# Box 2
# Food Prices drove Inflation in 2019

**Edgar Caicedo G.**
**Nilson Felipe Lizarazo B.**
**Eva María Ramírez G.***

Consumer price inflation in 2019 trended upward, rising from 3.2% in December 2018 to 3.8% a year later (Table B2.1). Several inflationary pressures were present over the course of the year, including an *El Niño* weather pattern, increases in indirect taxes, depreciation in the exchange rate, and demand pressures[1].

Food prices led the upturn in inflation in consumer goods in 2019, undergoing an annual adjustment in December (5.20%) above observable levels for the remaining three major components of the Consumer Price Index (tradables, non-tradables and regulated items) and far surpassing levels observed 12 months earlier (2.43%). This upward trend in the annual change in food prices in the CPI extended to October (5.84%), before a downward correction in November and December (5.20%). At year-end, food prices contributed close to 85% of the inflationary impulse in consumer prices in 2019 (Table B2.1 ).

## What factors drove the increase in food prices through much of 2019?

Several demand and supply factors contributed to food prices as the primary source of inflationary pressure in the CPI:

### *The agricultural production cycle*

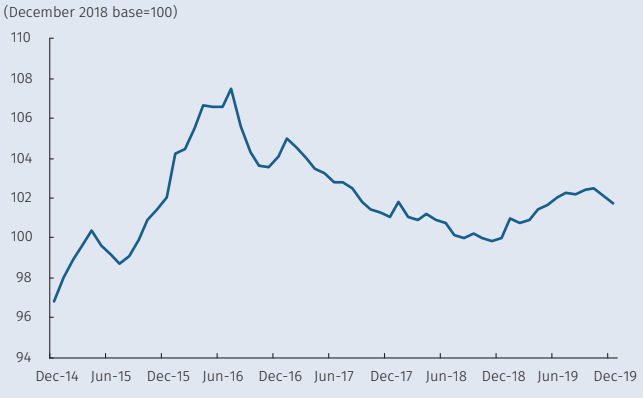
The upturn in the CPI for food in 2019 arrived as a contractionary period for prices from 2016 to 2018 came to an end. As a result of this contraction, food prices were at relatively low levels at the end of 2018, tamping down growth in cultivated land and, at the same time, giving rise to inflationary pressures through much of 2019, above all in perishable foods (Graph B2.1).

Table B2.1
Contribution to Acceleration in Inflation

| Description | Contribution to Inflation in 2018 | Contribution to Inflation in 2019 | Difference in Percentage Points | Contribution to Percentage Difference |
|---|---|---|---|---|
| Total | 3.18 | 3.80 | 0.626 | 100 |
| Excluding food | 2.47 | 2.56 | 0.095 | 15.13 |
| Tradables | 0.25 | 0.43 | 0.177 | 28.28 |
| Non-tradables | 1.20 | 1.48 | 0.278 | 44.40 |
| Regulated items | 1.02 | 0.66 | -0.360 | -57.55 |
| Food | 0.71 | 1.24 | 0.532 | 84.87 |

Source: DANE; calculations by the authors.

Graph B2.1
Relative Food Prices
(CPI for food/CPI excluding food)




Source: DANE; calculations by the authors.

### *Climate factors*

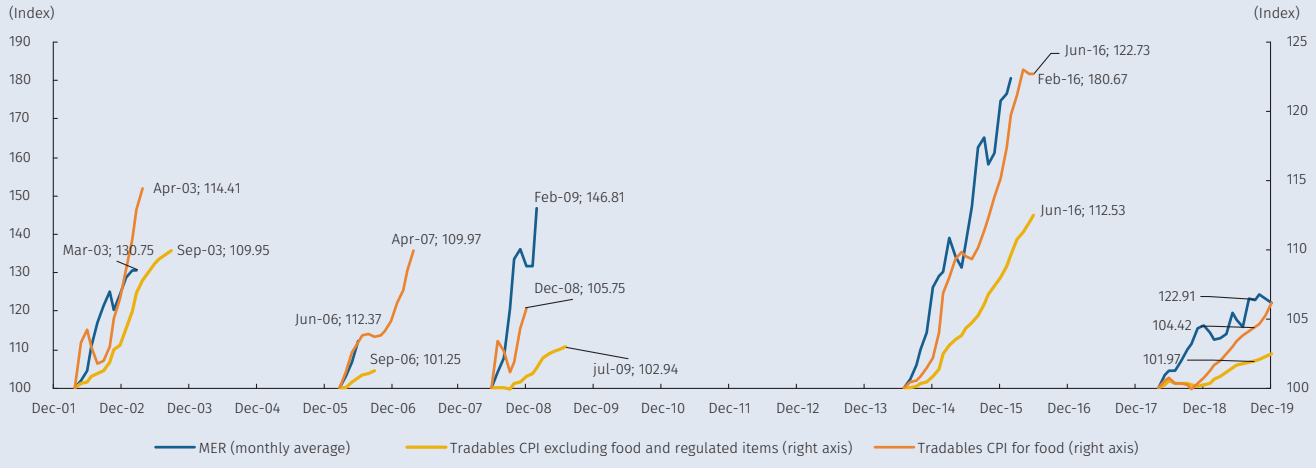
Food prices were also affected by the presence of a mild *El Niño* weather pattern which, as its effects faded midway through the year, was linked to particularly dry conditions through much of the country originating with the Indian *El Niño*[2]. The combination of these climate factors reduced rainfall throughout the year, affecting the price of meat on the Atlantic coast (particularly at the beginning of the year) and delaying seeding decisions, especially for highly rain-sensitive crops such as rice, the price of which grew by 17.0% in 2019.

