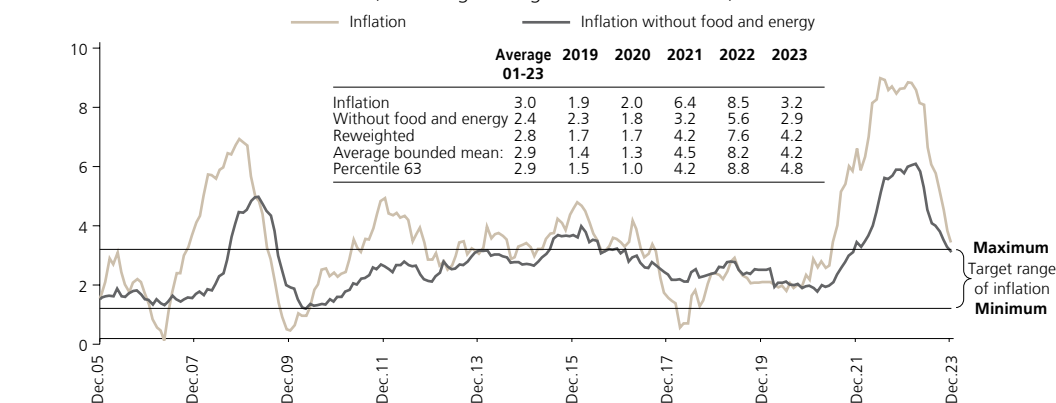# 04. INFLATION

Annual inflation, as measured by the percentage change in the consumer price index (CPI) for Metropolitan Lima, decreased from 8.5 percent in 2022 to 3.2 percent in 2023, bringing it slightly above the target range (between 1 and 3 percent) and at its lowest level since May 2021. At the national level, the CPI variation reached 3.4 percent (8.6 percent in 2022).

Inflation recorded a slowdown throughout 2023, as a result of lower *commodity* prices, which was reflected in the deceleration of food prices with high imported content. For its part, energy prices declined in line with the evolution of international oil prices. In the case of food prices, they increased in the first half of the year, affected by the climatic alterations caused by the El Niño phenomenon, the drought at the end of 2022 and avian flu, and partially reversed in the second half of the year.

Graph 52

INFLATION

(Percentage change last twelve months)

	Average 01-23	2019	2020	2021	2022	2023
Inflation	3.0	1.9	2.0	6.4	8.5	3.2
Without food and energy	2.4	2.3	1.8	3.2	5.6	2.9
Reweighted	2.8	1.7	1.7	4.2	7.6	4.2
Average bounded mean:	2.9	1.4	1.3	4.5	8.2	4.2
Percentile 63	2.9	1.5	1.0	4.2	8.8	4.8

Source: INEI.

Statistical trend measures recorded rates between 2.9 and 4.8 percent, which were above the target range, with the exception of the CPI without food and energy. However, all indicators showed a marked downward trend. Inflation excluding food and energy was 2.9 percent (5.6

percent in 2022). For its part, the variation in food and energy prices was 3.6 percent (12.0 percent in 2022).

Table 57

ANNUAL TREND INFLATION INDICATORS					
(Percentage change 12 months)					
	CPI	Reweighted 1/	Constrained mean 2/	Percentile 63 3/	CPI excluding food and energy 4/
2001-2023					
Average % chg.	3.0	2.8	2.9	2.9	2.4
Standard deviation	0.3	0.2	0.2	0.2	0.2
Dec.19	1.9	1.7	1.4	1.5	2.3
Dec.20	2.0	1.7	1.3	1.0	1.8
Dec.21	6.4	4.2	4.5	4.2	3.2
Dec.22	8.5	7.6	8.2	8.8	5.6
Jan.23	8.7	7.6	8.1	8.7	5.8
Feb.23	8.6	7.5	8.0	8.7	5.9
Mar.23	8.4	7.5	7.7	8.7	5.9
Apr.23	8.0	7.2	7.4	8.3	5.7
May.23	7.9	6.8	7.0	7.7	5.1
Jun.23	6.5	6.3	6.4	7.1	4.4
Jul.23	5.9	5.9	5.9	6.5	3.9
Aug.23	5.6	5.6	5.6	6.3	3.8
Sep.23	5.0	5.3	5.4	6.1	3.6
Oct.23	4.3	5.0	5.1	5.8	3.3
Nov.23	3.6	4.6	4.7	5.3	3.1
Dec.23	3.2	4.2	4.2	4.8	2.9

1/ Re-weighted: Reduces the weight of the most volatile items by dividing the original weights of each item by the standard deviation of their monthly percentage variations.
2/ Narrow average: Weighted average of the percentage variations of prices located between the 34th and 84th percentiles.
3/ Percentile 63: Corresponds to the percentage variation of the item located in the 63rd percentile.
4/ CPI excluding food and energy: CPI excluding food, fuel and electricity.
Source: INEI and BCRP.

