

04. INFLATION

Inflation, as measured by the percentage change in the Consumer Price Index (CPI) for the metropolitan area of Lima, reached 8.46 percent year-on-year in 2022 (6.43 percent in 2021), above the target range of 1 to 3 percent. At the national level, the CPI variation reached 8.56 percent (6.99 percent in 2021).

The increase in inflation was associated with external factors, such as the increase in commodity prices as the international market was affected by the war between Russia and Ukraine. This led to price increases in the domestic market for food products that use imported inputs, such as eggs and pasta. At the same time, higher fertilizer prices affected perishable agricultural crops, which reflected in price increases for products such as potatoes and lemons, also affected by weather problems (drought in the central highlands and lower temperatures on the northern coast). However, inflation began to stabilize in the second half of the year: after peaking at 8.81 percent in June, lower energy prices, especially for fuel, contributed to a slight decline in inflation towards the end of the year.

Showing a marked upward trend, statistical trend measures recorded rates between 5.6 and 8.6 percent, above the target range. The rate of inflation excluding food and energy prices was 5.59 percent (3.24 percent in 2021), while food and energy price inflation recorded 12.02 percent (10.18 percent in 2021), a rate above its long-term average.

Table 57

ANNUAL TREND INDICATORS OF INFLATION					
(12 months % change)					
	CPI Total	Re-weighted 1/	Bounded mean 2/	Percentile 63 3/	CPI without food and energy 4/
2001-2022					
Average % change	2.99	2.77	2.85	2.80	2.34
Dev. standard	0.30	0.14	0.12	0.13	0.23
Dec.19	1.90	1.75	1.42	1.47	2.30
Dec.20	1.97	1.69	1.31	0.99	1.76
Dec.21	6.43	4.23	4.53	4.23	3.24
Jan.22	5.68	4.32	4.85	4.61	3.08
Feb.22	6.15	4.75	5.21	5.05	3.26
Mar.22	6.82	5.21	5.63	5.57	3.46
Apr.22	7.96	5.78	6.19	6.28	3.81
May.22	8.09	6.40	6.80	6.98	4.26
Jun.22	8.81	6.99	7.46	7.71	4.95
Jul.22	8.74	7.29	7.82	8.26	5.44
Aug.22	8.40	7.36	7.74	8.27	5.39
Sep.22	8.53	7.44	7.74	8.31	5.51
Oct.22	8.28	7.50	7.89	8.41	5.72
Nov.22	8.45	7.59	7.97	8.51	5.71
Dec.22	8.46	7.62	7.97	8.61	5.59

1/ Re-weighted: Reduces the weight of items with greater volatility, considers the original weights of each item between the standard deviation of their monthly percentage changes.

2/ Bounded mean: Weighted average of the percentage change of prices between the 34th and 84th percentiles.

3/ Percentile 63: Corresponds to the percentage changes of the item placed in the 63th percentile.

4/ CPI without food and energy: CPI excluding food, fuel and electricity.

Source: INEI and BCRP.