* Caicedo is Leading Analyst at *Banco de la República's* Programming and Inflation Department. Lizarazo and Ramírez are interns with the Department. The opinions herein are not necessarily shared by *Banco de la República* or its Board of Directors.

1 For more, see the third chapter of this report.

2 The lack of rainfall was especially concentrated in the central and western parts of the country, resulting from a phenomenon known as the Indian Ocean dipole (or the Indian *El Niño*), which affected not only agricultural productivity but also reservoir levels. This kept stock market energy prices over the last several months as high as those observed during the *El Niño* weather pattern from 2018-2019.

Graph B2.2
Market Exchange Rate (MER) vs. Tradables CPI Excluding Food and Regulated Items and CPI for Tradable Foods
(base of comparison between variables = 100)




Source: *Banco de la República* and DANE; calculations by the authors.

## *Reduced global supply of pork*

Prices for Colombian meat exports, especially pork and, thanks to the substitution effect, beef, were driven up by an outbreak of African swine fever. The outbreak resulted in a massive cull in several countries, especially in Asia, with at least one third of the Chinese hog population slaughtered in 2019. The virus could ultimately lead to the slaughter of a quarter of the global hog population.[3]

## *Road closures*

The aforementioned supply shocks, which drove up prices in the CPI for food, were accentuated by intermittent road closures to and from Colombia's eastern plain (llano oriental) beginning in May 2019. The effects of a total closure lasting from mid-June to the end of the year were particularly acute. Mobility problems led to temporary increases in the price of perishable foods, especially in central supply markets in Bogotá, Villavicencio and Yopal.

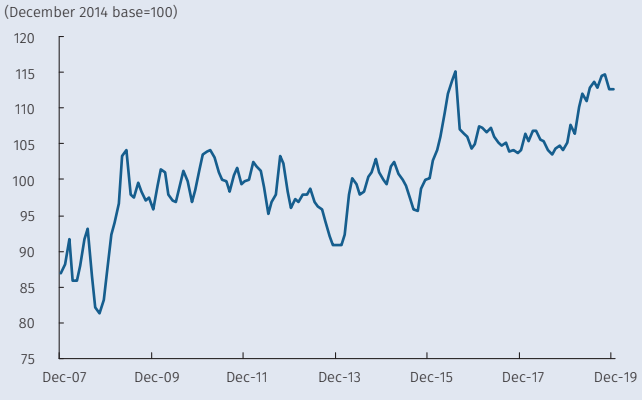
## *Depreciation of the peso and its pass-through effect on domestic prices*

Accumulated currency depreciation that began in the second quarter of 2018 has affected tradable foods to a greater effect than it has the rest of the tradables component of the CPI. As seen in Graph B2.2, the pass-through effect of exchange rate depreciation on the CPI for tradable goods is, in general, higher and more automatic than it is for the tradables CPI excluding food and regulated items. More recently, increases in international food prices have also had an effect.

## *Larger profit margins for rural economic activity*

Profit margins in agricultural activity registered a significant increase over much of the year, undergoing a downward correction in only the last two months of 2019 (Graph B2.3). As profit margins for rural economic activity rise, the resulting latent upward pressures on producer prices ultimately passes-through to consumer prices. Profit margins tended to recede in the last quarter of the year, in sync with a recent fall in annual growth of the CPI for food.

Graph B2.3
Estimate of Agricultural Sector Profit Margins
(agricultural PPI/non-labor costs)[a/]




a/ Non-labor costs are estimated using an assumed sum of the PPI for machinery and equipment for agricultural uses and agricultural inputs (fertilizers, pesticides, fungicides, herbicides, etc.).
Source: DANE; calculations by the authors.

3 For more, see: http://mundoagropecuario.com/la-cuarta-parte-de-todos-los-cerdos-del-mundo-podrian-morir-de-peste-porcina-segun-la-organizacion-de-salud-animal/

### *Demand factors*

In addition to external and supply factors driving up food prices in 2019, demand pressures were also present in the form of highly dynamic private consumption, possibly a reflection of the size of incoming migration flows in recent quarters. Venezuelan residents' demand for Colombian products, especially food items, may also have contributed to reduced domestic supply. At the same time, consumer credit performed very well in 2019, and was one of the variables that contributed most to portfolio growth (see section 3.4 of this report). Finally, growth in remittances, which exceeded double digits in 2019, also made household consumption more dynamic and pushed inflation upward.

In conclusion, it is important to note that the inflationary shocks signaled above have abated, while those that are still present are of a temporary nature. As a consequence, growth in food prices is expected to continue to moderate in coming months, without cause for analysts to modify their inflation expectations.