

# Food Import Bill

*ElMamoun Amrouk, Bing Qiao and Fabio Palmeri*

## Global food import bill to hit a new record high in 2023

FAO's latest estimates indicate that the global food import bill (FIB) will reach USD 2 trillion in 2023, representing an increase of 1.8 percent or USD 35.3 billion over the 2022 level and marking a new record high. The expected year-on-year growth, however, represents a significant deceleration compared to the 11 percent increase registered in 2022 and the 18 percent rise in 2021 (Table 1). Overall, fruits and vegetables, beverages, and sugar led to an increase in the price effect of USD 23.6 billion, USD 11.2 billion and USD 9.8 billion, respectively. This was partly offset by declines in the price effect from animal and vegetable oils, oilseeds, and cereals (Figures 1 and 2, and Table 2).

High-income and upper-middle-income countries (HICs and UMICs) are predicted to account for the lion's share of the global FIB in 2023, with 62 percent and 25 percent shares, respectively. They are also expected to drive the global increase in the FIB this year. Lower-middle-income countries (LMICs) and low-income countries (LICs) are expected to see a year-on-year contraction in their aggregate FIB, by 3.2 percent and 11 percent, respectively. The FIB of the group of net-food importing developing countries (NFIDCs) is also seen contracting by 4.6 percent in 2023.

Analysis of the FIB reveals several nuances across both food groups and country income levels. For instance, for sugar and fruits and vegetables, import expenditures are expected to grow by 12.5 percent and 7 percent, respectively, largely driven by a surge in their international quotations. On the other hand, the import bill of animal and vegetable oils is set to fall by 13 percent as a result of a substantial drop in their world prices. Among country income groups, the diverging patterns observed in 2022 are foreseen to persist in 2023. Overall, HICs and UMICs are anticipated to import a wide range of food products, while staple foods will largely continue to dominate the imports of LMICs and LICs. In addition, the share of imported higher-value foods in the total FIB drops with lower income levels. Fruits and vegetables, meat, fish, coffee, tea, cocoa and spices, and beverages together account for 61 percent, 42 percent, 30 percent and 20 percent of the total FIBs of HICs, UMICs, LMICs and LICs, respectively.

## Decomposing changes in the FIB

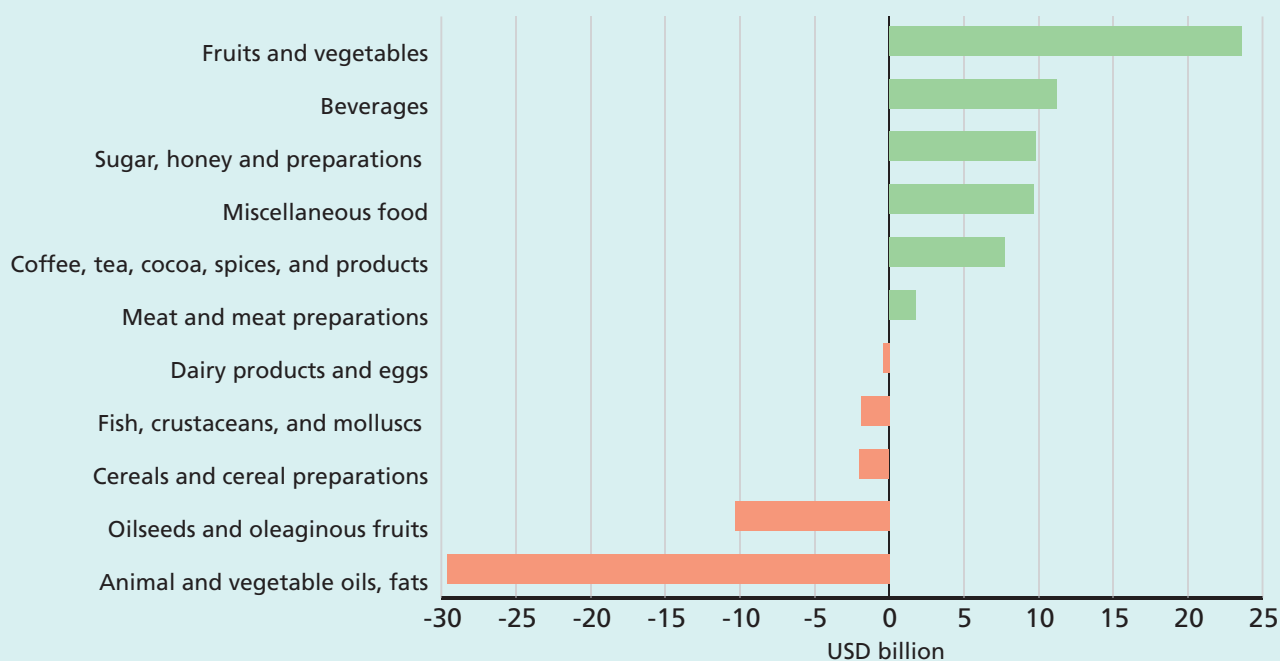
Expenditures on food imports result from the interaction of prices and quantities. Therefore, by decomposing the change in the FIBs into price and volume effects, it is possible to estimate the contributions of the two components at the global level and across all products. The calculations indicate that the projected increases in the 2023 FIBs result from a combination of price and volume effects, with USD 21.1 billion stemming from higher volumes and USD 19.6 billion from higher import prices<sup>1</sup> (Table 2).

