



FAOSTAT ANALYTICAL BRIEF 66

# General and food consumer price indices inflation rates

March 2023 update

## HIGHLIGHTS

- In 2022, the disruption of supply chains, higher energy and food prices caused by the war in Ukraine and the sharp appreciation of the dollar pushed the food consumer price index (CPI) to record heights.
- The annual variation of the global general consumer price index increased sharply from 1.5 percent in 2020 to 2.9 percent in 2021 and more than doubled to 8.1 percent in 2022.
- The inflation rate (year-over-year) of the global food consumer price index increased steadily from 2.1 percent in 2017 to 3.7 percent in 2021 and almost tripled to 10.6 percent in 2022.
- In 2022, the annual inflation rate of the food consumer price indices was greater than 15 percent in Eastern Europe, Eastern Africa, South America and Western Africa.

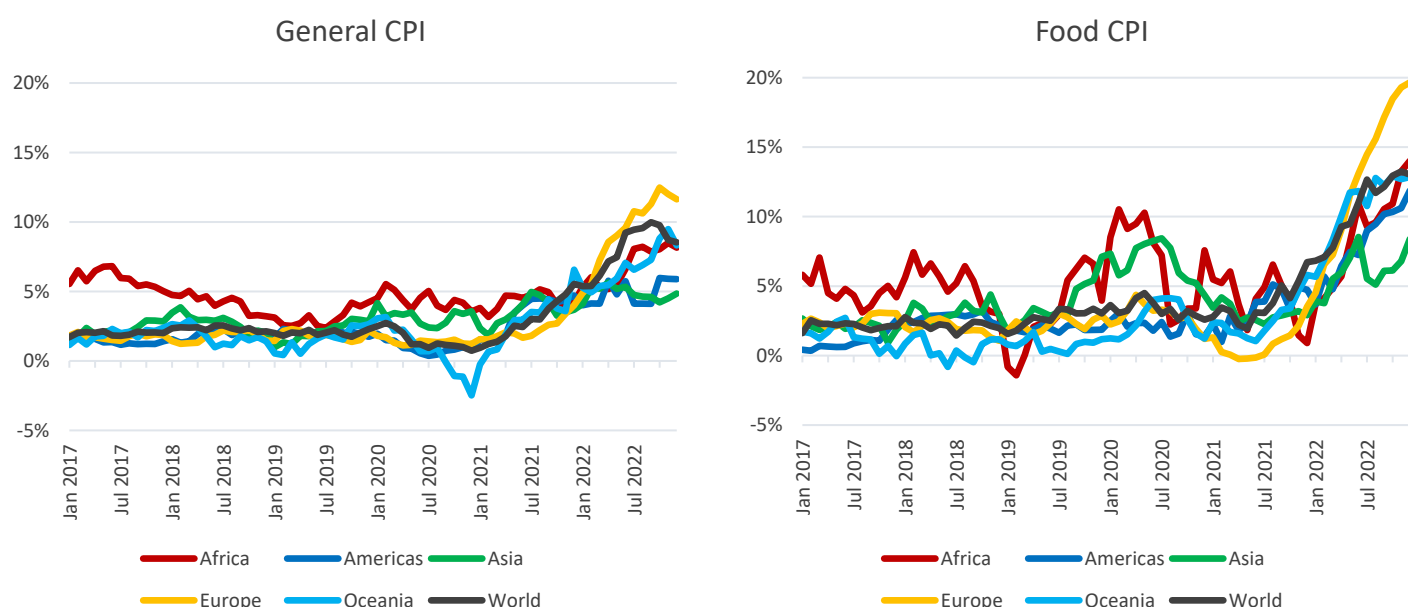
## FAOSTAT CONSUMER PRICE INDEX

### GLOBAL

As the global economy bounced back from the COVID-19 pandemic in 2021, a combination of higher demand (partly fuelled by the macroeconomic support schemes) and disruptions in supply chains led to price increases that persisted in 2022 (World Bank, 2023). Tight labour markets and the war in Ukraine added upward pressure on these already elevated food and energy prices. As a result, the annual inflation rate for the general CPI more than doubled on average globally, from 2.9 percent in 2021 to 8.1 percent in 2022. From January to September 2022, the global general CPI year-over-year inflation rate surged from 5.4 percent to 10.0 percent and came down to 8.5 percent by December 2022. The inflation rate rose in all regions, with the sharpest increases observed in Europe (more than doubling from 4.9 percent in January to 11.6 percent in December 2022) and Oceania (from 5.3 percent in January to 8.3 percent in December 2022).

