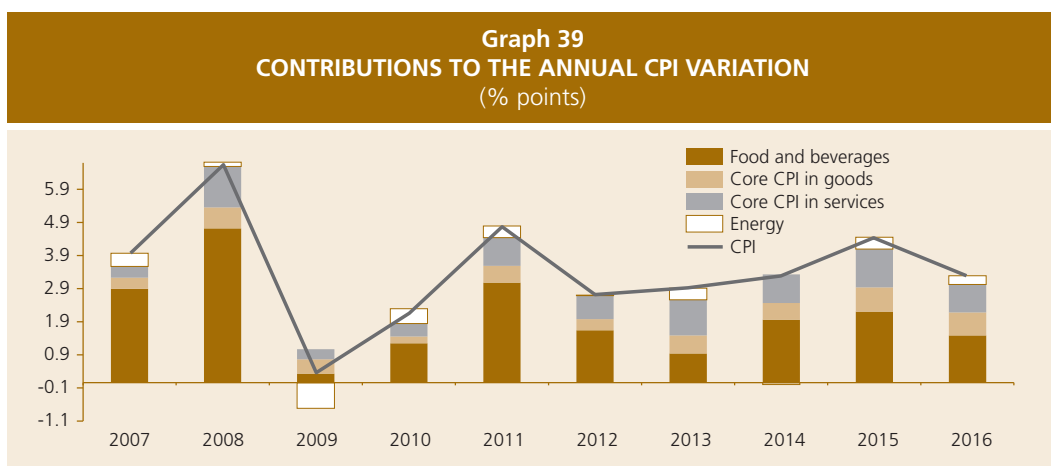
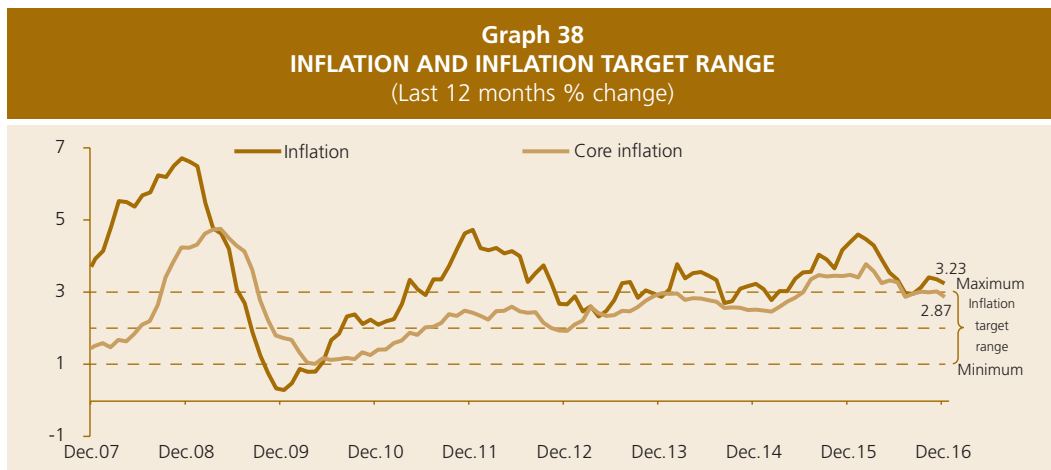


INFLATION IV

In 2016 the variation in the consumer price index (CPI) of Metropolitan Lima was 3.2 percent, a lower rate than the one recorded in 2015 (4.4 percent). The variation in the CPI at the national level was similar: 3.3 percent in 2016 vs. 4.1 percent in 2015.

Core inflation⁸ also slowed down, declining from 3.5 percent in 2015 to 2.9 percent, rate within the inflation target range.