The volume effect is projected to exceed the price effect for the first time since 2020, underpinned by an overall steady decline in international food prices since the spring of 2022. However, there are differences across the various food groups. For oilseeds, dairy products, and cereals, the growth in their import bills is expected to be largely volume-driven, while in the case of animal and vegetable oils, the effect from higher volumes is expected to be more than offset by a negative price effect, resulting in an overall decline in their import bill. Meanwhile, elevated import prices are observed for some other commodities, particularly high-value or processed products. For fruits and vegetables, beverages, sugar, coffee, tea, cocoa and spices, and meat, the growth in the import expenditures is primarily driven by the price effect.

The breakdown of the FIB by country income groups reveals some diverging trends in 2023. Food import bills are expected to contract for the least-developed countries (LDCs), NFIDCs and the countries of sub-Saharan Africa (SSA) by 9.2 percent, 4.6 percent and 2.5 percent, respectively. It is interesting to note that the decline in the FIB in these country groups reflects both lower prices and lower quantities. A reduction in import quantities – despite declining world prices – suggests that additional factors are impeding the ability of these countries to access international food markets. For instance, the strengthening of the US dollar, the main trading currency, with respect to the currencies of these country groups has negatively impacted their purchasing power. Other factors that reduce the ability to pay for food imports, especially in low-income countries, include limited financial resources, mounting debt levels, high freight costs and insurance premiums, contractions in domestic economic activity and falling foreign exchange reserves.

