Seventy-eighth session
Item 17 (d) of the provisional agenda*
Macroeconomic policy questions: commodities

World commodity trends and prospects

Report of the Secretary-General

Summary

The present report, prepared by the secretariat of the United Nations Conference on Trade and Development pursuant to General Assembly resolution 76/194, highlights recent developments and prospects in key commodity markets. It provides an analysis of factors that contributed to the trends in commodity prices in 2022 and the first quarter of 2023. The data show that most commodity prices increased in the first quarter of 2022, driven mainly by the onset of the war in Ukraine, leading to uncertainty and supply-related disruptions across various food and fuel commodities. This affected the prices of minerals, ores and non-precious metals, which increased owing to high input costs. The prices of precious metals also rose owing to the uncertainty brought about by the war. This upward trend was followed by declining prices across non-fuel commodities through the rest of the year into March 2023 (the most recent month for which data are available), owing mainly to a contraction in demand triggered by fears of a global economic recession and affordability concerns. Weak Chinese demand due to prolonged lockdowns and aggressive monetary tightening in various countries to combat inflation also contributed to that drop. Energy prices remained elevated well into 2022 owing to high natural gas prices as a result of geopolitical tensions affecting supply in the European Union. Fuel prices declined only in the last four months of 2022 owing to lower demand after rebuilding gas inventories. Ongoing geopolitical and economic uncertainty will likely keep prices highly volatile in 2023. The report presents an exploration of some policy issues related to recent developments and offers recommendations to help commodity-dependent developing countries to achieve sustainable development and inclusive growth.

* A/78/150.
I. Introduction

1. The present report on world commodity trends and prospects was prepared by the secretariat of the United Nations Conference on Trade and Development (UNCTAD) pursuant to General Assembly resolution 76/194. The report provides an analysis of recent developments in commodity markets, focusing on price trends and their determinants. The three major commodity groups covered in the report are: (a) agricultural commodities, including food, tropical beverages, vegetable oilseeds and oils, and agricultural raw materials; (b) minerals, ores and metals; and (c) energy, including oil, gas, coal and renewable energy.

2. This report also offers an exploration of import diversification as a way of mitigating the nefarious effects of commodity price volatility on food insecurity.

II. Recent developments in commodity markets

A. General overview

3. The UNCTAD free market commodity price index\(^1\) for all commodity groups followed the upward trend that started in mid-2020 owing to the coronavirus disease (COVID-19) pandemic and reached a high of 235.6 points in August 2022, owing primarily to the supply disruptions and price hikes across commodities that resulted from the war in Ukraine. In September 2022, the index for all groups reversed its upward trend and declined to 158.5 points by March 2023. This decline resulted from reduced demand triggered by concerns about a global economic recession and aggressive monetary tightening in various countries to combat inflation.

![UNCTAD free market commodity price index, all groups](image)

Source: UNCTAD secretariat calculations based on data from UNCTADstat.

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\(^1\) The United Nations Conference on Trade and Development (UNCTAD) free market commodity index was rebased to 2015 = 100, with new commodities added to the old index, hence the use of new weights. The new index includes separate indices for the group of fuels and a subgroup of precious metals. All websites referred to in the present report were accessed in May 2023.
4. The monthly fluctuations of the UNCTAD commodity price index illustrate the degrees of variation in commodity prices (see figure II). In 2022, the index witnessed wide monthly variations owing to numerous factors (see sect. II.B). The index’s highest and lowest percentage changes occurred in March (18.9 per cent) and October (-9.5 per cent).

Figure II
Monthly fluctuations of the UNCTAD free market commodity price index, all groups
(Percentage change)

Source: UNCTAD secretariat calculations based on data from UNCTADstat.

B. Developments in key commodity sectors

1. Food and agricultural commodities

5. The UNCTAD food price index peaked in May 2022, reaching 159.2 points, but dropped to 135.6 points in March 2023 (see figure III). This pattern follows the fluctuations in the index of food and vegetable oilseeds and other oils closely, which experienced the largest variation among all food groups. Some factors behind these fluctuations are the war in Ukraine and the subsequent Initiative on the Safe Transportation of Grain and Foodstuffs from Ukrainian Ports (Black Sea Initiative) and memorandum of understanding on facilitating exports of Russian food products and fertilizers, which enabled the continued exports of agricultural products from both Ukraine and the Russian Federation, as well as weather conditions and soaring fertilizer costs.2

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6. Maize prices increased to $364 per metric ton in March 2022 (see figure IV), underpinned by disruptions in production in Ukraine, a major exporter of maize, and high fertilizer costs. Maize prices declined throughout the second quarter of 2022, owing to increased production from Argentina and Brazil and weaker demand for animal feed from and the United States of America and the European Union.\(^3\)\(^4\) The Black Sea Initiative signed in late July 2022 also eased market pressures.\(^5\) Despite this decline, maize prices peaked again in October before falling a second time, recording $290.3 per metric ton in March 2023. Uncertainty surrounding the renewal of the Black Sea Initiative\(^6\) and unfavourable weather conditions in Argentina, the United States and the European Union contributed to the price jump in October.\(^7\) Meanwhile, Brazil’s increased production and weak demand in the United States exerted downward pressure on prices by the end of 2022 and early in 2023.\(^8\) Weak demand and anticipated increases in maize production in the United States may contribute to lower prices in 2023. However, upward risks remain from continued uncertainty regarding the future of the Black Sea Initiative\(^9\) and short supplies in Argentina.\(^10\)

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5. UNCTAD, “A trade hope: the impact of the Black Sea Grain Initiative”.
Figure IV

Price trends of selected food and agricultural commodities

Source: UNCTAD secretariat calculations based on data from UNCTADstat.
Note: The price movements of sugar and beef are reflected in the right axis. Maize, wheat, rice and soybean meal prices are reflected in the left axis.

