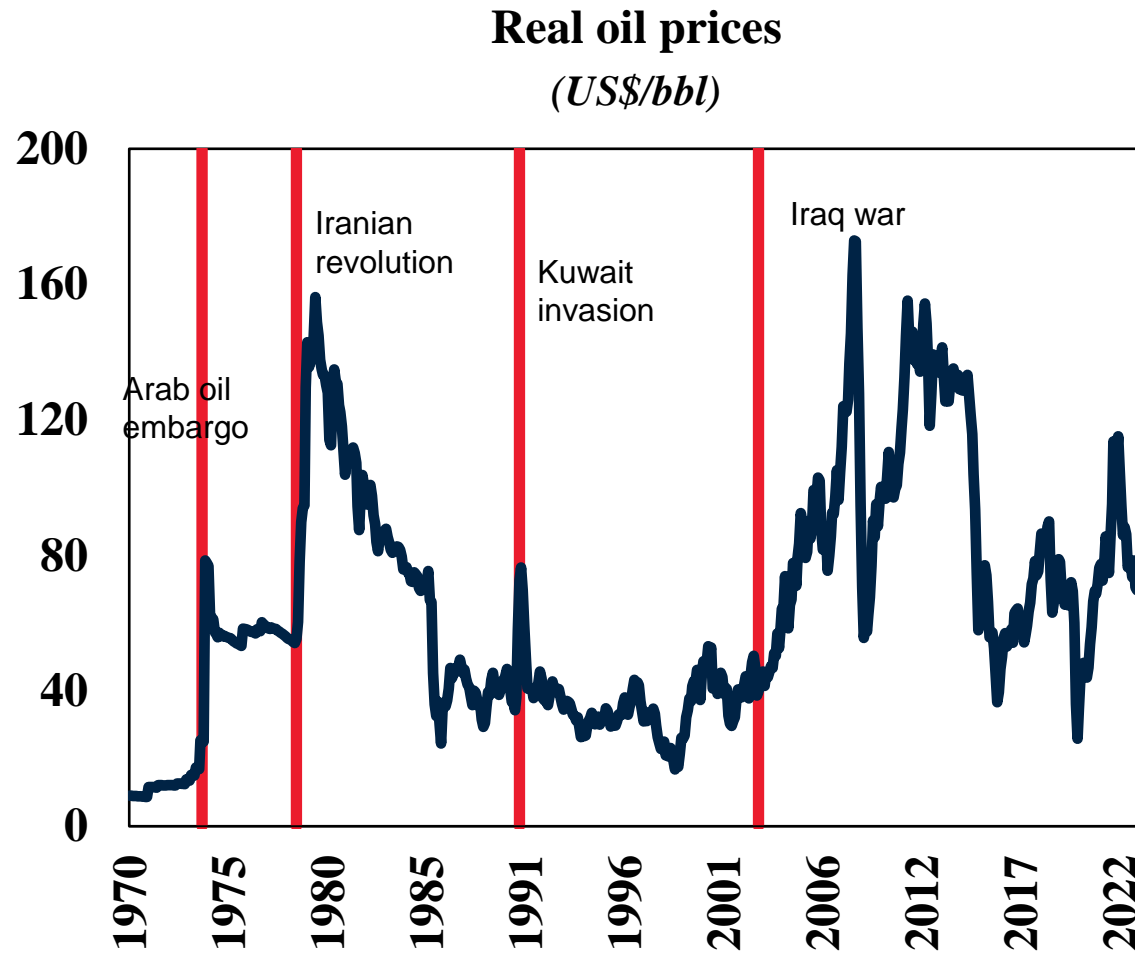
Conflict in the Middle East and Implications for Commodity Markets

4

What could be the immediate impact of a major escalation of the Middle-East conflict on oil prices and commodity markets?

Oil price spikes common following past supply disruptions

Degree of the surge and extent of disruption depends on the scale and duration of the conflict



Sources: Bloomberg; World Bank.

Left Panel. Monthly Brent crude oil prices deflated by U.S. Consumer Price Index (CPI), 100 = January 2022. Right Panel: Oil supply disruptions during geopolitical events as defined by International Energy Agency (IEA 2014).

