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ECONOMICS

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Brazil—Inflation

Inflation Convergence: Not in 2017

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- **Even with an intense shock in food prices, expectations for 2017 IPCA have fallen in the last months. However, market consensus still points to an inflation rate 40 bps above the target.**
- **Despite the economic downturn and the hawkish stance adopted by the monetary authority, we also think the current conditions are not sufficient to drive IPCA to 4.5% by next year.**
- **Methodological and regulatory changes should hamper the disinflation of regulated and services prices, both known for having a high inertia component.**
- **On the other hand, food inflation is expected to slump in 2017. Not only is the food price shock likely to fade out, but the first weather estimations point to favorable climate conditions next year. Industrial goods will likely decelerate in the wake of a more appreciated BRL compared with 2015 levels.**
- **This symbolizes the continuation of a huge process of improvement in the inflation scenario, which started in 2016 and should last until 2018, when IPCA is expected to finally hit the target.**
- **The consequences of this late convergence for monetary policy decisions are, in our view, restricted. BCB will likely start focusing on longer horizons and, thus, should continue cutting the interest rate. We see room for a longer cycle, driving Selic to single digits by the end of 2017.**

IPCA Breakdown (% 12 Months)

	2014	2015	2016 (f)	2017 (f)
IPCA	**6.4**	**10.7**	**7.0**	**4.8**
Regulated	5.3	18.1	6.4	5.2
Market	6.8	8.5	7.2	4.7
Industrial Goods	4.3	6.2	5.1	4.0
Food at home	7.1	12.9	11.0	4.7
Services	8.5	8.1	6.7	5.1

Sources: IBGE; Santander estimates.

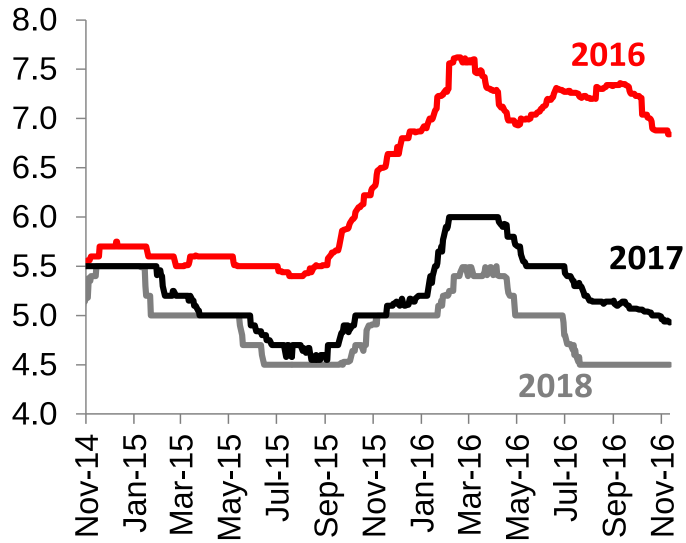
Inflation Background

Regarding the past monthly readings of IPCA, economists have frequently missed the target. Contrary to what happened in the beginning of the year, the latest results have surprised to the downside. These surprises, mainly due to the high volatility of food inflation, affected the median market expectations for year-end IPCA. As shown in the following chart (left), consensus for 2016 peaked at 7.62% in February, when food inflation detached from the average gain of market prices. More recently, it peaked at 7.36% in early-September, when the supply disruption of some foodstuffs started reversing. After that, it consolidated a downtrend and now points to 6.84%.

Our forecast for 2016 IPCA, on the other hand, has been flat at 7.00% since January, when we published the report *Some Thesis for 2016*. We decided not to follow market expectations, believing the shocks would fade out. Two months from the year-end result, our number seems now to be on the pessimistic side, unlike the whole year. We still think it is very likely outcome, as we might see inflationary pressures above seasonality in December.

