Brazil Macro | September 2023

INFLATION

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SUMMARY

- We revised down our IPCA inflation forecast for 2023 to 4.7% (from 4.9%) and for 2024 to 3.8% (from 3.9%).

- The big picture continues to be short-term free prices inflation decelerating for food-at-home, industrial goods, and services. While monitored prices, as the impact of last year's tax breaks fades, should rebound and make headline IPCA YoY end 2023 around the upper bound of the inflation target.

- For volatile free prices dynamics, we highlight a massive soybean and grain harvest, a positive cattle cycle (bountiful supply), lower commodities prices in BRL in general, and easing of supply chain bottlenecks.

- For stickier prices, the disinflation can be explained by a combination of a mitigation of cost pressures in services activity — since the sector is more labor intensive and wage growth is softening — lower headline inflation (inertia), and the impact of a tight monetary policy.

- In view of the services inflation, we explore the conundrum in which services inflation and wage growth are decelerating although unemployment rate is not increasing. Looking ahead, we see a deceleration in the job market and in economic activity as fundamental factors behind a further decline in stickier prices.

- Beyond this deceleration, some of the main risks to our scenario are oil prices persistently higher, strong El Niño event effects, and the only-partial re-anchoring of long-term expectations.

Forecasting accountability

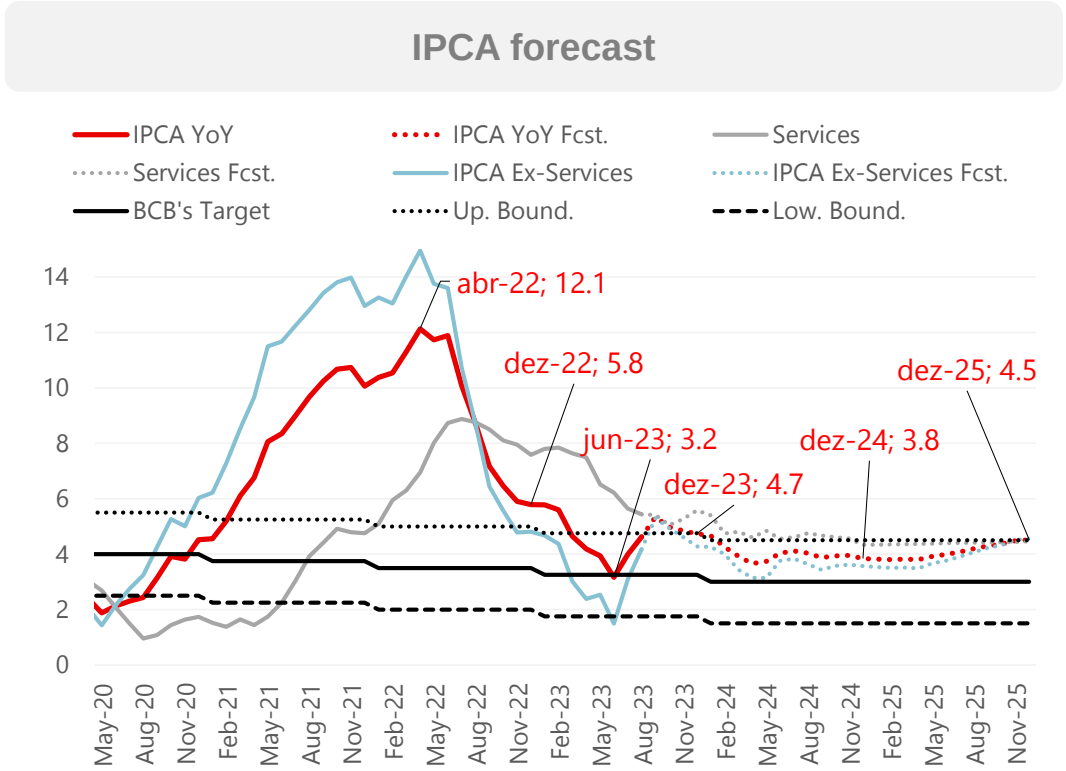
01

We revised our IPCA 2023 and 2024 forecast downward

- For IPCA 2023 there was a downward adjustment based on recent inflation dynamics (from 4.9% to 4.7%)
- For IPCA 2024 our projection was lowered to 3.8% (from 3.9%)
- For IPCA 2025 and 2026 we kept our projection at 4.5%

	2023			2024		
	old	new	Δ bps	old	new	Δ bps
IPCA	4.9	4.7	-17	3.9	3.8	-7
Free prices	3.4	3.1	-23	3.5	3.4	-7
Food-at-home	-0.5	-1.2	-10	3.9	3.7	-2
Industrial goods	2.3	2.3	-1	2.0	2.0	0
Tradables	2.4	2.4	-1	2.0	2.0	0
Non-Tradables	1.9	1.8	0	2.0	2.0	0
Services	5.9	5.6	-12	4.5	4.3	-5
Food-service	6.1	5.7	-3	4.8	4.5	-1
Airline tickets	7.3	7.9	0	4.9	4.5	0
Economic activity	5.3	5.1	-2	4.0	4.0	0
Education	7.8	8.0	1	5.5	5.2	-1
Inertial	5.8	4.7	-9	4.3	4.0	-2
Salaries	5.0	5.3	2	4.3	4.3	0
Administered prices	9.5	9.7	6	5.0	5.0	0
Gasoline	13.7	15.4	9	5.0	5.0	0
Energy	7.5	8.1	3	5.0	5.0	0
Health insurance	11.6	11.7	0	6.0	6.0	0
Bus fares	4.4	2.4	-2	3.0	3.0	0
Cores	5.0	4.8	-22	3.5	3.4	-7

Sources: IBGE, Santander.



Sources: IBGE, Santander.

Our IPCA 2023 tracking continues at 4.7%, but with a different distribution

- Food-at-home and industrial goods will likely fall more than previously expected
- While administered prices and services were revised up on the back of higher expectation for volatile fuels and airline tickets
- Nevertheless, the good dynamic on current IPCA continues as core services and EX3 core should be smaller

	Sep-23	Oct-23	Nov-23	Dec-23	2023e
IPCA	0.35	0.30	0.30	0.51	4.7
Food and beverage	**-0.49**	**0.00**	**0.23**	**0.60**	**0.0**
Food-at-home	-0.79	-0.15	0.16	0.62	-2.0
Food service	0.30	0.38	0.40	0.55	5.6
Housing	**0.34**	**0.33**	**0.35**	**0.26**	**5.0**
Electrical energy	0.93	0.20	0.48	0.02	9.1
Household articles	**-0.13**	**0.08**	**0.02**	**0.17**	**0.2**
Apparel	**0.47**	**0.56**	**0.27**	**0.70**	**3.8**
Transportation	**1.62**	**0.60**	**0.57**	**0.98**	**8.5**
Airline tickets	9.00	12.00	6.00	15.00	20.4
Gasoline	4.00	-0.20	0.00	0.00	17.3
Health and personal care	**0.10**	**0.34**	**0.14**	**0.32**	**6.7**
Personal spending	**0.27**	**0.31**	**0.36**	**0.48**	**5.1**
Education	**0.02**	**0.02**	**0.03**	**0.04**	**8.0**
Communication	**0.06**	**0.22**	**0.28**	**0.05**	**4.3**
Administered	1.29	0.42	0.46	0.39	10.2
Free	0.02	0.25	0.25	0.55	2.9
Food-at-home	-0.79	-0.15	0.16	0.62	-2.0
Food-at-home core	0.20	0.39	0.23	0.26	3.4
Industrial goods	0.03	0.19	0.03	0.29	2.1
Industrial goods core	0.02	0.24	-0.02	0.30	3.1
Services	0.36	0.46	0.43	0.70	5.8
Services core	0.25	0.30	0.35	0.46	4.9
EX3 Core	0.15	0.28	0.19	0.39	4.1

Sources: IBGE, Santander.

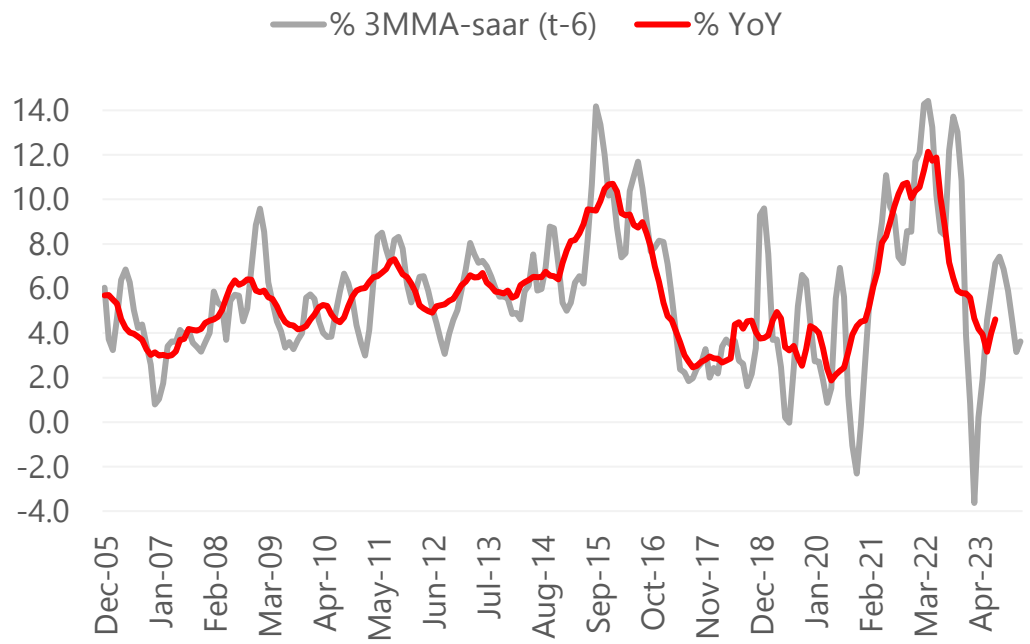
Picture: volatile prices should still support a low free-prices inflation, as the ongoing disinflation process span over the stickier part

02

Headline inflation: rebound due to base effects continues

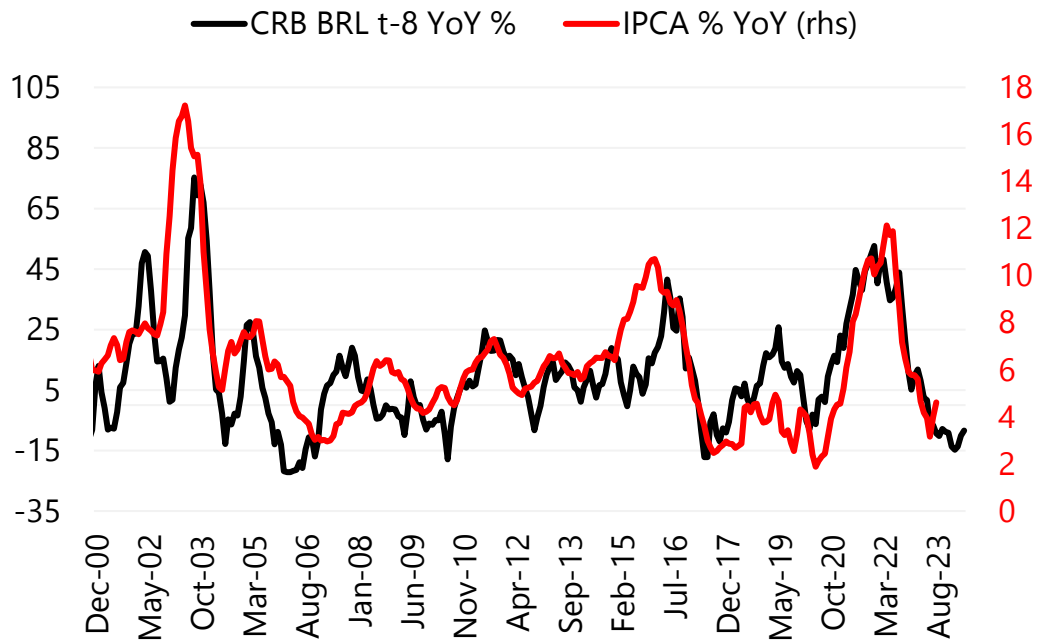
- Headline inflation annual change jumped to 4.6% in August (as tax cuts from 2022 leave the 12-month sample), but a broad disinflation process is occurring
- Major part of the ongoing disinflation process was driven by volatile prices (that should still help a bit more)
- The stickier part, on a slower pace, is also going down

Headline IPCA inflation



Sources: IBGE, BCB, Santander.