Risk Scenarios

Oil supply disruptions scenarios; surge in oil prices up to 75 percent above baseline

Scenarios

Baseline of Q4 2023 Brent=\$90/barrel

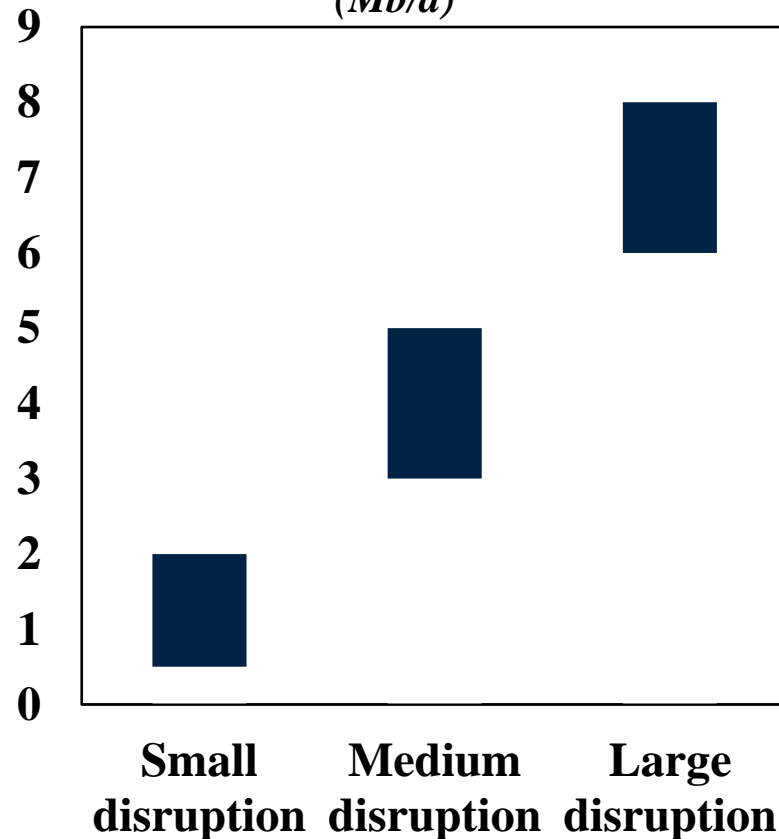
Small disruption. Akin to Libyan civil war in 2011 - nearly 2% decline in global supply at the time.

Medium disruption. Global oil supply is reduced by 3 to 5 %, comparable with the loss of 3% of global oil supply during the Iraq war in 2003.

Large disruption. Oil supply reduced by 6 to 8%, similar magnitude to the disruption associated with the Arab oil embargo in 1973.

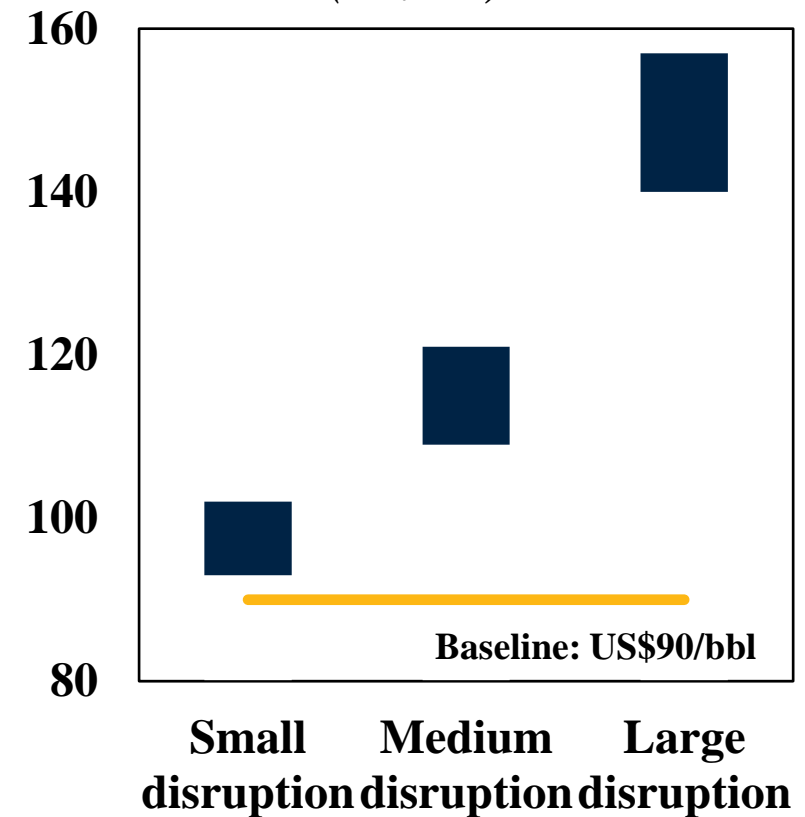
Initial declines in oil supply under different scenarios