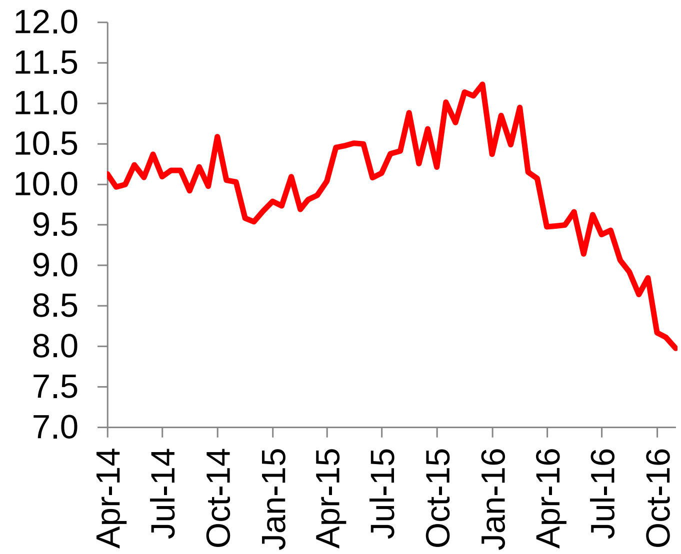
Regarding median market expectations for 2017, it didn't go up after the midyear. Actually it remained constant at 5.50% during the second cycle of upward revisions for 2016 IPCA. This suggests the market's view for the above-mentioned food inflation shock is short-lived. Moreover, even with a high level of food inflation, restaurant prices decelerated in the period. (See chart on the right.) This, in our view, illustrates the disinflationary effects of the economic contraction on services inflation. Indeed, BCB's assessment, according to the last Copom minutes, is that "there is no evidence of second round effects of the food-price shock on other prices in the economy." In any case, there is still more than a 40-bp gap between the current consensus for 2017 IPCA (at 4.93%) and the 4.5% target.

Market Expectations Reacting to Inflationary Surprises



Source: BCB's Focus survey.

Food Out of Home Inflation (Accumulated in 12 Months)



Sources: IBGE; Santander estimates.

Despite BCB's assertion that it is committed to drop inflation to 4.5% in the relevant horizon, "which encompasses the calendar years 2017 and 2018," we think the current conditions are not sufficient to drive IPCA to the target by the next year. In this piece, we present the reasons for this position and detail our forecast for all main components of IPCA.

In short, the inertia in regulated prices contracts and in services should prevent inflation from hitting the target. On the other hand, assuming a moderate BRL depreciation by the year, food and industrial goods inflation rates are expected to slump, symbolizing the continuation of a huge process of improvement in inflation scenario. This downtrend of IPCA should last until 2018, when, in spite of the economic recovery we forecast, inflation is expected to finally drop to 4.5%.

The consequences of this late convergence for monetary policy decisions are, in our view, restricted. Soon BCB will likely start focusing in longer horizons and, therefore, should continue cutting the interest rate in the upcoming meetings. As we state in *On the Way Back to Single-Digit Rates*, October 2016, we see room for a long monetary easing cycle, reducing the Selic rate to one digit by year-end 2017.

