Box 2
The Recent Drop in Food Prices

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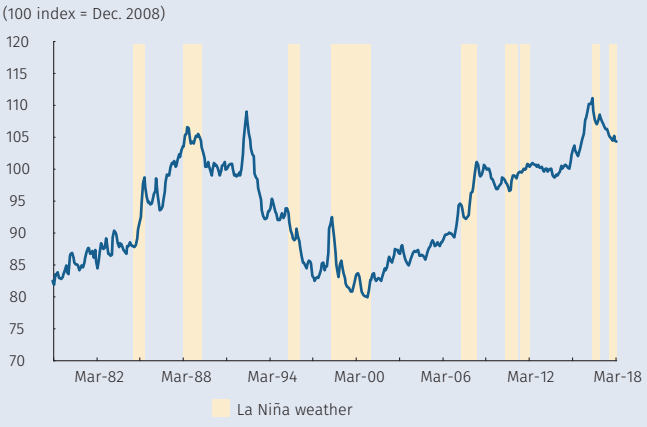
Graph B2.1
CPI for Food
(relative to the CPI excluding food)



Sources: DANE and National Oceanic and Atmospheric Administration (NOAA), authors' calculations.

As of March 2018, annual inflation (3.14%) was approaching the long-term inflation target established by the Board of Directors at *Banco de la República* (3.0%). News as remarkable as this had not been seen since September 2014 (2.86%). After this date, an upward trend in the relative prices of food began. This trend lasted until July 2016 (Graph B2.1), the same month in which the annual food-price inflation (15.71%) and headline inflation (8.96%) reached their highest recent records. This inflationary upswing was especially attributed to the latest *El Niño*. Based on the NOAA's historical information, this phenomenon, which was the longest in history, lasted from November 2014 to May 2016.[1]1 Once this weather disturbance was over, two new unexpected shocks emerged and ended up pounding the already battered food supply: the truckers' strike and the strike in the agricultural sector, both of which lasted until mid-July 2016.

In addition to the above, food prices also rebounded due to the nominal peso-dollar exchange rate, which accumulated a 59.49% depreciation between mid-2014 and July 2016 and affected, in particular, processed food (mostly tradable goods).

Once these various inflationary shocks—which had a damaging effect on the entire CPI spectrum of the food sector—were overcome in mid-2016, a downward trend in the annual food price inflation began. This inflation dropped to a level close to 0% in July last year and then reached a level close to 1.0% at the end of the first quarter of this year. The relative prices of food, in turn, have been falling since the third quarter of 2016 (Graph B2.1). An effort will be made in what follows to shed light on the reasons behind this, introducing historical evidence to determine if there is still some room for the relative prices of food to continue falling.

1. Weather factors and productive expansion

Institutional policies such as the replacement of illicit crops and the expansion of the productive area, supported by the private sector, have increased the food supply over the last two years. This was also favored by the latest abnormal rainfall. Indeed, the stylized facts show that the *La Niña* weather (higher level of rainfall) favors, on average, a greater level of agricultural production by increasing the crop yield. In this respect, the latest *La Niña* weather, which began last October, is also contributing to an expansion of the availability of products from the primary sector, which has led to a downward trend in food prices for both producers and consumers (Graph B2.1).

In addition, the production of beef and milk has been encouraged by the increase in the level of rainfall throughout almost the entirety of the national territory for six months now. This has been enhancing the current upward phase in the beef processing cycle, which has been characterized by increased slaughter of cattle (supply) with a decrease in the prices of meat (Graph B2.2).[2]2 Reflecting the above, the relative price of beef has fallen 9.33% since July 2016.

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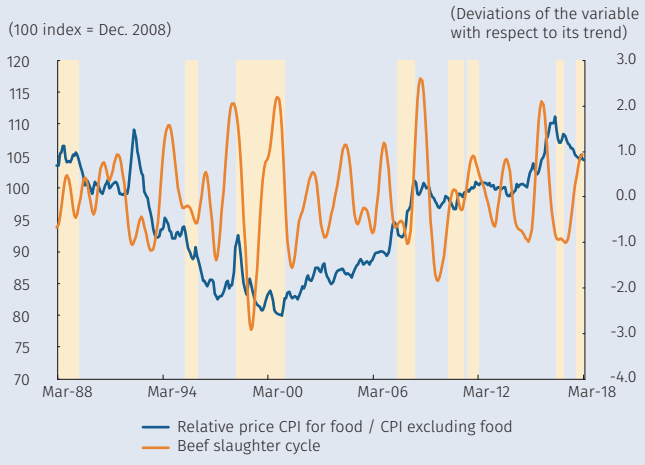
1 See: http://origin.cpc.ncep.noaa.gov/products/analysis_monitoring/ensostuff/ONI_v5.php. The United States National Oceanographic and Atmospheric Administration (NOAA). This climate condition has been the most extensive one together with the *El Niño* episode that spanned the period between August 1986 and February 1988.