The global food CPI inflation rate spiked from 3.7 percent in 2021 to 10.6 percent in 2022. Reasons include adverse weather conditions in numerous countries, which resulted in reduced crop and livestock yields. Additionally, economic sanctions against the Russian Federation and Belarus, which are major producers of key fertilizer nutrients, as well as trade disruptions in the Black Sea region due to the war in Ukraine, led to temporary shortages, higher production costs and, ultimately, elevated food prices (FAO, 2022; Hebebrand and Glauber, 2023; IMF, 2022c). The average global food CPI year-over-year inflation rate almost doubled from an already high 6.8 percent in January to 13.0 percent in December. Moreover, all regions recorded a sharp increase during the year, with Europe and Africa more than tripling from 4.5 percent in January to 19.7 percent in December and from 3.7 percent in January to 14.0 percent in December, respectively.

**Figure 1: Variation (year-over-year) of consumer price indices per region**



**Source:** FAO. 2023. Consumer Price Indices. In: *FAOSTAT*. Rome. Cited July 2023. <https://www.fao.org/faostat/en/#data/CP>

## REGIONAL

### Africa

The general and food CPI in African countries during 2022 have shown the same upward patterns as other regions, with subregional differences characterized by local specific economic and social conditions related to weather, conflicts, trade logistics disruption and the depreciation of local currencies (FEWS Net, 2023). In 2022, the inflation of the food CPI started to steadily increase from a low 0.9 percent in December 2021 to 14.0 percent in December 2022, a record-high for the 2017–2022 period.

Eastern Africa experienced a remarkable increase in food and general CPI inflation in 2022, from 2.0 percent in January to 27.6 percent in December 2022 and from 6.2 percent to 18.1 percent over the same period, respectively. The main drivers of price increases in the region were currency depreciations, below-average harvests due to droughts in Ethiopia and Kenya, floods in Ethiopia, the Sudan and South Sudan, and conflicts in Ethiopia and South Sudan (FEWS Net, 2023; WFP, 2022).

Middle Africa recorded a gradual increase in the inflation of the general CPI in 2022 from 1.9 percent in January to 5.4 percent in December. However, the inflation of the food CPI increased from 5.7 percent in January to 8.6 percent in September, remained around that level until November and came down to 6.8 percent in December. The increase in global staple food prices mainly caused the increase in the food CPI in this subregion; however, the food CPI started coming down in December due to the good weather conditions in the last quarter of 2022 (FAO, 2022a).