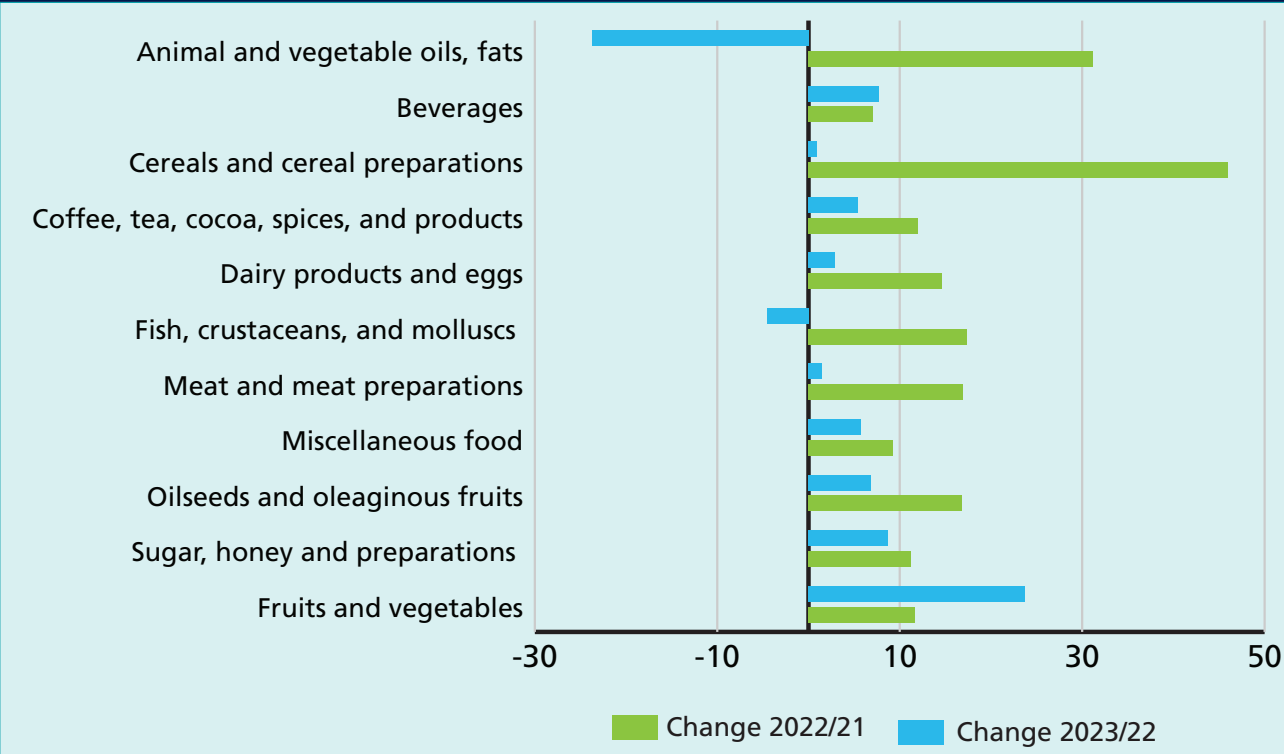
<sup>1</sup> There is a negative "mixed effect" of USD 5.4 billion in the overall change in the global FIB. This explains the difference between the overall increase in the global FIB of USD 35.3 billion and the sum of the price and quantity effects of USD 19.6 billion plus USD 21.1 billion.

**Figure 1. Price effect changes by food group (USD billion)**



Note: Forecasts are based on available trade data from January to July 2023  
 Source: FAO and Trade Data Monitor (TDM) and Authors' calculations

**Figure 2. Changes in the world food import bill by food groups**



Note: Forecasts are based on available trade data from January to July 2023  
 Source: FAO and Trade Data Monitor (TDM) and Authors' calculations

Table 1. Import bills of total food and food products by region (USD billion)