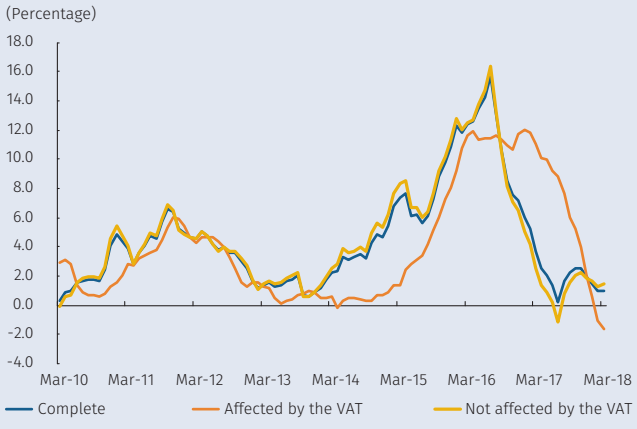
2 The price list published by the Medellín Livestock Fair as of 2016 was taken as the base for the price series. Since 2017, these prices have changed along with the PPI for cattle.

Graph B2.2
Beef slaughter cycle



Sources: DANE and National Oceanic and Atmospheric Administration (NOAA), authors' calculations.

Graph B2.3
Annual Change in the CPI for Food



Sources: DANE and the Ministry of the Treasury and Public Credit, authors' calculations.

2. Other domestic factors

Several internal events have been favored by more moderate adjustments in the prices of food for several quarters. The first one is that the GDP has been growing below its potential and with a clear weakness in demand for almost two years. The effect of this has been to restrict additional increases, especially regarding eating out and for some processed foods (see Chapter 4 of this Report). The second internal factor has to do with the continuous decline of inflation over the last three years. This has anchored inflation expectations at increasingly lower levels and has made a lower level of indexation possible, thus enabling smaller adjustments in the prices of those foods that show certain inflationary inertia such as eating out. This went from 9.31% in February 2017 to 3.32% in March 2018. It should be noted that the annual adjustments of these prices only began to recede after the additional increase that the latest tax reform (Act 1819/December 29, 2016)[3]3 levied on some food prices.

Moreover, the prices of eating-out were indirectly driven by the rise in the value of some groceries when the increase in indirect taxes went into effect with this reform. As shown in Graph B2.3, the inflation of food items affected by the VAT tax increase has been falling more sharply than that of the rest of the food items over the last quarter as a consequence of the base effect of statistical comparison caused by the tax reform going into effect at the beginning of 2017.

Last of all, non-labor costs[4]4 have, to some extent, been a reduction factor in setting producer prices in the agricultural sector since the end of 2015, as can be seen in Graph B2.4. As in the case of non-labor costs, marketing margins[5]5 have played a contractionary role in the relative prices of food. This narrowing of the gap between food prices for producers and those charged to consumers has been ongoing since the beginning of 2017, as shown in Graph B2.4.

3. External factors

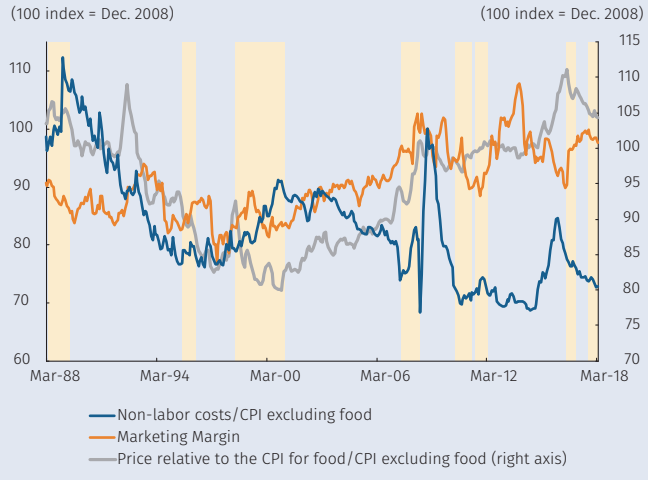
During the last few months, several external shocks have caused a slowdown in the level of food price inflation as well as a decline in their relative prices. For one thing, since July 2016, the performance of the nominal exchange rate of the peso with respect to the US dollar has maintained a downward trend to the point that its average reached COP 2,852.6 in March 2018, the lowest value that has been registered since July 2015. As a result, the index of the exchange rate in pesos relative to the CPI excluding food has been dropping for more than two years (Graph B2.5). The dollar lost value with respect to other currencies during that period in response to the uncertainty about the economic policies of the United States government and, more recently, to the upward trend in the price of crude oil. Likewise, the relative price of international prices in pesos has driven the relative prices of food into a downward trend, as can be seen in Graph B2.5. However, this trend could reach an end in the coming months given

3 Among the most important innovations introduced through the tax reform are the following: the increase in the rate of the value-added tax on goods and services from 16% to 19%; the creation of a national tax on carbon emissions; and the modifications in the tax on gasoline, ACPM, and tobacco.