IPCA inflation and Commodity prices

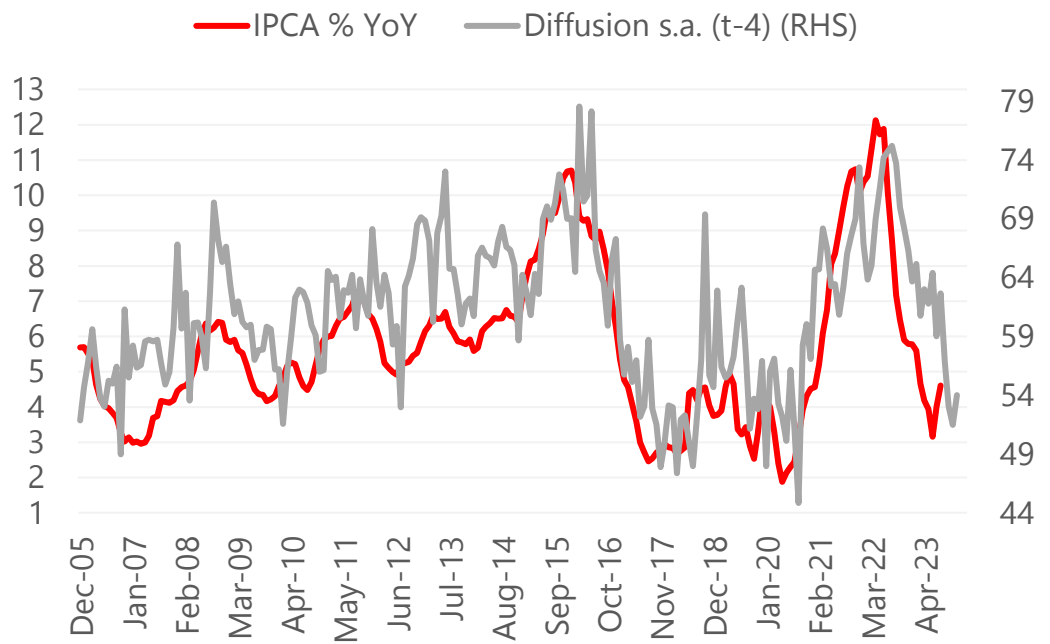


Sources: IBGE, BCB, Santander.

Broad deceleration can be seen in the diffusion index and the median price change

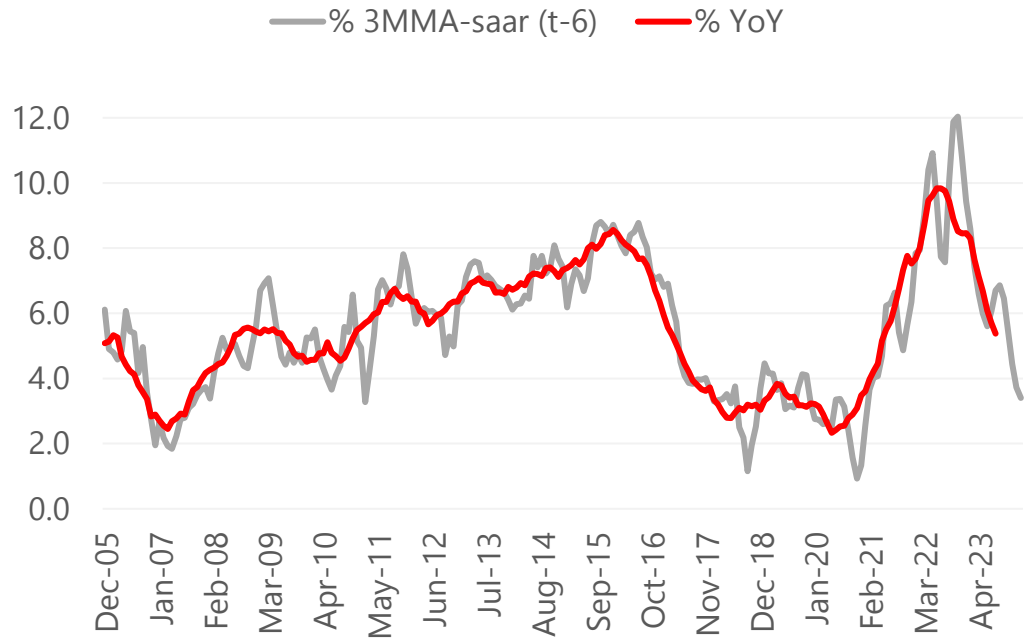
- The inflation decrease was not concentrated in few items, as it ranged over different groups in IPCA
- The diffusion index (at 54.0% s.a.) cooled down to a level compatible with inflation below 4.0% in the medium run
- P55 core, that corresponds to the inflation change of the percentile 55 of the subitems in IPCA, is also pointing downward (3.4% 3MMA-saar)

Diffusion index



Sources: IBGE, BCB, Santander.

P55 core

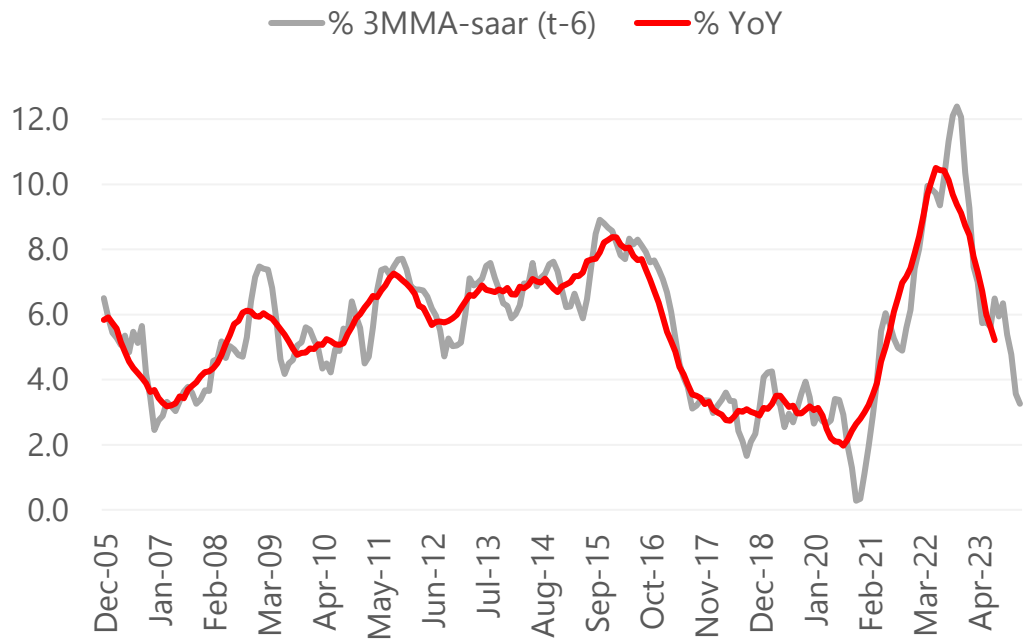


Sources: IBGE, BCB, Santander.

Core gauges, on a slower pace, decelerate further

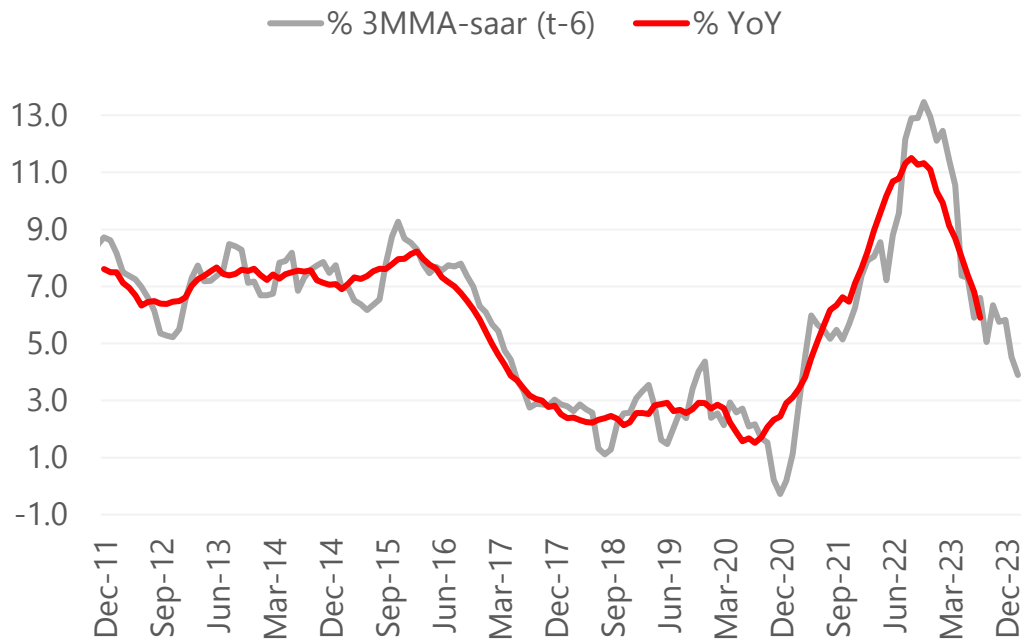
- Average of core inflation measures still pointing downward with trend at 3.3% 3MMA-saar
- Even EX3 core, that was falling more slowly, showed improving signs in the last IPCA
- EX3 core accounts for services and industrial goods core inflation, in which core services decelerated with more intensity in the August's IPCA

Average core IPCA inflation



Sources: IBGE, BCB, Santander.

EX3 core

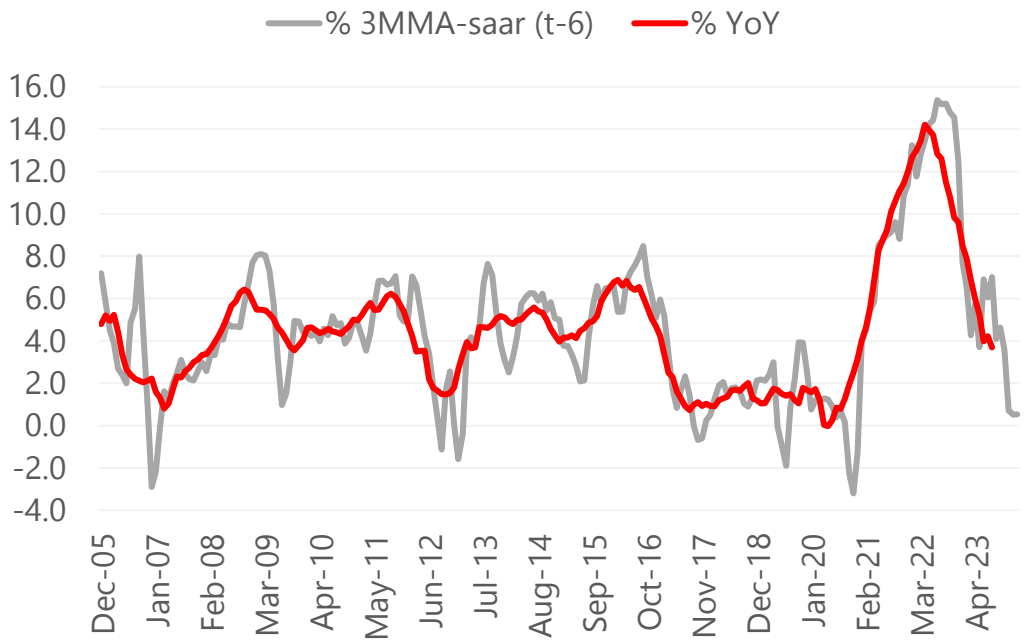


Sources: IBGE, BCB, Santander.