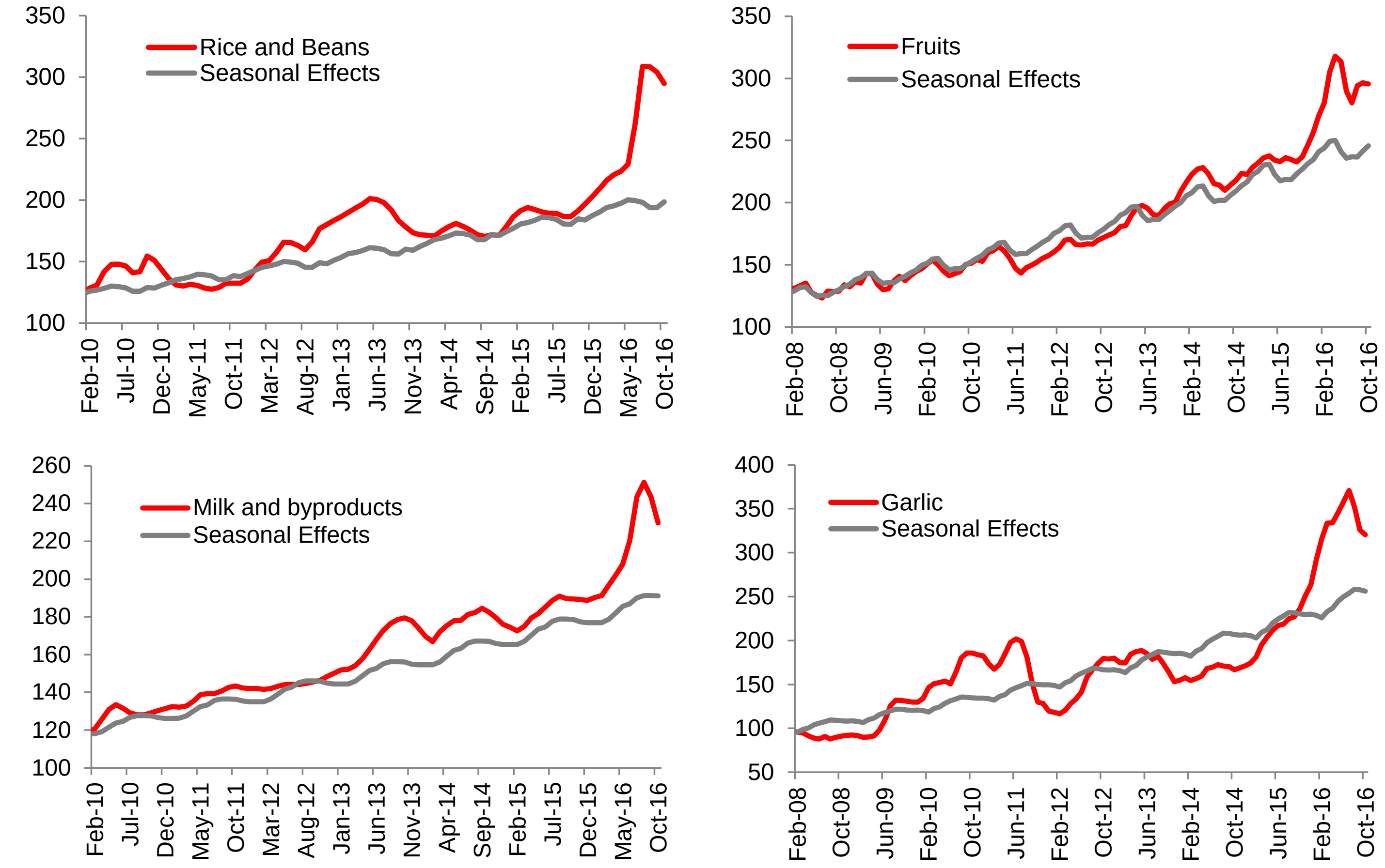
Market Prices

Weighing less than 20% of IPCA, food inflation has been the main component responsible for the increase in market prices in 2016. As stated on the report *Food for Thought*, June 2016, we think the FX depreciation accounts for most of the domestic relative price adjustment of food products in the first six months of the year. In the second half, crops damaged by weather problems caused a surge in several foodstuff prices. Milk and beans were highlighted the most, since both have a significant weight on food inflation. But other items such as fruits, garlic, eggs and sugar also skyrocketed in the period.

The charts below help to understand the extent of this supply disruption. We compare the evolution of the price index of four items to the path they should present if every monthly gain were equal to the medium variance calculated to the period 2007-2015. In other words, we assume the index evolves exactly like the seasonality suggests. For these four selected foodstuffs, it's clear that the current shock was the most extreme in many years.

This comparison also allows an estimation of how above the current price is from the price in normal conditions or, similarly, how much these prices can fall in the next months. With this methodology, we calculate the Rice and Beans component is 33% above the level expected for normal conditions. The other three are 15-20% above.

