

Analytical Report on Inflation in Consumer Price Index for Food

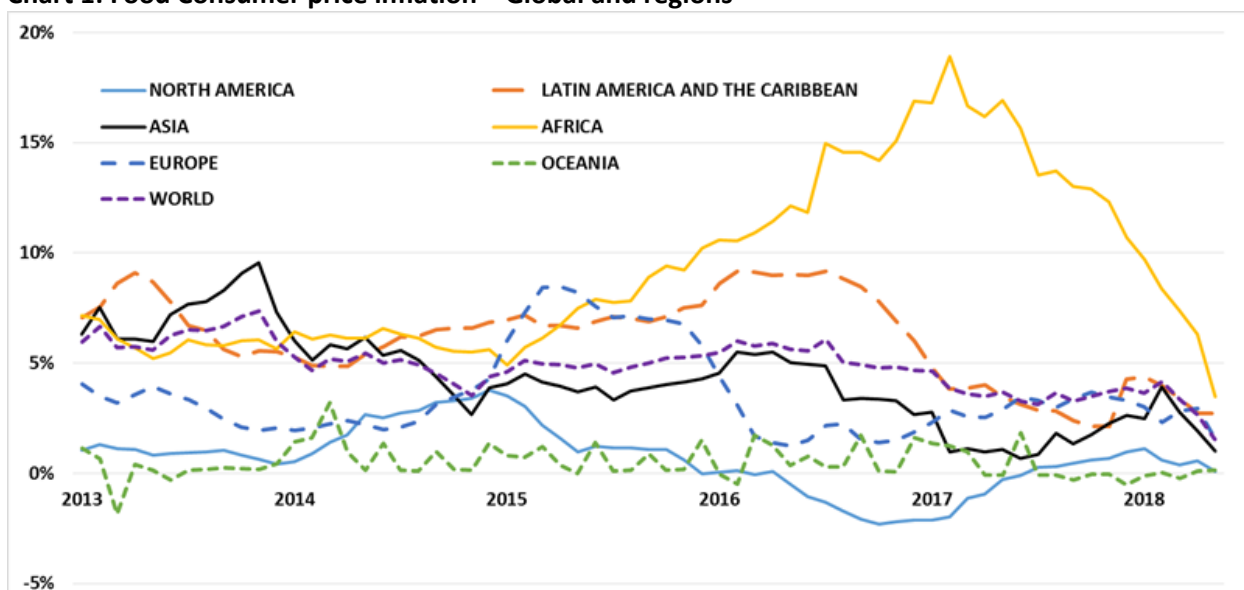
(September 2018)

Global Overview

Annual food price inflation decreased globally from 6.3% in 2013 to 3.6% in 2017 with divergent trends at regional level. The lowest rate in the last four years was in 2017, where it fell to 3.6%.

Most regions saw annual food inflation decreasing from 2013 to 2017, except Africa, where food inflation increase accelerated from 6% in 2013 to 14% in 2017. The most remarkable decrease was recorded in Asia, where annual food inflation decreased from 7% in 2013 to 2% in 2017. During the same period, Oceania, Northern America and Europe experienced the lowest food inflation rate, whereas Africa, Latin America and Caribbean the highest (Chart 1).

Chart 1: Food Consumer price inflation – Global and regions



Sources: IMF, UNSD, OECD and national statistics' websites, FAO Statistics Division for the calculation

Table 1 Annual global and regional consumer food price inflation, 2014-2017 (%)