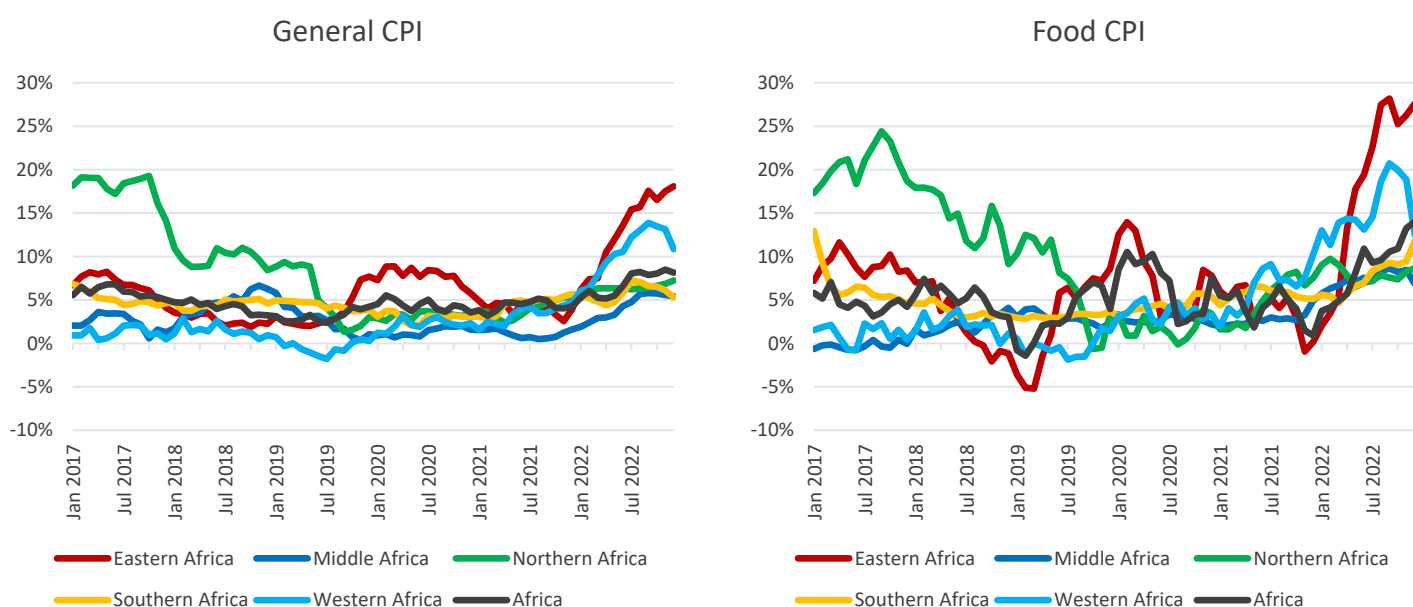
In Northern Africa, the food CPI was high between January and March 2022 (above 9.0 percent), as the cereals trade in the Black Sea started to be disrupted at the start of the war in Ukraine; in addition, currency depreciations, high insurance and fuel costs contributed to the increase of food prices in the

region, especially for Egypt, which is among the top importers of wheat from Ukraine and the Russian Federation (Gatti *et al.*, 2023). The general CPI slowly increased in 2022 from 5.2 percent in January to 7.2 percent in December.

During 2022, Southern Africa also experienced a surge in food CPI inflation, which more than doubled from 5.6 percent in January to 11.8 percent in December, primarily influenced by South Africa and Botswana. However, increases in the general CPI remained fairly stable at around 5.5 percent during this period (although with peaks in July and August of 7.2 and 7.1 percent respectively). In the case of South Africa, the inflation rate in the food CPI was affected by an upsurge in international prices and the depreciation of the country's currency. On the other hand, Botswana experienced an increase in the inflation rate of the food CPI due to high transportation costs and the global rise in food prices. Botswana's reliance on food and fuel imports further impacts its inflation rate (FAO, 2022c; FAO, 2022d).

In Western Africa, the food CPI already started 2022 at a high level (13.0 percent) in January, reaching 20.7 percent in September and decreasing to 12.5 percent in December. Conflicts and insecurity were the main drivers of high prices in Western Africa in both 2021 and 2022. Another driver was the low staple food production due to adverse weather, particularly in Mali, the Niger, Nigeria and Senegal. Higher international prices also affected prices in the region (WFP 2022). In 2022, Nigeria recorded a 17-year high inflation at 20.5 percent due to higher food and fuel prices (FEWS Net, 2022).

**Figure 2: Inflation rate (year-over-year) of consumer price indices – Africa and subregions**



**Source:** FAO. 2023. Consumer Price Indices. In: *FAOSTAT*. Rome. Cited July 2023. <https://www.fao.org/faostat/en/#data/CP>

