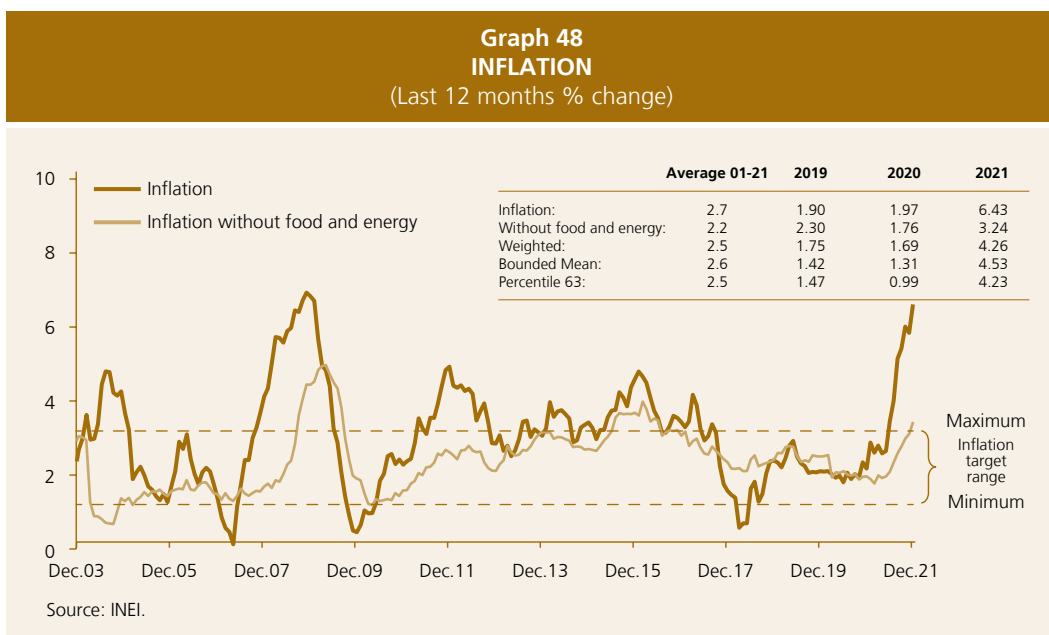


# INFLATION IV

Annual inflation in 2021, measured by the percentage variation of the consumer price index (CPI) of Metropolitan Lima, stood at 6.43 percent year-on-year (1.97 percent in 2020), placing it above the inflation target range (between 1 and 3 percent). At the national level, CPI variation reached 6.99 percent (2.15 percent in 2020).

The higher price variation during 2021 has been the product of a global phenomenon, which is explained by supply problems and the rapid recovery of the world economy, after the containment of the COVID-19 pandemic. Among the supply factors that contributed to inflation were higher international *commodity prices*, in particular oil and some foodstuffs, such as wheat, maize, and soybean oil. The increase in these prices was compounded by the higher cost of ocean freight, chemical fertilizers, and other inputs. At the local level, the rise in the exchange rate accentuated the increase in local prices of products with imported components.

Statistical trend measures registered rates between 3.2 and 4.5 percent, above the target range. Inflation excluding food and energy was 3.24 percent (1.76 percent in 2020). For its part, food and energy price variation was 10.18 percent (2.22 percent in 2020), above its long-term average.



