

INFLATION IV

In December 2020, annual inflation –measured by the percentage change in the consumer price index (CPI) of Metropolitan Lima– recorded 1.97 percent year-on-year (1.90 percent in 2019), a level in the center of the BCRP inflation target range (1 - 3 percent). At the national level, the change in the CPI was 2.15 percent (1.88 percent in 2019). Even though the health crisis caused by the pandemic led economic activity to be below its potential and generated pressures for a decline in prices, there were also other elements that contributed to a rise in inflation, such as higher costs derived from sanitary measures, the lower supply of some food products, and the increase in the exchange rate.

In line with a level of activity below its potential, the statistical measures of trend inflation showed rates between 1.0 and 1.8 percent; that is, rates in the lower part of the target range. Inflation excluding food and energy was 1.76 percent, lower than in 2019 (2.30 percent), whereas the variation of food and energy prices, on the other hand, reached 2.22 percent, a higher level than in 2019 (1.43 percent).

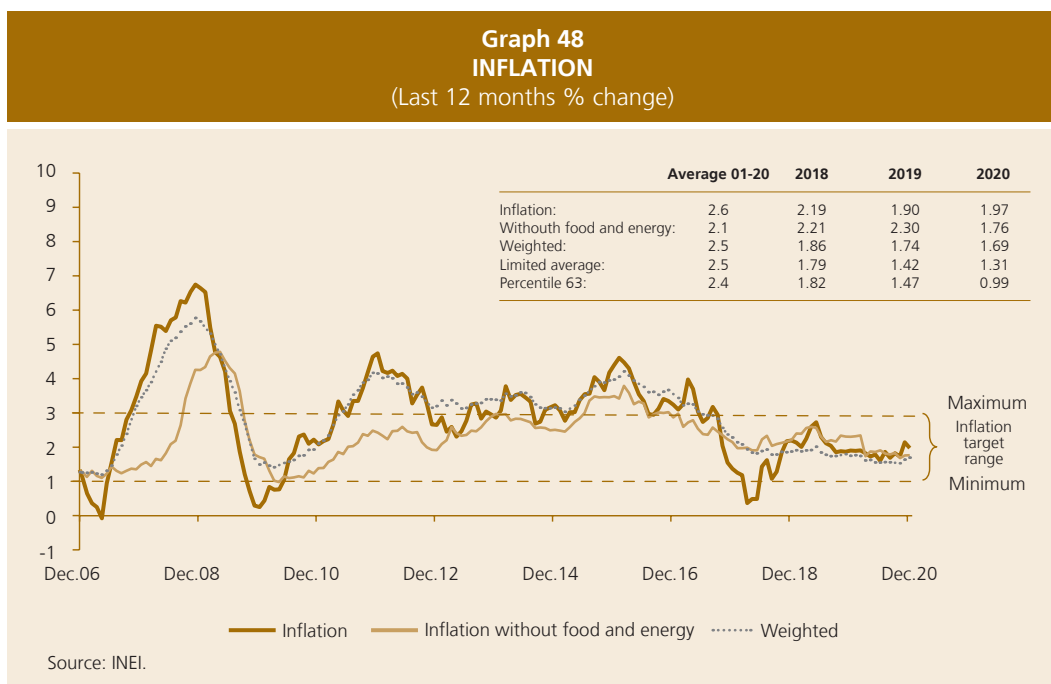


Table 58
TREND INDICATORS OF INFLATION
(12 months % change)

	CPI	Re-weighted 1/	Bounded mean 2/	Percentile 63 3/	CPI without food and energy 4/
2001-2020					
Average % change	2.56	2.47	2.52	2.45	2.13
Standard deviation	0.30	0.14	0.12	0.13	0.23
Dec.17	1.36	2.28	2.01	1.79	2.15
Dec.18	2.19	1.87	1.79	1.82	2.21
Dec.19	1.90	1.74	1.42	1.47	2.30
Jan.20	1.89	1.76	1.33	1.31	2.31
Feb.20	1.90	1.74	1.28	1.29	2.34
Mar.20	1.82	1.61	1.30	1.25	1.73
Apr.20	1.72	1.62	1.37	1.17	1.87
May.20	1.78	1.55	1.34	1.02	1.86
Jun.20	1.60	1.55	1.28	0.98	1.91
Jul.20	1.86	1.56	1.22	0.88	1.81
Ago.20	1.69	1.55	1.19	0.85	1.79
Sep.20	1.82	1.54	1.18	0.82	1.83
Oct.20	1.72	1.53	1.15	0.82	1.68
Nov.20	2.14	1.63	1.22	0.86	1.75
Dec.20	1.97	1.69	1.31	0.99	1.76