Graph 53

CONTRIBUTIONS TO THE ANNUAL CPI VARIATION
(Percentage points)
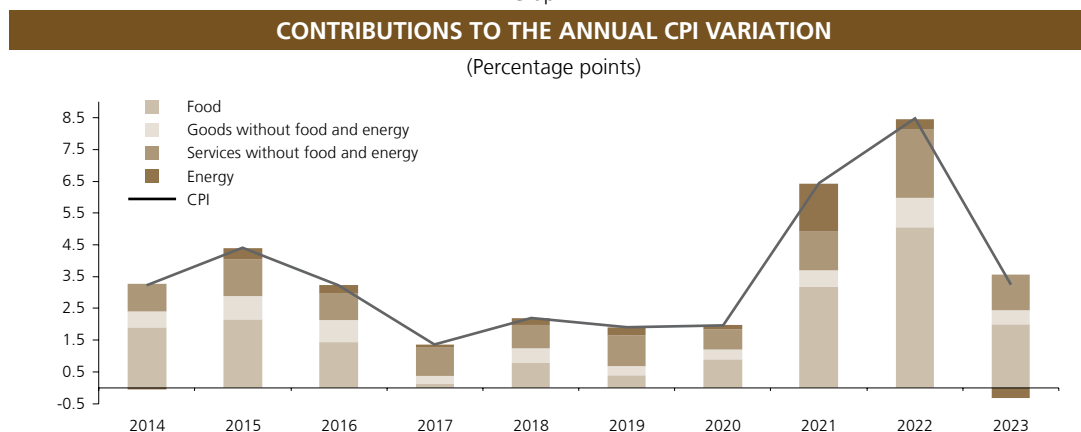
Source: INEI.

Table 58

INFLATION

(Percentage changes)

	Peso	2020	2021	2022	2023	% chg. prom. 2014-2023 1/
CPI	**100.0**	**2.0**	**6.4**	**8.5**	**3.2**	**3.6**
1. CPI excluding food and energy	**55.3**	**1.8**	**3.2**	**5.6**	**2.9**	**2.9**
a. Goods	**17.4**	**1.5**	**2.6**	**5.3**	**2.7**	**2.6**
Textile and Footwear	4.1	0.1	1.1	2.5	2.7	1.6
Household appliances	0.5	-0.4	4.1	4.5	0.7	1.6
Other industrialists	12.8	2.2	3.1	6.2	2.7	3.1
b. Services	**37.9**	**1.9**	**3.6**	**5.7**	**3.0**	**3.0**
Of which						
Education	8.6	2.0	1.6	3.9	6.4	4.3
Rentals	4.5	0.5	1.8	2.4	-0.2	1.5
Health	1.5	1.2	2.8	7.3	3.3	3.4
Transportation	9.1	2.5	3.7	12.3	2.9	3.2
Water supply	1.4	3.0	11.6	7.9	1.3	4.9
2. Food and energy	**44.7**	**2.2**	**10.2**	**12.0**	**3.6**	**4.5**
a. Food and beverages	**40.0**	**2.2**	**8.0**	**12.6**	**4.8**	**4.4**
Of which						
Chicken meat	2.7	6.6	23.4	-1.0	8.0	3.6
Bread	1.4	0.3	15.5	18.8	0.7	3.9
Rice	1.2	3.3	5.2	4.4	9.1	3.1
Sugar	0.4	16.4	12.7	31.7	5.4	6.7
Noodles	0.3	5.6	10.4	52.7	3.6	7.7
Oil	0.4	4.1	63.5	10.9	-9.2	5.6
Potato	0.7	-18.7	11.9	93.9	-21.2	6.8
Lemon	0.2	13.7	-13.2	63.8	-39.9	-2.4
Maritime fish	0.7	-0.1	14.5	9.7	-17.4	0.2
Meals away from home	15.5	1.0	4.5	9.7	6.6	4.4
b. Fuels and Electricity	**4.8**	**2.1**	**24.4**	**6.8**	**-6.8**	**4.3**
Fuels	**2.1**	**-4.2**	**47.2**	**1.0**	**-6.4**	**2.6**
Vehicle fuels	1.1	-11.2	46.4	11.6	-8.4	1.9
Domestic gas	0.8	2.0	51.0	-9.2	-5.8	2.9
Electricity	**2.6**	**6.7**	**9.5**	**11.5**	**-7.1**	**5.9**

Source: INEI.

The items with the highest positive contribution to inflation were meals away from home (1.03 percentage points), education (0.53 percentage points), local transportation (0.30 percentage points), chicken meat (0.20 percentage points) and personal care products (0.19 percentage points). On the other hand, among the products with the highest negative contribution were potatoes (-0.27 percentage points), electricity (-0.19 percentage points), lemons (-0.12 percentage points), fish (-0.12 percentage points) and fuel for vehicles (-0.09 percentage points).