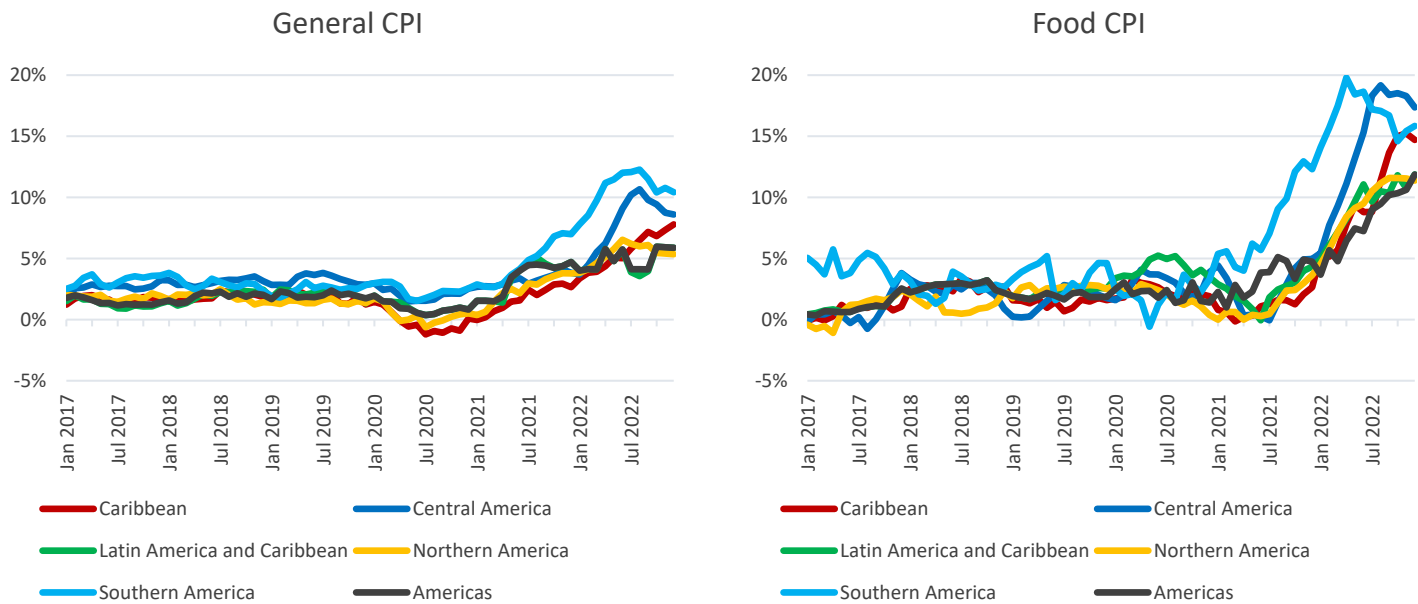
### Americas

In Northern America, the inflation rate in the general CPI continued to increase in 2022 from 3.8 percent in January to a 6.5 percent peak in June and then slowly decreased to 5.3 percent in December. The food CPI inflation rate increased at a much faster pace, from 4.6 percent in January to 11.6 percent in September and remaining around that level until December. The reopening of the economy in 2021, the

increase in energy prices and the sharp appreciation of the dollar contributed to this increase (IMF, 2022d).

In 2022, the inflation of the general CPI in Latin America and the Caribbean fluctuated between 3.6 percent and 6 percent, driven by the persistently high international commodity prices, production and transportation costs that contributed to the increase in CPI inflation in the second semester of 2021 and 2022 (FEWS Net, 2023). Additionally, currency depreciations, weather events and insecurity, especially in Haiti, pushed prices higher (FEWS Net, 2023; WFP, 2022). The inflation rate of the food CPI was further impacted by these issues, surging from 4.9 percent in January 2022 to 11.9 percent in December 2022. In the Caribbean and Central America, food CPI inflation more than doubled while in South America it remained high during the whole year between 14.1 and 19.8 percent.

**Figure 3: Inflation rate (year-over-year) of consumer price indices – Americas and subregions**



**Source:** FAO. 2023. Consumer Price Indices. In: *FAOSTAT*. Rome. Cited July 2023. <https://www.fao.org/faostat/en/#data/CP>

**Asia**

In Asia, the inflation of the general CPI increased in 2022 from 1.9 percent in January to a 5.8 percent peak in September and came down slightly to 5.4 percent in December. The inflation of the food CPI went up from 3.9 percent in January to 8.5 percent in June, then dropped to 5.1 percent in August, only to come back to 8.4 percent in December. Asia experienced a high food inflation rate in 2022 compared to previous years, which greatly impacted import-dependent countries with large vulnerable populations, such as India, Nepal and the Philippines (Simpfendorfer *et al.*, 2022). The remarkable increase in 2022 was an impact of the war in Ukraine that sent food prices to record levels.