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 located in the 63th percentile

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

Graph 49
CONTRIBUTIONS TO THE ANNUAL CPI VARIATION
(% points)

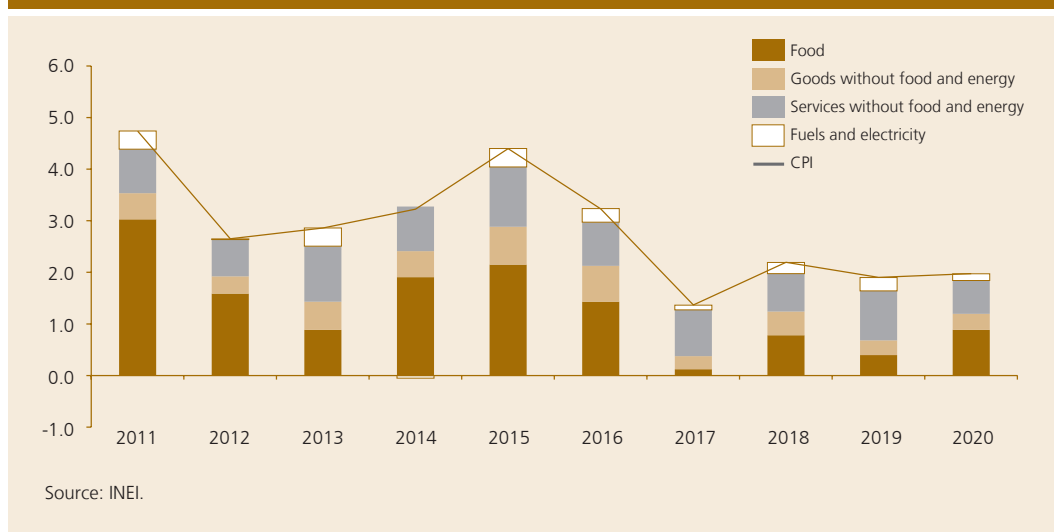


Table 59
INFLATION
(% change)

	Weight	2018	2019	2020	Average % chg. 2001-2020
CPI	100.0	2.19	1.90	1.97	2.56
1. CPI excluding food and energy	56.4	2.21	2.30	1.76	2.13
a. Goods	21.7	2.25	1.39	1.52	1.81
Textiles and footwear	5.5	0.92	0.23	0.07	1.95
Domestic appliances	1.3	1.32	0.34	-0.42	-0.30
Other industrial products	14.9	2.83	1.90	2.20	1.86
<i>Of which:</i>					
Medicinal products	2.1	1.09	1.68	5.53	2.62
b. Services	34.8	2.19	2.86	1.91	2.37
<i>Of which:</i>					
Education	9.1	4.73	5.22	1.98	4.03
Rent	2.4	1.27	0.74	0.50	0.54
Health	1.1	1.76	1.47	1.20	2.75
Transportation	8.9	1.09	2.15	2.47	2.42
Water consumption	1.6	0.00	5.01	3.03	4.40
2. Food and energy	43.6	2.17	1.43	2.22	3.02
a. Food and beverages	37.8	1.95	1.00	2.24	3.03
<i>Of which:</i>					
Chicken meat	3.0	-1.32	-7.27	6.63	1.87
Bread	1.9	0.94	0.92	0.25	3.17
Beef	1.2	2.16	2.60	9.73	3.31
Rice	1.9	-0.23	0.14	3.34	1.60
Sugar	0.5	-11.45	-7.00	16.41	1.77
Noodles	0.5	2.54	2.39	5.60	2.35
Oils	0.5	-2.10	-2.28	4.09	2.64
Potato	0.9	27.16	12.57	-18.73	3.05
Fresh and frozen fish	0.7	-5.95	-2.53	-0.08	2.55
Meals outside the home	11.7	2.19	1.69	1.00	3.40
b. Fuels and electricity	5.7	3.67	4.32	2.13	2.82
Fuels	2.8	5.35	-0.39	-4.20	1.97
Oil and lubricants	1.3	7.75	0.64	-11.16	1.28
Gas	1.4	3.28	-1.65	1.97	1.20
Electricity	2.9	2.39	8.04	6.73	3.03

Source: INEI.
Elaboration: BCRP.

The increase in **food and energy prices** was mainly due to supply constraints for certain goods, as well as to the rise in the exchange rate. Foodstuffs showing a noteworthy rise included chicken meat, following a recovery in demand for poultry that was faster than the supply recorded in Lima, as well as beef and sugar. On the other hand, the prices of potatoes, tomatoes, and *ollucos* decreased.