7. The international benchmark price of United States wheat also experienced large fluctuations in 2022 (see figure IV) associated with supply disruptions from the Black Sea. First, wheat prices increased from $373 per metric ton in January to $523 per metric ton in May 2022, owing to the war and reduced exports from Ukraine.11 Following the Black Sea Initiative and higher-than-expected output from Australia, Canada and the Russian Federation, wheat prices declined to $382 per metric ton in August 2022.12,13 Notwithstanding a subsequent price rise, higher production and low demand from the United States then weighed down on prices a second time,14 reaching $373 per metric ton in March 2023. Future price movements will be shaped by the developments in the Black Sea region and the future of the Black Sea Initiative.15,16 Wheat prices are forecast to continue to decline, assuming exports from the Black Sea continue to flow.17

8. The benchmark price of Thailand rice increased from $427 per metric ton in January 2022 to $464 per metric ton in May 2022. Notwithstanding a decline between June and November 2022, prices rose again in December, reaching $476 per metric ton in March 2023 (see figure IV). Fluctuations were attributed to weather variability affecting supply throughout the year. Increasing prices in November reflected tight supplies owing to dry conditions in China and lower planted areas in India, which offset increased production in Thailand and Viet Nam.18 This coincided with currency

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18 World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.

World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.
appreciation against the United States dollar in Asian exporting countries, reflecting higher prices.\textsuperscript{19} Rice consumption is forecast to increase, driven by growing demand in Bangladesh, China and Thailand\textsuperscript{20} that will likely exceed production and exert inflationary pressure on prices.

9. The monthly average of the International Sugar Agreement daily prices rose to 19.6 cents per pound in April 2022 (see figure IV), owing to higher input costs following the war in Ukraine.\textsuperscript{21} After peaking in April, sugar prices declined, averaging 17.5 cents per pound in October 2022 owing to a depreciation of the Brazilian real and lower ethanol prices leading to increased production in Brazil. Improved production prospects in India further contributed to lower sugar prices.\textsuperscript{22} Sugar prices then rose to 18.9 cents per pound in December 2022, owing to unfavourable weather in India and delays in sugarcane crushing in Australia and Thailand.\textsuperscript{23} Sugar prices have continued to rise in 2023, higher production prospects notwithstanding, owing to supply-related constraints and countries stockpiling due to uncertainty and fear of shortages.\textsuperscript{24}

10. Soybean prices increased from $526 per metric ton in January 2022 to $601 per metric ton in March 2022 (see figure IV), owing to increased demand for sunflower seed substitutes, high crude oil prices and unfavourable weather in South America.\textsuperscript{25} Prices declined to $519 per metric ton in November 2022, owing to concerns about an economic slowdown and bearish demand from China. Prices rose again in December, owing to unfavourable weather affecting production in Argentina amid strong demand continuing into March 2023.\textsuperscript{26} However, soybean prices are forecast to decline in 2023 owing to record-high production projected in Brazil and the United States. That is expected to outweigh a rebound in demand for biofuels\textsuperscript{27} and the upward risks associated with unfavourable weather in Argentina.\textsuperscript{28}

11. The price of Australian and New Zealand beef declined from $5.97 per kilogram in January 2022 to $5.58 per kilogram in March 2023 (see figure IV), owing to lower demand for premium beef cuts and increased staffing at meatpacking plants in the United States.\textsuperscript{29} Pressures to sell cattle amid dry weather in Australia also contributed to lower prices.\textsuperscript{30} Beef prices are forecast to increase in 2023 as drought shrinks cattle herds in the United States.\textsuperscript{31}

12. The UNCTAD vegetable oilseeds index increased from 171 points in January 2022 to 211 in March 2022 (see figure V), owing to an increase in sunflower and soybean oil due to the war in Ukraine and the close substitutability of edible oils and oilseeds. The index decreased to 153 points in March 2023 owing to declines in sunflower, soybean and palm oil prices.

\textsuperscript{21} Samuel Gebre, “Brace for even higher sugar prices, Europe’s top producer warns”, Bloomberg, 16 June 2022.
\textsuperscript{24} Economist Intelligence Unit, “Sugar: January”, January 2023.
\textsuperscript{25} Ibid., “Soybeans: November”, November 2022.
\textsuperscript{26} Ibid.
\textsuperscript{28} Economist Intelligence Unit, “Soybeans: May”, May 2023.
\textsuperscript{29} See robbreport.com/food-drink/dining/beef-price-decline-premium-steak-1234741794/.
Figure V
Price trends of selected commodities in the vegetable oilseeds and oils market

Source: UNCTAD secretariat calculations based on data from UNCTADstat.