Graph 52

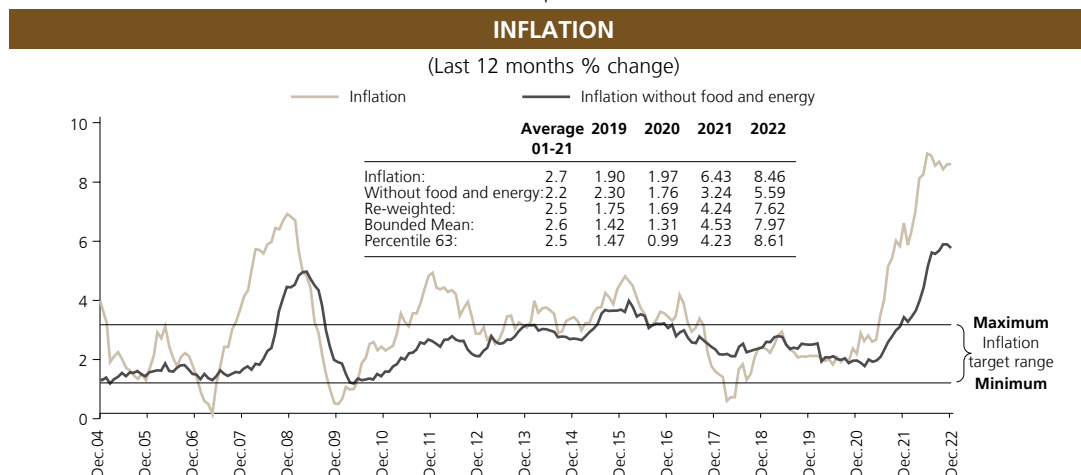
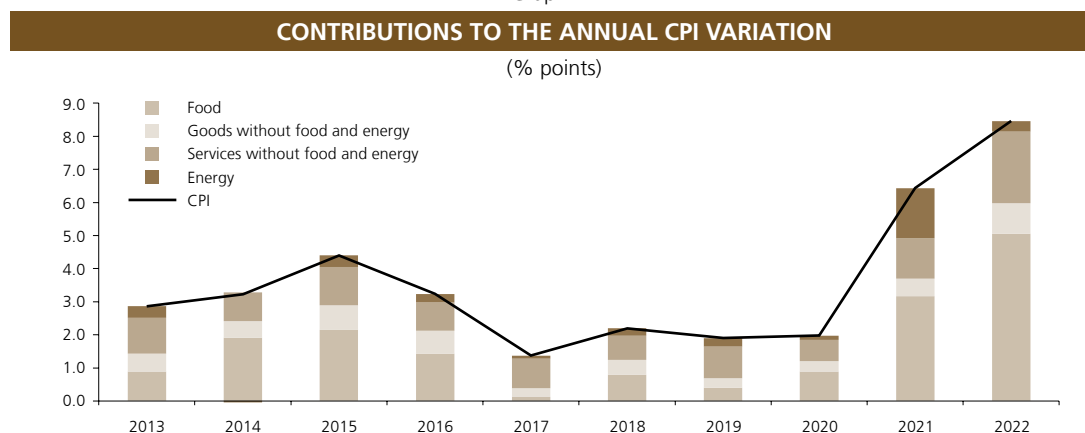


Table 58

INFLATION						
(% change)						
	Weight	2019	2020	2021	2022	Average % chg. 2013-2022
CPI	100.0	1.90	1.97	6.43	8.46	3.58
1. CPI excluding food and energy	55.3	2.30	1.76	3.24	5.59	2.90
a. Goods	17.4	1.4	1.5	2.6	5.3	2.6
Textiles and footwear	4.1	0.2	0.1	1.1	2.5	1.5
Domestic appliances	0.5	0.3	-0.4	4.1	4.5	1.5
Other industrial products	12.8	1.9	2.2	3.1	6.2	3.1
b. Services	37.9	2.9	1.9	3.6	5.7	3.1
<i>Of which:</i>						
Education	8.6	5.2	2.0	1.6	3.9	4.1
Rent	4.5	0.7	0.5	1.8	2.4	1.8
Health	1.5	1.5	1.2	2.8	7.3	3.6
Transportation	9.1	2.2	2.5	3.7	12.3	3.3
Water consumption	1.4	5.0	3.0	11.6	7.9	5.1
2. Food and energy	44.7	1.43	2.22	10.18	12.02	4.38
a. Food and beverages	40.0	1.0	2.2	8.0	12.6	4.1
<i>Of which:</i>						
Chicken meat	2.7	-7.3	6.6	23.4	-1.0	2.4
Bread	1.4	0.9	0.3	15.5	18.8	3.9
Rice	1.2	0.1	3.3	5.2	4.4	2.2
Sugar	0.4	-7.0	16.4	12.7	31.7	4.3
Noodles	0.3	2.4	5.6	10.4	52.7	7.7
Oils	0.4	-2.3	4.1	63.5	10.9	6.5
Potato	0.7	12.6	-18.7	11.9	93.9	8.7
Avocado	0.2	15.8	-1.7	-4.1	16.8	7.8
Fresh and frozen fish	0.7	-2.5	-0.1	14.5	9.7	3.7
Meals outside the home	15.5	1.7	1.0	4.5	9.7	4.2
b. Fuels and Electricity	4.8	4.3	2.1	24.4	6.8	5.7
Fuels	2.1	-0.4	-4.2	47.2	1.0	3.9
Oil and lubricants	1.1	0.6	-11.2	46.4	11.6	3.5
Gas	0.8	-1.7	2.0	51.0	-9.2	4.1
Electricity	2.6	8.0	6.7	9.5	11.5	7.4

Source: INEI.