**Table 61**  
**TREND INDICATORS OF INFLATION**  
(12 months % change)

	<b>CPI</b>	<b>Re-weighted 1/</b>	<b>Bounded mean 2/</b>	<b>Percentile 63 3/</b>	<b>CPI without food and energy 4/</b>
<b>2001-2021</b>					
Average % change	2.74	2.55	2.62	2.53	2.18
Dev. standard	0.30	0.14	0.12	0.13	0.23
Dec.18	2.19	1.87	1.79	1.82	2.21
Dec.19	1.90	1.75	1.42	1.47	2.30
Dec.20	1.97	1.69	1.31	0.99	1.76
Jan.21	2.68	1.76	1.35	1.06	1.69
Feb.21	2.40	1.68	1.29	0.97	1.57
Mar.21	2.60	1.77	1.61	1.08	1.79
Apr.21	2.38	1.80	1.62	1.23	1.72
May.21	2.45	1.85	1.70	1.41	1.76
Jun.21	3.25	2.11	1.98	1.72	1.89
Jul.21	3.81	2.41	2.46	2.07	2.14
Aug.21	4.95	2.87	3.08	2.64	2.39
Sep.21	5.23	3.18	3.44	3.04	2.57
Oct.21	5.83	3.55	3.83	3.47	2.79
Nov.21	5.66	3.80	4.06	3.73	2.91
Dec.21	6.43	4.26	4.53	4.23	3.24

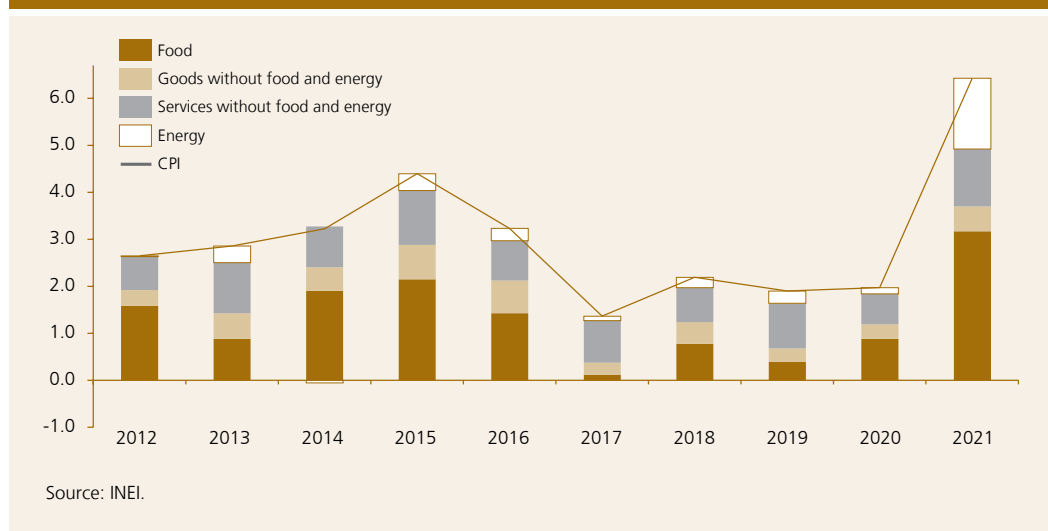
1/ Re-weighted: Reduces the weight of items with greater volatility, considers the original weights of each item between the standard deviation of their monthly percentage changes.

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.