13. Soybean oil prices rose to $1,963 per metric ton in May 2022 (see Figure V), exceeding already high prices exhibited in 2021. This was attributed to increased demand for sunflower oil substitutes following supply disruptions in Ukraine. Prices then decreased to $1,113 per metric ton in March 2023, owing to favourable growing conditions in South America and the resumption of Ukrainian exports after the Black Sea Initiative. Soybean oil prices are likely to continue to decline in 2023 owing to record harvests in Brazil and the United States. These are predicted to offset severe drought-related losses in Argentina. However, sluggish demand from China and India will likely ease pressure on soybean oil prices.

14. Palm oil prices continued their upward trend, rising to $1,777 per metric ton in March 2022 (see Figure V). Similar to soybean oil, this was attributed to a surge in demand to replace sunflower oil. An export ban imposed by Indonesia on palm oil and lower-than-expected output in East Asia worsened tight supply and further increased prices. After peaking in March 2022, palm oil prices decreased to $972 per metric ton in March 2023. This resulted from numerous factors, including the Black Sea Initiative, Indonesia lifting its export ban and weak demand owing to consumer affordability concerns and limited growth prospects. Palm oil prices are

Sources:
32 See World Bank, “The impact of the war in Ukraine on commodity markets”.
33 See ibid., “Pandemic, war, recession: drivers of aluminum and copper prices”.
38 See World Bank, “The impact of the war in Ukraine on commodity markets”.
40 See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.
forecast to rise in mid-2023, notwithstanding high production due to increased demand in Indonesia, where a new policy requires a higher blend of palm oil in biodiesel.\textsuperscript{41} Upward pressures may also arise from the possibility of El Niño leading to dry weather and reduced yields towards the end of the year.\textsuperscript{42}

15. Sunflower oil prices increased by 67 per cent between January and March 2022, reaching $2,361 per metric ton in March 2022. This price surge was underpinned by supply disruptions in the Russian Federation and Ukraine, which account for more than 75 per cent of global exports.\textsuperscript{43} Prices began to decline owing to weak demand due to affordability concerns and the improved availability of other vegetable oils.\textsuperscript{44} The launch of the Black Sea Initiative in July 2022, which also covered sunflower oil and meal, also eased market pressures.\textsuperscript{45} By March 2023, sunflower prices had reached $1,075 per metric ton, representing a 54 per cent decrease between March 2022 and March 2023. Owing to intense competition from substitutes, sunflower oil prices will likely fall further, notwithstanding uncertainty about export routes in the Black Sea region and limited production in Ukraine.\textsuperscript{46}

16. The UNCTAD tropical beverages index declined from 141 points in January 2022 to 117 in December 2022 (see figure VI), due to decreased coffee prices. The decline in 2022 notwithstanding, the UNCTAD tropical beverages index remains above pre-COVID-19 values and has since increased to 124 points in March 2023.

Figure VI
Price trends of selected tropical beverage commodities

\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure VI.png}
\caption{Tropical beverages index (2015=100)}
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\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure VI.png}
\caption{Cocoa beans, average daily prices New York/London (cents per pound)}
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\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure VI.png}
\caption{Coffee, Brazilian and other natural Arabicas, ex-dock United States (cents per pound)}
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\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure VI.png}
\caption{Coffee, Robustas, ex-dock United States (cents per pound)}
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\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure VI.png}
\caption{Tea, Kenya Mombasa/Nairobi, auction price (dollars per kilogram, right axis)}
\end{figure}

\textit{Source: UNCTAD secretariat calculations based on data from UNCTADstat.}

\textsuperscript{41} See \url{www.reuters.com/world/asia-pacific/indonesias-biodiesel-policy-dry-weather-keep-palm-oil-prices-elevated-2023-03-08/}.

\textsuperscript{42} See Economist Intelligence Unit, “Palm Oil: May”, May 2023.

\textsuperscript{43} See Anuradha Raghu, “Record cooking oils are latest threat to surging food inflation”, \textit{Bloomberg}, 3 March 2022.

\textsuperscript{44} See Economist Intelligence Unit, “Sunflowerseed Oil: April”, April 2022.

\textsuperscript{45} See UNCTAD, “A trade hope: the impact of the Black Sea Grain Initiative”.

\textsuperscript{46} See Economist Intelligence Unit, “Sunflowerseed oil: May”, May 2023.
17. Cocoa bean prices averaged 112 cents per pound in January 2022, remaining relatively stable throughout 2022 until an increase to 121 cents per pound in March 2023 (see figure VI). Consumption is forecast to rise faster than production owing to higher input prices and adverse weather affecting supply, in particular in Côte d’Ivoire, the world’s largest cocoa producer.\textsuperscript{47} That will likely continue to support prices in 2023, notwithstanding the positive growth prospects of high-quality cocoa in Latin America.