Graph 53



Source: INEI.

The items with the largest positive contribution to inflation were meals away from home (1.50 percentage points), local transportation (1.09 percentage points), potatoes (0.67 percentage points), personal care products (0.34 percentage points), and eggs (0.33 percentage points).

Table 59

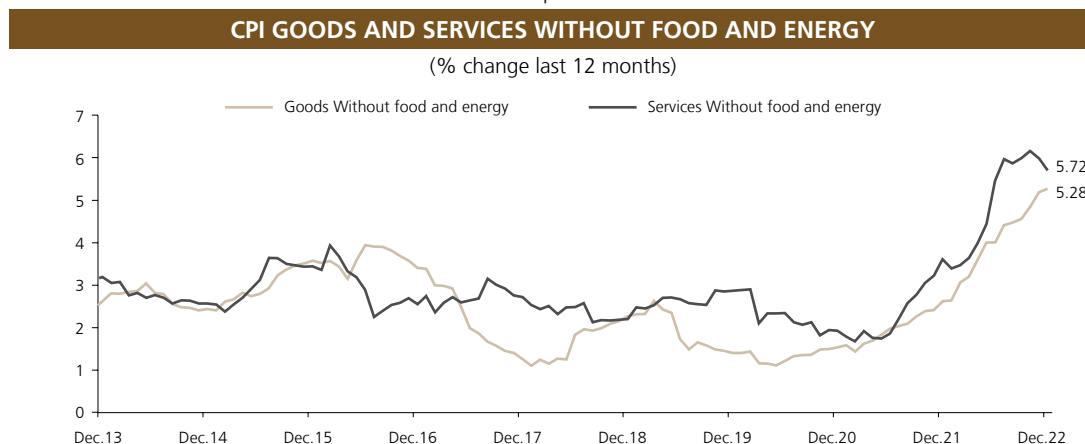
ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION: 2022							
Positive	Weight	% chg.	Contribution	Negative	Weight	% chg.	Contribution
Meals outside the home	15.5	9.7	1.50	Domestic gas	0.8	-9.2	-0.08
Local transportation	8.1	13.5	1.09	National air transport	0.2	-21.3	-0.05
Potatoes	0.7	93.9	0.67	Telephone equipment	0.5	-6.1	-0.03
Personal care products	4.0	8.6	0.34	Chicken meat	2.7	-1.0	-0.03
Eggs	0.7	47.0	0.33	Natural gas	0.2	-10.4	-0.02
Electricity	2.6	11.5	0.30	Corn	0.1	-4.1	-0.01
Bread	1.4	18.8	0.25	Other cereals	0.1	-1.5	0.00
Higher education	4.3	4.1	0.17	Other transportation services	0.0	-6.9	0.00
Citrus	0.6	27.9	0.17	Pumpkin	0.1	-0.7	0.00
Dry noodles	0.3	52.7	0.17	Medical devices and products	0.1	-0.4	0.00
Total			4.99	Total			-0.21

Source: INEI.

1. INFLATION EXCLUDING FOOD AND ENERGY

Inflation excluding food and energy prices, an indicator that reflects trend inflation, was above the target range. The prices of goods increased from 2.6 percent in 2021 to 5.3 percent in 2022, with the largest contribution coming from the increase in the price of personal care products (from 2.1 percent in 2021 to 8.6 percent in 2022). The services component recorded a higher growth rate by increasing from 3.6 percent in 2021 to 5.7 percent in 2022, with the price increases in transportation (from 3.7 percent in 2021 to 12.3 percent in 2022) and education (from 1.6 percent in 2021 to 3.9 percent in 2022) influencing this result.

Graph 54



Source: INEI.