Central Asia experienced the highest food CPI inflation in the region in 2022, starting from an already high level of 8.5 percent in January and increasing to 15.4 percent in December. The general CPI inflation followed a similar pattern, starting at 8.2 percent in January and reaching 12.2 percent in December. The high inflation in this region was due to the general high international prices and the high costs of production (FAO, 2022a).

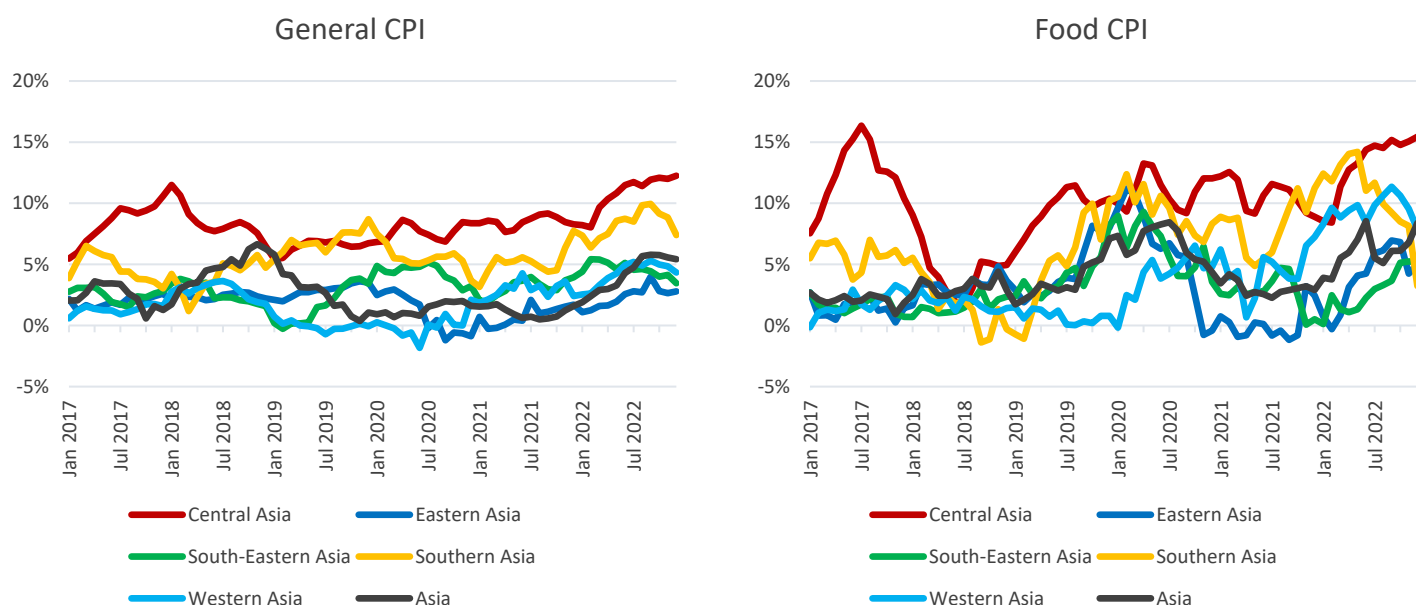
Western Asia also experienced high food CPI inflation starting in 2022. The inflation rate in the food CPI started at 8.3 percent in January, rose to 11.3 percent by September and decreased to 7.9 percent in December. The inflation in the general CPI followed a broadly similar trend, but with lower levels starting at 2.5 percent in January, peaking at 5.3 percent in September and coming down to 4.3 percent in December. In this subregion, Türkiye's inflation rate in the general and food CPI reached 64.3 percent and 77.9 percent in December 2022 due to the devaluation of the Turkish Lira. Other notable countries in the region include the Syrian Arab Republic and Yemen, whose economic situation continued to worsen as both countries faced humanitarian crises. In addition, geopolitical tensions continued to have a negative impact on neighbouring economies, particularly Jordan and Lebanon, where the financial crisis that started in mid-2019 is the main driver of hyperinflation, with the general and food CPI increasing by 122.0 percent and 142.9 percent, respectively, in December 2022 compared to December 2021 (WFP, 2022; Gatti *et al.*, 2023).