	Food Price Inflation Rate				Coefficient of variation across countries in region (%)			
	2014	2015	2016	2017	2014	2015	2016	2017
World	5%	5%	5%	4%	139	187	423	313
Africa	6%	8%	13%	15%	137	150	343	260
Southern Africa	8%	5%	11%	7%	36	45	47	42
Western Africa	6%	7%	9%	12%	284	92	129	144
Northern Africa	2%	4%	3%	3%	152	43	53	124
Central Africa	2%	3%	8%	7%	142	103	227	166
Eastern Africa	7%	10%	19%	17%	117	149	291	238
Latin America and the Caribbean	6%	7%	8%	3%	78	124	191	186
South America	6%	8%	11%	2%	56	46	115	174
Central America	5%	4%	4%	6%	60	144	194	246
Caribbean	4%	7%	7%	6%	106	231	296	167
Northern America	2%	1%	-1%	0%	12	84	-62	1
Asia	5%	4%	4%	2%	96	163	242	155
Eastern Asia	3%	2%	3%	-1%	93	262	545	409
South-Eastern Asia	5%	5%	5%	2%	66	124	111	144
Western Asia	4%	7%	8%	7%	189	219	357	189
Southern Asia	6%	5%	5%	3%	61	108	86	103
Europe	3%	7%	2%	3%	221	307	317	106
Southern Europe	0%	1%	1%	2%	896	111	2805	69
Eastern Europe	7%	17%	5%	5%	205	187	223	68
Northern Europe	0%	-1%	-1%	2%	181	1245	436	166
Western Europe	0%	1%	1%	2%	2264	114	82	59

Note: Annual inflation rates are based on a 12-month average of year-over-year monthly inflation.

Table 2 Monthly global and regional consumer food price inflation

	2017											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
World	5%	4%	4%	3%	4%	3%	3%	4%	3%	3%	4%	4%
Africa	17%	19%	17%	16%	17%	16%	14%	14%	13%	13%	12%	11%
Southern Africa	12%	10%	8%	7%	7%	7%	6%	5%	5%	5%	5%	4%
Western Africa	11%	12%	11%	12%	11%	12%	12%	14%	12%	12%	12%	12%
Northern Africa	5%	5%	3%	3%	2%	1%	0%	2%	3%	5%	4%	5%
Central Africa	15%	16%	7%	7%	6%	6%	5%	4%	4%	5%	4%	4%
Eastern Africa	30%	28%	26%	24%	23%	19%	16%	13%	10%	7%	5%	2%
Latin America and the Caribbean	5%	4%	4%	4%	3%	3%	3%	3%	2%	2%	2%	4%
South America	6%	4%	4%	3%	2%	1%	0%	0%	-1%	-1%	-1%	2%
Central America	3%	2%	4%	5%	6%	7%	8%	9%	7%	7%	7%	8%
Caribbean	5%	5%	6%	6%	6%	6%	6%	7%	7%	7%	7%	7%
Northern America	-2%	-2%	-1%	-1%	0%	0%	0%	0%	0%	1%	1%	1%
Asia	3%	2%	3%	0%	0%	-1%	1%	6%	8%	10%	10%	8%
Eastern Asia	3%	-4%	-4%	-3%	-1%	-1%	-1%	0%	-1%	-1%	-1%	0%
South-Eastern Asia	4%	4%	3%	2%	2%	1%	1%	1%	1%	1%	1%	0%
Western Asia	6%	7%	8%	10%	9%	8%	6%	7%	5%	5%	6%	5%
Southern Asia	2%	3%	4%	3%	2%	1%	1%	3%	3%	3%	5%	6%
Europe	2%	3%	3%	3%	3%	3%	3%	3%	3%	4%	3%	3%
Southern Europe	2%	3%	2%	2%	2%	1%	1%	1%	1%	2%	2%	2%
Eastern Europe	4%	4%	4%	4%	5%	6%	6%	5%	5%	5%	5%	5%
Northern Europe	0%	1%	2%	1%	2%	2%	3%	2%	3%	4%	3%	3%
Western Europe	2%	3%	2%	1%	1%	2%	2%	2%	2%	3%	2%	2%