Goods

The price variation of the goods category was 5.3 percent in 2022 and was driven mainly by the products in the personal care category (8.6 percent). The largest price increases in this category were observed in products such as toilet soaps (16.2 percent) and deodorants (13.9 percent), which have a high import content. The price of toilet paper also increased (13.9 percent) due to the higher price and lower supply of its main raw materials, e.g. cellulose pulp, hydrogen peroxide, optical brighteners and resins, among others. Also notable were price increases for toothpastes (9.1 percent) and shampoos (6.7 percent).

Services

The 5.7 percent growth in service prices in 2022 reflected increases in transportation (12.3 percent), mainly local transportation, and education (3.9 percent).

Local transportation recorded a cumulative variation of 13.5 percent due to the increase in urban fares for taxis, buses, minibuses, vans and motorcycle taxis. This result was influenced by the higher price of fuel, as well as by the increase in tolls and the higher price of spare parts. Similarly, the adjustment of bus fares in three of the complementary bus corridors –Red, Blue and Purple– in May also played a role, as well as the increase in fares in the Metropolitan Transportation System in July. In addition, a fare increase was also approved for the other complementary corridor (yellow line) in September.

In the education category, the largest increase was recorded in higher education (4.1 percent), influenced by the gradual return to face-to-face classes.

2. VARIATION IN FOOD AND ENERGY PRICES

Food and energy prices, whose fluctuations are mainly related to supply factors, increased by 12.0 percent in 2022 (10.2 percent in 2021). Food prices increased by 12.6 percent (8.0 percent in 2021), while energy prices increased by 6.8 percent (24.4 percent in 2021). Within the energy category, electricity prices rose by 11.5 percent, while fuel prices increased by 1.0 percent.

Food

Prices for meals away from home increased by an average of 9.7 percent (4.5 percent in 2021) due to the increase in food input prices. The higher price variation in 2022 is also likely related to higher demand in response to the higher inflow to restaurants after the return to face-to-face activities. However, the price increase for meals away from home still lags behind the increase in food consumed within the household (14.5 percent).

In terms of food within the household, the price of potatoes recorded the highest increase among perishable agricultural products (93.9 percent). This result was influenced by the decrease in plantings (-8 percent in the season August 2021-July 2022 compared to the previous season) in the main supply regions of Metropolitan Lima –Huánuco, Junín, Lima Provincias and Ica– due to the higher price of fertilizers. In addition, the rainfall deficit between September and November 2022 in the Central Highlands regions would have caused a sharp increase in prices in December.

The price of eggs increased by 47.0 percent. The increase occurred mainly in the first half of the year, reflecting higher production costs, influenced by the higher international price of hard yellow maize (the main ingredient in poultry feed). It was also influenced by higher demand for this product due to its lower relative price compared with other high-protein foods such as chicken and fish.

The price of bread rose 18.8 percent in response to higher production costs. In addition to higher energy costs, higher wheat prices drove flour prices higher, particularly in the first half of the year.

Finally, citrus prices rose 27.9 percent, reflecting the increase in the price of lemons (55.7 percent), influenced by the lower supply of the best quality product. The blooming process of the product was affected by lower temperatures in the northern coast of the country as well as by the lower application of fertilizers, especially in small-scale agriculture in Piura.

Energy

Vehicle fuel prices increased by an average of 11.6 percent. The price of 95 and 97 octane gasoline, products that are not included in the Fuel Price Stabilization Fund (FPSF), increased by 15.6 and 17.6 percent, respectively, while the price of 90 octane gasohol, a product that is included in the FPSF, showed a smaller variation (11.5 percent).

The increase in fuel prices reflected the increase in local refinery ex-plant prices in a context of rising international oil prices. The price of West Texas Intermediate (WTI) oil accumulated an increase of 17.0 percent in the period January-November, and decreased by 8.9 percent in December compared to the previous month. In August and September, the increase in oil prices was reversed, which contributed to the decrease in fuel prices in the domestic market in those months (-7.5 and -6.5 percent, respectively). Subsequently, new price increases were recorded in October and November (1.2 and 1.0 percent, respectively) due to the higher price of gasohol, which was in line with the increase in the international marker (U.S. Gulf Coast price).