(Mb/d)



Initial changes in oil prices under different scenarios

(US\$/bbl)

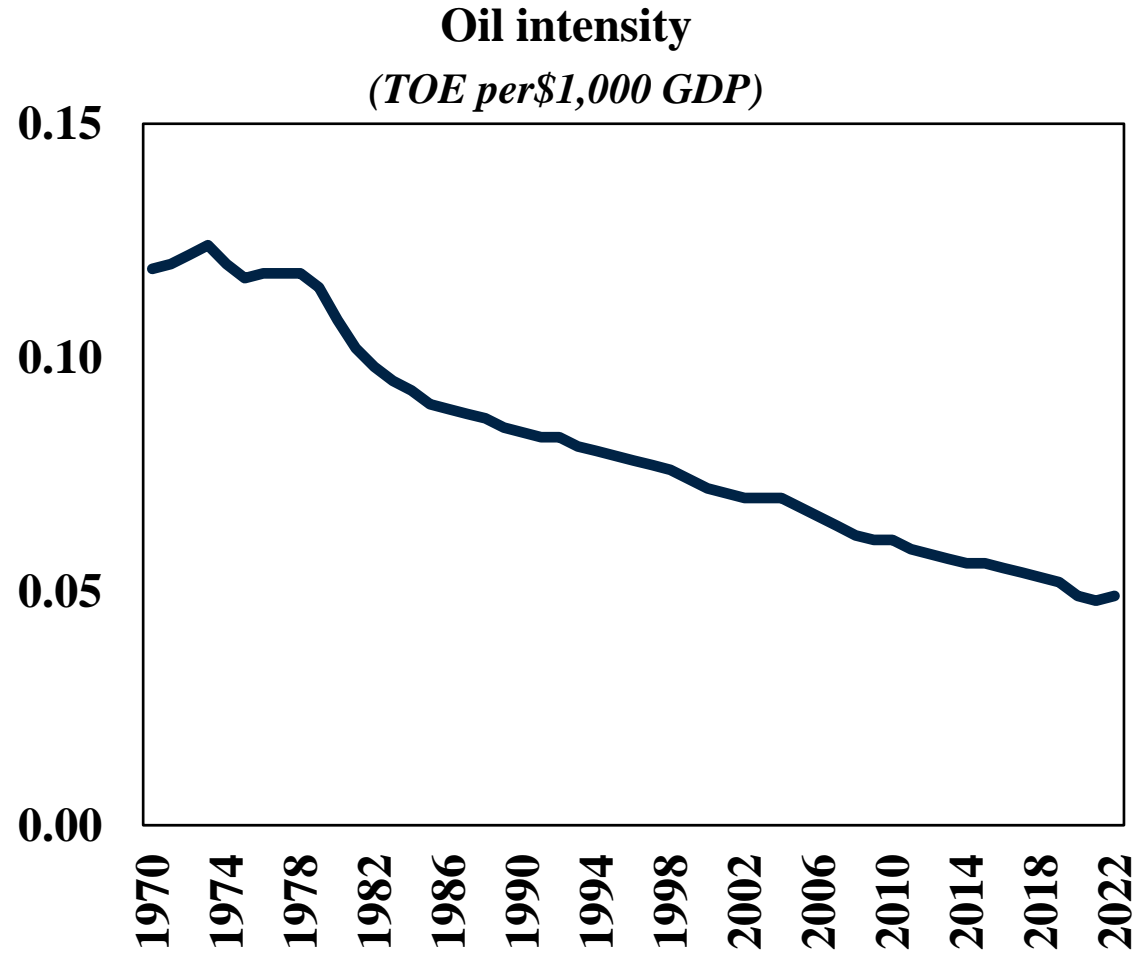


Sources: Bloomberg;; World Bank.