18. After increasing to $2.7 per kilogram in February 2022, tea prices declined to $2.1 per kilogram in June 2022 (see figure VI). This downward trend reversed and prices reached $2.4 per kilogram in March 2023, owing to limited supply in Sri Lanka due to economic challenges and adverse weather in India, Kenya, Malawi and Uganda.\textsuperscript{48} Prices are forecast to continue to decline in 2023 owing to weak demand in Central Asia, a key consuming region.\textsuperscript{49}

19. The International Coffee Organization’s average monthly composite indicator price declined by 23 per cent, from 204 cents per pound in January 2022 to 157 cents per pound in December 2022. That was supported by positive production prospects for Arabica and Robusta and weak demand.\textsuperscript{50} Coffee prices increased to 172 cents per pound in February 2023 and are likely to rise further, owing to high fertilizer costs and adverse weather.\textsuperscript{51}

20. The UNCTAD agricultural raw materials index fell from 114 points in January 2022 to 99 in March 2023 (see figure VII),\textsuperscript{52} owing to declines in cotton and rubber prices.

Figure VII
Price trends of selected agricultural raw materials

![Price trends of selected agricultural raw materials graph]

Source: UNCTAD secretariat calculations based on data from UNCTADstat and the World Bank.

\textsuperscript{47} See ibid., “Cocoa: May”, May 2023.
\textsuperscript{48} See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.
\textsuperscript{49} See ibid., “Lower prices, little relief.”.
\textsuperscript{50} See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.
\textsuperscript{51} See Economist Intelligence Unit, “Coffee: May”, May 2023.
21. The cotton A index price, a benchmark for world cotton prices, peaked at $3.61 in May 2022 before declining to $2.10 per kilogram in March 2023 (see figure VII). The initial price increase was due to adverse weather in cotton-producing areas in the United States, soaring energy prices and fertilizer shortages following the war in Ukraine. The decline between May 2022 and March 2023 was attributed to low demand amid fears of an economic slowdown offsetting upward pressures from the reduced output in India and Pakistan. Cotton prices are forecast to continue to trend down in 2023 due to bearish demand.

22. After reaching 212 cents per kilogram in March 2022, natural rubber prices declined, quoting 154 cents per kilogram in December 2022 (see figure VII). This was driven by subdued demand from slowing economic activity and disruptions in the automobile industry. Favourable weather and increased output in Côte d’Ivoire and Thailand also contributed to lower prices. However, prices rose to 158 cents per kilogram in March 2023. Increased demand and improved business sentiment in China will likely continue to exert upward pressure on prices in 2023.

2. Minerals, ores and metals

23. The UNCTAD minerals, ores and non-precious metals price index rose from 204 points in January 2022 to 232 points in April, owing to price increases in all commodities in the group, in particular nickel, zinc and iron ore (see figure VIII). In May 2022, this upward trend reversed, and the index fell to 190 points in March 2023.

Figure VIII
Price trends of selected minerals ores and non-precious metals

Source: UNCTAD secretariat calculations based on data from UNCTADstat and the World Bank.

54 See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.
57 See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.
24. Iron ore prices increased from an average of $133 per dry metric ton in January 2022 to $152 per dry metric ton in March 2022 (see figure VIII), owing to reduced output from Ukraine and supply difficulties from the Russian Federation. Labour shortages in Australia and adverse weather in Brazil also contributed to higher prices.\(^{60}\) Iron ore prices then declined from $151 per dry metric ton in April 2022 to $93 per dry metric ton in November 2022 after the demand for steel products plummeted, owing to a slowdown in industrial and construction activities.\(^{61}\) A small increase in December notwithstanding, iron ore prices presented a net decline of 16 per cent between January and December 2022. Although iron ore prices had since rallied to $128 per dry metric ton in March 2023 owing to recovering demand, prices will likely fall in the second half of 2023 owing to steady supply growth. Uncertainty about the global economy and lacklustre demand in China, owing to policies intended to limit steel production to curb pollution, are also likely to lower prices in the second half of 2023.\(^{62}\)

25. After exhibiting an increase between January and March 2022 owing to the war in Ukraine, copper prices declined from $10,231 per metric ton in March 2022 to $7,545 per metric ton in July 2022. Thereafter, prices remained relatively stable until increasing to $8,856 per metric ton in March 2023 (see figure VIII). As a commodity with a highly volatile price, copper has a price pattern that mirrors economic activity and geopolitical developments.\(^{63}\) Prices are forecast to rise further owing to a rebound in demand. Indeed, concerns about economic activity notwithstanding, a price increase is likely to be supported by the energy transition and environmental policies, prompting demand for electric vehicles, charging stations, the generation of renewables and grid storage.\(^{64}\)

26. Aluminium prices continued their upward trend from $3,006 per metric ton in January 2022 to $3,498 per metric ton in March 2022 (see figure VIII), owing to soaring energy prices, depleted global inventories and supply disruptions of alumina, a key input of aluminium.\(^{65}\) After peaking in March 2022, aluminium prices declined, quoting $2,296 in March 2023. This drop resulted from a slowdown in manufacturing activity due to increasing fears of a global recession and a weak construction sector in China.\(^{66}\) Prices are forecast to increase owing to supply disruptions in Australia and Brazil. High energy costs associated with the war in Ukraine will likely continue to affect European smelters, pushing up aluminium prices.\(^{67}\) Downward risks stem from sluggish demand owing to concerns about the global economy.