In contrast, the price of automotive LPG fell by 22.7 percent. This product is included in the FPSF and the result reflects the reduction of the upper and lower limits of the price band. However, it recorded an increase of 2.5 percent in September, affected by the shortage due to the abnormal swell that hindered its disembarkation, a situation that normalized in October.

The price of diesel rose 21.5 percent over the year. Although this product is also included in the FPSF, it rose 6.2 percent in September and 6.9 percent in October due to the updating of the price band, as it had remained constant for 2 months.

On the other hand, the price of domestic gas decreased by 9.2 percent, reflecting the update of the price band. However, a larger decrease was expected, but the price was affected by the intermediary chain and expectations of shortages in July due to abnormal surges.

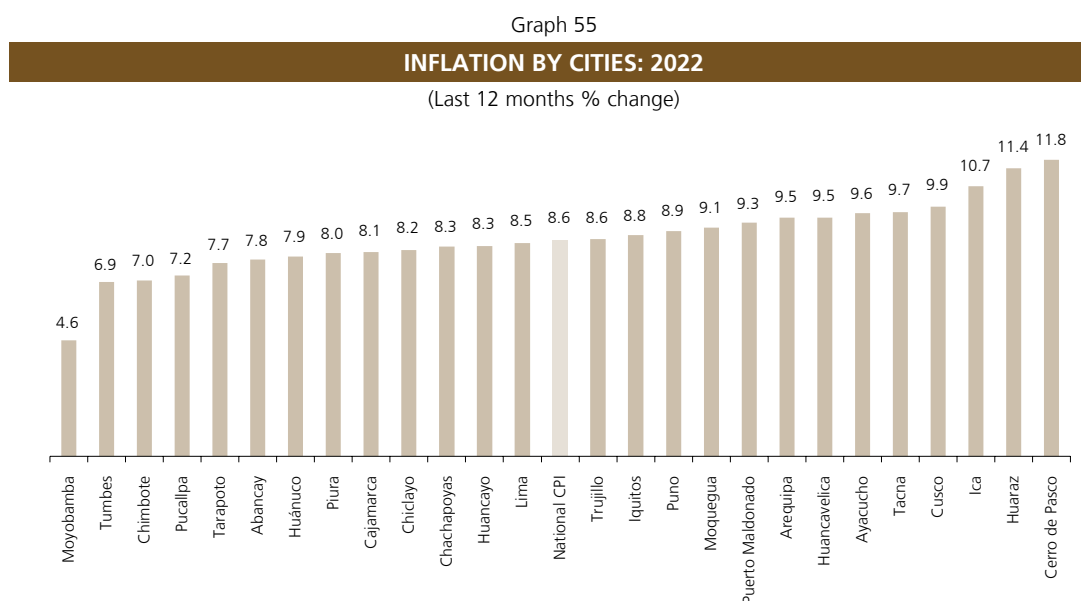
Electricity prices increased by 11.5 percent, with the largest increases being observed in August and November (3.0 and 3.7 percent, respectively). The price increase in these months was mainly due to the quarterly settlement made by Osinergmin to compensate for differences in generation prices among regulated users, while a number of transmission component charges were also updated to ensure the continuity of the electricity service. In addition, the fixed charges and the distribution value added (DAV) were updated also in August according to the variation of macroeconomic indicators: wholesale price index, exchange rate, copper and aluminum prices. In November the DAV for the period from November 2022 to October 2026 was set. In the same month, the application of the electricity consumption subsidy was extended (from a consumption not exceeding 100 kWh to a consumption of 140 kWh) based on the Electricity Social Compensation Fund.

3. DOMESTIC INFLATION

In 2022, national inflation was 8.6 percent year-on-year, higher than the 2021 result of 7.0 percent.

National inflation is calculated as the weighted average of inflation in the country's 26 largest cities. In 2022, 13 cities had higher inflation rates than Lima and 12 cities had lower variations.

Cerro de Pasco (11.8 percent), Huaraz (11.4 percent), Ica (10.7 percent), and Cusco (9.9 percent) were the cities with the highest inflation rates in 2022.



Source: INEI.