Center Panel. Range of initial supply disruptions under three scenarios.. Right Panel. Range of initial prices of Brent crude oil in response to supply disruptions under three scenarios.

Global oil markets are now better equipped to deflect supply shocks

First, reduced oil dependence.



The global economy's reliance on oil has diminished considerably since the 1970s.

For instance, oil intensity—the amount of oil required to produce one unit of GDP—declined from 0.12 tons of oil equivalent (toe) in 1970 to 0.05 toe in 2022.

Though still used in transportation, the rollout of EVs will provide a way to reduce dependence further in coming years

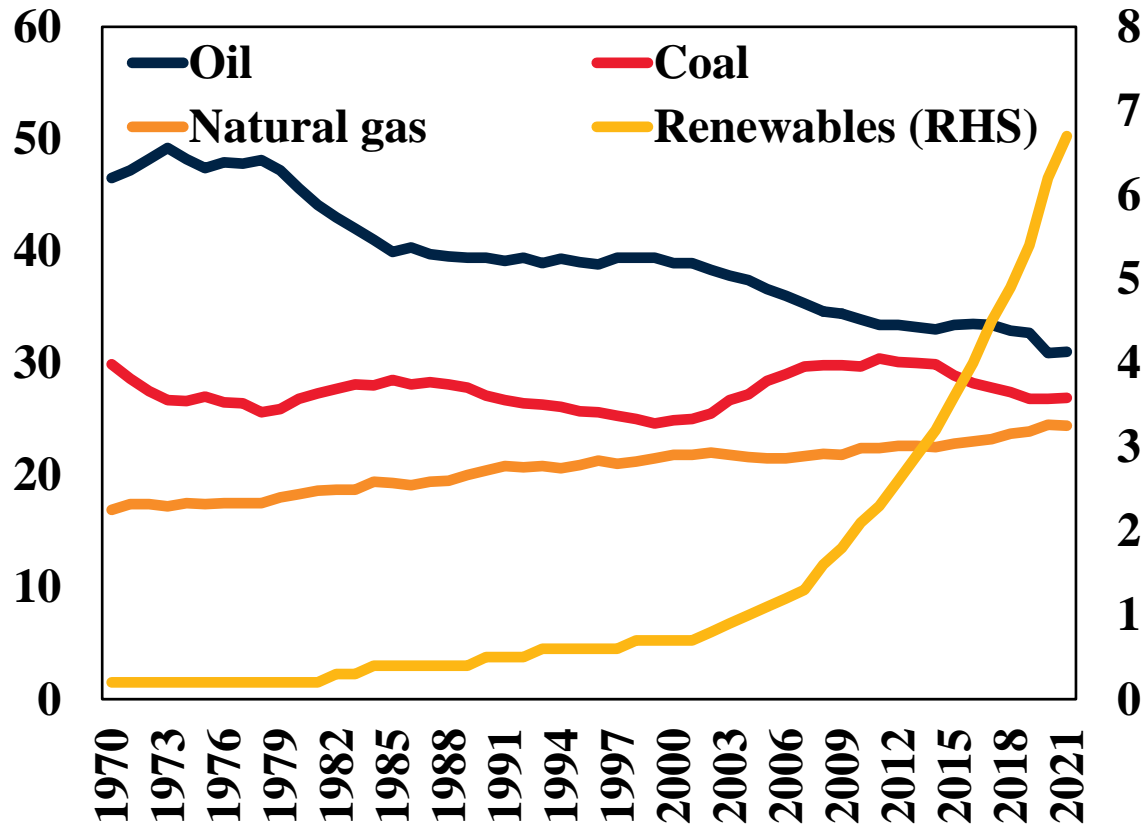
Source: BP Statistical Review, World Bank.