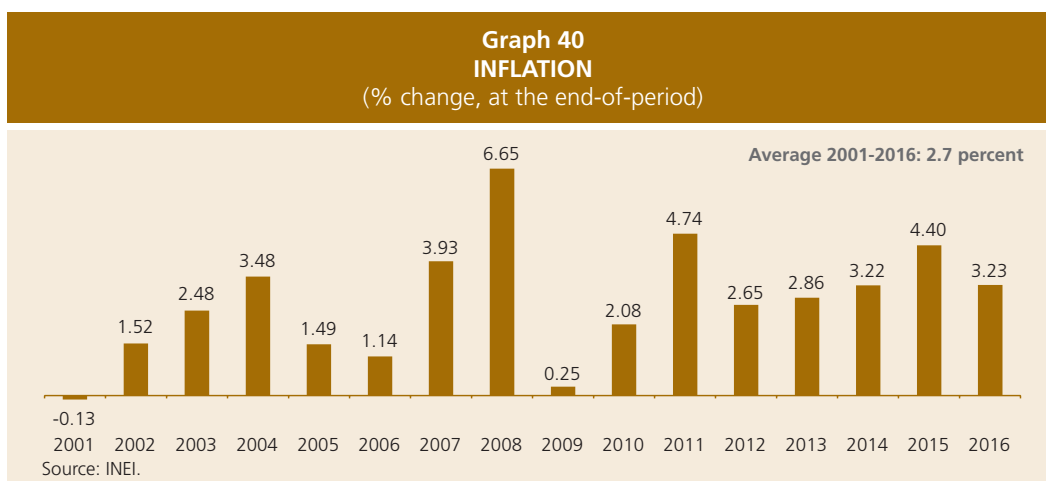
By items, almost half of the rate of inflation in 2016 is explained by increases in the prices of services, such as meals outside the home and education, as well as by increases in electricity rates, personal care

⁸ Excluding food and energy.

items, and urban fares. These five items account for 1.7 percentage points of the 3.2 percent inflation rate.

Table 53
ITEM WITH THE HIGHEST WEIGHTED CONTRIBUTION TO INFLATION

Positive	Weight	% chg.	Contribution	Negative	Weight	% chg.	Contribution
Meals outside the home	11.7	4.6	0.61	Fresh legumes	0.2	-18.5	-0.06
Education costs (tuition and fees)	8.8	5.1	0.48	Corn	0.1	-17.8	-0.03
Electricity rates	2.9	7.5	0.25	Olluco and alike	0.1	-26.9	-0.03
Toiletries	4.9	3.9	0.18	Papaya	0.2	-13.5	-0.03
Urban fare	8.5	1.9	0.16	Airplane fare	0.4	-4.7	-0.02
Evaporated milk	1.6	6.6	0.11	Gasoline and lubricants	1.3	-1.1	-0.01
Medicinal products	2.1	4.9	0.10	National transportation	0.3	-3.0	-0.01
Poultry meat	3.0	3.2	0.10	Celery	0.0	-14.8	-0.01
Cigarettes	0.1	45.4	0.08	Other cereals	0.4	-2.2	-0.01
Fresh and frozen fish	0.7	9.9	0.07	Mattress	0.1	-4.4	0.00
Total			2.14	Total			-0.21



Core inflation

The annual rate of core inflation dropped from 3.5 to 2.9 percent between December 2015 and December 2016. The decline was observed both in the prices of goods (down from 3.6 in 2015 to 3.4 percent in 2016) and in the prices of services (down from 3.4 to 2.5 percent) in this period, the evolution in the prices of education and health services being worth pointing out.