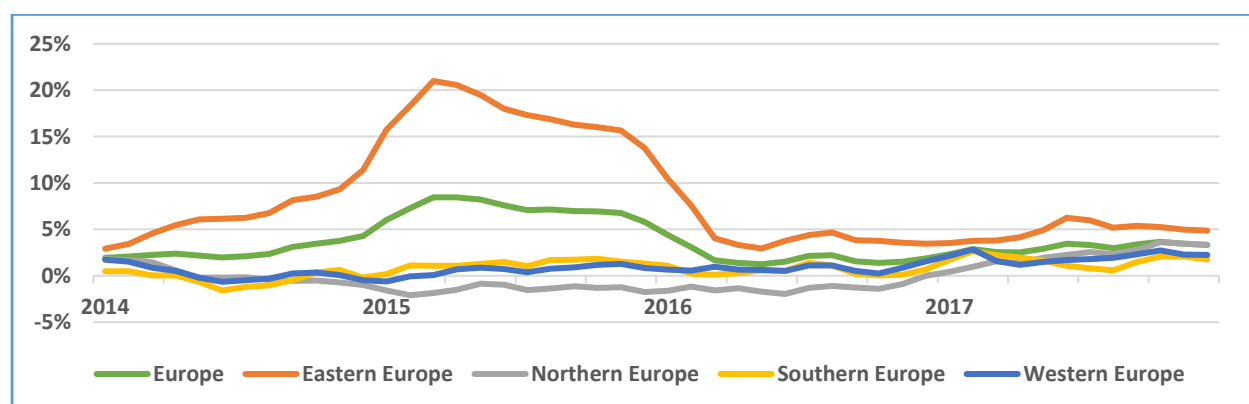
Note: monthly inflation rates are year-over-year inflation rates.

Regional focus: Europe

In Europe, the annual food inflation remained steady oscillating between 2% and 3% except between the year 2015 and 2016 where it reached the value of 8%. The highest value (21%) of food inflation rate was recorded in Eastern Europe in March and April 2015.

This increase was largely driven by the upward pressure coming from Eastern Europe, in particular the Russian Federation and the Ukraine, due to conflicts, political tensions and import restrictions¹. However, consumers in other sub regions in Europe experienced steady or in some cases declining food prices (Table 1 and Chart 2).

Chart 2: Food consumer price inflation – Europe and sub-regions



Sources: IMF, UNSD, OECD and national statistics' websites, FAO Statistics Division for the calculation

Regional focus: Northern America

In Northern America, annual food inflation fell between 2014 and 2017 from 2% to 0% (Table 1). The decline can be attributed to a culmination of factors. Retail food prices, in general, are driven by the costs of several production factors, including commodity inputs, transportation, and food processing. Declining prices for retail meats, eggs, and dairy in 2016 are largely a story about rising commodity production, especially for eggs. Retail egg prices declined by 21.1 percent in 2016, as the industry recovered from the outbreak of Highly Pathogenic Avian Influenza (HPAI) that killed 11 percent of egg-laying birds in 2015².

Regional focus: Latin America and the Caribbean (excluding Venezuela)

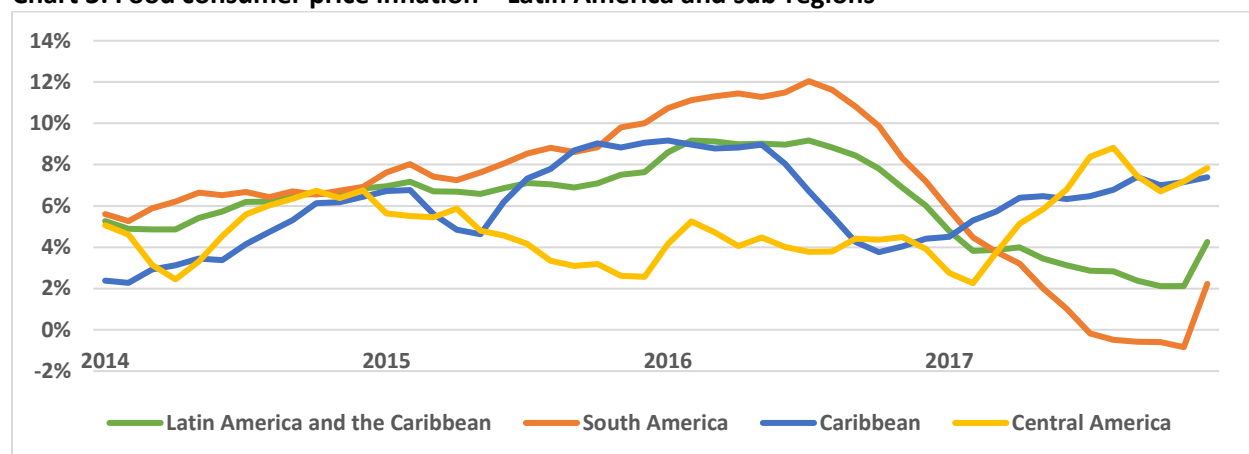
In Latin America annual food inflation rose from 2014 to 2016 and fell in 2017, from 6% in 2014 to 8% in 2016 and 3% respectively. The main driver of this increase was South America, where food inflation increased in the same period (Table 1).