Looking at industrial goods: the major relief is still happening

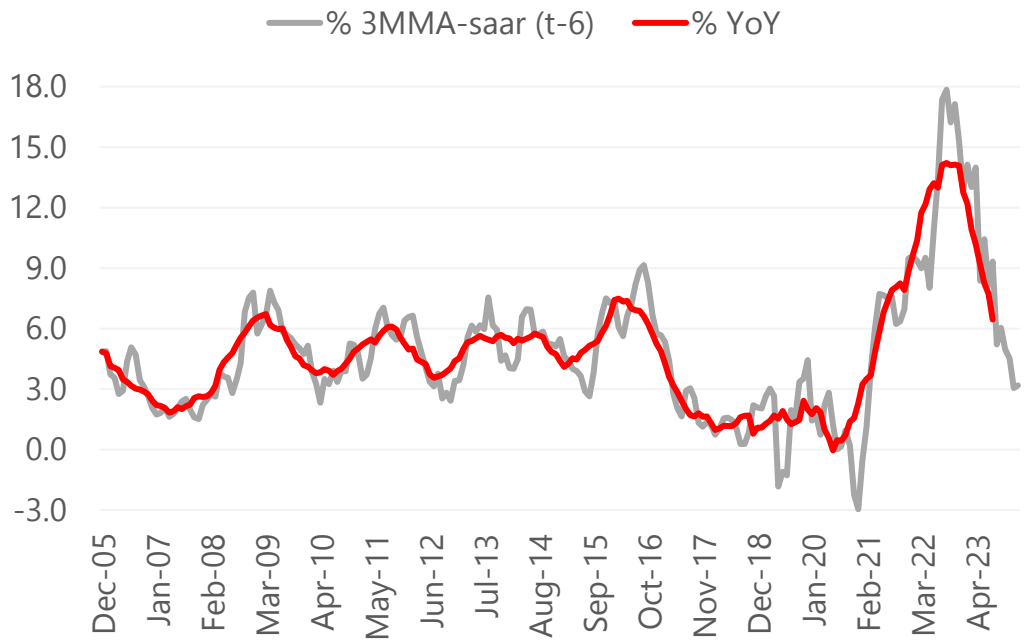
- Industrial goods fell sharply with the trend at 0.5% 3MMA-saar, way below the inflation target
- The same can be said about core industrial goods, although in a slightly higher level (3.2% 3MMA-saar)

Headline industrial goods inflation



Sources: IBGE, BCB, Santander.

Core industrials inflation

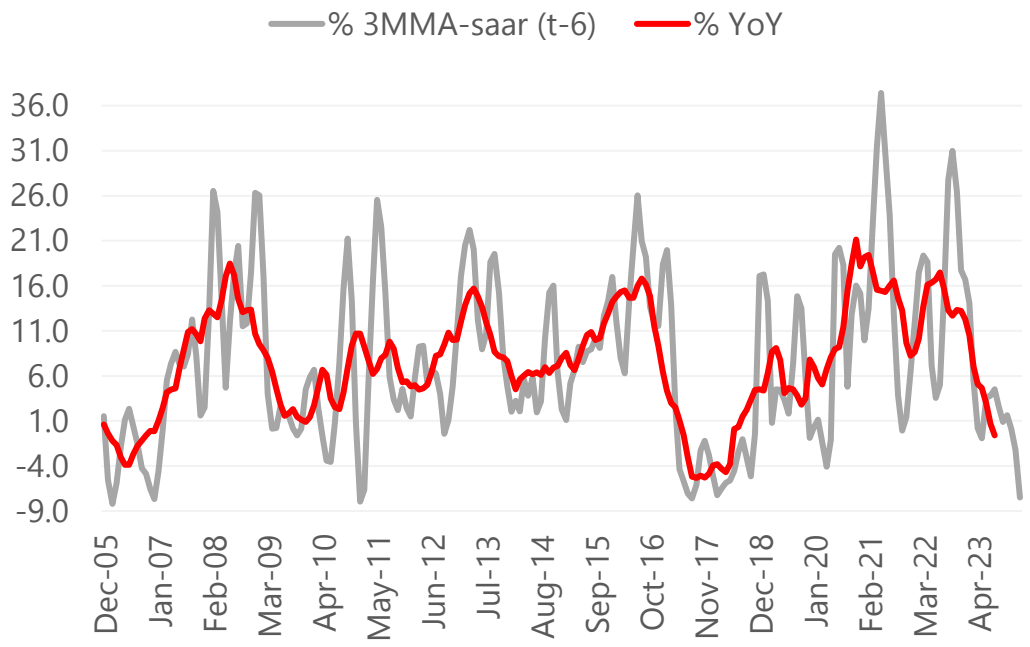


Sources: IBGE, BCB, Santander.

Looking at food inflation: the major relief is still happening

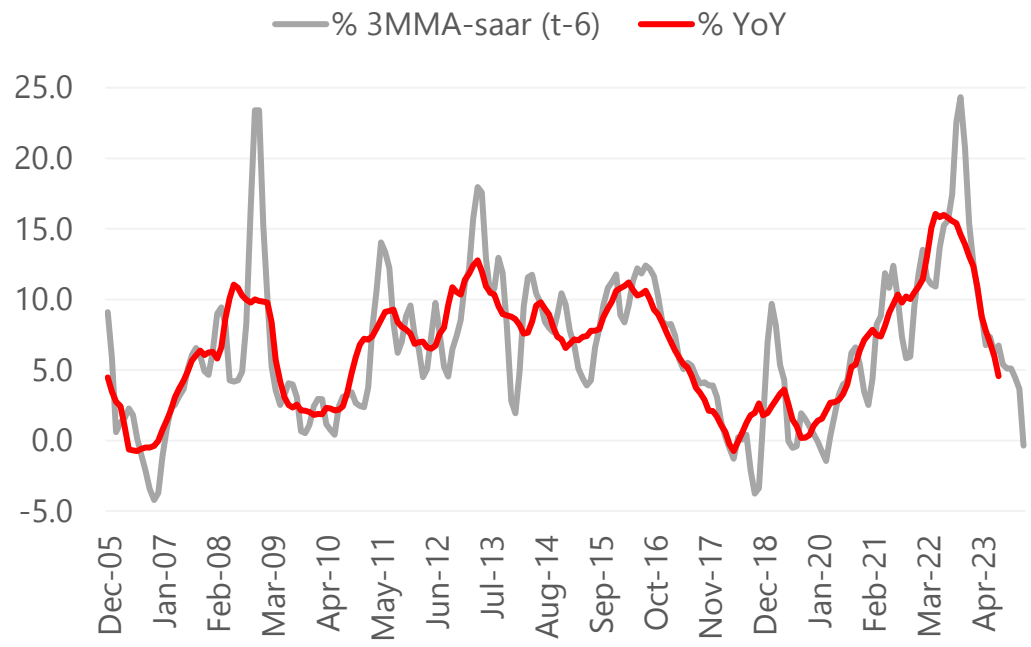
- For food, inflation has decelerated significatively in annual terms, and the trend implies that it will continue to be true in the coming months
- Core food inflation (mostly industrialized items) is also helping in the disinflation process, although a bit slower

Headline food inflation



Sources: IBGE, BCB, Santander.

Core food inflation

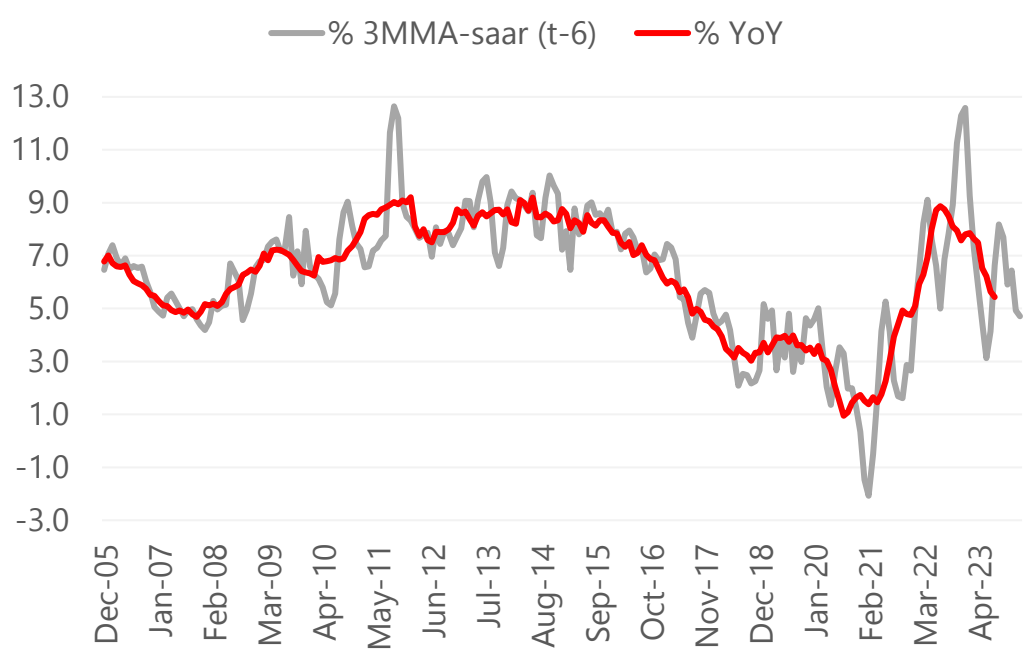


Sources: IBGE, BCB, Santander.

Services disinflation is also on the way

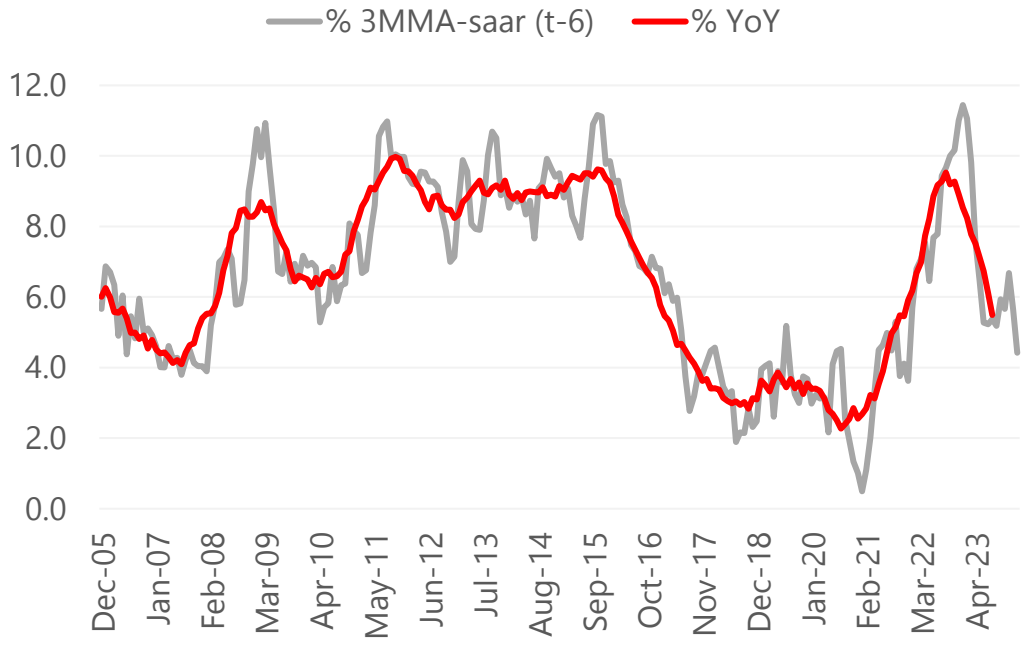
- Headline services went to 5.4% in August 2023 (from 8.9% YoY in July 2022), while the 3MMA-saar measure is below 5%
- Core services inflation decelerated from 9.5% YoY in September 2022 to 5.5% in August 2023. The trend in August surprise to the downside reaching around 4% 3MMA-saar
- Therefore, services disinflation is happening and should be more to come

Headline services inflation



Sources: IBGE, BCB, Santander.