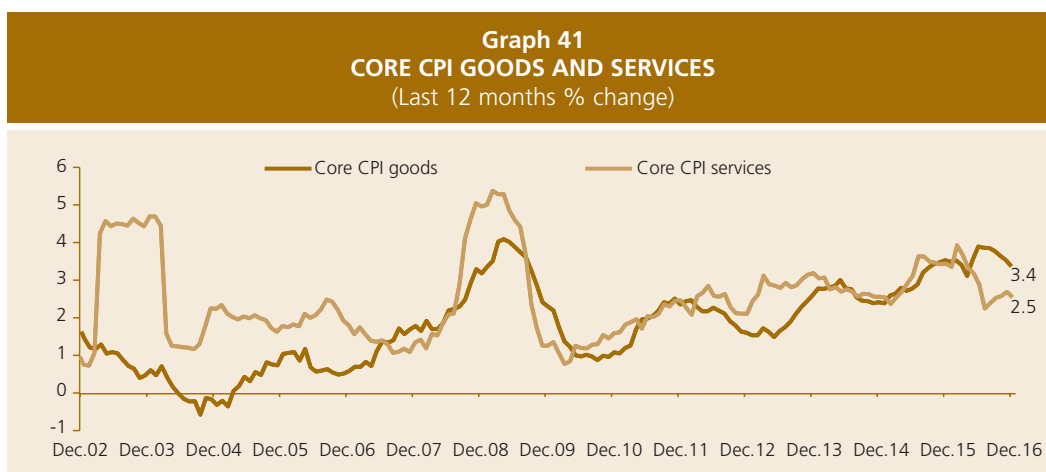


Table 54
INFLATION
(% change)

	Weight	2014	2015	2016	Average % chg.
					2002-2016 ^{1/}
CPI	100.0	3.22	4.40	3.23	2.93
1. Core CPI	56.4	2.51	3.49	2.87	2.17
a. Goods	21.7	2.43	3.57	3.41	1.84
Textiles and footwear	5.5	2.10	3.08	1.71	2.28
Domestic appliances	1.3	0.33	3.45	0.54	-0.53
Other industrial products	14.9	2.72	3.77	4.29	1.78
b. Services	34.8	2.55	3.44	2.54	2.43
<i>Of which:</i>					
Education	9.1	4.51	5.16	4.96	4.01
Rent	2.4	2.63	3.47	1.79	0.56
Health	1.1	4.43	5.53	5.00	3.05
Transportation	8.9	2.54	2.57	1.67	2.76
Telephone and water	5.4	-0.65	1.69	0.00	0.29
2. Food and energy	43.6	4.08	5.47	3.66	3.71
a. Food and beverages	37.8	4.83	5.37	3.54	3.70
<i>Of which:</i>					
Chicken meat	3.0	8.70	3.62	3.17	2.63
Bread	1.9	1.70	0.41	0.76	4.05
Rice	1.9	2.60	2.59	1.62	1.77
Sugar	0.5	1.39	19.04	10.03	3.36
Noodles	0.5	1.97	4.06	1.28	2.55
Oils	0.5	-1.03	-0.89	2.24	3.55
Potato	0.9	-4.03	62.87	1.75	6.93
Fresh and frozen fish	0.7	4.01	1.58	9.92	4.07
Meals outside the home	11.7	4.65	5.44	4.61	3.88
b. Fuels and electricity	5.7	-0.85	6.20	4.48	3.77
Fuels	2.8	-5.59	-6.33	0.61	3.30
Oil and lubricants	1.3	-12.50	-8.05	-1.13	2.46
Gas	1.4	1.21	-5.76	1.64	2.05
Electricity	2.9	4.37	18.71	7.53	3.38

1/ Regime Inflation Targeting since 2002.

Goods

The items that showed higher price increases in 2016 were **personal care items** (3.9 percent) and **medical products** (4.9 percent). Prices rises worth pointing out among the former included the rises in the prices of toothbrushes (6.2 percent), cosmetics (5.3 percent), toilet paper (4.7 percent), and toothpaste (4.1 percent), while prices worth pointing out among the latter included the prices of cough expectorants (9.7 percent), anti-inflammatory medicine (8.4 percent), and analgesics (6.9 percent).

The prices of **cigarettes** showed an increase of 45.4 percent, reflecting primarily the increase registered in the excise tax on cigarettes (D.S. 112-2016-EF, dated May 5, 2016) from S/ 0.07 to S/ 0.18 per cigarette (157 percent). The greater increases were observed in the months of May (23.0 percent) and June (12.3 percent).