In Eastern Asia, the inflation rate of the general CPI was the lowest among all Asian regions in 2022. It fluctuated between 1.1 percent in January and 4.0 percent in September, then dropped to 2.8 percent in December. This trend was mostly due to the situation in China as the country continued to rebuild its pig herd after the African swine flu crisis of 2019–2020 and economic growth slowed down because of the COVID-19 pandemic (IMF, 2022b).

In Southern Asia, the inflation rate of the general CPI remained high in 2022, reaching 9.9 percent in September and decreasing to 7.4 percent in December. The food CPI inflation rate was also high, starting at 12.4 percent, culminating at 14.2 percent in May, slowly decreasing to 8.1 percent in November and dropping to 3.2 percent in December. The Islamic Republic of Iran had the largest inflation rate of the general CPI in Southern Asia, which increased from 35.9 percent in January 2022 to 48.5 percent in December 2022. It also recorded the highest inflation rate for the food CPI in the subregion, rising from 42.1 percent in January 2022 to 87.1 percent in July 2022, ultimately registering an inflation rate of 66.0 percent at the end of the year that was mainly driven by currency depreciation, fiscal deficits and sanctions. As with all regions, the war in Ukraine, which disrupted supply chains for cereals and fertilizers, the rise in shipping costs and high global demand fuelled by the post-pandemic economic recovery have all contributed to high inflation over the past few years (IMF, 2022a).



**Figure 4: Inflation rate (year-over-year) of consumer price indices – Asia and subregions**



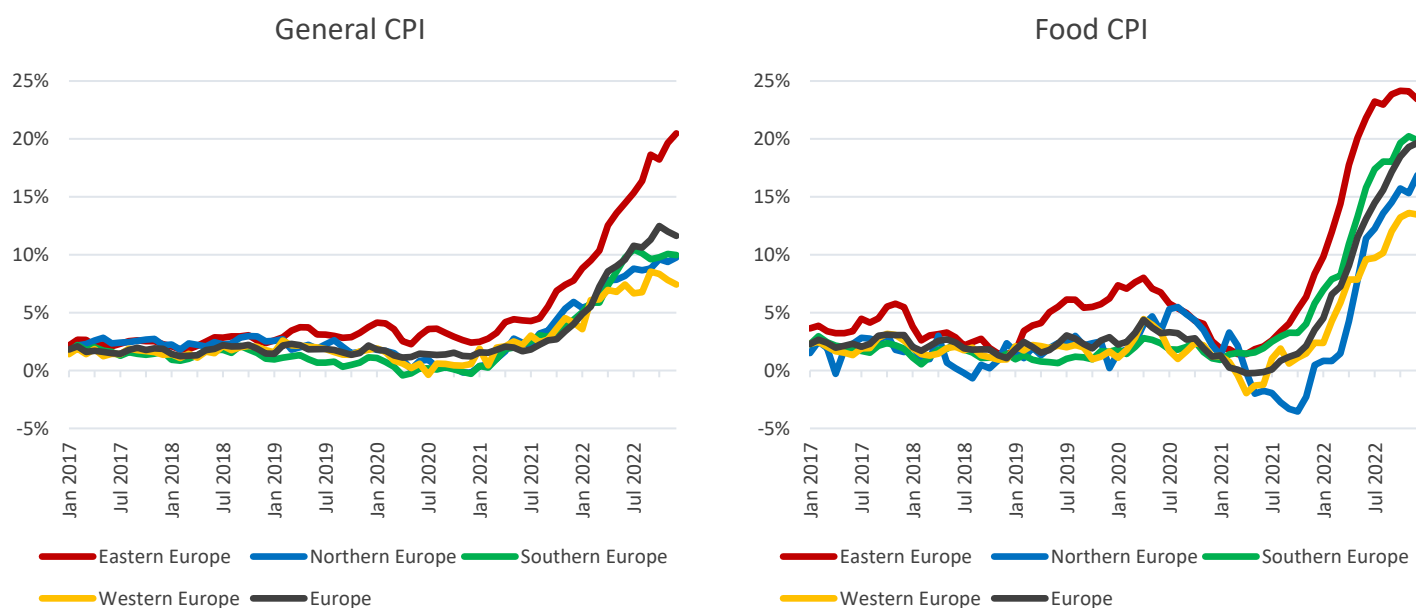
**Source:** FAO. 2023. Consumer Price Indices. In: *FAOSTAT*. Rome. Cited July 2023. <https://www.fao.org/faostat/en/#data/CP>