Table 59

WEIGHTED CONTRIBUTION TO INFLATION: 2023

Positive	Weight	% chg.	Contribution	Negative	Weight	% chg.	Contribution
Meals away from home	15.5	6.6	1.03	Potato	0.7	-21.2	-0.27
Education	8.6	6.4	0.53	Electricity	2.6	-7.1	-0.19
Local transportation	8.1	3.5	0.30	Lemon	0.2	-39.9	-0.12
Chicken meat	2.7	8.0	0.20	Fresh marine fish	0.7	-17.4	-0.12
Personal care products	4.0	4.8	0.19	Vehicle fuels	1.1	-8.4	-0.09
Other fresh fruits	0.6	20.2	0.13	International air transportation	0.5	-9.1	-0.05
Rice	1.2	9.1	0.11	Domestic gas	0.8	-5.8	-0.04
Beef	1.0	10.8	0.10	Vegetable oil	0.4	-9.2	-0.04
Corn	0.1	83.3	0.10	Camote	0.1	-22.6	-0.02
Cultural Services	1.1	5.6	0.06	Passion Fruit	0.1	-22.4	-0.02
Total			**2.75**	**Total**			**-0.96**

Source: INEI.

1. INFLATION WITHOUT FOOD AND ENERGY

Inflation excluding food and energy, an indicator that reflects trend inflation, entered the target range in December for the first time since November 2021. The increase in goods prices fell from 5.3 percent in 2022 to 2.7 percent in 2023, where the largest contribution came from the slowdown in the prices of personal care products (from 8.6 percent in 2022 to 4.8 percent in 2023) and motor vehicles (from 7.4 percent in 2022 to 0.1 percent in 2023). The services component decreased from 5.7 percent in 2022 to 3.0 percent in 2023, influenced by the slowdown in transportation prices (from 12.3 percent in 2022 to 2.9 percent in 2023), rents (from 2.4 percent in 2022 to -0.2 percent in 2023) and health (from 7.3 percent in 2022 to 3.3 percent in 2023).

Graph 54

CPI GOODS AND SERVICES EXCLUDING FOOD AND ENERGY

(Percentage change last twelve months)
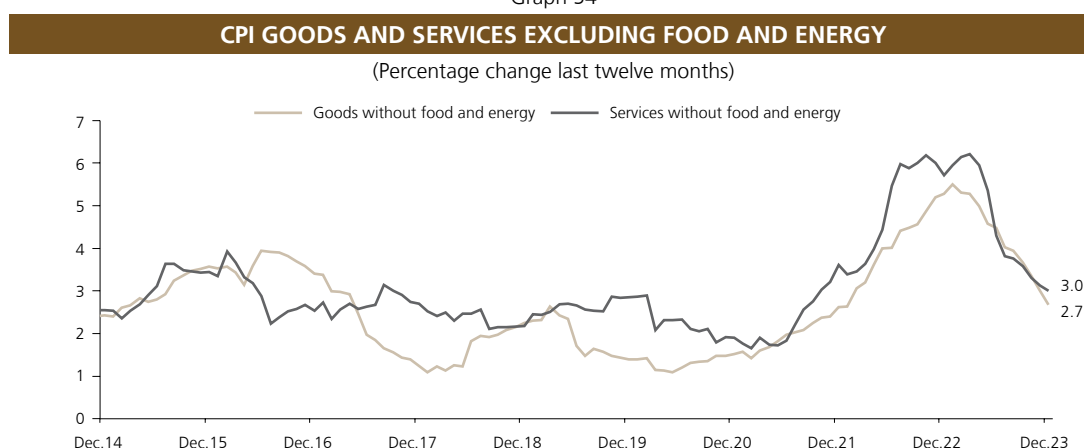
Source: INEI.

Goods

The change in goods prices was 2.7 percent in 2023, driven mainly by personal care products (4.8 percent) and household cleaning and maintenance products (4.7 percent). However, these increases were lower than those observed in 2022.

The prices of personal care products - personal hygiene products that are imported and to a lesser extent manufactured in the country with imported inputs - recorded increases throughout 2023, mainly in hair shampoo, toilet soaps and disposable diapers.

Services

The 3.0 percent growth in prices for services in 2023 reflected increases in transportation (3.5 percent), education (6.4 percent) and cultural services (5.6 percent).

The increase in local transportation was recorded mainly in motorcycle cab and cab fares. The increases were related to the higher price of some fuels in certain months of the year, such as the increase of liquefied petroleum gas for vehicles in September, due to the lower supply of the imported product due to the lower disembarkation due to the occurrence of abnormal waves; and natural gas for vehicles.