Services

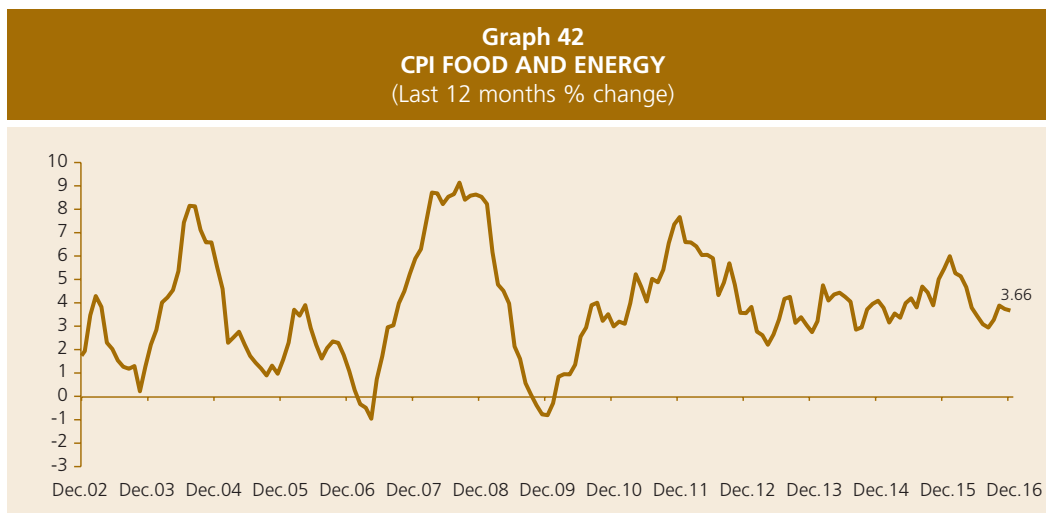
Education prices –tuition and education fees– increased 5.1 percent, the largest increases being recorded in February (1.4 percent) and March (3.1 percent) as a result of increases in tuition and fees in private schools and private universities as well as in tuition in public schools. Moreover, increases were also recorded thereafter in tuitions in universities and higher education institutes, a further increase (0.2 percent) being observed in the month of August in tuitions in private and State universities.

Rises in **urban fares** declined from 2.6 percent in 2015 to 1.9 percent in 2016, while the rate of national transport decreased by 3.0 percent (after increasing 2.9 percent in 2015).

Food and Energy Inflation

Inflation in food and energy items, which includes short-term variations associated with supply factors, also showed a downward trend declining from 5.5 percent in 2015 to 3.7 percent in 2016.

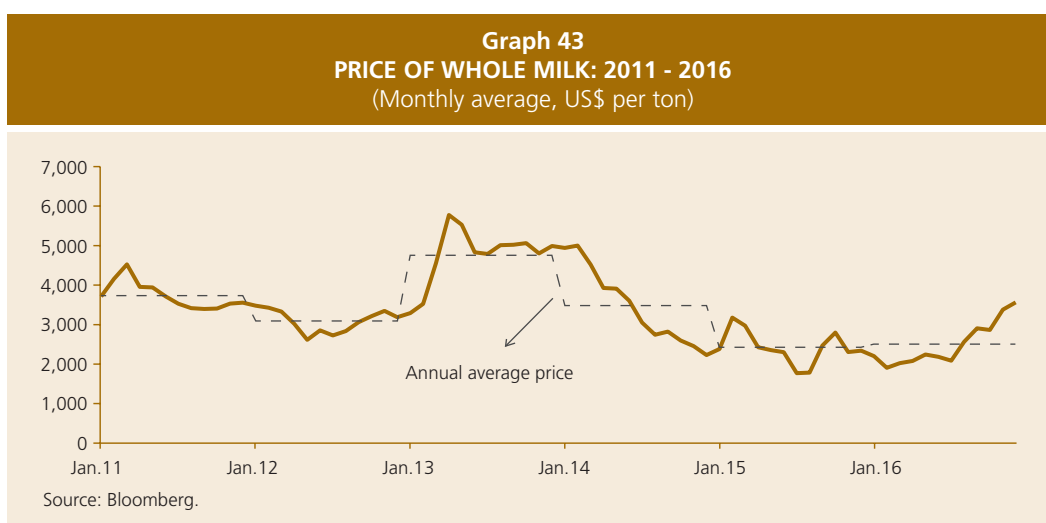
This trend was influenced mainly by lower variation in the prices of foodstuffs (down from 5.4 percent in 2015 to 3.5 percent in 2016) due to the reversal of price rises in the last months of 2015 as a result of weather anomalies. In addition to this, the increase in electricity rates fell from 18.7 percent in 2015 to 7.5 percent in 2016.