## Europe

Europe's general CPI inflation started 2022 at 4.9 percent and increased to 12.5 percent in October, driven by energy prices that rose in the wake of the global recovery from the pandemic (ECB, 2021) and the effects of the war in Ukraine, before declining slightly to 11.6 percent in December 2022. The inflation rate of the food CPI started at 4.5 percent in January 2022 and steadily increased to 19.7 percent in December 2022, accelerating the pace of increase this year.

All subregions witnessed large increases in the food and general CPI inflation starting from around mid-2021. The highest food CPI inflation levels were observed in Eastern Europe, especially Hungary (47.9 percent in December 2022) and Ukraine (34.4 percent in December 2022). Northern, Southern and Western Europe experienced a sharp increase in the food CPI inflation in 2022, from 0.8 percent in January to 16.9 percent in December, 7.0 percent to 19.9 percent, and 2.4 percent to 13.5 percent, respectively. Increases in commodity and energy prices played a major role in driving up the inflation rate for the general and food CPI, as well as tighter labour markets and shortages of some inputs. Several countries in Europe adopted fiscal policies to contain inflation, either by reducing taxes or capping energy prices charged to final consumers. According to the International Monetary Fund, "the structural relationships that underpin the inflation process may have changed as Europe was hit by two tail-risk events: the pandemic and [the] war in Ukraine" (IMF, 2022c).

Figure 5: Inflation rate (year-over-year) of consumer price indices – Europe and subregions



**Source:** FAO. 2023. Consumer Price Indices. In: *FAOSTAT*. Rome. Cited July 2023. <https://www.fao.org/faostat/en/#data/CP>

#### Annual inflation rates of food commodity price and food consumer price

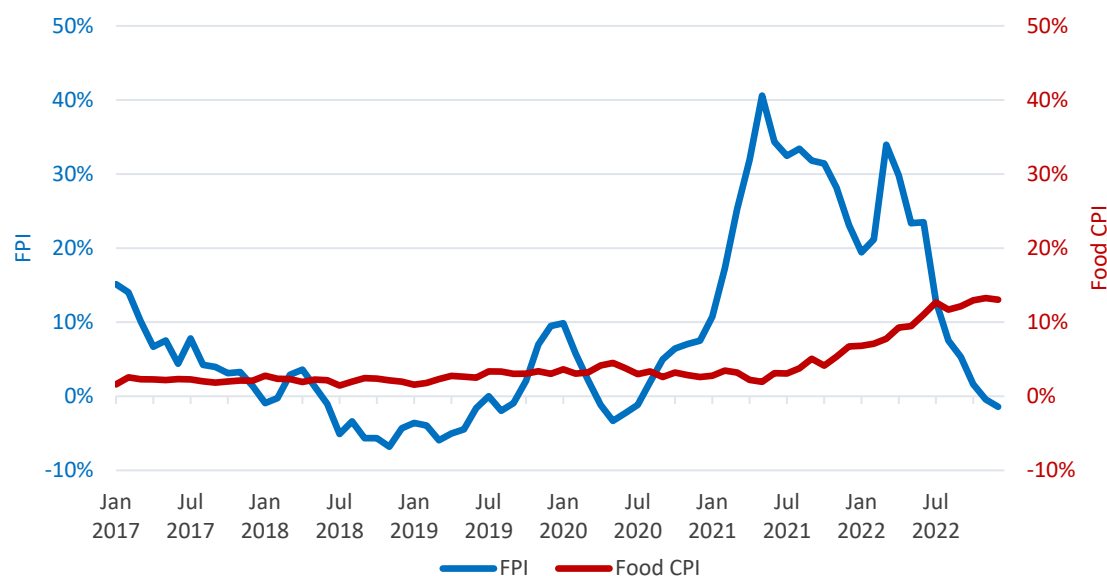
The Food and Agriculture Organization of the United Nations (FAO) Food Price Index (FPI) measures the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices, weighted with the average export shares of each of the groups for 2014–2016. This measurement does not incorporate changes in all components of the food production chain.