¹ The Guardian, <http://www.theguardian.com/business/2014/mar/03/ukraine-crisis-crimea-hits-price-wheat-corn>, Ukraine crisis sends wheat and corn prices soaring.

² Economic Research Services (ERS), <https://www.ers.usda.gov/amber-waves/2017/march/consumers-paid-less-for-grocery-store-foods-in-2016-than-in-2015/>

The drop of inflation in 2017 may be attributed to an exceptional harvest in Brazil and Mexico³.

Chart 3: Food consumer price inflation – Latin America and sub-regions



Sources: IMF, UNSD, OECD and national statistics' websites, FAO Statistics Division for the calculation

Regional focus: Asia

In Asia, during the last 5 years, Food inflation rate fell from 5% in 2014 to 2% in 2017 (Table 1).

Asian consumers experienced a slowdown in food inflation almost continuously since the beginning of 2016 from a peak of 6% in February 2016 to a low of 2% in November 2017 before rising to 3% in December 2017. From January 2014 to January 2016, the Asian food inflation rate remained slightly steady between 4% and 6%. We observe the same trend for the Southern Asia and the South-Eastern Asia regions while the Western Asia region experienced a steady high food inflation rate of 7% from February 2015 to 5% in December 2017. The food inflation rate of Eastern Asia remained as low as 3% from January 2014 to 0% in December 2017 except in February 2016 where it climbed to 6% (Chart 4).

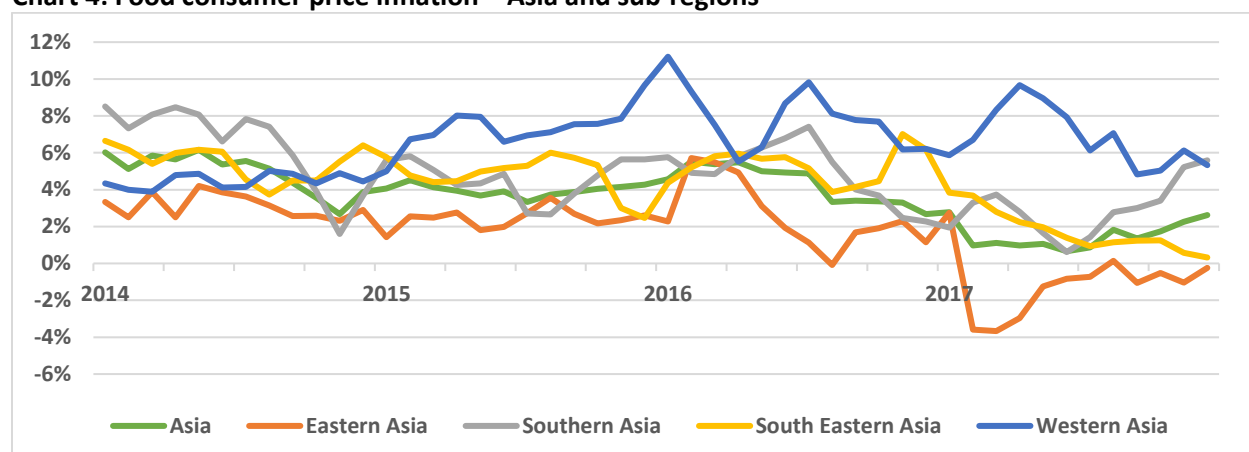
Part of this decline in food inflation is due to the fall in agricultural commodity prices; however, region and country-specific factors are significant in explaining food inflation trends. Slowing food prices in China and India, the main drivers in Eastern and Southern Asia, help explain the overall rate of food inflation in the region.

Turkey mainly drove the rise of food inflation rate in Western Asia due to a rise in non-proceeded food prices, mainly in fresh fruit and vegetable prices, and a lower base effect played a key role here. Significant increases were also seen in red meat and white meat, as well as in rice and legumes⁴.