4 The proxy of non-labor costs was calculated as a weighted average between the PPI of domestic availability of agricultural supplies (fertilizers and pesticides, insecticides, fungicides, herbicides, and disinfectants) and that of agricultural machinery.

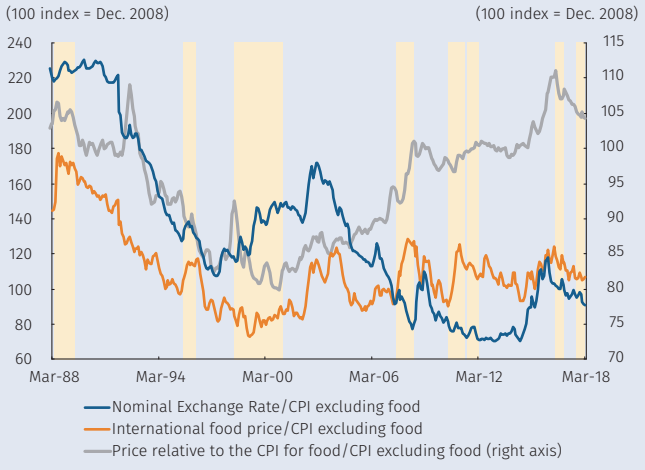
5 The marketing margins correspond to the ratio between the CPI for agricultural products and the PPI of the livestock sector (domestic supply).

Graph B2.4
Marketing Margin and Non-labor Costs
(relative to the CPI excluding food)



Sources: DANE and National Oceanic and Atmospheric Administration (NOAA), authors' calculations.

Graph B2.5
International Food Price Index and the Nominal Exchange Rate Index
(relative to the CPI excluding food)



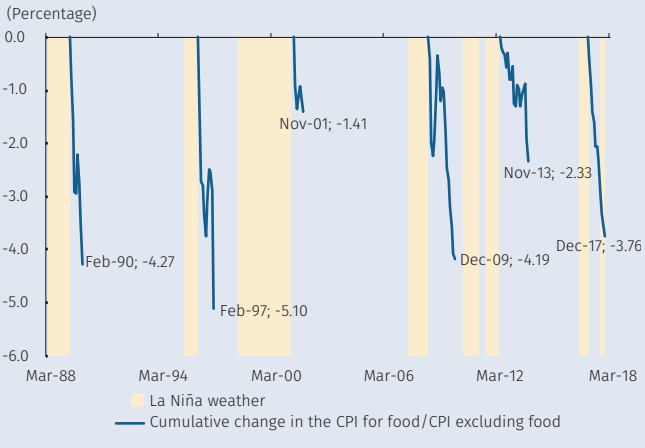
Sources: DANE (CPI), National Oceanic and Atmospheric Administration (NOAA), *Banco de la República* (TCN) and International Monetary Fund (IMF, authors' calculations.

that the international prices of food started to rebound at the beginning of this year due to increased demand generated by the positive performance of the global economy.[6]6

In conclusion, the decline in the relative prices of food since mid-2016 is the result of the interaction of multiple domestic and international factors including the weather and the economic cycle. With this in mind, future trends in the prices of food items rely on the assumptions about and forecasts regarding these variables. However, setting aside the above, a further reduction in the relative prices of food is still feasible given that these tend to decline as soon as *La Niña* weather event reaches its end, as illustrated in Graph B2.6. Evidence of this is that after the latest *La Niña*, the relative prices of food dropped 3.5%, on average.

Thus, it is possible that the relative prices of food will maintain their downward trend for a few more months once the current *La Niña*, which began in October last year, ceases, as expected at the close of the first quarter of this year. In addition, this declining trend in the relative prices of food could be stronger or weaker depending on future changes in the expansionary phase of the beef-slaughter cycle and the exchange rate.

Graph B2.6
Relative Price of Food after *La Niña*



Sources: DANE and National Oceanic and Atmospheric Administration (NOAA), authors' calculations.

6 See: World Bank, Commodity Markets Outlook, April 2018.