27. Zinc prices rose from an average of 184 cents per pound in January 2022 to 227 cents per pound in April 2022 (see figure VIII). This was due primarily to energy-driven supply cuts in Europe. Similar to aluminium, elevated energy prices increased the production costs of zinc, leading to shutdowns or production cuts at smelters. With sluggish demand outweighing production costs in the remainder of the year, zinc prices declined between April 2022 and March 2023, quoting 170 cents per pound in March 2023. Zinc prices are likely to continue to decrease in 2023 owing to modest

\(^{60}\) See World Bank, “The impact of the war in Ukraine on commodity markets”.

\(^{61}\) Ibid., “Pandemic, war, recession: drivers of aluminum and copper prices”.

\(^{62}\) See ibid., “Lower prices, little relief”.

\(^{63}\) See James Attwood, “A great copper squeeze is coming for the global economy”, Bloomberg, 21 September 2022.

\(^{64}\) See Economist Intelligence Unit, “Copper: May”, May 2023.

\(^{65}\) See World Bank, “The impact of the war in Ukraine on commodity markets”.

\(^{66}\) See ibid., “Pandemic, war, recession: drivers of aluminum and copper prices”.

demand and increased output from Australia, China and Peru. However, upward risks from elevated energy prices remain.

28. Nickel prices increased from $22,355 per metric ton in January 2022 to $33,924 per metric ton in March 2022 (see figure VIII) owing to supply concerns from the Russian Federation, the world’s third-largest nickel producer. While prices declined thereafter owing to sluggish global demand and strong production growth in Indonesia, they resumed an upward trend in October that continued until the end of the year, closing at $28,947 per metric ton in December 2022. This was attributed to strong demand from the electric vehicle sector that coincided with supply disruptions in New Caledonia. Uncertainty brought by the war in Ukraine and lower demand for Russian-produced nickel also contributed to the price rise. Nickel prices had since dropped to $23,288 in March 2023, owing to increased output from China and Indonesia.

29. The UNCTAD precious metals index remained relatively unchanged, from 153 points in January 2022 to 152 points in December 2022, notwithstanding fluctuations arising mainly from geopolitical and economic uncertainty (see figure IX). This represented less than a 1 per cent decrease in the precious metals index between January and December 2022 compared with a 5 per cent decline in the previous year. The index had since increased to 160 points in March 2023.

Figure IX
Price trends of selected precious metals

![Price trends of selected precious metals](image)

Source: UNCTAD secretariat calculations based on data from UNCTADstat and the World Bank.

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68 See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.
70 See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.
73 See ibid. and World Bank, “Lower prices, little relief”.
30. After an increase between January and March 2022 due to the war in Ukraine, gold prices trended downwards, declining from $1,948 per troy ounce in March 2022 to $1,664 per troy ounce in October 2022 (see figure IX). This was attributed to weak demand due to rising interest rates and the appreciation of the United States dollar, which offset the positive impacts of increased demand for safe-haven assets due to inflation and geopolitical tensions.\(^{75}\) Gold prices reversed their downward trend and increased to $1,913 per troy ounce in March 2023, owing to a weakening dollar increasing the metal’s safe-haven appeal towards the end of 2022 and early in 2023.\(^{76}\) Gold prices are forecast to continue to increase owing to geopolitical and economic uncertainty.\(^{77}\)

31. Silver prices increased in the first three months of 2022, rising from $23 per troy ounce in January to $25 per troy ounce in March owing to the war in Ukraine (see figure IX). Prices then declined to $19 per troy ounce in October 2022, owing to lacklustre industrial demand and tight monetary policy that also affected gold prices.\(^{78}\) Silver prices increased again to $22 per troy ounce in March 2023, owing to a rebound in demand from photovoltaic manufacturing and consumer electronics.\(^{79}\) Silver prices are likely to continue to increase in 2023 due to limited supply and recovering demand.\(^{80}\)

32. Platinum prices followed a similar trend to gold and silver. Prices increased to $1,043 per troy ounce in March 2022 and sustained declines until September 2022, driven by high interest rates and sluggish demand owing to fears of an economic recession.\(^{81}\) This temporarily offset upward pressures from supply disruptions in South Africa and North America.\(^{82}\) However, increased demand to substitute palladium pushed prices up, quoting $1,011 per troy ounce in December 2022 amid continuing supply constraints.\(^{83}\) While platinum prices declined to $971 per troy in March 2023, they are forecast to increase in 2023 owing to higher demand from the automotive industry. Supply disruptions associated with power outages in South Africa will likely contribute to inflationary pressures.\(^{84}\)

3. **Fuels**

33. The UNCTAD fuel index continued its upward trend, climbing from 189 points in January 2022 to 290 points in August 2022 owing to price increases across all fuel commodities, in particular natural gas and coal (see figure X).\(^{85}\) While the index declined by 29 per cent between August and December 2022, reaching 205 points in December, the UNCTAD fuel index recorded a net increase of 9 per cent between January and December 2022.

\(^{75}\) See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.


\(^{77}\) See World Bank, “Lower prices, little relief”.

\(^{78}\) See ibid., “Pandemic, war, recession: drivers of aluminum and copper prices”.

\(^{79}\) See ibid., “Lower prices, little relief”.


\(^{81}\) See World Bank, “Pandemic, war, recession: drivers of aluminum and copper prices”.