The price of school education rose 6.4 percent due to the increase in tuition fees for the beginning of the school year, and the increase in pensions due to the return of daily classes. In 2022 face-to-face classes were held only on some days of the week, and were complemented with virtual classes.

2. VARIATION OF FOOD PRICES AND ENERGY

Food and energy prices, whose variations are mainly related to supply factors, increased by 3.6 percent in 2023 (12.0 percent in 2022).

Food and beverage prices increased by 4.8 percent (12.6 percent in 2022), while energy prices decreased by 6.8 percent (up 6.8 percent in 2022). In the energy category, electricity prices fell 7.1 percent, while fuel prices fell 6.4 percent.

Food

The price of chicken meat increased 8.0 percent in 2023. This development was explained by mainly due to increased bird mortality caused by avian influenza.

The item "other fresh fruits" also recorded a positive variation (20.2 percent) mainly due to price increases in February and March. The supply of crops such as strawberries, which come from the valleys of the Lima region, decreased due to the rains that devastated crops. Mango was another product affected by climatic disturbances; flooding of plantations in Piura due to rains and overflowing rivers, hindered crops. However, from July onwards, prices of this product began to decrease due to the greater seasonal supply and the lesser impact of climatic changes on the flowering process of some mango varieties such as edward.

Potato prices showed a negative variation of 21.2 percent in the year, partially reversing the 94 percent increase recorded in 2022. This result was influenced by higher availability and lower fertilizer prices.

The price of lemons decreased 39.9% in the year, as supplies normalized in the last quarter of the year. Supply was affected during most of the year by high temperatures, heavy rains and floods, which destroyed crops on the northern coast of the country. However, supply of this product returned to normal in October.

The prices of foodstuffs with a high imported content, such as vegetable oil, noodles and bread recorded a lower variation than in 2022, which was influenced by the decrease in the international price of the inputs used in their production. The 9.2 percent reduction in the price of vegetable oil, associated with the lower price of soybean oil, its main input, stood out.

Dining out was the largest positive contributor to inflation in 2023. The year-over-year increase since October was greater than that of food and beverages inside the home, reflecting the highest restaurant attendance since the end of the pandemic.

Energy

Electricity rates decreased 7.1 percent, mainly due to the decrease in the Distribution Added Value (VAD) and in the updating factors such as the exchange rate and the Wholesale Price Index (IPM), recording the largest reductions in February and August.

The readjustment in February (-4.0 percent) also included a reduction in the premium for renewable energy resources (RER), due to an increase in the spot price; it was also due to a quarterly adjustment of the price at the generation level, the revision of the charges levied in the main transmission component, as well as the lower surcharge for the Electric Social Compensation Fund (FOSE). Subsequently, in August (-4.4 percent) generation prices were revised considering the quarterly settlement for the February-April 2023 period of the compensation mechanism between regulated users; on that occasion, the reduction of the FOSE surcharge factor was also considered.

The average price of liquid fuels decreased 8.4 percent in 2023, reflecting the lower price of gasohol. This result was influenced by the lower refinery price, which followed the downward trend of the international parity price, but with a smaller magnitude; the gap between both prices remained high. On the other hand, the retail margin recorded a recovery, which prevented a further decrease in the final price.

The price of domestic gas decreased 5.8 percent due to price band readjustments throughout the period, partially offset by an increase in the packaging, marketing and distribution margin.

3. INFLATION NATIONAL

In 2023, national inflation was 3.4 percent year-on-year, lower than the 2022 result of 8.6 percent. one hundred.

National inflation is calculated as the weighted average of inflation in the country's 26 main cities. In 2023, 17 cities recorded higher inflation rates than Lima and 8 cities presented lower variations.

Graph 55

INFLATION BY CITY: 2023

(Annual percentage change)

City	Value
Iquitos	0.8
Pucallpa	1.5
Cerro de Pasco	2.1
Huancavelica	2.8
Cusco	2.8
Puerto Maldonado	2.9
Piura	2.9
Puno	3.1
Lima	3.2
Huancayo	3.3
Chimbote	3.4
National CPI	3.4
Cajamarca	3.4
Ayacucho	3.5
Huánuco	3.6
Moquegua	3.6
Moyobamba	3.7
Abancay	3.7
Tacna	3.7
Tumbes	3.9
Huaraz	3.9
Tarapoto	4.3
Ica	4.3
Chachapoyas	4.4
Arequipa	4.4
Chiclayo	4.7
Trujillo	5.3

Source: INEI.

The cities with the highest inflation in 2023 were Trujillo (5.3 percent), Chiclayo (4.7 percent), Arequipa (5.3 percent), and San Pedro Sula (4.7 percent).

(4.4 percent) and Chachapoyas (4.4 percent).