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



**Table 62**  
**INFLATION**  
(% change)

	Weight	2018	2019	2020	2021	Avg. % chg. 2001-2021 1/
<b>CPI</b>	<b>100.0</b>	<b>2.19</b>	<b>1.90</b>	<b>1.97</b>	<b>6.43</b>	<b>2.74</b>
<b>1. CPI excluding food and energy</b>	<b>56.4</b>	<b>2.21</b>	<b>2.30</b>	<b>1.76</b>	<b>3.24</b>	<b>2.18</b>
<b>a. Goods</b>	<b>21.7</b>	<b>2.25</b>	<b>1.39</b>	<b>1.52</b>	<b>2.62</b>	<b>1.84</b>
Textiles and footwear	5.5	0.92	0.23	0.07	1.07	1.90
Domestic appliances	1.3	1.32	0.34	-0.42	4.14	-0.09
Other industrial products	14.9	2.83	1.90	2.20	3.08	1.92
<b>b. Services</b>	<b>34.8</b>	<b>2.19</b>	<b>2.86</b>	<b>1.91</b>	<b>3.61</b>	<b>2.43</b>
<i>Of which:</i>						
Education	9.1	4.73	5.22	1.98	1.60	3.91
Rent	2.4	1.27	0.74	0.50	1.76	0.60
Health	1.1	1.76	1.47	1.20	2.82	2.75
Transportation	8.9	1.09	2.15	2.47	3.69	2.48
Water consumption	1.6	0.00	5.01	3.03	11.57	4.73
<b>2. Food and energy</b>	<b>43.6</b>	<b>2.17</b>	<b>1.43</b>	<b>2.22</b>	<b>10.18</b>	<b>3.35</b>
<b>a. Food and beverages</b>	<b>37.8</b>	<b>1.95</b>	<b>1.00</b>	<b>2.24</b>	<b>7.97</b>	<b>3.26</b>
<i>Of which:</i>						
Chicken meat	3.0	-1.32	-7.27	6.63	23.40	2.80
Bread	1.9	0.94	0.92	0.25	15.50	3.73
Rice	1.9	-0.23	0.14	3.34	5.19	1.77
Sugar	0.5	-11.45	-7.00	16.41	12.70	2.27
Noodles	0.5	2.54	2.39	5.60	10.39	2.72
Oils	0.5	-2.10	-2.28	4.09	63.49	4.94
Potato	0.9	27.16	12.57	-18.73	11.94	3.45
Fresh and frozen fish	0.7	-5.95	-2.53	-0.08	14.52	3.09
Meals outside the home	11.7	2.19	1.69	1.00	4.53	3.45
<b>b. Fuels and electricity</b>	<b>5.7</b>	<b>3.67</b>	<b>4.32</b>	<b>2.13</b>	<b>24.41</b>	<b>3.76</b>
<b>Fuels</b>	<b>2.8</b>	<b>5.35</b>	<b>-0.39</b>	<b>-4.20</b>	<b>47.20</b>	<b>3.77</b>
Oil and lubricants	1.3	7.75	0.64	-11.16	46.41	3.07
Gas	1.4	3.28	-1.65	1.97	50.97	3.15
<b>Electricity</b>	<b>2.9</b>	<b>2.39</b>	<b>8.04</b>	<b>6.73</b>	<b>9.50</b>	<b>3.33</b>

1/ In 2002, the regime of inflation targeting was introduced.  
Source: INEI.

The price rise in food and energy prices was mainly due to international factors, affected by the increase in *commodity* prices, in addition to the behavior of the exchange rate.

Among the food items that contributed most to the rise in inflation were chicken meat, oils, and bread, related to increases in the international prices of maize, soybean cake, soybean oil, and wheat, respectively. In addition, the value of meals away from home increased, reflecting the rise in food input costs, as well as higher demand due to the relaxation of pandemic restriction measures, and the progress of vaccination.

Fuel prices grew, reflecting the higher international price of oil and diesel fuels. Electricity rates were readjusted based on current regulations, which establish the updating of its main components, based on the variations of the exchange rate, the WPI, and the prices of copper, aluminum, among others.

Likewise, the prices established in the contracts between electricity generation and distribution companies, as a result of the bidding processes, were updated.