\(^{82}\) Ibid.


\(^{84}\) Ibid.

Crude oil

34. The Brent benchmark for crude oil prices increased from an average of $86 per barrel in January to $120 per barrel in June 2022 (see figure XI). That rise resulted from geopolitical tensions in the Black Sea region and low crude oil inventories after a rebound in demand amid the easing of COVID-19 restrictions. Prices then declined to $81 per barrel in December 2022, owing to concerns about a slowdown in global economic activity and better-than-expected supply prospects in the Russian Federation. This price drop contributed to a net decline in crude oil prices of 6 per cent between January and December 2022. Oil prices declined in March 2023 and are forecast to continue to trend downwards, owing to concerns about a recession and sharp monetary tightening in many Organisation for Economic Co-operation and Development countries. Nevertheless, upward risks stem from production cuts by the Organization of the Petroleum Exporting Countries Plus and anticipated low production from the Russian Federation, coupled with signs of economic recovery in China.

Source: UNCTAD secretariat calculations based on data from UNCTADstat.
35. The natural gas index climbed by 131 per cent, from 197 points in January 2022 to a record high of 454 points in August 2022 (see figure XI), driven by price surges in the index’s regional markets, with Europe exhibiting the largest increase. Although the index declined to 252 points in December 2022, there was a net increase of 28 per cent between January and December 2022. The natural gas index continued to fall in 2023, reaching 105 points in March 2023.

36. The monthly average price of natural gas trade in the United States Henry Hub market increased by 103 per cent, from $4.33 per million British thermal units (Btu) in January 2022 to $8.79 per million Btu in August 2022 (see figure XI). This resulted from higher export demand for American natural gas following the onset of the war in Ukraine. Increased supply in the United States and lower export demand eased Henry Hub gas prices thereafter, closing at $5.5 in December 2022 and reaching $2.3 per million Btu in March 2023.

37. In the European gas market, natural gas prices increased from $28 per million Btu in January 2022 to a record high of $70 per million Btu in August 2022 (see figure XI). This was driven by announcements from the Russian Federation to reduce gas supplies to the European Union amid severe geopolitical tensions. The eventual suspension of gas supply through the Nord Stream 1 pipeline to the European Union in September 2022 and aggressive purchasing by European countries to rebuild gas inventories exerted further inflationary pressures on prices. Natural gas prices declined between August and December 2022, standing at $36 per million Btu by the end of the year, owing to replenished gas stocks in the European Union and lower

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91 See World Bank, “Lower prices, little relief”.


93 See World Bank, “Lower prices, little relief”.
demand due to a mild autumn and winter. Prices have continued to fall in 2023, quoting $13.8 per million Btu in March 2023, and are forecast to continue to decline owing to lower demand, healthy inventories and improved access to supply. However, upward risks remain from geopolitical and economic uncertainty.

38. In the Asian liquefied natural gas market, prices followed a similar trend, increasing from $14.7 per million Btu in January 2022 to $23.7 per million Btu in September 2022 (see figure XI). This was due to strong demand from the European Union to replace Russian piped gas. Subsequent high prices deterred demand and decreased prices to $16 per million Btu in March 2023.

**Coal**

39. Australian thermal coal prices rose by 119 per cent, from $197 per metric ton in January 2022 to $431 per metric ton in September 2022 (see figure XI). While prices fell to $379 per metric ton in December 2022 owing to a slowdown in economic activity, they remained elevated, amounting to a 93 per cent increase from January to December 2022 as demand outpaced supply. High natural gas prices led to significant fuel switching to coal in Europe, and unusually hot weather in China boosted electricity demand for cooling. Coal prices declined to $187 per metric ton in March 2023 and are forecast to decline further as natural gas prices regain their cost advantage in the European market. That, coupled with high inventories and increased anticipated production in Australia, is likely to support lower coal prices.

4. **Renewable energy**

40. Renewable energy demand increased by 14.6 per cent in 2021, driven by consumption growth in geothermal, wind and solar energy (see figure XII). Policies and climate targets have underpinned strong demand for renewable sources. Meanwhile, hydropower consumption decreased in 2021, capacity additions notwithstanding, owing to persistent drought in various countries, including Brazil, Canada, China, India, Türkiye and the United States.

41. Generating capacity also increased significantly between 2021 and 2022, notwithstanding global uncertainties and pandemic-driven supply chain challenges, amounting to 3,372 gigawatts by the end of 2022. This represents a record-high increase of 295 gigawatts in a year, of which 65 per cent came from additions in solar energy and 25 per cent from wind energy. Although rising input prices and freight rates have increased costs for renewables, wind and solar generation remain more competitive than fossil fuels, notably given the price surges of natural gas and coal. The focus on energy security, in particular in the European Union, has fuelled momentum for renewables and is likely to lead to further expansion in the renewables market.