Foodstuffs

In 2016 three foodstuffs were among the items that registered the greater weighed contribution to inflation: evaporated milk, chicken, and fish.

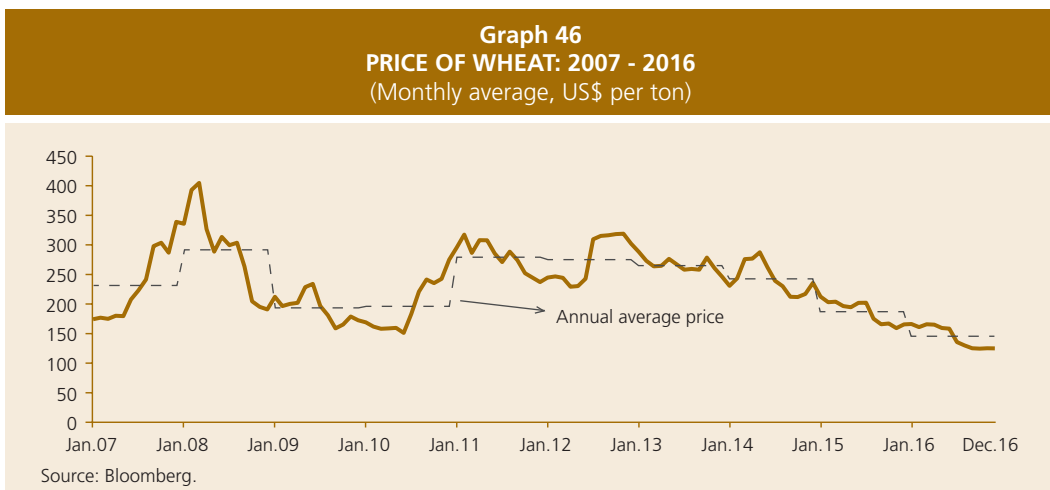
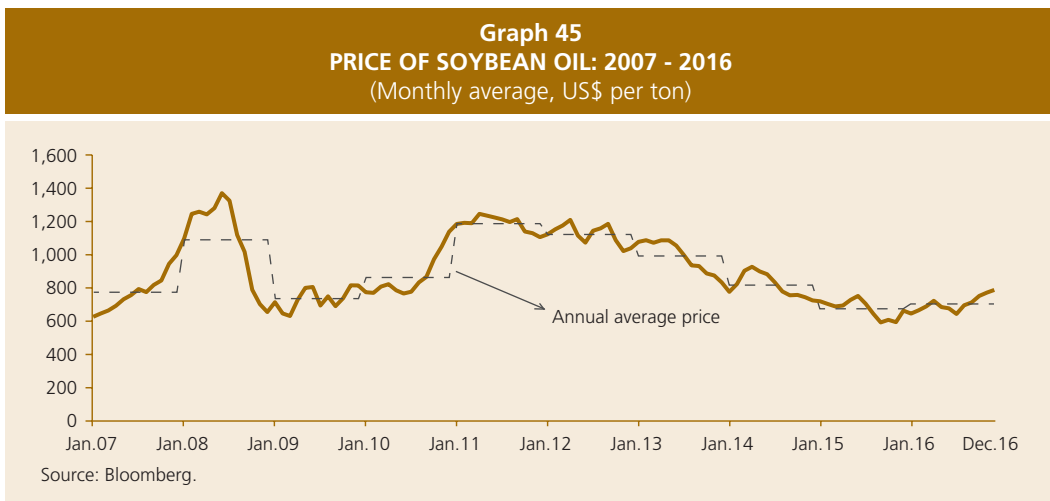
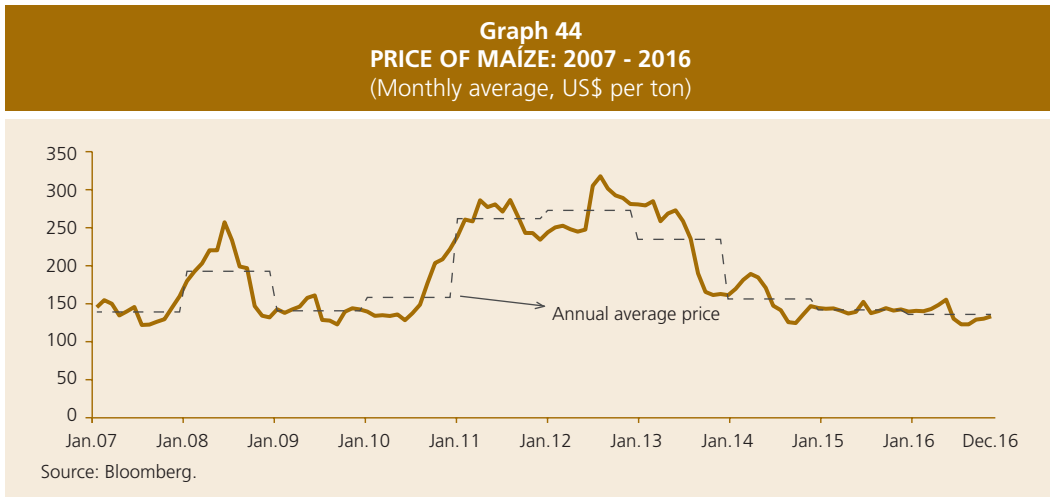
Reversing the trend of growing at lower rates than total inflation observed in the past three years, the price of **evaporated milk** increased by an average of 6.6 percent in 2016. This resulted in an increase of the industry's operating margins in a context of rising international prices of dairy inputs in the second half of the year. It should be pointed out, however, that imported dairy inputs are subject to the price band system and that the specific import duty has a limit of 20 percent of the CIF value of imports since May 2015.