	World				LDCs				NFIDCs				SSA			
	2020	2021	2022	2023*	2020	2021	2022	2023*	2020	2021	2022	2023*	2020	2021	2022	2023*
Animal and vegetable oils, fats	104.5	151.8	183.0	159.3	6.0	9.2	10.3	8.7	13.2	19.9	22.9	20.8	6.3	9.1	10.2	9.0
Beverages	114.4	134.5	141.6	149.4	1.5	1.7	1.9	1.8	3.2	4.1	5.0	5.1	2.1	2.8	3.2	3.2
Cereals and cereal preparations	208.8	259.9	305.9	306.8	14.0	18.2	19.1	16.9	35.3	42.8	50.8	47.3	16.3	20.8	22.0	22.4
Coffee, tea, cocoa, spices, and products	113.0	127.1	139.1	144.4	1.5	1.5	1.5	1.5	5.1	6.2	5.8	5.8	1.4	1.7	1.7	1.7
Dairy products and eggs	97.5	109.5	124.1	127.0	1.9	2.0	2.2	2.0	5.8	6.3	7.3	6.9	2.4	2.7	2.7	2.4
Fish, crustaceans, and molluscs	153.7	178.0	195.4	190.8	1.3	1.6	1.7	1.6	5.0	5.4	5.8	5.5	3.9	4.6	4.9	4.6
Meat and meat preparations	159.9	178.1	195.0	196.5	1.7	2.2	2.6	2.4	5.8	6.6	7.7	7.2	2.5	3.2	3.7	3.4
Miscellaneous food	103.9	116.0	125.3	131.0	3.5	4.1	4.4	4.4	7.7	9.0	9.8	10.0	4.2	4.9	5.0	5.1
Oilseeds and oleaginous fruits	103.0	135.1	151.9	158.8	1.4	1.8	1.8	1.4	7.7	10.3	9.8	8.5	0.3	0.4	0.4	0.4
Sugar, honey and preparations	50.2	58.1	69.3	78.0	4.1	4.9	6.3	6.2	7.1	8.7	10.4	11.1	3.7	4.9	5.5	5.6
Fruits and vegetables	296.3	327.7	339.4	363.2	4.8	5.1	4.5	4.3	11.7	12.7	12.6	12.9	3.3	3.8	3.8	3.9
Total	1 505.2	1 775.7	1 969.9	2 005.2	41.7	52.3	56.3	51.1	107.6	132.1	148.0	141.2	46.4	58.9	63.2	61.6
	HIC				UMIC				LMIC				LIC			
	2020	2021	2022	2023*	2020	2021	2022	2023*	2020	2021	2022	2023*	2020	2021	2022	2023*
Animal and vegetable oils, fats	51.2	70.0	90.8	78.6	25.1	36.0	38.6	34.5	25.2	41.3	48.5	41.8	3.0	4.5	5.0	4.5
Beverages	92.6	107.3	113.0	117.2	16.4	20.6	21.0	24.0	4.8	5.9	6.7	7.4	0.6	0.8	0.9	0.8
Cereals and cereal preparations	104.5	119.7	147.4	150.6	49.6	71.4	77.2	80.0	47.0	59.6	70.6	67.0	7.7	9.3	10.7	9.2
Coffee, tea, cocoa, spices, and products	86.2	95.5	107.0	108.7	16.9	20.0	20.4	24.0	9.1	10.8	10.8	10.9	0.8	0.8	0.9	0.8
Dairy products and eggs	66.3	73.3	85.5	88.0	21.8	25.8	26.8	28.2	8.5	9.4	10.8	9.9	1.0	1.0	1.1	1.0
Fish, crustaceans, and molluscs	116.7	135.7	145.9	139.5	28.0	31.8	38.8	41.2	8.3	9.6	9.9	9.4	0.7	0.8	0.9	0.7
Meat and meat preparations	106.8	118.1	131.7	134.3	44.9	50.1	51.6	51.6	7.5	8.8	10.6	9.6	0.8	1.0	1.1	1.0
Miscellaneous food	65.4	72.6	78.8	83.1	26.9	29.4	31.7	33.2	9.7	11.6	12.3	12.3	2.0	2.3	2.5	2.4
Oilseeds and oleaginous fruits	31.2	39.3	48.1	42.9	59.5	79.2	86.6	98.5	12.1	16.3	16.9	17.1	0.1	0.2	0.3	0.2
Sugar, honey and preparations	27.0	30.9	36.2	42.3	11.4	13.4	16.8	16.4	9.3	10.8	12.8	16.0	2.5	3.0	3.6	3.3
Fruits and vegetables	217.4	233.9	239.6	254.8	53.5	62.2	66.2	74.1	23.1	29.3	31.6	32.5	2.2	2.3	2.0	1.9
Total	965.2	1 096.4	1 223.9	1 240.0	353.9	440.0	475.6	505.6	164.7	213.3	241.5	233.7	21.3	25.9	28.9	25.8

Note: Forecasts are based on available trade data from January to July 2023

Source: FAO and Trade Data Monitor (TDM) and Authors' calculations

Table 2. Decomposition of changes in food product bills for global aggregates, 2023 over 2022