³ IMF: World Economic Outlook, October 2018: Challenges to Steady Growth; October 8, 2018, <https://www.imf.org/en/Publications/WEO/Issues/2018/09/24/world-economic-outlook-october-2018>

⁴ <http://www.hurriyetdailynews.com/food-prices-key-in-turkeys-skyrocketing-annual-inflation-central-bank-report-111613>

Chart 4: Food consumer price inflation – Asia and sub-regions

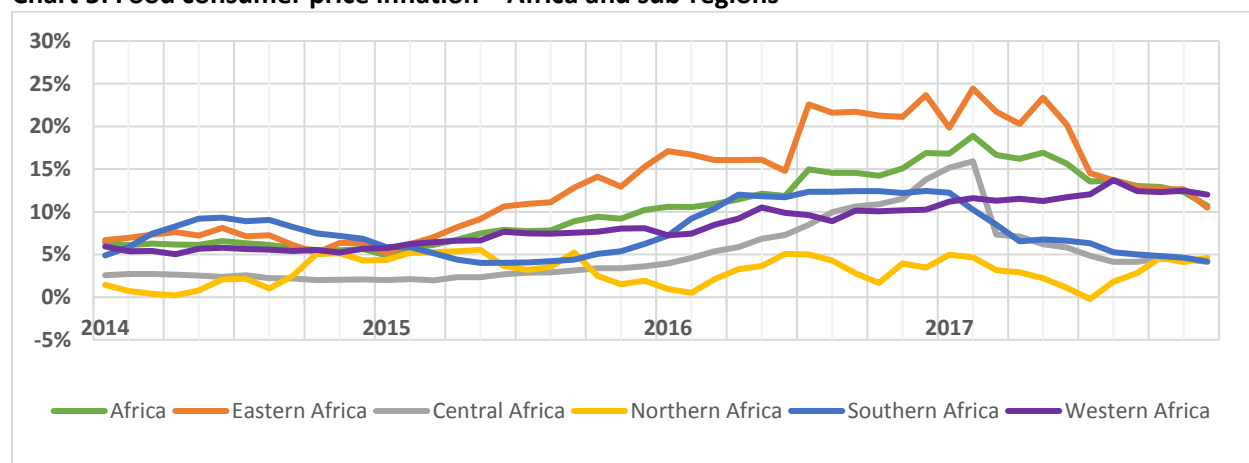


Sources: IMF, UNSD, OECD and national statistics' websites, FAO Statistics Division for the calculation

Regional focus: Africa

In Africa, annual food inflation rate doubled in the last three years, from 8% in 2015 to 15% in 2017. The most noticeable increase was recorded in Eastern Africa, the main driver of the region, where food inflation increased more than double from 7% in 2014 to 17% in 2017. The western Africa region also recorded an increase of food inflation rate from 6% in 2014 to 12% in 2017. The food inflation rate in the Northern Africa remained steady around 3% during the last four years (Table 1 and Chart 5).

Chart 5: Food consumer price inflation – Africa and sub-regions



Sources: IMF, UNSD, OECD and national statistics' websites, FAO Statistics Division for the calculation

The increase in Western Africa were mainly driven by Nigeria, Sierra Leone and Guinea. In each of those countries, the food inflation rate were over doubled from 2014 to 2017.