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95. See World Bank, “Lower prices, little relief”.
96. Ibid.
99. See World Bank, “Lower prices, little relief”.
100. See [www.iea.org/reports/hydroelectricity](http://www.iea.org/reports/hydroelectricity).
102. Ibid.
Figure XII
Annual consumption growth rates of major renewable resources


III. Policy issues arising from recent market developments

42. The present report contains an analysis of market trends showing significant price variation, notably price increases across non-fuel commodity groups in the first three months of 2022, followed by declines amid some fluctuations during the rest of 2022 and early in 2023. Similar trends apply to fuel commodities, which showed an upward trend for eight months before declining around September 2022. As discussed above, those price movements were driven primarily by supply and demand variations associated with the war in Ukraine, fears of a global economic slowdown and monetary tightening to combat high prices.

43. These price movements affect commodity export-dependent and commodity import-dependent countries, in particular net food and fuel importers. Rising commodity prices may improve revenue in export-dependent countries, increase government expenditure, ease debt servicing and facilitate budgeting and development planning. By contrast, in import-dependent developing countries, high commodity prices of fuels and basic food staples lead to inflationary pressures and difficulties in gaining access to affordable food and energy supplies. This has been particularly notable in 2022, where high prices contributed to food and energy crises around the world. Among the 95 commodity-dependent developing countries in 2021, 73 were net importers of basic food, 60 of fuels and 79 of fertilizers. Forty-two were net importers of all three groups.\textsuperscript{105} Given the situation of acute food insecurity prevailing in various countries and the prevalence of net importers among commodity-dependent developing countries, the present report is focused on the need for resilient and diversified food systems to safeguard access to nutritious food and achieve sustainable development.

\textsuperscript{105} See UNCTAD, Commodities and Development Report 2023: Strength through Diversification (forthcoming).
A. Enhancing food security

44. Food prices began to rise in mid-2020, with the UNCTAD food index peaking in May 2022. This resulted from several factors, starting with a rebound in demand due to the easing of COVID-19-related restrictions, adverse weather and higher fuel and fertilizer prices, increasing food production input and freight costs. Geopolitical tensions and the war in Ukraine worsened an already challenging situation, posing threats to food security in a fragile global economy.

45. The Russian Federation and Ukraine account for half of the global trade in sunflower oil and seeds, some 30 per cent of the global trade in wheat and barley and one fifth of the global trade in maize. In addition, Belarus and the Russian Federation export approximately one fifth of the world’s fertilizers. Disruptions in the international supply chains of those commodities contributed to surging prices early in 2022 and presented challenges to food availability and access in low-income, net food-importing countries. An UNCTAD assessment of the war’s impact on trade and development highlighted its significant effects on African and least developed countries that are dependent to a large extent on wheat imports from the Russian Federation and Ukraine. As many as 25 African countries, including many least developed countries, import more than one third of their wheat from these 2 countries, and 15 countries import more than half. Higher food prices disproportionately affect the poorest countries and populations, given that they tend to spend a larger proportion of their income on food. Other food-import-dependent countries have faced significant challenges, including higher food bills, inflationary pressures and increasing debt levels.

46. The Black Sea Initiative has, to date, facilitated the free movement of more than 32 million metric tons of food staples, of which 57 per cent was delivered to developing countries. This, along with improved supply, has contributed to lower food prices in the second half of 2022 and 2023. However, prices remain high compared with pre-crisis levels and the uncertainty from the ongoing war in Ukraine continues to feed volatility. Restrictive measures on airspace and overland shipments to avoid conflict areas, contractor uncertainty and security concerns have resulted in rerouting and higher prices as freight carriers undertake longer distances and consume more fuel. This has compounded logistical challenges brought by the COVID-19 pandemic, which have also affected food; UNCTAD estimates that approximately half of the increase in consumer food prices between February and May 2022 resulted from higher transport costs.

47. Improving access to safe and nutritious food and maintaining food security during crises involve efforts to protect the most vulnerable. Drawing from the experiences of the COVID-19 pandemic, there is a need for socioeconomic policies, including social assistance and insurance programmes, to counteract the effects of adverse economic cycles and serve as a buffer against income shocks. According to the Food and Agriculture Organization of the United Nations, by May 2021 most

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108 Ibid.
110 See UNCTAD, “A trade hope: the impact of the Black Sea Grain Initiative”.
111 Ibid.
countries had implemented at least one social protection initiative, such as cash and in-kind transfers, the waiving or postponement of financial obligations and the introduction of labour regulations. While this may present fiscal challenges for low-income countries, continuing such programmes would benefit the most vulnerable groups amid higher food prices. While interventions are needed to safeguard the most vulnerable, it is advisable to employ targeted transfers over subsidies, wherever possible, to avoid market distortions. Governments are also encouraged to establish food security stocks as part of their national food security strategies, as long as this is in line with international trade policy. Such reserves could help to lessen the negative impact of spikes in global food prices on local consumers.

48. Equally important is building more resilient and productive food systems to lower the risks associated with future shocks. Strengthening productivity and market links along the food supply chain and increasing investment for a more productive and diverse agricultural sector is essential. For example, there is untapped potential to increase agricultural productivity in Africa, where average cereals yields are less than half the global average. This can be achieved by improving access to quality inputs and finance, capacity-building and technology. Investment in climate-smart agriculture would be beneficial, including minimum tillage, crop residue retention and crop rotation to reduce water loss and soil erosion. Efficient irrigation infrastructures and targeted fertilizer use can also improve productivity and optimize resources use. Other technologies, such as climate-resilient crop varieties and animal breeds, are encouraged. Gains in productivity can lead to more competitive exports and allow small-scale farmers to participate in more sophisticated value chains. Governments of acutely food-insecure countries should also prioritize expanding domestic food production by utilizing unexploited cultivation areas and promoting investment in food production.