Food group	World				LDCs				NFIDCs				SSA			
	Price effect	Volume effect	Mixed effect	Observed change	Price effect	Volume effect	Mixed effect	Observed change	Price effect	Volume effect	Mixed effect	Observed change	Price effect	Volume effect	Mixed effect	Observed change
	----- USD billion -----															
Animal and vegetable oils, fats	-29.6	7.9	-1.9	-23.7	-2.1	0.6	-0.1	-1.6	-4.4	3.0	-0.7	-2.1	-1.8	0.8	-0.2	-1.3
Beverages	11.2	-3.2	-0.3	7.7	0.1	-0.2	0.0	-0.1	0.4	-0.3	0.0	0.1	0.2	-0.2	0.0	0.0
Cereals and cereal preparations	-2.0	3.3	-0.4	0.9	-0.3	-1.8	0.0	-2.2	-2.7	-0.8	-0.1	-3.6	-0.8	1.2	0.0	0.4
Coffee, tea, cocoa, spices, and products	7.8	-2.2	-0.2	5.4	0.1	-0.1	0.0	0.1	0.4	-0.3	-0.1	0.0	0.1	-0.1	0.0	0.0
Dairy products and eggs	-0.4	3.6	-0.3	2.9	0.0	-0.2	0.0	-0.2	-0.2	-0.2	0.0	-0.4	-0.1	-0.3	0.0	-0.3
Fish, crustaceans, and molluscs	-1.9	-2.4	-0.4	-4.6	0.0	-0.1	0.0	-0.1	0.0	-0.3	0.0	-0.2	0.1	-0.3	0.0	-0.3
Meat and meat preparations	1.8	-0.2	-0.1	1.5	0.0	-0.2	0.0	-0.3	-0.3	-0.2	0.0	-0.5	-0.1	-0.3	0.0	-0.3
Miscellaneous food	9.7	-3.5	-0.3	5.8	0.3	-0.3	0.0	0.0	0.8	-0.6	0.0	0.2	0.4	-0.3	0.0	0.1
Oilseeds and oleaginous fruits	-10.3	18.3	-1.1	6.9	-0.1	-0.4	0.1	-0.4	0.0	-1.3	-0.1	-1.3	0.0	-0.1	0.0	-0.1
Sugar, honey and preparations	9.8	-1.0	0.0	8.7	0.8	-0.7	-0.2	-0.1	1.3	-0.6	-0.1	0.6	0.4	-0.3	-0.1	0.0
Fruits and vegetables	23.6	0.6	-0.4	23.7	0.2	-0.4	0.0	-0.2	0.2	0.1	0.0	0.3	0.3	-0.1	0.0	0.2
Total	19.6	21.1	-5.4	35.3	-1.0	-3.9	-0.3	-5.2	-4.3	-1.4	-1.1	-6.8	-1.2	0.0	-0.4	-1.6
Food group	HIC				UMIC				LMIC				LIC			
	Price effect	Volume effect	Mixed effect	Observed change	Price effect	Volume effect	Mixed effect	Observed change	Price effect	Volume effect	Mixed effect	Observed change	Price effect	Volume effect	Mixed effect	Observed change
	----- USD billion -----															
Animal and vegetable oils, fats	-12.3	-0.1	0.2	-12.2	-6.4	2.8	-0.6	-4.1	-10.0	4.6	-1.3	-6.8	-0.9	0.5	-0.2	-0.6
Beverages	8.9	-4.3	-0.4	4.2	1.6	1.3	0.1	3.0	0.6	0.0	0.0	0.6	0.1	-0.2	0.0	-0.1
Cereals and cereal preparations	4.4	-1.2	0.0	3.2	-1.8	4.8	-0.2	2.8	-4.5	1.1	-0.2	-3.6	-0.1	-1.4	0.0	-1.5
Coffee, tea, cocoa, spices, and products	5.8	-3.8	-0.2	1.7	1.2	2.3	0.1	3.6	0.8	-0.6	-0.1	0.1	0.0	0.0	0.0	0.0
Dairy products and eggs	0.9	1.6	0.0	2.6	-0.9	2.5	-0.3	1.4	-0.5	-0.4	0.0	-0.9	0.0	-0.1	0.0	-0.1
Fish, crustaceans, and molluscs	-0.4	-6.0	0.0	-6.4	-1.5	4.4	-0.3	2.5	0.0	-0.5	0.0	-0.5	0.0	-0.2	0.0	-0.2
Meat and meat preparations	4.0	-1.4	0.0	2.5	-1.9	1.9	0.0	0.0	-0.4	-0.6	0.0	-1.0	0.0	0.0	0.0	-0.1
Miscellaneous food	6.4	-1.9	-0.2	4.3	2.1	-0.6	0.0	1.5	0.9	-0.8	-0.1	0.0	0.2	-0.3	0.0	-0.1
Oilseeds and oleaginous fruits	-4.5	-0.9	0.2	-5.2	-5.4	18.6	-1.2	11.9	-0.4	0.6	0.0	0.2	0.0	0.0	0.0	0.0
Sugar, honey and preparations	5.6	0.5	0.1	6.2	1.5	-1.7	-0.2	-0.4	2.3	0.8	0.1	3.2	0.5	-0.6	-0.1	-0.3
Fruits and vegetables	19.9	-4.3	-0.4	15.2	4.2	3.7	0.0	7.9	-0.6	1.5	-0.1	0.9	0.1	-0.3	0.0	-0.2
Total	38.8	-21.9	-0.8	16.1	-7.3	40.0	-2.6	30.1	-11.7	5.6	-1.7	-7.8	-0.2	-2.6	-0.3	-3.1