Notes: Oil intensity defined as consumption over GDP for each year. Last observation is 2022. TOE = tons of oil equivalent.

Global oil markets are now better equipped to deflect supply shocks

Second, diversification of sources.

Energy consumption by type since 1970
(percent)



Diversification across energy sources.

Natural gas and coal used for electricity generation

Fast growth of renewable energy will be used more and more in transportation.

Improved oil technology extraction: offshore drilling and shale oil.

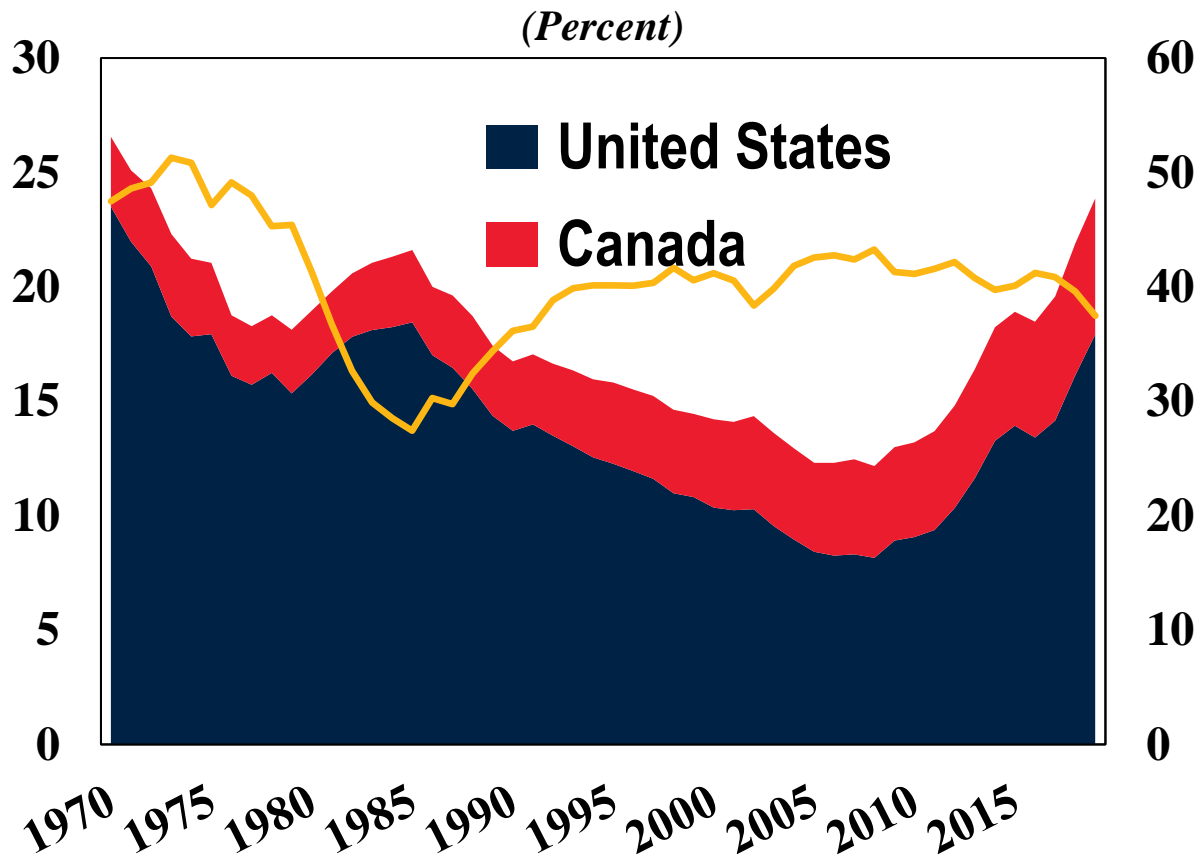
Renewables becoming cheaper

Source: BP Statistical Review, Energy Institute, International Energy Agency; World Bank.
Notes: Energy consumption as share of total primary energy consumption. Last observation is 2021.

Global oil markets are now better equipped to deflect supply shocks

Finally, geographic diversification; increased trade; emergency stockpiling.