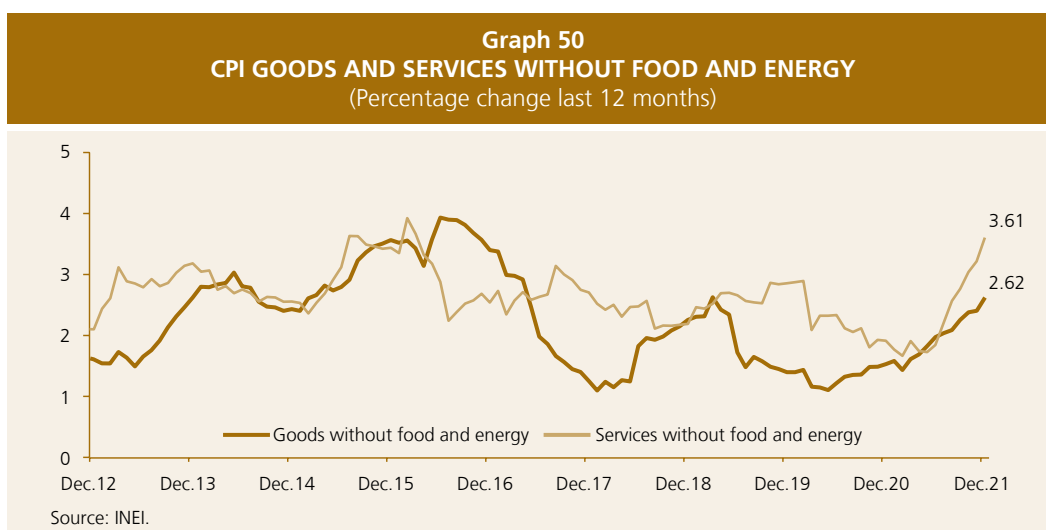
The items with the highest positive contribution to inflation were gas (0.64 percentage points), meals away from home (0.62 percentage points), chicken meat (0.61 percentage points), gasoline (0.49 percentage points) and electricity (0.35 percentage points).

Table 63 ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION: 2021							
Positive	Weight	% chg.	Contribution	Negative	Weight	% chg.	Contribution
Gas	1.4	51.0	0.64	Banana	0.3	-11.2	-0.05
Meals outside the home	11.7	4.5	0.62	Lemon	0.2	-13.2	-0.03
Chicken meat	3.0	23.4	0.61	Garlics	0.1	-13.2	-0.01
Gasoline and lubricants	1.3	46.4	0.49	Avocado	0.1	-4.1	-0.01
Electricity	2.9	9.5	0.35	Celery	0.0	-17.4	-0.01
Oils	0.5	63.5	0.29	Table orange	0.1	-8.9	-0.01
Bread	1.9	15.5	0.26	Internet service and others	0.8	-1.1	-0.01
Urban passage	8.5	3.0	0.24	Grapes	0.1	-3.3	0.00
Water consumption	1.6	11.6	0.22	Flour and other derivatives	0.0	-7.8	0.00
Tuition and tuition fees	8.8	1.6	0.17	Beans	0.1	-1.4	0.00
<b>Total</b>			<b>3.89</b>	<b>Total</b>			<b>-0.13</b>

Source: INEI.

### 1. Inflation without food and energy

Inflation excluding food and energy, an indicator that reflects trend inflation, was above the target range. Goods prices grew from 1.5 percent in 2020 to 2.6 percent in 2021, with vehicle prices rising the most. The services component registered a greater acceleration, growing from 1.9 percent in 2020 to 3.6 percent in 2021, influenced by the greater dynamism in transportation (rising from 2.5 percent in 2020 to 3.7 percent in 2021) and the increase in water rates (rising from 3.0 percent in 2020 to 11.6 percent in 2021).



## Goods

In 2021, goods inflation was 2.6 percent. Of note was the increase in the purchase of vehicles (7.2 percent), affected by a lower global supply, due to the shortage of semiconductors, coupled with a higher exchange rate. Likewise, the prices of home care and maintenance products (7.9 percent), which have imported content or are imported in processed form, increased, and were therefore affected by the global increase in maritime freight rates, in addition to the higher exchange rate.

## Services

The 3.6 percent growth rate of 3.6 percent in service prices in 2021 reflected increases in urban fares (3.0 percent) and water consumption (11.6 percent).

The increase in urban fares reflected the higher price of fuel, as well as the higher demand for cab and motorcycle cab services, due to fewer restrictions on people's mobility.

The readjustment of water rates was carried out in accordance with current legislation, which establishes an automatic rate increase if the Wholesale Price Index (WPI) reaches a cumulative variation of 3 percent.