Core services inflation

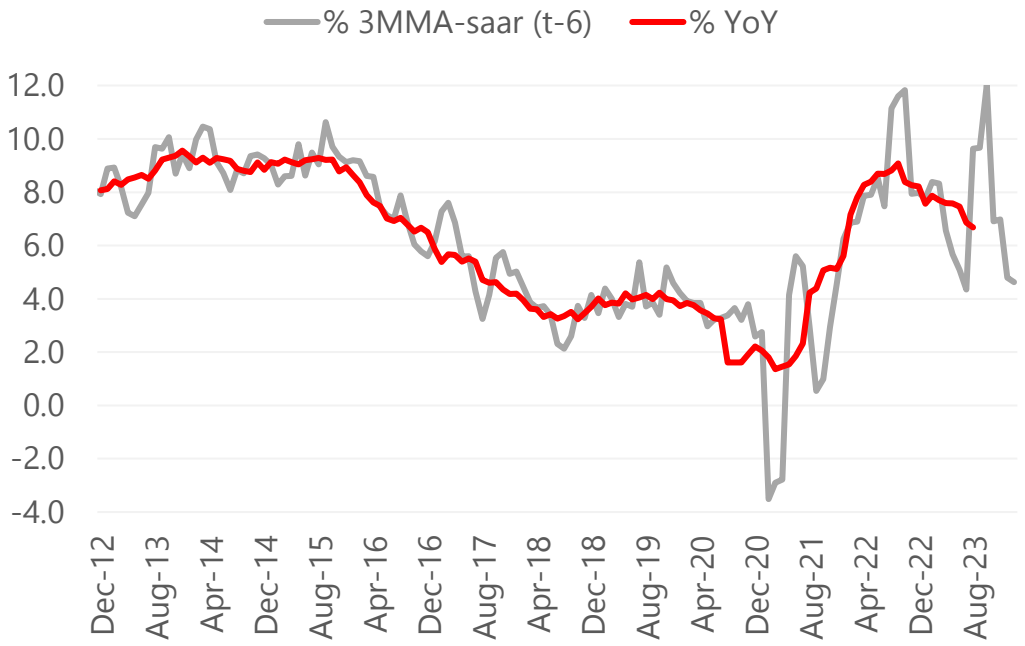


Sources: IBGE, BCB, Santander.

Services breakdown reveals heterogeneity in the slowdown process

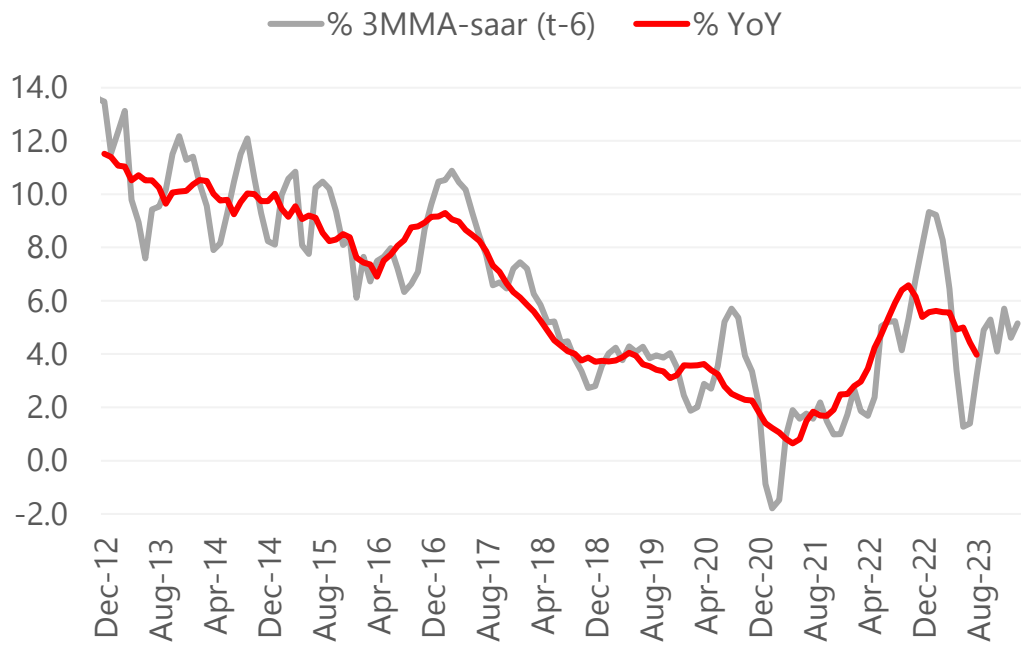
- Inertial services and services related to wages are decelerating slowly, down around 250 bps of their local maxima in 2H22
- Services related to wages decelerated sharply and then rebounded, with the trend at 5.1% 3MMA-saar, which suggests a small room for further YoY fall
- For inertial services, the trend is at 4.6% 3MMA-saar, a more encouraging sign of disinflation

Inertial services



Sources: IBGE, BCB, Santander.

Services related to wages

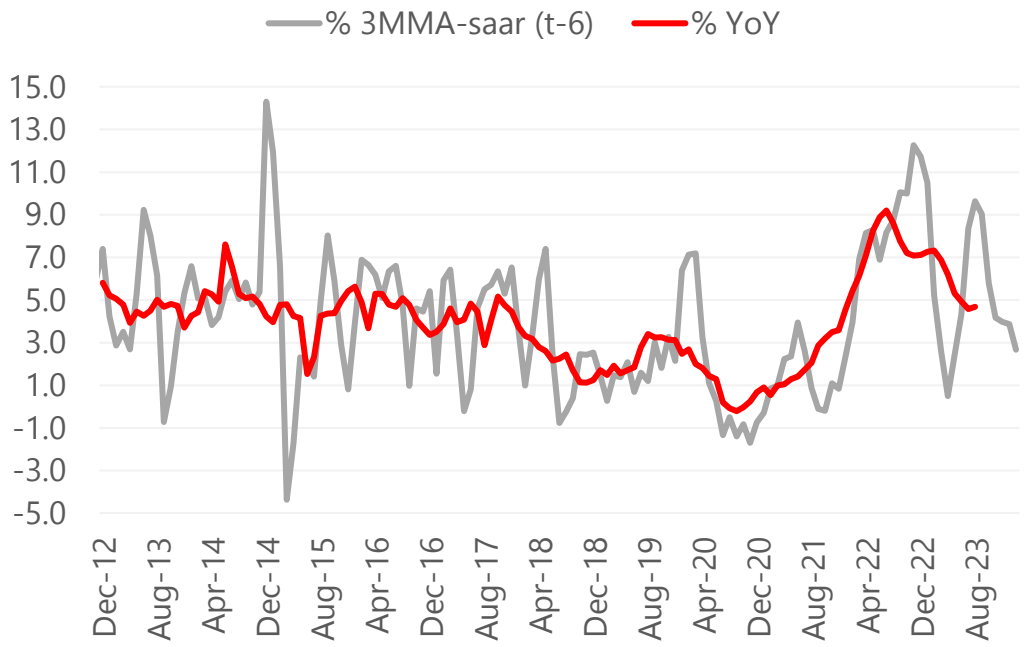


Sources: IBGE, BCB, Santander.

Services breakdown reveals heterogeneity in the slowdown process

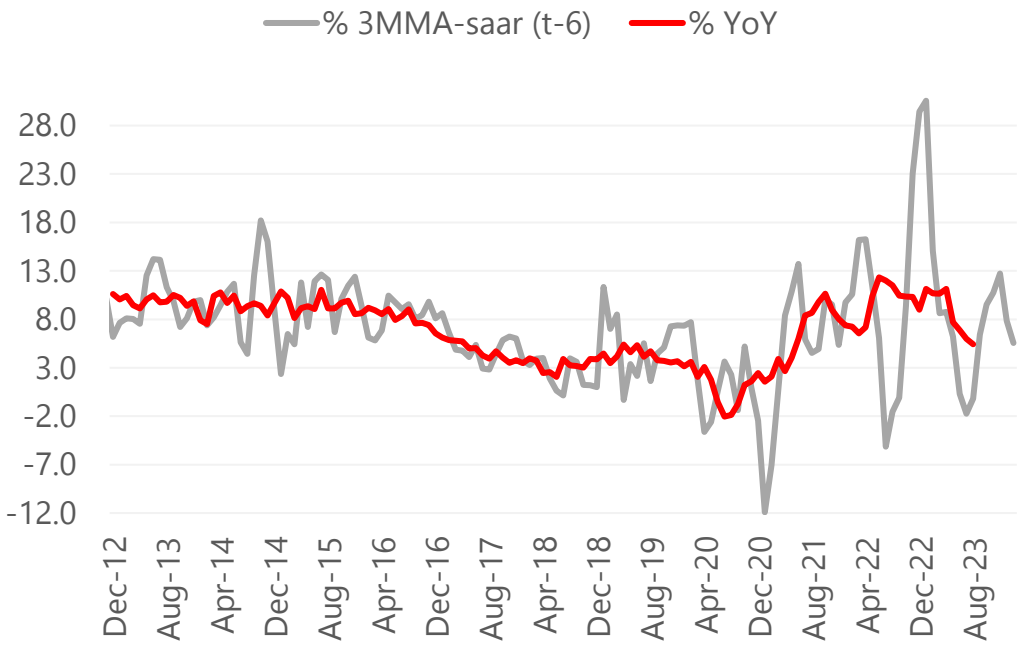
- Services linked to economic activity peaked at 9.2% YoY in July 2022 and has been falling since then, reaching 4.7% YoY in August 2023. The trend, at 2.7% 3MMA-saar, imply further deceleration ahead
- Volatile services, that peaked at 12.3% in mid-2022, come down to 5.4% YoY in August
- Therefore, all the services components are falling, with the highlight for services linked to economic activity

Services linked to economic activity



Sources: IBGE, BCB, Santander.

Volatile services (food service + airline tickets)



Sources: IBGE, BCB, Santander.