Note: Forecasts are based on available trade data from January to July 2023

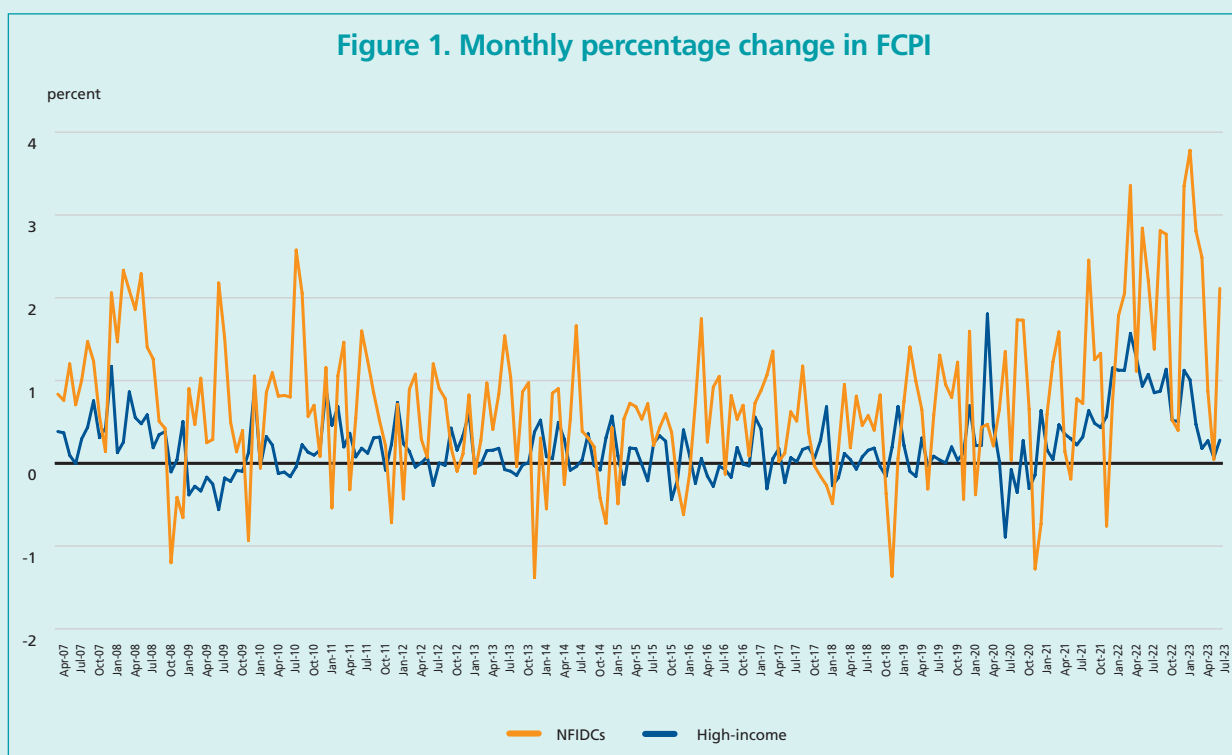
Source: FAO and Trade Data Monitor (TDM) and Authors' calculations