The price of **poultry meat** increased 3.2 percent, a slightly lower rate than that recorded in 2015 (3.6 percent). As in previous years, the price was subject to fluctuations associated with the availability of substitute goods and with supply-related problems. The price hikes observed during the year were associated with rises in the prices of highly consumed fish species, such as bonito, mackerel, and parrot

fish. Additionally, the effect of the higher summer temperatures on poultry feed resulted in the lower weight of live chicken in farms and reduced the supply.

On the side of production costs, there was a lower contribution of the price of hard yellow maize, the staple food of poultry (the price fell from US\$ 142.4 dollars per ton in December 2015 to US\$ 131.5 in December 2016). Moreover, the price of imports of hard yellow maize in soles fell from S/ 924.2 per ton in December 2015 to S/ 906.1 in December 2016.



The price of **fish** showed a cumulative change of 9.9 percent, reflecting problems in the supply of some species included in the consumption basket as a result of sea temperature anomalies and anomalous waves that affected fishing during a great part of the year.

Alterations in the marine ecosystem associated with El Niño event caused an irregular supply of fish early in the year and led to price increases. Some species moved away due to the cooling of the sea in the following months, which gave rise to new price increases from June to August, but the prices of species such as bonito fell as from September as a result of the improvement of conditions in their habitat (mild sea warming and increased salinity in the central area off the Coast).