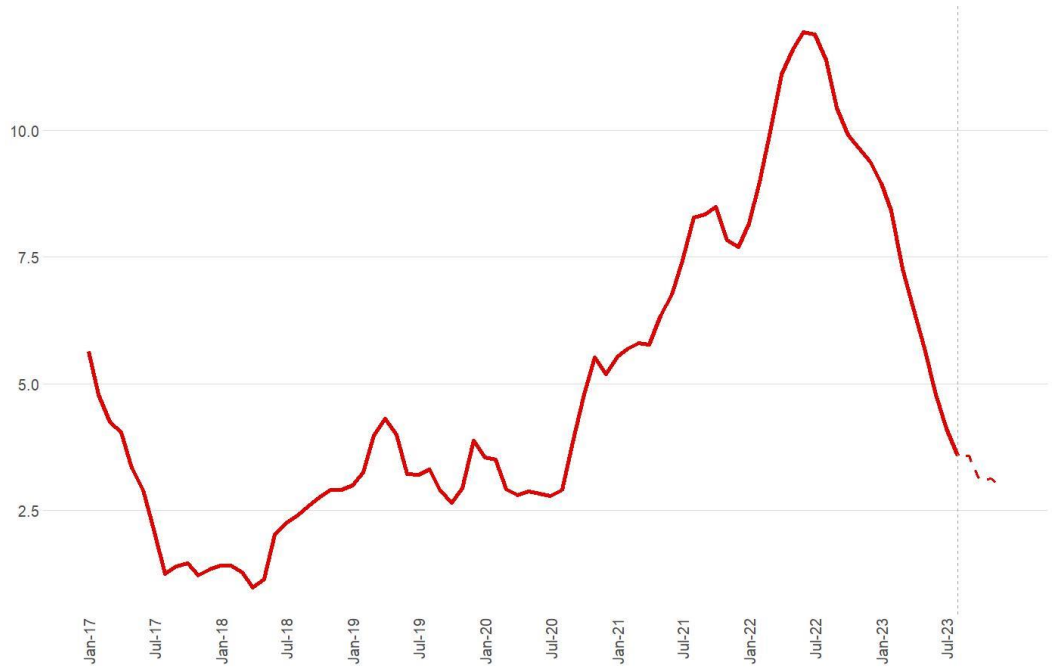
Looking ahead: the disinflation process in the stickier part should continue, but convergence to the mid-target is uncertain

03

What to expect from now on? Headline should rise once again before easing

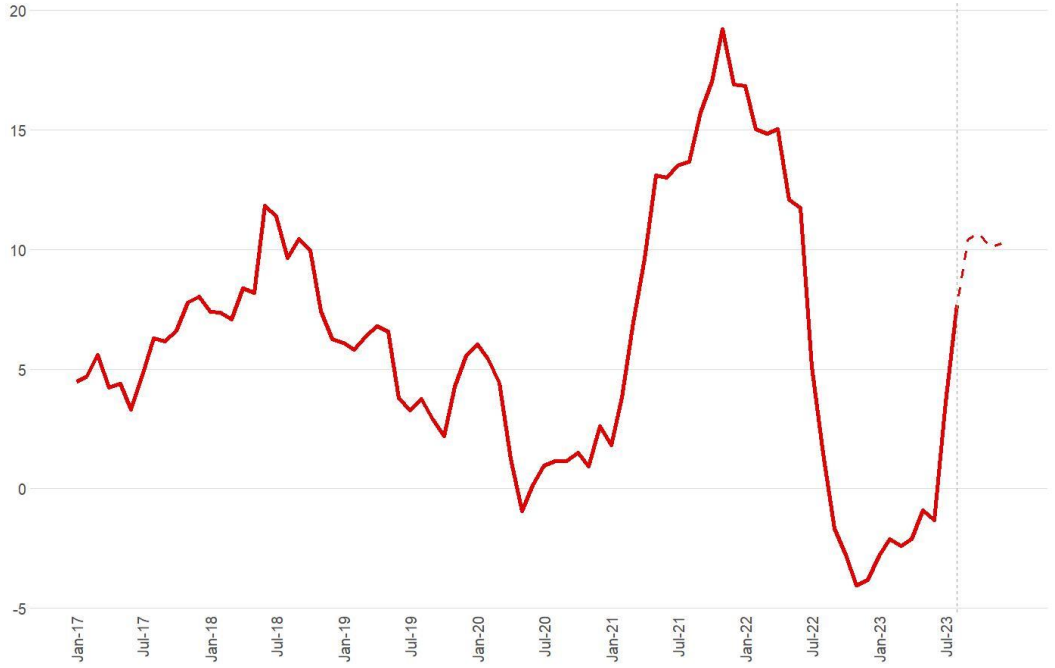
- IPCA in 12-month should continue to rebound due to base effects, as the impact of last year tax reduction measures fades away
- This process is likely to last until September, then begin to reduce again in YoY terms
- Most of the rebound will be seen in regulated prices, while free prices are expected to continue its descending trajectory

Free prices forecast



Sources: IBGE, Santander

Regulated prices forecast

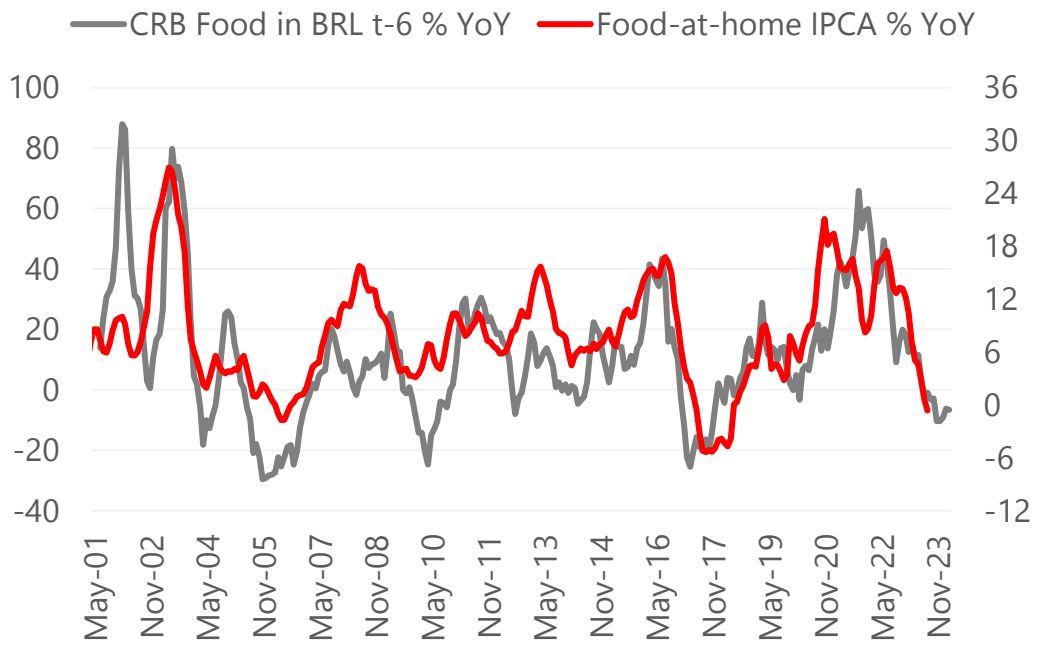


Sources: IBGE, Santander

Food-at-home: there is a bit more space for disinflation

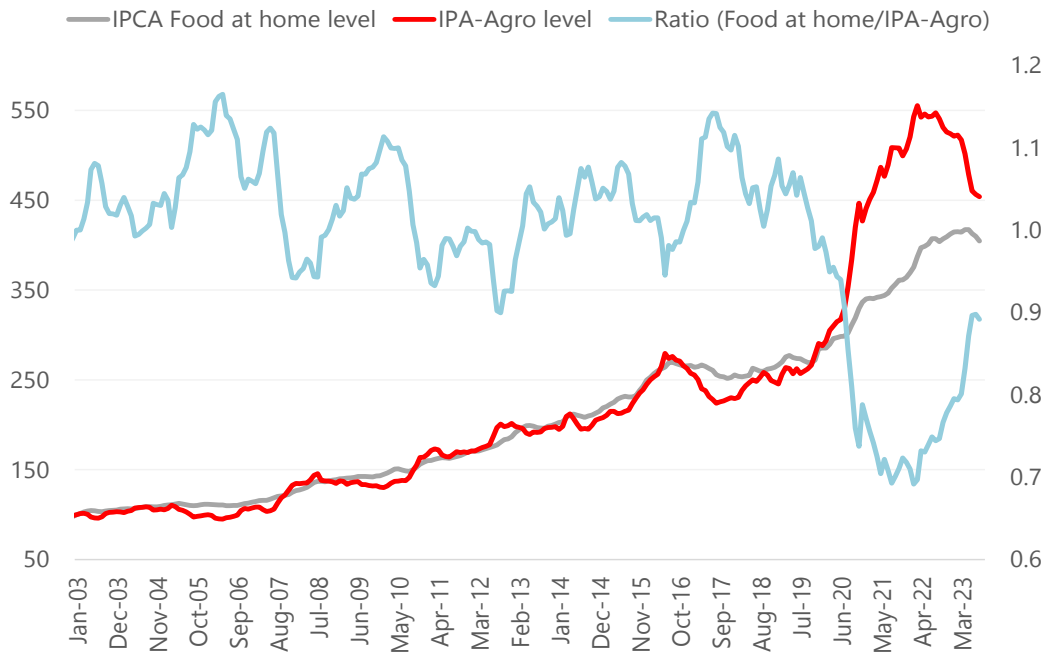
- Food-related commodity prices continue to indicate space for a disinflation ahead
- Wholesale prices are still falling, opening space for further fall at the consumer level

Food inflation on IPCA and CRB Food in BRL terms



Sources: IBGE, Bloomberg, Santander.

Distortion of relative price (consumer x wholesale)

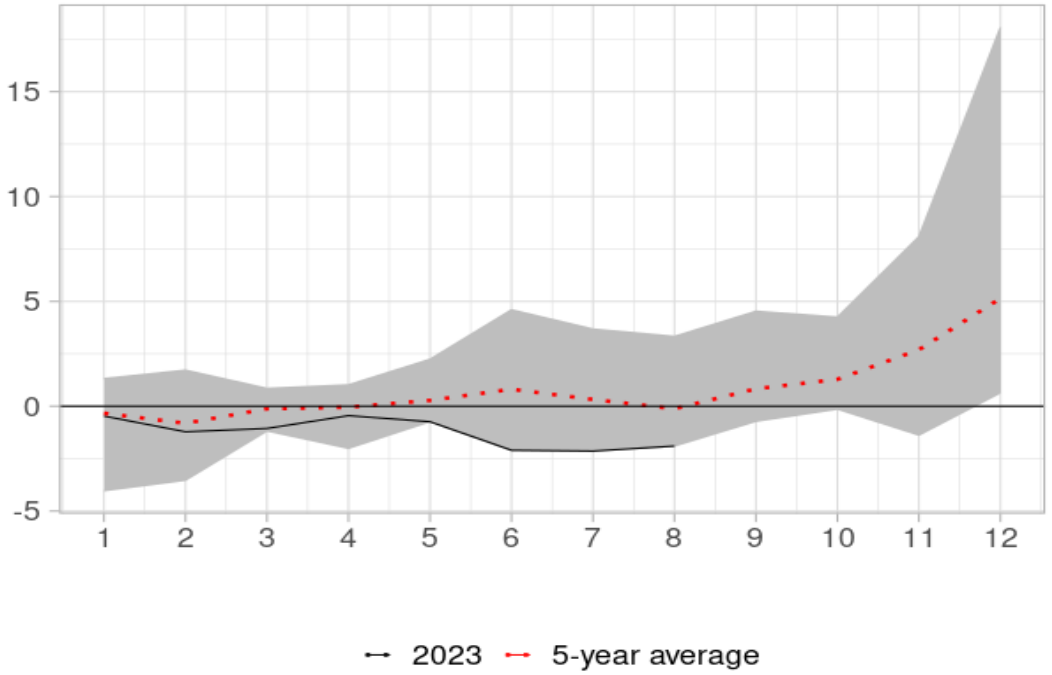


Sources: IBGE, FGV, Santander.

