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Food-Services Dynamics and Core Services

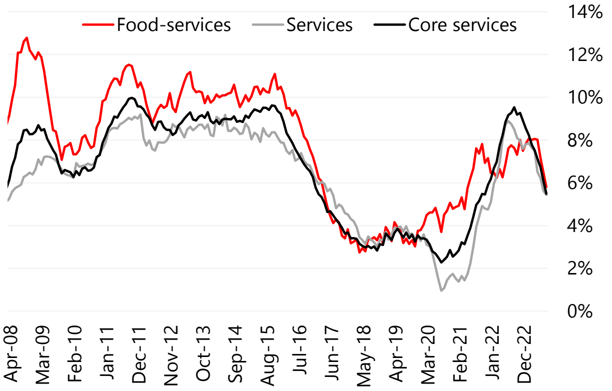
- Food-services inflation is a key parameter for core services as it represents more than a quarter of core services index weight.
- The continuation of the disinflation process in core services, therefore, relies on a deceleration in food-services inflation.
- In this report, we investigate the drivers behind food-services dynamics estimating a Phillips curve and make a forecast for the next year.
- Obtaining a path for food-services inflation requires assumptions about food commodity prices, the labor market (wages), output gap, and inflation expectations. We should highlight that we believe that the economy and the labor maket will both soften and that food commodity prices will remain controlled in 2024.
- Results of our analysis support the view that food-services should continue to decelerate in the coming quarters, adding a downward risk to our projection.
- Our most important conclusion is that food-services can still support the ongoing disinflation process for services and core services ahead. Per our projections, food-services deceleration may imply a reduction of 17 bps and 70 bps for core services YoY in 2023 and 2024, respectively.

Introduction

Services inflation has more weight in core measures of inflation and tends to be more inertial and dependent on economic activity. These features are even more pronounced when we focus our attention on core services. As a result, both measures of inflation are closely monitored by the Brazilian Central Bank (BCB) and market participants. Food-services inflation is a key parameter as it accounts for 17% and 28% of services and core services, respectively, in the last IPCA print. In other words, food services represented more than a quarter of the core services index in the August's IPCA. Therefore, food-services inflation's future path is essential to understanding the ongoing disinflation process in services.

Food-services inflation, that has oscillated around 8.0% YoY from November 2022 to May 2023, recently started decelerating, coming at 5.8% YoY in the last IPCA print. This reduction of 220 bps in the past 3 months was responsible for a decrease of 62 bps in core services in the same period, or 38% of the 164 bps drop in core services inflation. In this report, we investigate the drivers behind food-services dynamics and project these dynamics out into next year. Since it is classified as a service, food-services tends to be inertial and dependent of the economic activity. In other words, past inflation measures have a large influence on future price adjustments and strong economic activity may encourage price hikes. Nevertheless, it will also likely respond to wage growth (since the activity is labor intensive) and to food commodity prices in BRL (raw materials to the sector).

Figure 1. Services, Core Services, and Food-services % YoY



Sources: IBGE and Santander.

Model and Results

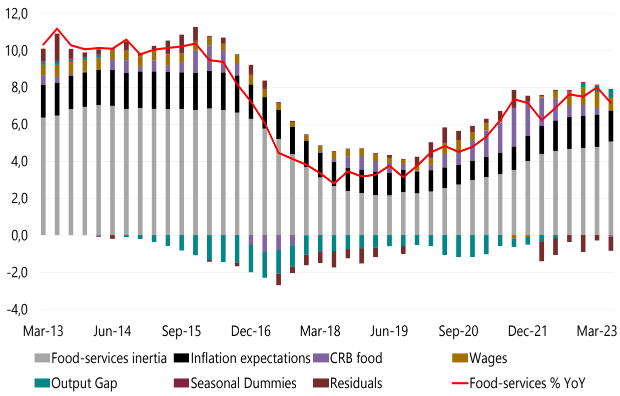
In order to better understand food-services dynamics, a Phillips curve was estimated. We used quarterly data on food-services (π_t^{fs}), food-services inflationary inertia (we tested headline IPCA inertia and discarded the results due to no improvement whatsoever), 12-month inflation expectation ($\mathrm{E}_t\pi_{t+4}^{IPCA}$), output gap ($h_t$), CRB food in BRL change (ΔCRB_{t-1}), wage growth ($\Delta wages_t$), and seasonal dummies (D_t). The estimated equation is as follows:

$$\pi_t^{fs} = \beta_1\left(\frac{\sum_{i=1}^{4}\pi_{t-i}^{fs}}{4}\right) + (1-\beta_1)\left(\frac{\mathrm{E_t}(\pi_{t+4}^{IPCA})}{4}\right) + \beta_2 h_t +$$

$$\beta_3\Delta CRB_{t-1} + \beta_4\Delta \mathrm{wages}_t + D_t + \varepsilon_t$$