Oil production by United States,
Canada and OPEC



Geographic diversification: In the 1970s, the global oil market relied heavily on a few producers, especially in the Middle East. (more than 50 percent) Today, oil supplies now come from many sources.

Development of oil exchanges and futures markets: The introduction of futures contracts marked a significant change in the oil market and improved price discovery and market efficiency. Numerous futures contracts permit hedging.

Strategic reserves: Following the oil crises of the 1970s, several large oil-importing countries set up strategic reserves for emergencies. OPEC also holds ample spare capacity.

Improved information (IEA creation)

Source: BP Statistical Review, International Energy Agency; World Bank.

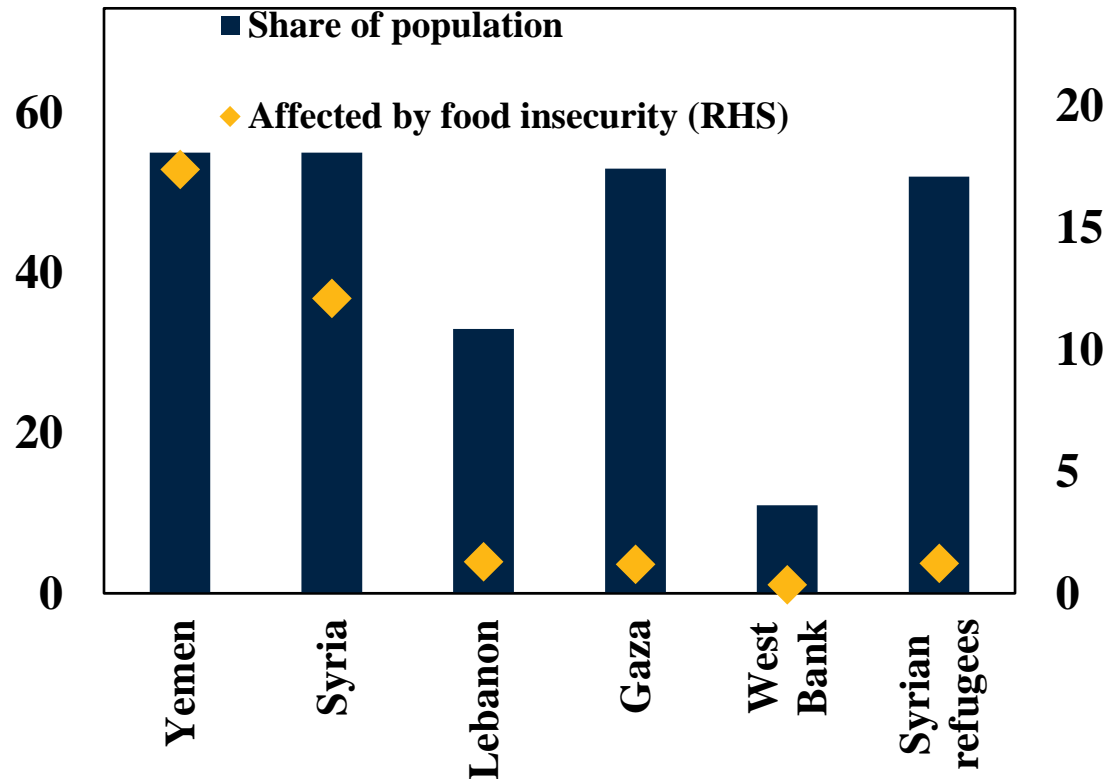
Notes: OPEC = Organization of the Petroleum Exporting Countries. Crude oil production as a share of global crude oil production.