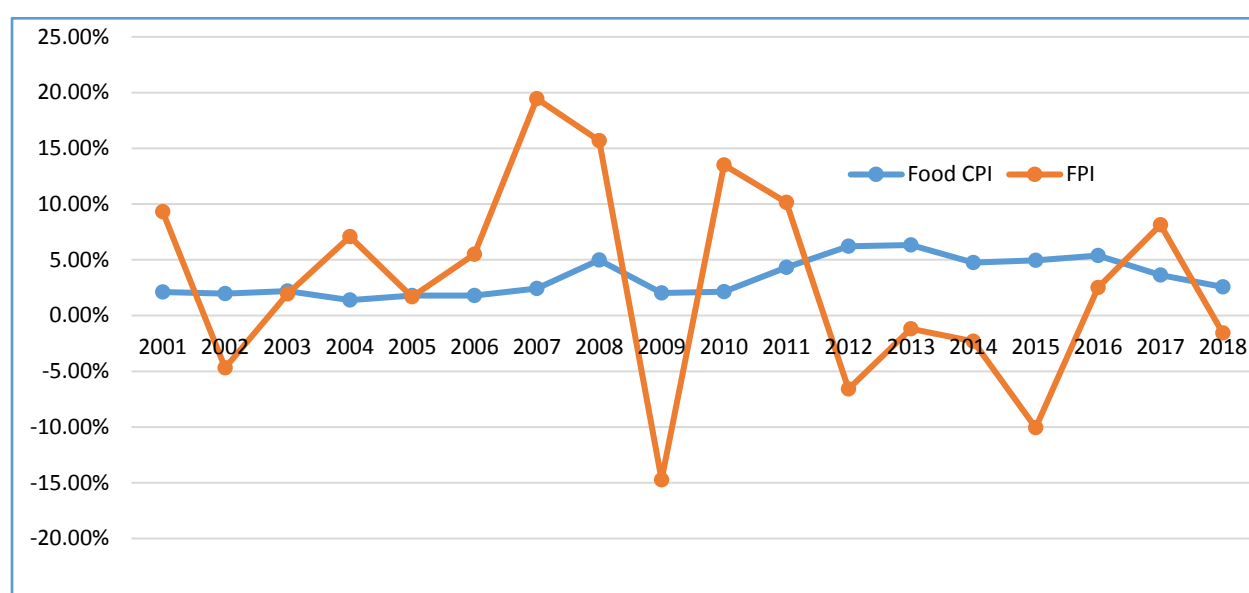
The food inflation increase in Central Africa were mainly driven by Angola. While the main drivers of food inflation increase for Eastern Africa were Malawi, South Sudan and Zambia.

Agricultural commodity prices and consumer food price inflation

A comparison of the historical trend of the agricultural commodity prices inflation measured by the FPI⁵ against the food price inflation measured by the global food CPI confirms that the FPI could be a leading indicator of future consumer food price inflation (Chart 6). However it shows that the volatility in the FPI is not fully transmitted to the global food CPI.

Several factors may explain the limited price transmission from international markets to the domestic economy, including public policy, such as border measures or interventions on domestic markets in terms of price controls and subsidies that can insulate local prices from world markets. Other factors include: changes in exchange rates, transport costs, market imperfections other than the domestic market structure, and the length of the value-chain.

Chart 6: Inflation: FPI and Food CPI



Source: IMF, UNSD, OECD, national statistics' websites and FAO⁶, FAO Statistics Division for the calculation

[Download CPI data](#)

⁵ The FAO Food Price Index is a measure of 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 2002-2004.

⁶ <http://www.fao.org/worldfoodsituation/foodpricesindex/en/>

Note to Readers

Definitions and Acknowledgements

Global and Regional Food Consumer Price Indices (CPI) measure food inflation for a group of countries at different geographical scales: sub-regional (e.g. South America), regional (e.g. Americas) and global (all countries). The Global Food CPI covers approximately 180 countries worldwide representing more than 95% of the world population. Unless otherwise stated, monthly inflation rates represent annual year-over-year inflation.

Aggregation uses population weights, which may better reflect the impact of food inflation on consumers than Gross Domestic Product (GDP) weights. The use of GDP weights also gives higher importance to countries less exposed to food insecurity, as consumers in countries with higher GDP tend to be richer, spend a lower proportion of their income on food, and benefit from an economic environment characterized by lower and less volatile consumer price inflation.

The sources of official country CPIs includes the International Monetary Fund (IMF), the UN Statistics Division(UNSD), the Organisation for Economic Co-operation and Development (OECD), the Latin America and the Caribbean statistics (CEPALSTAT), Central Bank of Western African States (BCEAO), Eastern Caribbean Central Bank (ECCB) and national statistical office website . We gratefully acknowledge the Statistics Division of the ILO for their methodological and technical guidance on the compilation of 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, as per an agreement between the IMF, the ILO and FAO.

Global and regional food CPIs should be interpreted with caution due to conceptual and methodological differences across countries in the compilation of their official CPIs.

Next release

Country Consumer Food Price Indices are updated in FAOSTAT on a quarterly basis. The next release presenting global and regional trends will be on December.

Contact information

For more information, or to enquire about concepts, methods or data quality, contact the Price Statistics Team of FAO's Statistics Division (Price-Statistics@fao.org)