Food-at-home: beef has been surprising to the downside

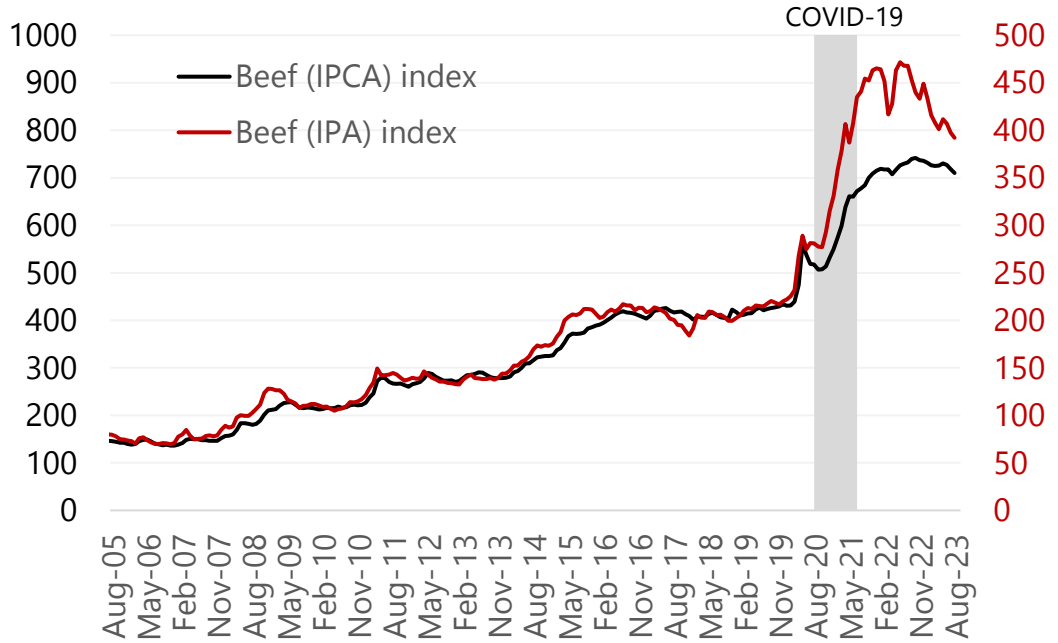
- The positive cattle cycle (bountiful supply) has been translated in lower wholesale and retail beef prices
- Meat inflation component of IPCA registered the lowest monthly variation in the past 4 months considering the last 5 years
- Lower beef prices have impacted the whole protein chain with lower prices for poultry, pork, and dairy products as well

Meat inflation component of IPCA (% MoM)



Sources: IBGE, Santander.

Beef prices (consumer x wholesale)

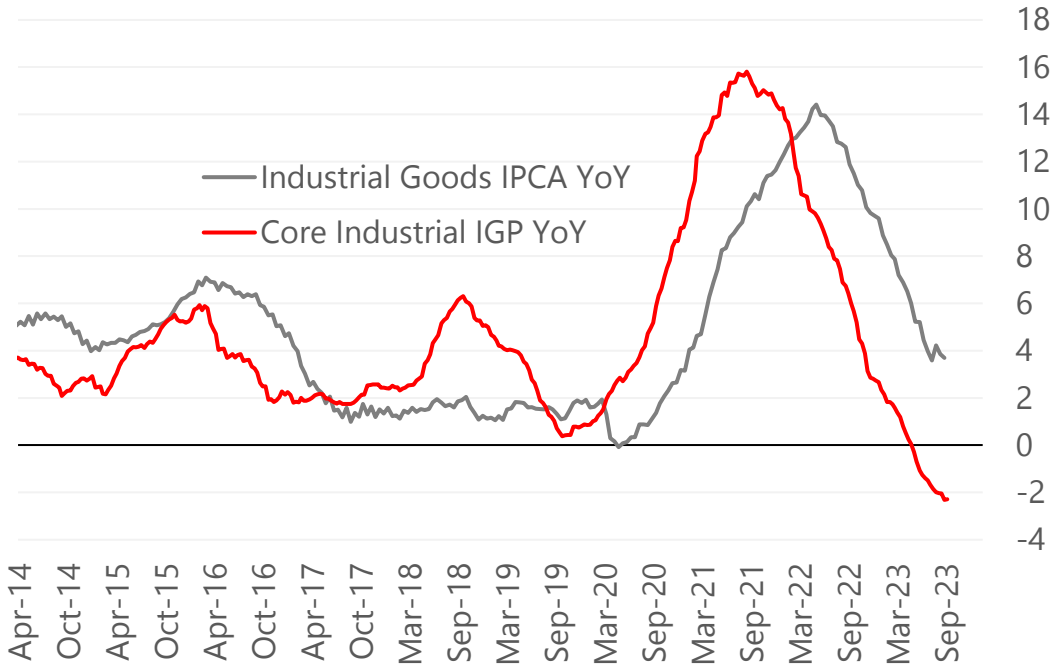


Sources: IBGE, FGV, Santander.

Industrial goods: there is more space for disinflation

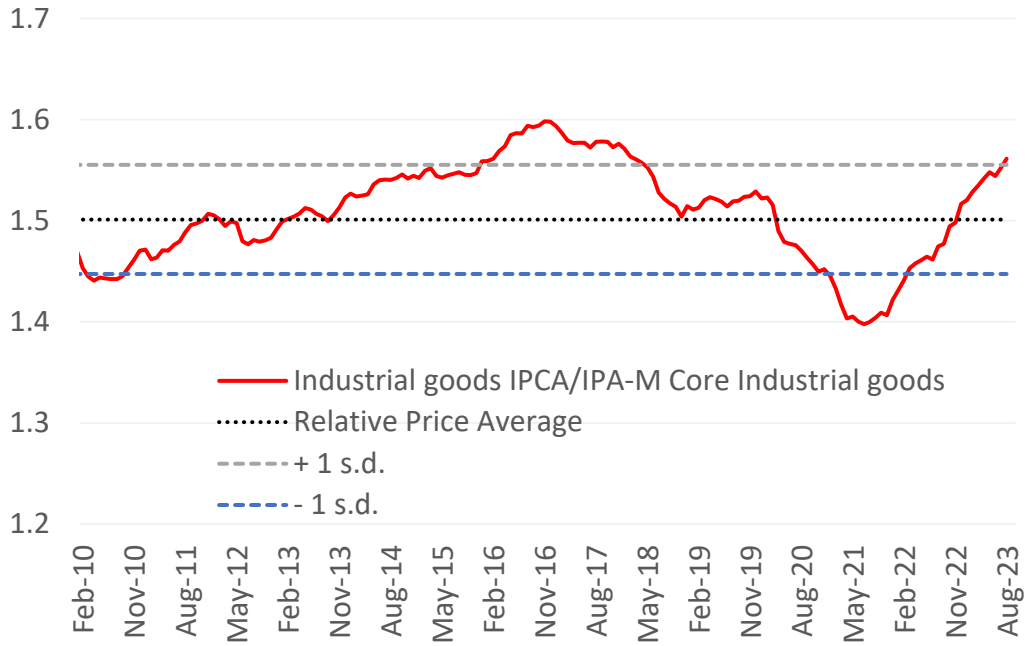
- Industrial goods inflation at the wholesale/producer level is also decelerating. The consumer level prices are expected to follow
- This could also be seen by the ratio between industrial goods at consumer and wholesale levels, as it is slightly above 1 standard deviation of the historical average at the margin

Core-PPI-Industrial vs. Industrial goods in IPCA



Sources: IBGE, FGV, Santander.

Relative price (consumer x wholesale)

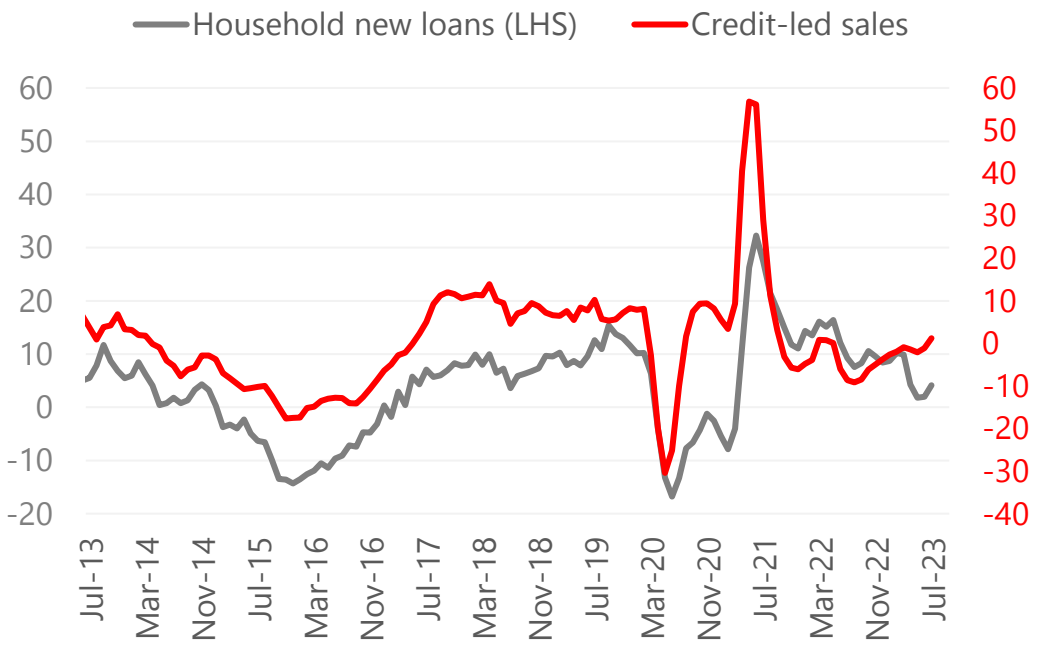


Sources: IBGE, FGV, Santander.

Lower demand for durable goods

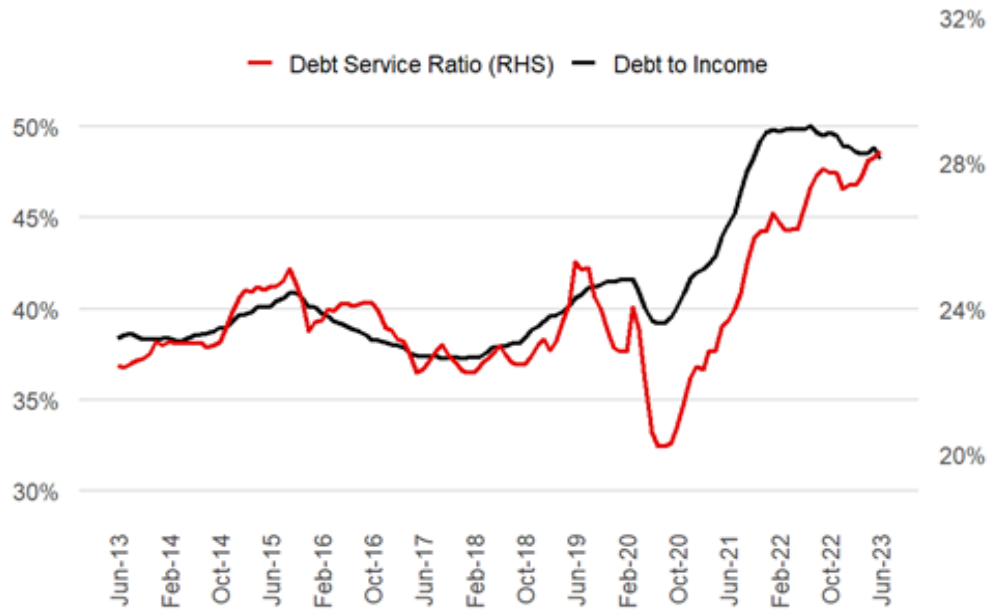
- For households, new loans have accelerated again after reaching its recent bottom in May. However, debt to income and debt service ratio levels are high, suggesting a small space for demand through the credit channel
- Nevertheless, credit-led sales jumped to positive levels in July (% YoY 3MMA), likely driven by the temporary discount policy for new autos. Looking ahead, there should be a payback to this number, leading it to negative territory again

Credit-led retail sales and New loans to households (% YoY 3MMA)