Inflationary inertia, inflation expectations, and output gap are standard in a Phillips curve estimation. In this exercise we added the CRB in BRL variation to capture food commodity prices change and wage growth as a proxy for cost-push inflation. The figure below presents the contribution of each variable to the annual change in food-services. The model explains most of the variation in food-services and our test pointed to an absence of autoregressive elements in the residuals. Although inertial terms and inflation expectations are the most important drivers of variations, food commodity price change is also relevant, being the second biggest contributor to food-services growth in some periods. Moreover, output gap contributed negatively to food-services during most of the period due to the long lasting effects of the 2015-16 recession.

Figure 2. Modelled contribution for Food-services



Sources: IBGE and Santander estimates.

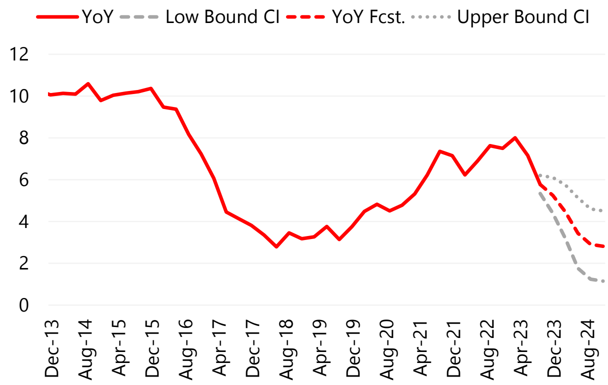
What's next?

Determining food-services inflation's future course, using our model, requires assumptions about food commodity prices, labor market (wages), output gap, and inflation expectations.

The survey-based (Focus) annual IPCA inflation expectations for 12-months, 18-months, and 36-months out are at 4.2%, 3.8% and 3.5% respectively . Therefore, we assume that the 12-months expectations will converge to 3.5% by the end of the next year. As for the output gap, it is currently positive camp in our view – GDP growth is above its potential – but we expect a gradual deceleration in the next few quarters (likely coming close to zero) as a result of restrictive monetary policy. This deceleration should begin in 3Q23 supported by our projection of negative GDP growth (% QoQ) for the next three quarters. Under these conditions, the labor market should also gradually soften, with nominal salary increases dropping slowly to around 5% YoY by YE2024. The uncertainty is higher for food commodity prices given mounting concerns over China's faltering growth, geopolitical events from Eastern Europe, and El Niño phenomenon. However, we still see a record grain output in key producing countries. In particular, Brazil saw a record soybean (154 million tons) and corn (132 million tons) harvest in 2022/23 as a result of favorable growing conditions across most of the country. For the upcoming season, the strong El Niño event that is expected is usually associated with good crop yields in South America. We estimate that Brazilian corn production could fall 6%, but soybean production could rise 5%. In the U.S., according to USDA, U.S. corn production in 2023/24 is expected to rise 10%, while soybean is expected to fall 3%. In sum, CRB food price index should continue on a descending path, although with increased uncertainty about its trajectory.

Using these projections, we have forecasted food-services inflation for the next few quarters. The resulting estimates are below our current tracking for the metric (5.25% for 2023 and 2.8% for 2024 against our projections of 5.6% and 4.5% respectively). As we see it, this adds downward risks to our numbers. Nevertheless, our tracking is still inside the model's confidence interval, in which the upper bands are 5.7% and 4.5% for 2023 and 2024.It is worth to note that next year's estimate of 2.8% would be the lowest value for an annual figure on record.

Figure 3. Food-services forecast (% YoY)



Sources: IBGE and Santander estimates.

Conclusion

In this report, we analyzed food-services inflation dynamics and used the estimated Phillips curve equation to shed light on a possible path for prices in 2023 and 2024. The results obtained support the view that food-services inflation should continue to decelerate on the back of lower inertia, (partially) anchored inflation expectations, a descending trajectory for food commodity prices, and a slowdown in the labor market and in economic activity. A deviation in any of these assumptions, however, could imply different numbers for the coming quarters. Nevertheless, beyond the projected numbers, the most important conclusion is that food-services can still support the ongoing disinflation process for services and core services ahead. If food-services inflation indeed falls to 5.25% by the end of 2023, it would imply a decrease of 17 bps in core services this year, while if it reaches 2.8% by YE24, then it would suggest a fall of almost 70 bps in core services for the next year.

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