Fuel prices fell mainly due to the lower international price of oil and gasoline, while **electricity rates** increased in accordance with the price adjustments authorized by Osinermin and the higher exchange rate pass-through effect in rate contracts.

The items that contributed more to the rise in inflation were electricity with 0.24 percentage points, education (tuition and fees) with 0.21 percentage points, urban fares with 0.20 percentage points, chicken meat with 0.17 percentage points, and away-from-home meals with 0.14 percentage points.

Table 60
ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION: 2020

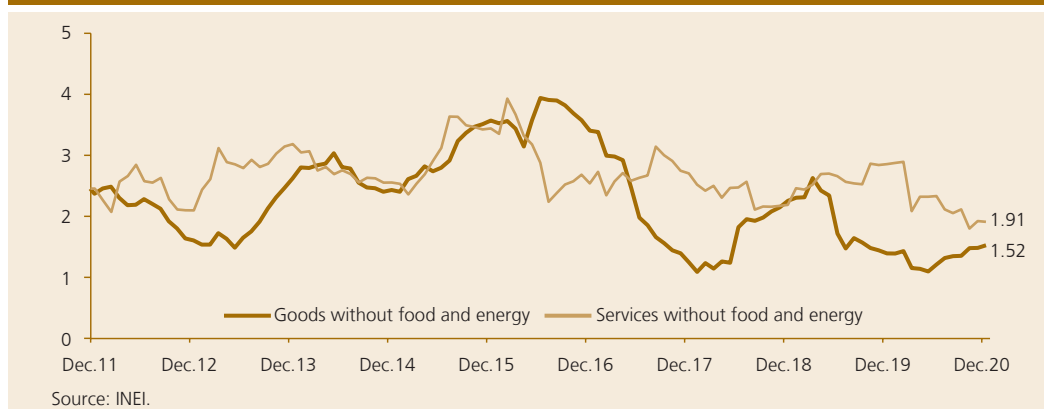
Positive	Weight	% chg.	Contribution	Positive	Weight	% chg.	Contribution
Electricity	2.9	6.7	0.24	Potato	0.9	-18.7	-0.20
Tuition and tuition fees	8.8	2.0	0.21	Gasoline and lubricants	1.3	-11.2	-0.14
Urban passage	8.5	2.5	0.20	Tomato	0.2	-11.4	-0.03
Chicken meat	3.0	6.6	0.17	Olluco and similar	0.1	-21.6	-0.02
Meals outside the home	11.7	1.0	0.14	Fresh vegetables	0.2	-6.5	-0.02
Beef	1.2	9.7	0.13	Internet service and others	0.8	-1.9	-0.01
Medicinal products	2.1	5.5	0.11	Airfare	0.4	-3.3	-0.01
Tickets to shows	1.7	6.9	0.11	Fluid refreshments	0.2	-2.1	0.00
Sugar	0.5	16.4	0.08	Pumpkin	0.1	-4.4	0.00
Banana	0.3	15.1	0.06	Avocado	0.1	-1.7	0.00
Total			1.45	Total			-0.43

Source: INEI.

1. Inflation excluding food and energy prices

Inflation excluding food and energy, an indicator reflecting trend inflation, was in the lower part of the target range. The prices of goods increased from 1.4 percent in 2019 to 1.5 percent in 2020, mainly due to the higher prices of medicinal products. The services component registered a slower pace of growth, falling from 2.9 percent in 2019 to 1.9 percent in 2020, influenced by the lower dynamism of education tuitions, which fell from 5.2 percent in 2019 to 2.0 percent in 2020.

Graph 50
CPI GOODS AND SERVICES WITHOUT FOOD AND ENERGY
(Percentage change last 12 months)



Goods

In 2020, the prices of goods increased 1.5 percent, with the higher prices of medicines (5.5 percent), vehicles (3.3 percent), and cigarettes (9.5 percent) standing out.

The 5.5 percent increase in the price of **medical products** was due to higher demand in the context of the COVID-19 pandemic, the highest rate of increases being recorded between May and July, in line with the way in which the first wave of COVID-19 infections evolved in the country.

The **prices of vehicles** rose 3.3 percent, affected by the higher exchange rate.

Cigarette prices rose 9.5 percent mainly due to the 6.7 percent increase registered in February due to the update in the calculation of the excise tax, which led it to rise from S/. 0.27 to S/. 0.32 per unit.