Food Insecurity in conflict region is increasing

Escalation of the Conflict has severe implications for high food insecurity

Food security in conflict-affected countries in 2022

(Percent, millions of people)



Number of severely food-insecure people

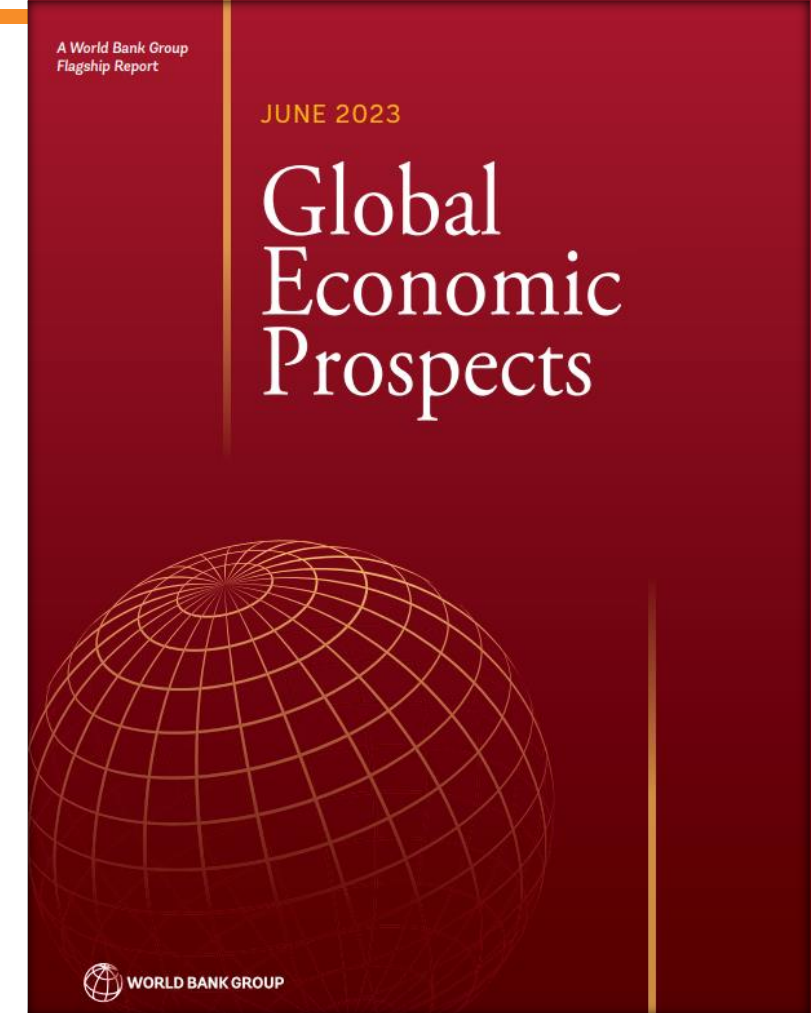
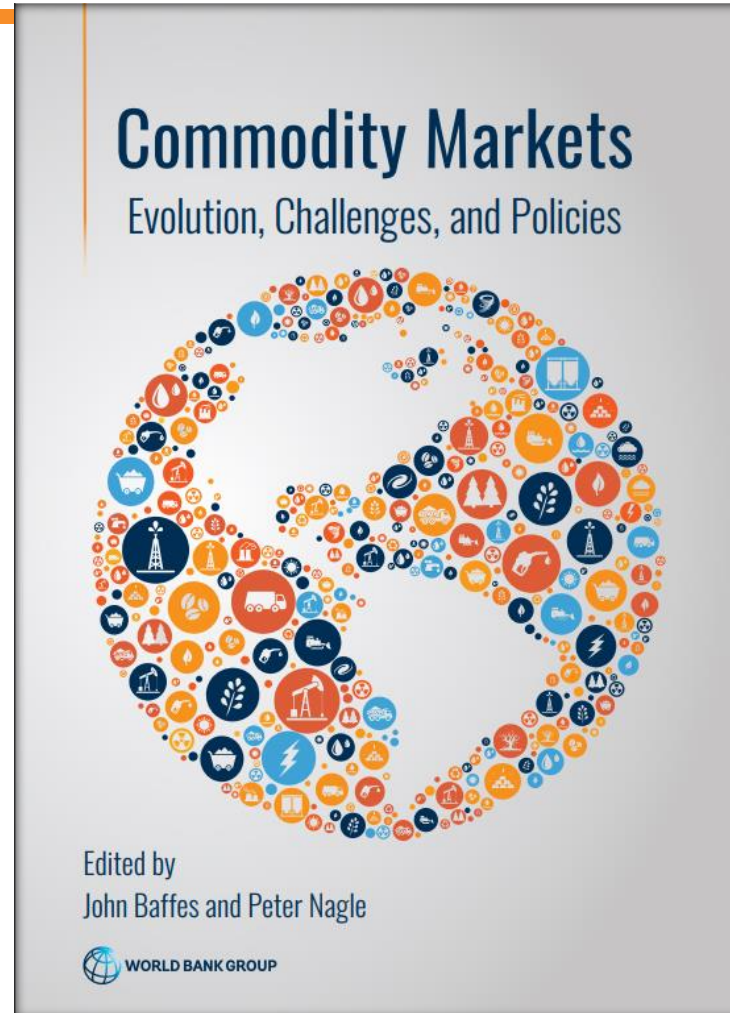
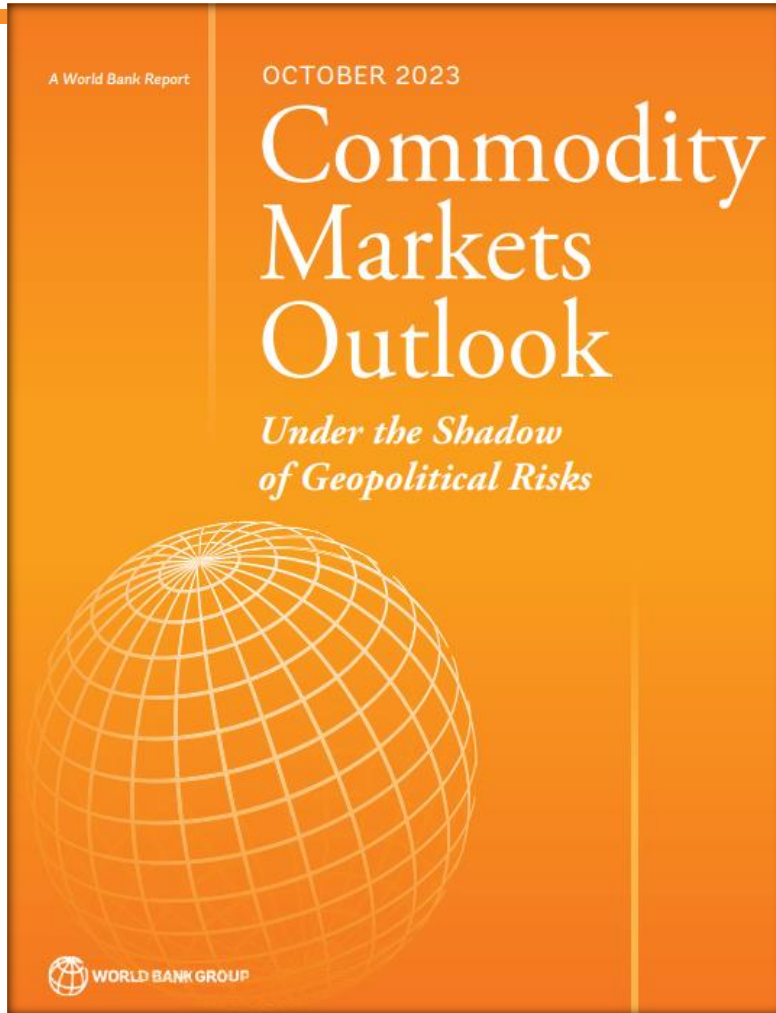
Number of people, millions



Sources: Food and Agriculture Organization of the United Nations; World Bank; World Food Programme.

Left Panel. Food insecurity measured using International Food Security Phase Classifications (IPC): (1) minimal/none, (2) stressed, (3) crisis, (4) emergency, and (5) catastrophe/famine. Bars represent the number of people who face a crisis or more severe (IPC3+) food insecurity in selected countries in the Middle East. Diamonds represent the share of people who face critical or more severe (IPC3+) food insecurity in these countries. Right Panel. Global number of people facing food insecurity at a severe level, based on The State of Food Security and Nutrition in the World 2023 report, page 21, Table 4.

www.worldbank.org/commodities



**Thank you for your attention.
Questions?**