Energy

Electricity rates rose 7.5 percent (vs. 18.7 percent in 2015), in accordance with the adjustments approved by Osinermin, the regulating entity, which incorporated exchange rate variations and higher costs for the onset of operations in new power plants.

The latter included the increase for the transmission component associated with the commissioning of the thermal power plant of Puerto Bravo (Arequipa); the increase for the generation component associated with the commissioning of the hydroelectric plant of Cerro del Águila (Huancavelica), and the higher costs for starting the commercial operation of thermal power plant 2 in Ilo. The rates increased also in November due to the update of generation prices based on the quarterly settlement carried out by Osinermin to compensate for differences in the contracts established with energy generation companies and energy distribution companies.

Table 55
DETERMINANTS OF ELECTRIC TARIFF CHANGE

Item	2016
Infraestructure	3.7
- <i>Transmission line</i>	-0.5
- <i>RER*</i>	-0.4
- <i>Cold reserve</i>	0.2
- <i>Gasoducto Sur Peruano</i>	1.8
- <i>South energy node (TL Puerto Bravo)</i>	1.4
- <i>South energy node (TL Ilo)</i>	1.2
Exchange rate	0.3
IPM	0.2
Others**	3.3
TOTAL	7.5

* RER: Renewable energy resources.
 ** ** Includes other unit charges in the main and secondary transmission system; The unitary charges by the FISE (mechanism of social inclusion of the State destined to expand the energy frontier in the vulnerable segments of the population); Generation and distribution charges in medium and low voltage, etc.

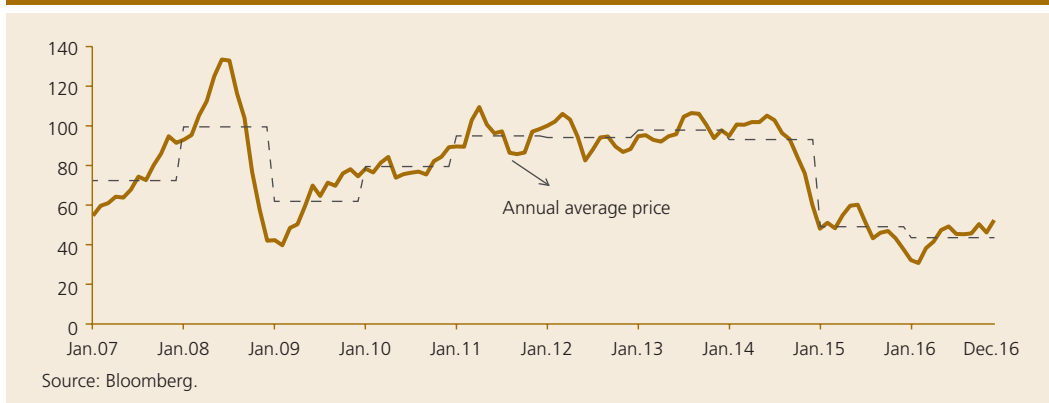
The price of **gasoline** fell 1.1 percent in 2016 –a rate of 8.1 percent was recorded in 2015–, which reflected the evolution of ex plant prices established by local refineries and the benchmark prices set by Osinermin based on the international price of WTI oil and the evolution of fuel prices in the U.S. market.

Table 56
FUEL PRICES
(Annual % change)

	2014	2015	2016	Average 2007-2016
Fuels	-5.6	-6.3	0.6	0.4
Gasoline	-12.5	-8.1	-1.1	-0.6
Gas	1.2	-5.8	1.6	1.3
Price of WTI oil, end of period ^{1/}				
US Dollars	59.8	37.2	51.9	
Soles	177.1	126.0	176.4	

1/ West Texas Intermediate.
Source: INEI and Bloomberg.