Measuring the Food Inflation Shock
Food Prices Index versus Index Assuming Medium Seasonal Effects



Sources: IBGE; Santander estimates.

Since we do not believe that personal consumption will be a key driver of economic activity before mid-2017 or that there is a permanent shift in consumption share of total income, the imbalance between supply and demand that caused these price shocks tends to dissipate completely over time. Therefore, we see room for a significant improvement in these items in 2017, probably taking part of them to the negative territory, as they should show milder monthly gains.

Our estimations reinforce the expectation of further decline of food inflation next year. Not only is the shock likely to fade out, but the first weather estimations point to favorable climate conditions in 2017. Thus, we forecast 12-month accumulated inflation of food prices will close the current year at 11% and could plummet to 4.7% by the end of the next.

Regarding industrial goods inflation, it soared in early 2016, climbing to 7.0% in March 2016 from 4.0% registered in January 2015. (See chart on the left.) The BRL fluctuation lag of six months fits well this upward movement. In September 2015, BRL/USD jumped to almost 4.20. As the exchange rate has shown a significant appreciation since then, we expect industrial goods inflation to keep its downtrend, falling to 4.0% by the end of 2017.

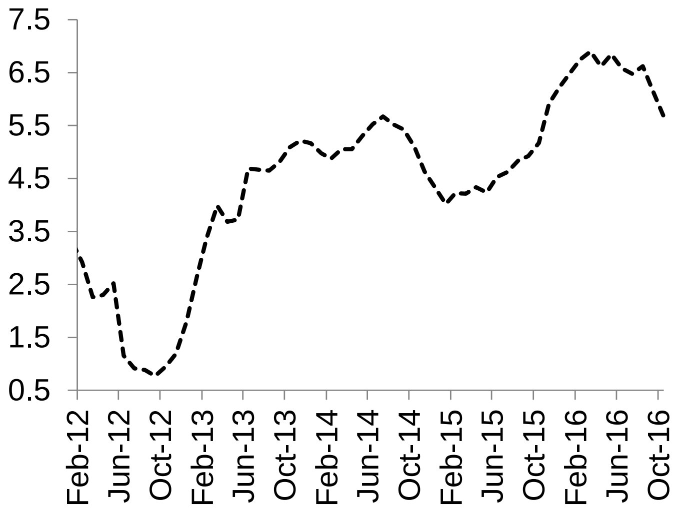
The component breakdown sustains our view. The most important industrial good in IPCA is cars (new and used), whose prices are unlikely to show inflationary pressures in the next year. The demand for this item has been dragged by the tight credit market and by the worsening conditions in the labor market. For the next year, the outlook is gloomy, as the interest rate will take a long time to stimulate demand and the unemployment rate should continue to rise until mid-2017.

At last, for service inflation we predict a slow disinflation from the current level of 6.9% to around 5.1%. The methodological changes in housekeeper and manpower inflation (both are now fixed at a rate of the minimum wage variation) increased the already-high inertia of the component. Even assuming no real gain in minimum wage in 2017, the inflation of two important items cannot approach the target, regardless of the economic activity.

In any case, other measures of services inflation are unlikely to drop below 4.5% as well. For instance, the core of labor-intense services, illustrated in the chart on the right, has experienced an important decrease but showed some resistance to fall in the last readings. We believe this measure will close the next year at around 5.0%. Indeed, BCB's core services measure, named "Underlying Inflation," should present a similar shape, edging down to around 4.9% by 2017 year-end. (For more, please see the Services Sector Inflation box of BCB's *Inflation Report* relative to 3Q16.)