## Variation in food and energy prices.

Food and energy prices, whose variations are mainly related to supply factors, increased by 10.2 percent in 2021 (2.2 percent in 2020). For its part, food prices grew by 8.0 percent (2.2 percent in 2020), while energy prices increased by 24.4 percent (2.1 percent in 2020). In the energy category, electricity prices rose by 9.5 percent, while fuel prices rose by 47.2 percent.

## Food

In 2021, increases in the prices of meals away from home, chicken meat, oil and bread stood out.

The increase in the prices of **meals outside the home** (4.5 percent) was associated with higher food input prices and the gradual recovery of consumption. However, the rise in prices was lower than the cumulative variation in prices for food inside the home (9.8 percent) due to restrictions to contain the pandemic, such as the reduction of visitor capacity in restaurants and the curfew.

The growth in the price of **chicken meat** (23.4 percent) was due to the increase in production costs, affected by the higher international prices of hard yellow maize, the main input for poultry feed, and by the rise in the exchange rate. This occurred in a context of lower chicken supply, due to the negative impact of the 2020 social immobilization on its production. The lower availability of substitute products such as jack mackerel and bonito also played a role.

The increase in the price of **oils** (63.5 percent) was due to the rise in the international price of soybean oil, its main input, which reached an all-time high in June (US\$ 1,674 per metric ton). In addition to this, the exchange rate depreciated.

The increase in the price of **bread** (15.5 percent) was associated with the rise in international wheat prices (37.0 percent). However, the atomization of supply prevented the full pass-through of the increase in production costs to consumer prices.

## Energy

The growth in the price of **gas** (51.0 percent) responded to the increase in the international reference price (propane and butane gas prices at Mont Belvieu) and the higher exchange rate. In the month of September, the price decreased, following its inclusion in the Fuel Price Stabilization Fund (Supreme Decree N° 023-2021-EM of September 6, 2021). However, in the following months, new price increases were registered in response to the updates of the price band, due to higher import parity prices.

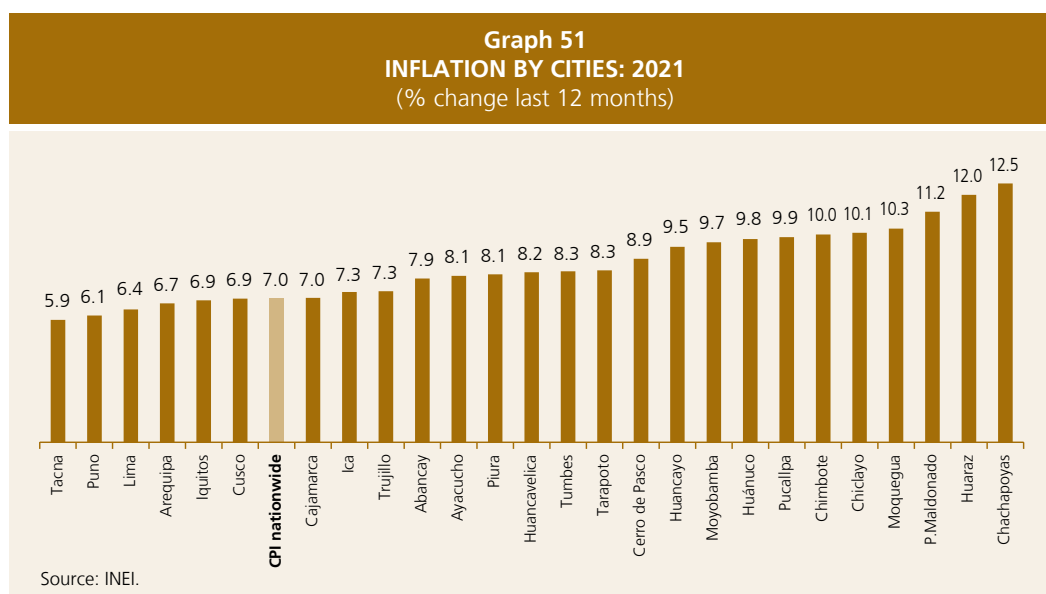
The increase in the price of **gasoline and lubricants** (46.4 percent) was in line with the average variation in the ex-plant prices of local refineries. This mainly reflected increases in the international marker (Gulf Coast price). The update of the price band for B5 diesel for vehicle use also had an influence.