Graph 47
PRICE OF WTI OIL: 2007 - 2016
(Monthly average, US\$ per barrel)

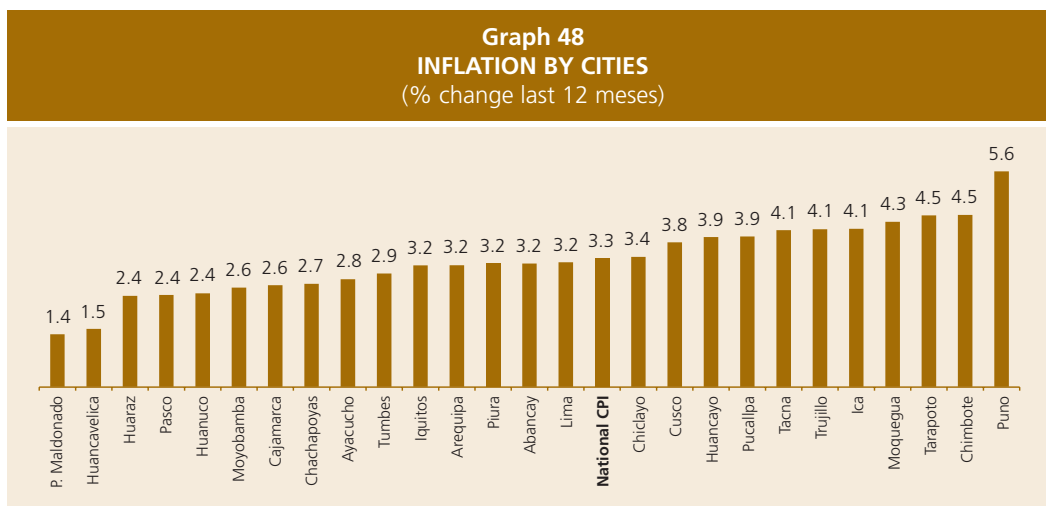


Domestic Inflation

In 2016 the rate of domestic inflation –which is calculated as the average inflation rate of 26 major cities in the country– was 3.34 percent, less than the rate recorded in the previous year (4.13 percent). While 11 cities showed higher rates than Lima, 14 cities showed lower inflation rates than Lima.

The cities with the higher inflation rates in the past 12 months were Puno, Chimbote, and Tarapoto. Puno registered rises in the prices of potatoes (66.2 percent), soft drinks (30.7 percent), and meals outside the home (5 percent), while Chimbote recorded price increases in meals outside the home (5.9 percent), potatoes (25.6 percent), and fish (40.4 percent), and Tarapoto showed rises in the prices of meals outside home (5.7 percent), education (tuition and fees: 8.3 percent), and personal care items (6.9 percent).

On the other hand, the cities with lower inflation rates were Puerto Maldonado and Huancavelica, which recorded rates of 1.37 and 1.50 percent, respectively. In Puerto Maldonado, the low inflation rate is explained by decreases in urban fares (8.9 percent) and in gasoline and lubricants (9.3 percent), while in Huancavelica this is explained by falls in the prices of potatoes (22.1 percent) and fresh legumes (22.3 percent).



As regards variations in the CPI excluding food and energy, 18 cities recorded higher inflation rates than Lima, while 7 cities recorded lower inflation rates. In Moquegua, the city with the higher rate of inflation without food and energy (6.72 percent), this is explained by rises in urban fares (23.3 percent) and education costs (8.9 percent), while increases in education costs (7.4 per cent) and in the prices of personal care items (5.9 percent) account for this in Puno (where inflation without food and energy reached 4.83 percent). Finally, education (8.3 percent) and personal care items (6.9 percent) explained the increase of inflation without food and energy in Tarapoto.

Conversely, Puerto Maldonado and Cajamarca recorded the lowest rates of inflation without food and energy (1.02 and 1.14 percent, respectively), the lower prices of urban fares (8.9 percent) and vehicles (5.3 per cent) explaining these low inflation rates in Puerto Maldonado while the lower prices of domestic transportation (13.8 percent) and urban fares (0.7 percent) accounted for this in Cajamarca.