Services

The 1.9 percent growth in the price of services in 2020 reflected increases in education costs - tuition and fees (2.0 percent), urban fares (2.5 percent), entertainment tickets (6.9 percent), and water consumption rates (3.0 percent).

It should be said, however, that the inflation rate for **education (tuition and fees)** was lower than the average rate of the last 20 years. The increase registered at the beginning of the school year was lower than in other years as a result of the migration from face-to-face education to virtual classes due to the measures decreed by the Government to contain the spread of COVID-19.

Urban fares rose 2.5 percent, showing a similar increase to the average of the past two decades, but the highest in the last five years. The largest price increases occurred between March and May due to the measures implemented with the beginning of the state of emergency, among which the restriction on the use of private vehicles and the reduction in the capacity of public transportation stand out.

The prices under the heading **Entertainment tickets** showed a 6.9 percent increase, mainly due to higher cable television fees applied since January 2020.

The **water consumption** rate increased 3 percent between November and December 2020 due to the application of the automatic rate adjustment clause, which allows sanitation service providers to adjust their rates when the variation of the Wholesale Price Index (IPM), published by INEI, reaches 3 percent.

2. Food and Energy Prices

Food and energy prices, whose changes are mainly related to supply factors, increased by 2.2 percent in 2020 (1.4 percent in 2019). Food prices increased by 2.2 percent (1.0 percent in 2019), while energy prices rose by 2.1 percent (4.3 percent in 2019). In the energy sector, the price of electricity rose by 6.7 percent, while fuel prices fell by 4.2 percent.

Food

Changes in food prices standing out in 2020 included the increases observed in the prices of chicken meat, beef, and sugar, as well as the decreases in the prices of potatoes, tomatoes, *ollucos*, and legumes.

Chicken meat recorded a price increase of 6.6 percent in 2020. The significant rise of 29 percent in July largely offset the decline in prices observed in previous months due to lower sales during the quarantine season. The reopening of restaurants in July reactivated demand in part, but the poultry industry's supply continued to be restricted and remained below the requirement for the year. Overall, supply in 2020 was affected by lower sales during the quarantine, higher production costs due to higher feed prices, and uncertainty regarding the recovery of the economy.

Beef prices rose 9.7 percent due to supply problems during the state of emergency. The quarantine not only made it difficult, but also more expensive to move cattle from the highlands to Lima, and frost in the high Andean areas increased cattle mortality. The price of beef was also affected by



the rise in the exchange rate, which increased the cost of imported inputs for fattening domestic cattle.

The price of **sugar** rose 16.4 percent, after having grown 33 percent in the first four months of the year due to the stoppage of sugar mills (due to maintenance) and the higher cost of imported sugar. In addition, with the declaration of the state of emergency and mandatory confinement, the demand for storable foodstuffs, such as sugar, increased. Confinement also affected the supply of some sugar mills given the lower supply of inputs for the production process due to marketing and transit difficulties.