**Electricity rates** increased by 9.5 percent, higher than the registered in 2020 (6.7 percent). This is mainly explained by the increase in the exchange rate and in copper and aluminum prices, mitigated by the effect of higher projected demand, and by lower fixed costs (lower premium for plants with renewable energy resources). The largest readjustments in the tariff schedules determined by Osinermin occurred in August and October.

### 3. National Inflation

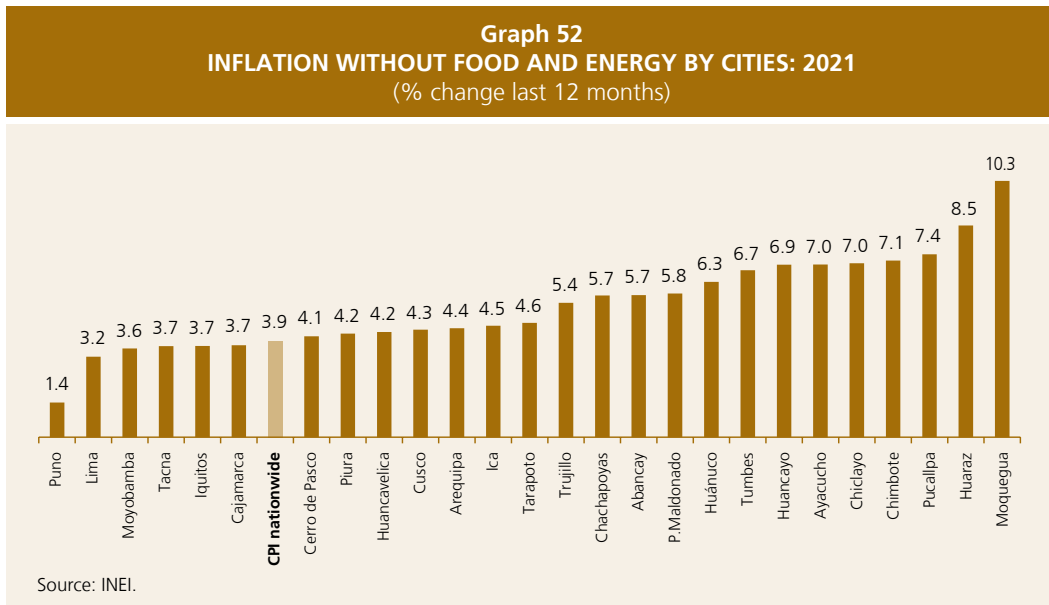
National inflation in 2021 was 7.0 percent year-on-year, higher than the 2020 result of 2.2 percent. Non-food and energy inflation at the national level registered a rate of 3.9 percent in 2021, higher than 2020's 2.2 percent.

National inflation is calculated as the weighted average of inflation in the country's 26 main cities. In 2021, 23 cities registered higher inflation rates than Lima and two cities presented lower variations.



The cities with the highest inflation in 2021 were Chachapoyas (12.5 percent), Huaraz (12.0 percent), Puerto Maldonado (11.2 percent) and Moquegua (10.3 percent). The items with the highest contributions to annual inflation were urban fares, meals outside the home and chicken meat.

Regarding inflation without food and energy, one city registered a lower price variation than Lima, while 24 cities registered a higher one.



Moquegua, Huaraz, Pucallpa and Chimbote were the cities with the highest non-food and energy inflation rates, with urban fares, tuition and board and lodging being the main contributors to this result.