Sources: IBGE, BCB, Santander

Households are highly indebted

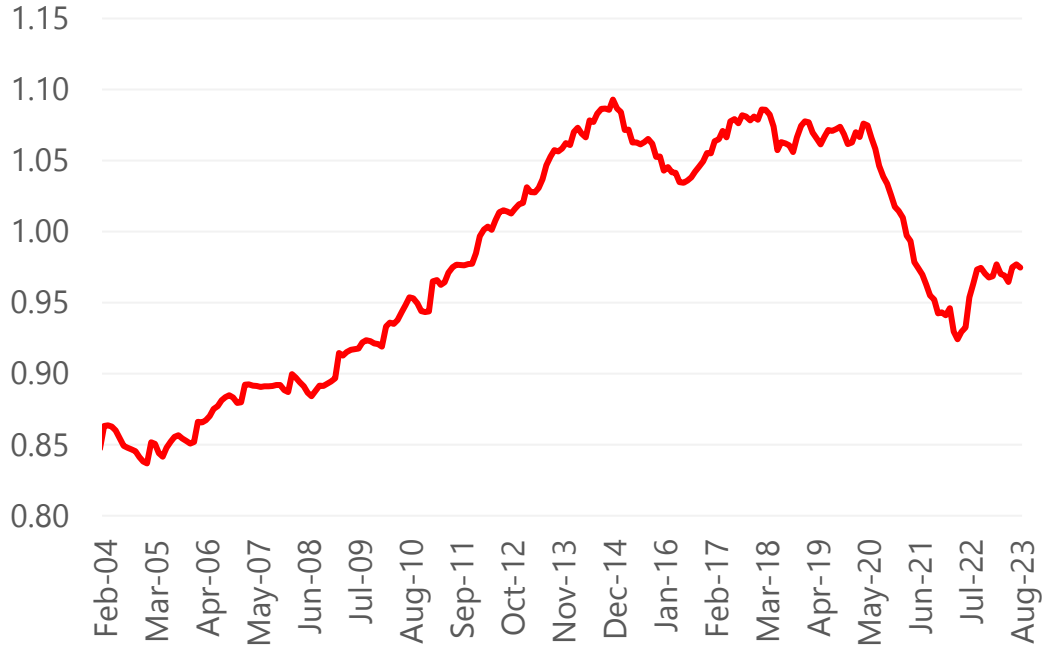


Sources: BCB, Santander

Services: a slower ongoing disinflation process, as prices at this sector are more inertial

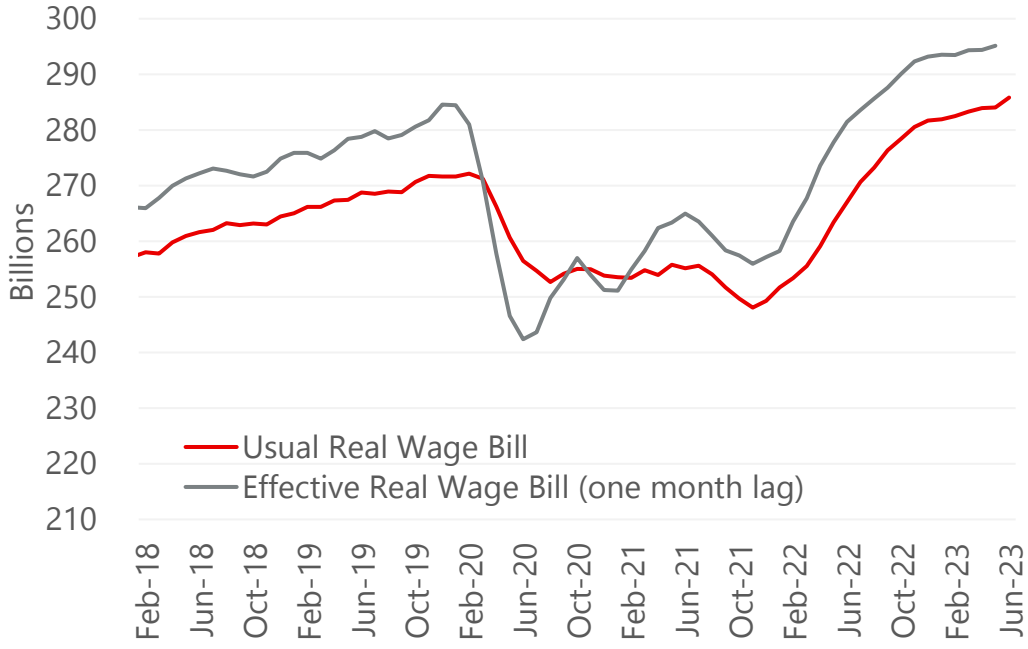
- Services is still lagging the non-services inflation, as the relative price between IPCA services/IPCA ex-services is still distorted
- As a result, services should continue to run above the rest of IPCA for a while
- Services inflation has also been supported by a low unemployment rate and a surge in real wages bill, that influences more this sector compared to credit

Relative price: IPCA Services/IPCA Ex-Services



Sources: IBGE, Santander

Increase in income to levels above pre-pandemic is supporting services

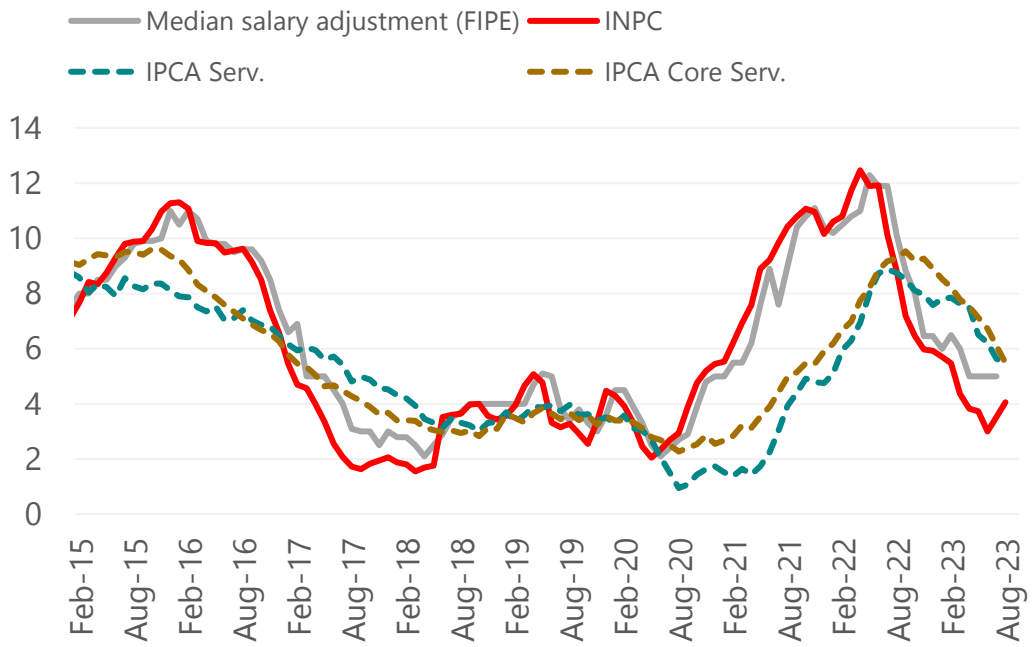


Sources: IBGE, Santander

Services: cost pressures should be cooling down as wage adjustments decelerate

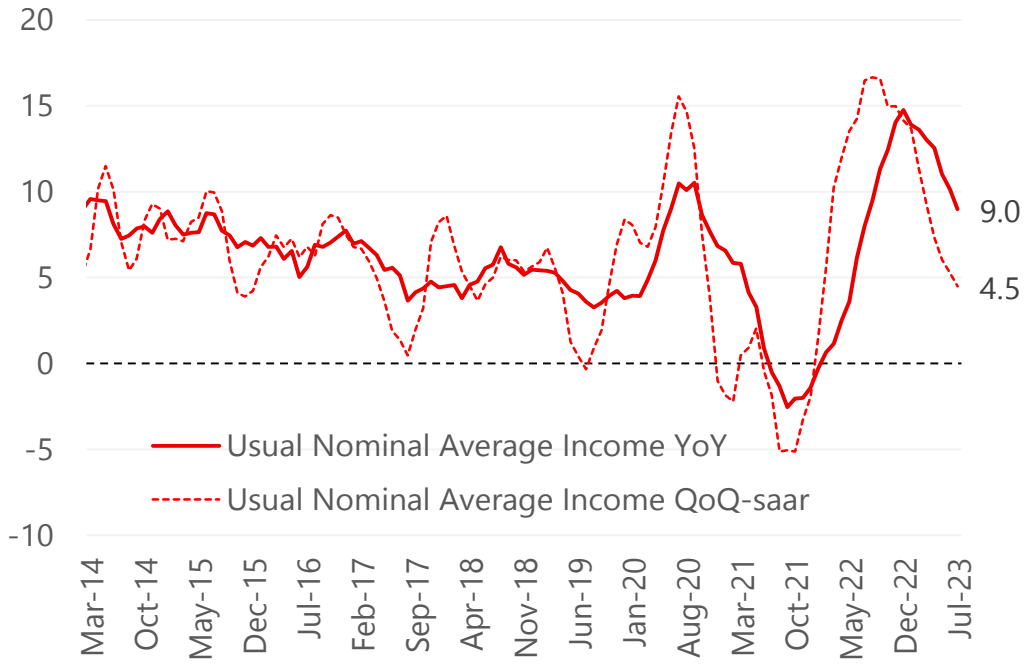
- Cost pressures should be falling in the services sector as it is more labor intensive and wage growth is softening
- Wages adjustments reported by FIPE lags the INPC and show a deceleration following the fall in headline inflation
- Usual nominal income growth is also decelerating with 3MMA-saar at 4.5%

FIPE wage adjustment (% YoY)
Services inflation (% YoY)