49. Regional food supply chains, where food is sourced near consumers, can add resilience and flexibility to food systems while benefiting small producers that would otherwise face challenges in gaining access to larger markets. Promoting regional integration facilitates technology and knowledge transfers and promotes resource and infrastructure sharing. This can reduce production and distribution costs and isolate logistical disruptions, compared with the longer supply chains that characterize current food markets. Moreover, shorter distances and transport costs would generate lower transport-related emissions and contribute to climate targets. Countries participating in regional supply chains would also benefit from investments in agroprocessing to add value and increase the variety of products that they produce, strengthening the competitiveness of regional chains and reducing post-harvest losses and waste.

50. Diversifying food import sources is encouraged in order to reduce the vulnerability of supply disruptions and enhance food security, in particular in net food-importing countries. For example, Singapore imports more than 90 per cent of its food from more than 170 countries to reduce the risks of reliance on a narrow set of suppliers.\(^\text{120}\) This is a key aspect of its food security system, highlighting the importance of engaging with industry players to facilitate food imports and to respond to logistical issues that might arise from external shocks. In addition, the Singapore Food Agency aims to further enhance food security by setting a target to increase local food production to meet 30 per cent of food needs.\(^\text{121}\)

51. Food-exporting countries should respect their commitments made under the rules of the World Trade Organization to ensure the free flow of food products, and refrain from imposing export bans and other distorting measures that can hamper the availability of food imports in vulnerable countries.\(^\text{122}\) The need for open trade in food, fuel and fertilizer and for refraining from ad hoc policy measures such as trade restrictions, is highlighted by the war in Ukraine.

B. Summary of policy recommendations

52. Rising food prices and the current food insecurity in various countries highlight the need for resilient and diversified food systems. While social safety nets and national food stocks may be suitable to counter economic shocks in the short term, long-term solutions are needed to guarantee stable food security. Strengthening the resilience of food systems entails diversifying food imports and increasing local and regional food production through improved agricultural productivity. In the latter case, regional partnerships may be needed to increase regional trade and develop or strengthen regional supply chains. The following policy recommendations can contribute to implementing such strategies:

(a) Collaborate with regional trading partners to promote regional trade in food and ensure a suitable national food security strategy;

(b) Promote regional integration and the development of local or regional value chains to enhance resilience and flexibility. This includes fostering investment in agricultural productivity, ensuring access to quality inputs and financing and facilitating the use of more sophisticated technologies to optimize resource use;

(c) Foster investment in agroprocessing to add value to food value chains and diversify products, wherever possible. Governments are also encouraged to facilitate technology transfer and innovation to support these activities;

(d) Promote South-South cooperation and advance investment in human capital to strengthen and improve entrepreneurship in the food sector. South-South cooperation among commodity-dependent developing countries would also increase their bargaining power with international commodity buyers and their ability to negotiate for more favourable global trade and investment rule;

(e) In countries with the potential for expanding food production, investment in infrastructure is required for a successful outcome. For example, building suitable irrigation infrastructure would boost productivity and putting in place a cold storage network would reduce waste and allow the handling of bigger volumes. New food processing units would not only expand economic activity, but also make the food


\(^{121}\) Ibid.

sector more profitable. Such improvements would attract more investment in the food sector and maximize the benefits of potential partnerships in regional food systems;

(f) International cooperation should also consider advancing food security in developing countries. Support might include financial and technical assistance, as well as knowledge transfer;

(g) Leadership and strong political will in vulnerable countries and among development partners are also needed for food security. That will include countries upholding their commitments made under the World Trade Organization and keeping an open flow of commodity trade that could otherwise hamper access to food and energy. Indeed, as the experience of the Agricultural Market Information System has shown, market transparency and predictability are essential to the stability of food markets, in particular in times of global crises.

53. Multilateralism and international cooperation are crucial for global food security. The Black Sea Initiative, together with the memorandum of understanding on facilitating exports of Russian food products and fertilizers, have been a lifeline for global food security. It is critical to ensure the continuation of exports of food products and fertilizers from both Ukraine and the Russian Federation, including through resumption of the Black Sea Initiative and continued, full implementation of the memorandum of understanding.

54. UNCTAD emphasizes the risks of relying heavily on food imports and the need to diversify import sources, including through regional trade, as well as building a stronger food production sector, wherever feasible. In this context, UNCTAD has been implementing projects that help commodity-dependent developing countries to strengthen food value chains and transform commodity sectors into avenues for growth and sustainable development. A recent project assisted Mongolia in developing a road map to foster value addition in the meat sector. The same project contributed to the work of the Lao People’s Democratic Republic on developing a maize value chain. In Uzbekistan, the project focused on the dried fruits sector, while coffee was the target commodity in Ethiopia. Those projects involved in-country capacity-building activities and participation in international fairs to expose participating countries to various potential opportunities in the targeted food commodities.

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123 See unctad.org/project/integrating-landlocked-commodity-dependent-developing-countries-regional-and-global-value.