## Box 1. Recent developments in domestic food prices

The calculation of the FIB uses the weighted-average import unit values (UVs) as a proxy for prices at the borders of the importing country. While UVs generally capture changes in the prices of all food products in a concise manner, they do not necessarily reflect changes in consumer prices or reveal what the consumers pay at the retail level. One of the most popular measures for capturing general movements in domestic prices is the consumer price index (CPI). The food component of the CPI (FCPI) gauges the changes in the prices of food products. Figure 1 shows the monthly percentage change in the population-weighted average of the FCPI for 32 countries

after reaching a peak of 3.3 percent in April 2022, food inflation decelerated throughout the rest of the year, except for September and October 2022, when changes in the FCPI reached 2.9 percent and 2.8 percent, respectively. Food inflation accelerated in January and February 2023, before falling steadily in the following four months up to June 2023, then rising to 2.1 percent in July 2023, concomitant with an uptick in international crude oil prices. Likewise, in the sample of HIC countries, the FCPI reached a peak in April 2022 before falling gradually, notwithstanding a short-lived surge in January 2023 and a relatively small rise in July 2023. Overall, the deceleration of

Figure 1. Monthly percentage change in FCPI



Note: Based on available data, the analysis covers 32 out of the 78 countries in the group of NFIDCs. High-income countries include Canada, the Euro area, Japan and the United States.

Source: FAOSTAT, IMF and Eurostat, 2023 and Author's calculations

belonging to the group of the NFIDCs, given their dependence on food imports to meet their food needs and the relatively high share of food expenditures in their households' budgets. Data is mainly derived from the FAOSTAT and International Monetary Fund (IMF) databases and covers the period from April 2007 to July 2023 (the latest available data for many representative countries). For comparative purposes, the graph also shows the monthly percentage change in the population-weighted average of the FCPI for a sample of HIC countries. For the group of the NFIDCs,

food inflation reflected the decline in international food prices as illustrated by the FFPI, which fell by 8 percent between January 2022 and July 2023. The general downward trend of the international food quotations was mainly due to a strong supply response in the 2022/2023 season, falling energy prices and the easing of supply chain bottlenecks, as well as the expected restraining impact of monetary tightening by central banks to reduce inflation. This trend may be confirmed once more recent official data becomes available.

Analysis of the relationship between the FCPI in high-income countries and NFIDCs shows that both indices are cointegrated, meaning that they tend to move together in the long run. The analysis also indicates that past values of FCPI in high-income countries have a statistically significant effect on the current value of the FCPI in NFIDCs, but not vice versa. This unidirectional effect results from the exposure of NFIDCs to international food price fluctuations, particularly price changes in major exporters, many of them belonging to the group of high-income countries.

Inflation spillovers from high-income countries to NFIDCs can also occur following changes in monetary policy to address elevated domestic inflation. This is mainly the case for the United States, where higher interest rates lead to an appreciation of the US dollar, the main trading currency, with respect to the currency of the NFIDCs, which in turn raises their domestic inflation. The dependence of NFIDCs on world food markets also explains the greater volatility of the monthly percentage change in their FCPI compared to that of the high-income countries, as illustrated in Figure 1.