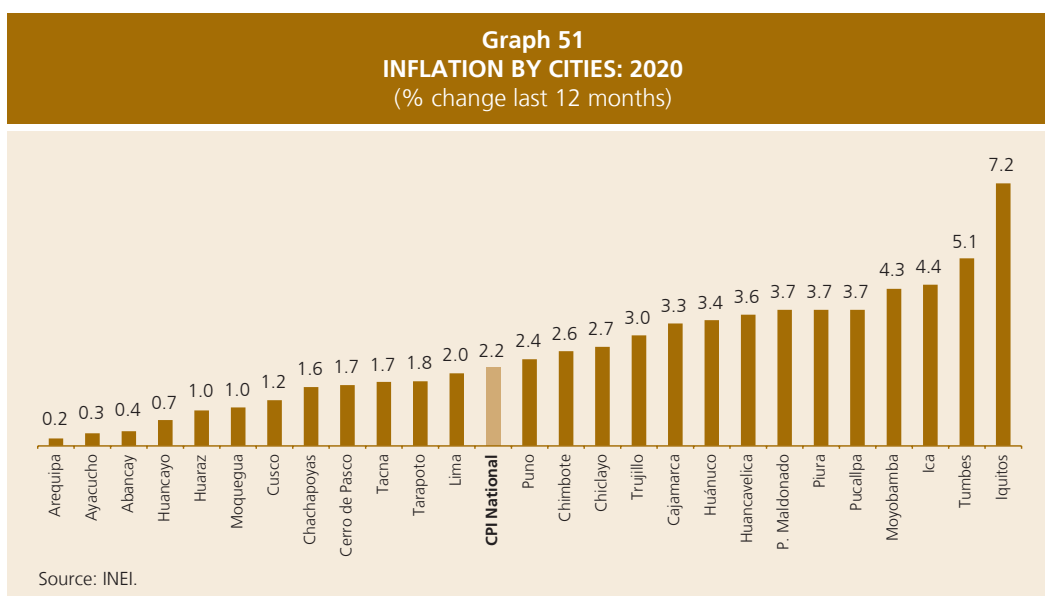
Energy

Electricity rates increased by 6.7 percent in 2020, the largest adjustments occurring in November and July. The electricity generation price was updated as from June, in line with the quarterly settlement made by the regulator to compensate the differences in the contracts between electricity generation and distribution companies. A series of parameters included in the distribution component, such as the Fondo de Compensación Social Eléctrica (FOSE), were also adjusted in June. The increases in the following months were associated with increases in the transmission component due to the collection of tolls for some lines, as well as to the updating of charges to ensure the continuity of the electricity service. Moreover, half of the adjustments reflected increases in the exchange rate.

On the other hand, the prices of **gasoline and lubricants** recorded a drop of 11.2 percent. Ex-plant prices at local refineries declined, albeit with lags, in line with the drop in oil prices in the international market. Price variations were also related to the decline in the international price of gasoline in the U.S. Gulf Coast, in line with the import parity price.

3. Domestic Inflation

Increasing from a rate of 1.9 percent in 2019, domestic inflation recorded a year-on-year rate of 2.2 percent in 2020. On the other hand, inflation excluding food and energy prices at the country level was 2.2 percent, the same rate as that recorded in 2019.

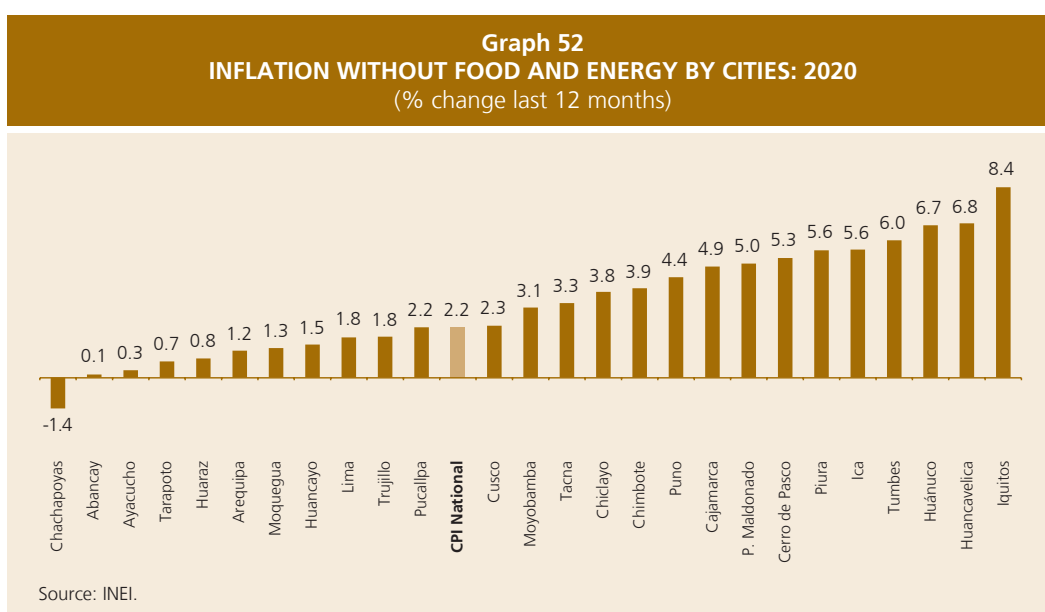


Domestic inflation is calculated as the average inflation rate of the 26 major cities in the country. In 2020, 14 cities showed higher inflation rates than Lima, while 11 cities showed lower rates.

The cities with higher inflation rates in 2020 were Iquitos (7.2 percent), Tumbes (5.1 percent), Ica (4.4 percent), and Moyobamba (4.3 percent).

Urban fares and away-from-home meals were the items with the highest contribution to inflation in these four cities. In addition, the increase in chicken meat prices also contributed to the increase in the CPI in Iquitos and Tumbes.

Moreover, in the case of inflation without food and energy, eight cities showed a lower price variation than Lima, while 17 cities showed a higher variation.



Iquitos, Huancavelica, Huánuco, and Tumbes were the cities with the higher rates of non-food and energy inflation, with urban fares, education (tuition and fees), and medicinal products being the items that contributed most to this indicator.