A comparison of the historical trend of the agricultural commodity prices inflation rates, measured by the FPI,<sup>1</sup> against the food consumer price inflation rates, measured by the global food CPI, shows that the food CPI is not as volatile as the FPI, indicating that the components of the food production chain that are not part of the FPI stabilize the overall prices (Figure 6). In particular, in the last two years reported, the FPI inflation increased from -2 percent in June 2020 to 41 percent in May 2021, after which it decreased gradually to 19 percent in January 2022. It then rose sharply when the war in Ukraine began, to 34 percent in March 2022 and fell for the rest of 2022. On the other hand, the inflation of the global food CPI increased from 2.8 percent in January 2021 to 13 percent in December 2022.

<sup>1</sup> The full series are available at <http://www.fao.org/worldfoodsituation/foodpricesindex/en/>



**Figure 6: Growth rates (year-over-year) of the FAO food price index (FPI) and food consumer price index (CPI)**



**Source:** FAO. 2023. Consumer Price Indices. In: *FAOSTAT*. Rome. Cited July 2023. <https://www.fao.org/faostat/en/#data/CP>

**Download data at:** <http://www.fao.org/faostat/en/#data/CP>

## EXPLANATORY NOTES

- > Annual changes in global and regional consumer price indices (CPI) measure inflation rates of food and general consumer prices for a group of countries at different geographical scales: subregional (e.g. Middle Africa), regional (e.g. Africa) and global (all countries). The general CPI covers 204 countries, and the food CPI covers 200 countries worldwide. 22.1 percent of the observations for the food CPI and 9.2 percent for the general CPI are estimated.
- > The annual year-over-year inflation is the percentage change over the corresponding month of the previous year.
- > The median is used for aggregating the food CPI and the general CPI at the global and regional levels presented in this brief.
- > The sources of official country CPI include the International Monetary Fund (IMF), the United Nations Statistics Division (UNSD), the Organisation for Economic Co-operation and Development (OECD), the Central Bank of Western African States (BCEAO), the Eastern Caribbean Central Bank (ECCB), the United Nations Conference on Trade and Development (UNCTAD), UNdata, and national statistical offices websites. Regional inflation rates are calculated by the FAO Statistics Division. We gratefully acknowledge the Statistics Division of the International Labour Organization (ILO) for their methodological and technical guidance on compiling global and regional food inflation

indices. In 2015, the IMF took over from the ILO the responsibility for compiling an international database of official national CPIs, per an agreement between the IMF, the ILO and FAO.

- > Data gaps on the food and general CPI are filled using statistical estimation procedures to have full data coverage for all countries for food and general CPI from January 2000 to December 2022.
- > The food and general CPI at the global and regional level should be interpreted cautiously due to conceptual and methodological differences across countries in compiling their official CPI.
- > Country and regional consumer price indices are updated in FAOSTAT quarterly.
- > The next release presenting a general overview of global and regional trends will be in March 2024.

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This analytical brief was prepared by Jean Marie Vianney Munyeshyaka and Naglaa El Sodany (FAO Social and Economic Statistics Team) with inputs from Olivier Lavagne d'Ortigue (FAO Statistics Division). The Social and Economic Statistics Team is part of FAO Statistics Division and is lead by Veronica Boero.

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## CONTACTS

Statistics – Economic and Social Development

[statistics@fao.org](mailto:statistics@fao.org)

[www.fao.org/food-agriculture-statistics/en/](http://www.fao.org/food-agriculture-statistics/en/)

**Food and Agriculture Organization of the United Nations**

Rome, Italy

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