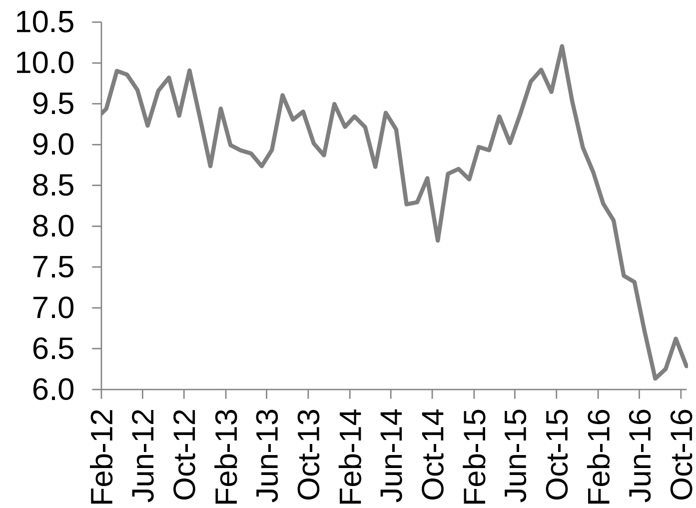
With these forecasts, market prices should increase 4.7% by next year, slightly above the 4.5% target.

Industrial Goods Inflation (% 12 Months)



Sources: IBGE; Santander estimates.

Labor Intense Services (ex- Housekeeper and Manpower)



Sources: IBGE; Santander estimates.

Regulated Prices

By far the component most susceptible to technical intra-sector details and to authorities' decisions, regulated prices are expected have a 5.2% variation in 2017. BCB's forecast, released in the last *Inflation Report*, is 5.8%. Our forecast is based on few assumptions for the main items, as described in the next paragraphs.

Water and sewage tariffs soared 15% in 2015, as the government decided to rebalance prices. This year tariffs are expected to register an even higher gain of 20%, even though the annual readjustments had come out, on average, below the previous year. The main factor responsible for the acceleration was the end of a bonus program created in 2014 to encourage the reduction of consumption. This statistical issue added more than 10 bps to the IPCA. For 2017, our forecast is a hike of around 6%, well below the previous years, but still far from the 4.5% target.

The electricity tariff also had a significant rebalance of prices in 2015, with annual variation skyrocketing to 50%. In 2016, it should have a 6.7% decrease, as more than half of all distribution companies registered in IPCA methodology cut prices, including some important ones. Also accounting for part of this fall in energy tariff is the change in the flag mechanism (from red to yellow), reducing the value of the extra charge on bills. For 2017, we expect the flag mechanism to move to green (which means no extra charge), partly offsetting the 7% advance on average of annual readjustment.

Regarding urban transportation, municipal elections of 2016 seem to have had an unusual impact on readjustments. In 2016, the gain should be as high as 10% while for 2017 we expect no more than 4% advance. Some elected mayors have already declared that no readjustment will occur in important cities next year. For the rest, our assumption is that the recent drop in fuel prices will contribute to a milder readjustment of around 6%.

By the way, the projection for gasoline inflation is now more linked to the evolution of international oil prices and exchange rates, as recently announced fuel prices on the producer front will be revised on a monthly basis, taking into account the gap between local and international prices. After the two drops in prices in last months, our estimation points to a current 8% advantage in local prices, which shouldn't trigger another downward revision. As we don't see a meaningful pickup in international prices, gasoline is expected to rise 3% next year.

For medicines, the BRL appreciation and the already-published gain in productivity in the sector will likely enable an increase below inflation; contracts are revised in February, when we forecast IPCA will be around 6%.

At last, healthcare plan inflation has already a 13.5% readjustment ruling until mid-2017, which should prevent it to decelerate markedly. In our view, the aging population and the rise of income explain part of the above-average inflation of healthcare plans in the last years.

Regulated Prices Inflation Breakdown (% 12 Months)

	2014	2015	2016 (f)	2017 (f)
Items	**5.3**	**18.1**	**6.4**	**5.2**
Water and Sewage	-2.7	14.8	20.1	6.1
Electricity	17.1	51.0	-6.7	4.1
Urban transportation	3.9	15.1	9.7	4.0
Gasoline	2.9	20.1	2.6	3.0
Medicines	4.9	6.9	12.6	5.2
Healthcare plan	9.5	12.2	13.6	12.2

Sources: IBGE; Santander estimates.

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