Sources: IBGE, FIPE, Santander

Usual nominal income growth

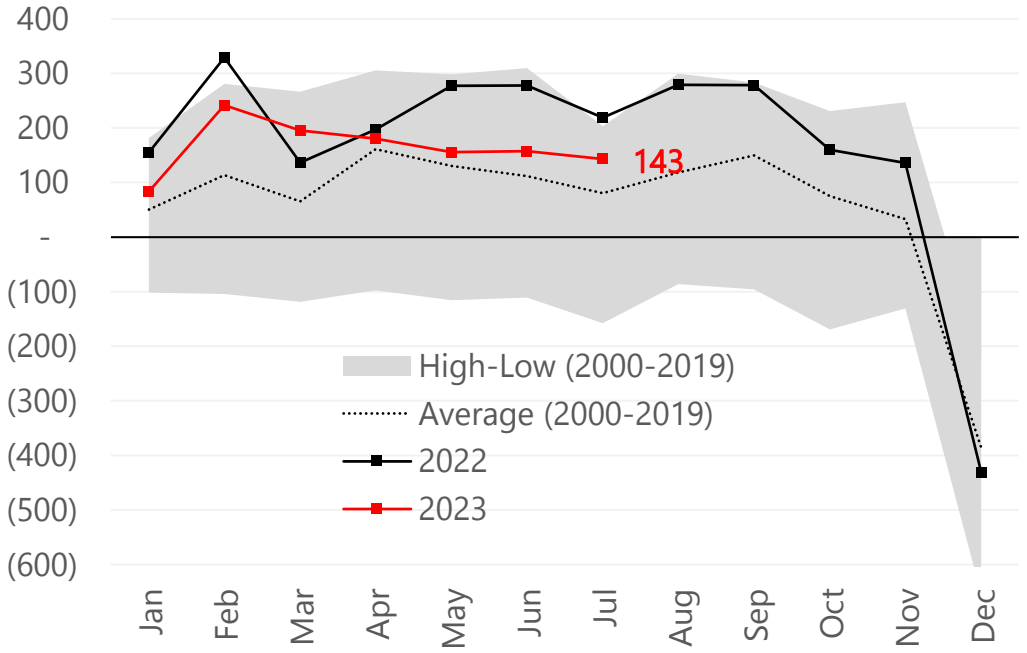


Sources: IBGE, Santander

Services: the job market is already showing signs of a cool down

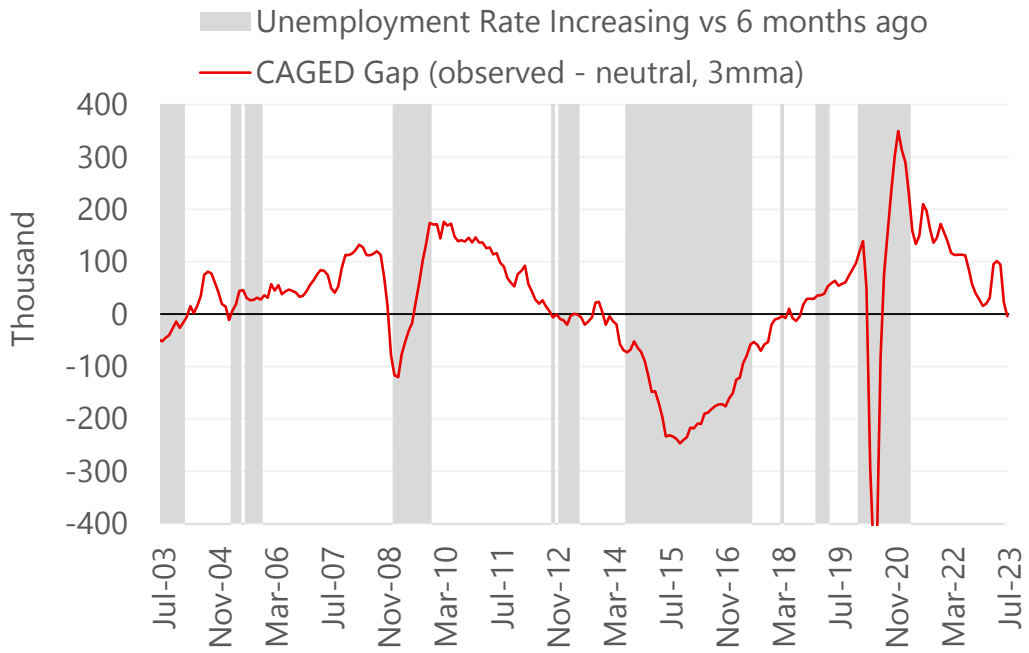
- Formal net job creation (CAGED) is slightly above the historical average, but decelerating compared to 2022 results
- July's CAGED result went slightly below our joblessness-neutral level. Numbers below this level are associated with a growing unemployment rate in the medium-term

Formal net job creation is weakening



Sources: Ministry of Labor and Santander.

CAGED should decelerate to below its neutral rate

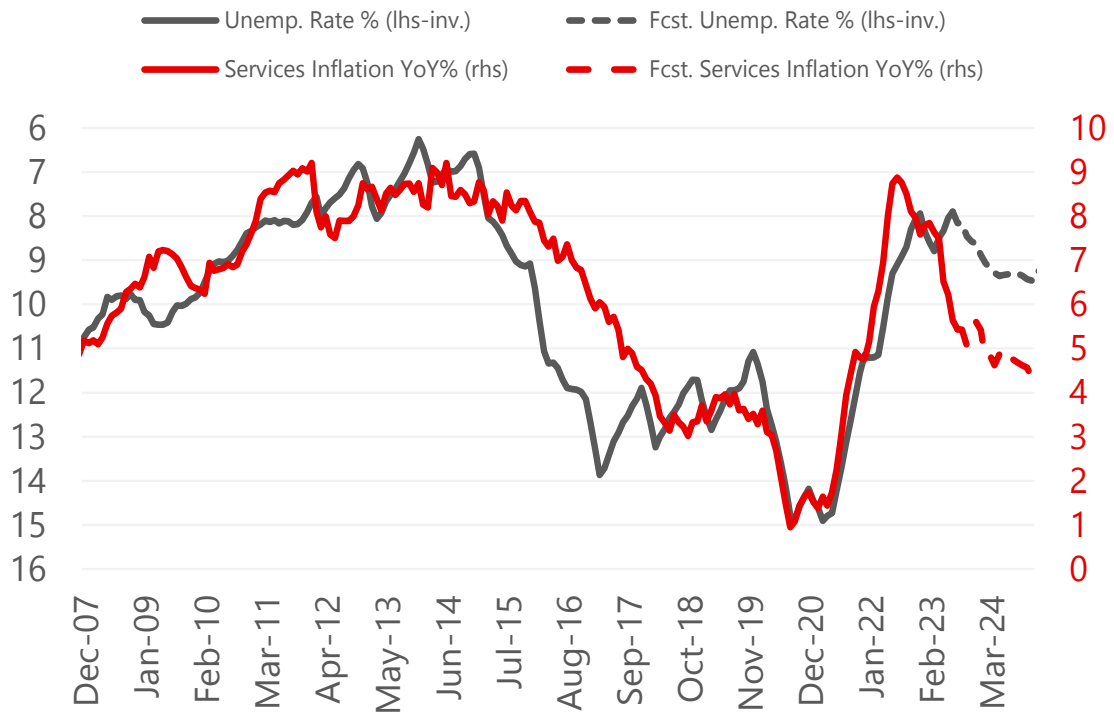


Sources: IBGE, Ministry of Labor, Santander.

Services inflation, wage growth and unemployment rate conundrum

- To sum up, services inflation and wages are both easing, despite a sustained unemployment rate and resilient economic activity
- Looking ahead, services inflation should keep its downward trajectory, as we expect it to reduce to 4.3% in 2024
- We see a deceleration in the job market and in economic activity as fundamental factors behind a further decline in stickier prices ahead

We expect unemployment rate to rise, which should take out services inflation steam

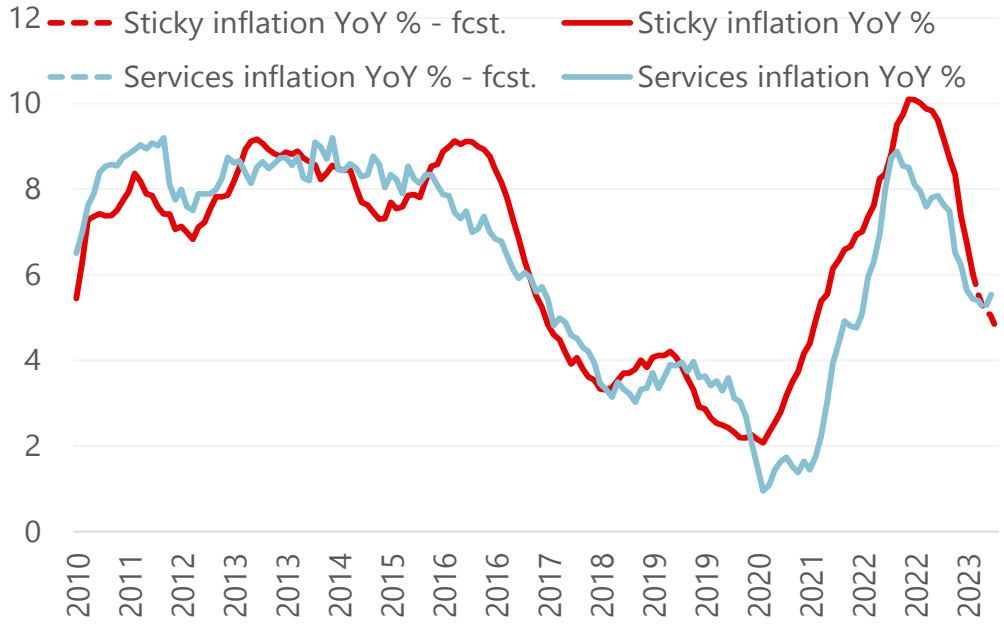


Sources: IBGE, Santander.

Sticky and semi-sticky inflation on a downward trend

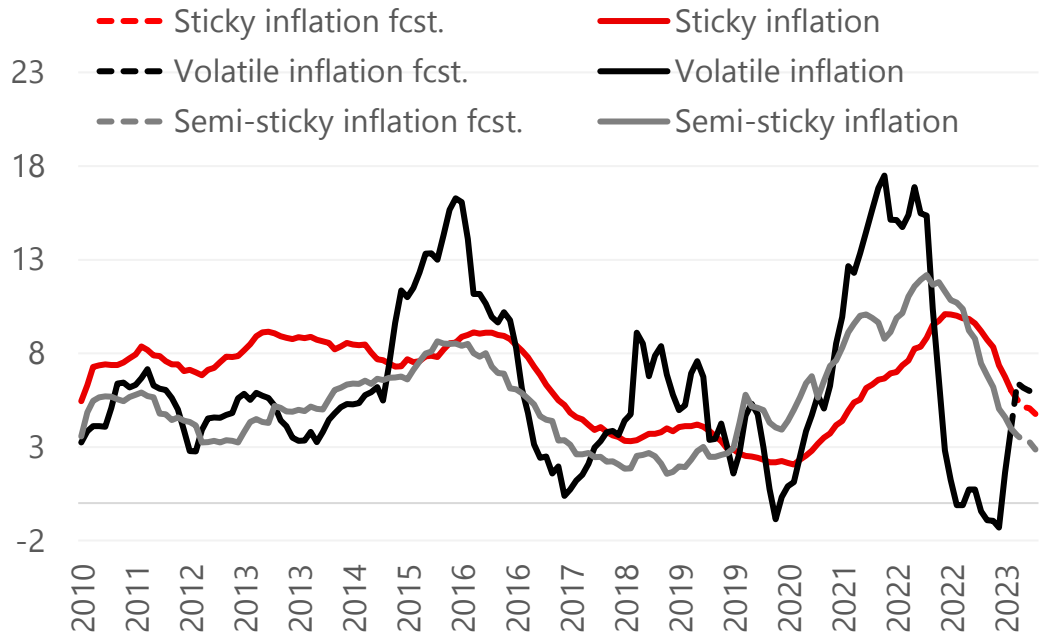
- The volatile part of inflation is rebounding on the back of the tax reinstatement
- However, sticky and semi-sticky items should continue to slow down, reaching 4.8% and 2.9% by 2023YE, respectively (from peaks of 10.1% and 12.2%)

Sticky inflation vs. Services inflation



Sources: IBGE, Santander.

Sticky, semi-sticky and volatile inflation decomposition

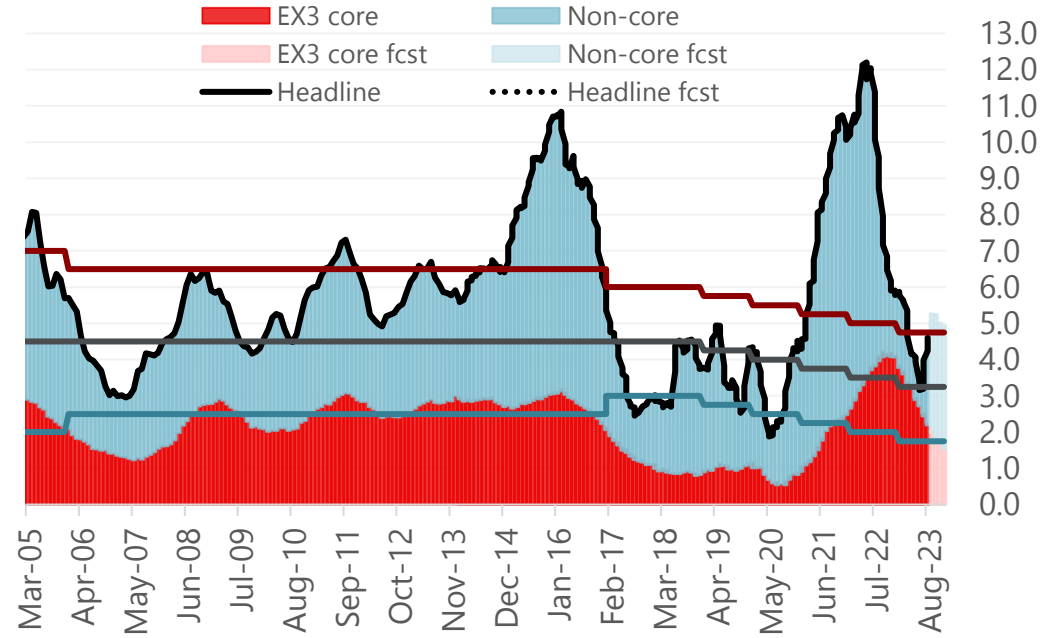


Sources: IBGE, Santander.

Bottom-line: Core gauges are decelerating, while monitored volatile prices rebound

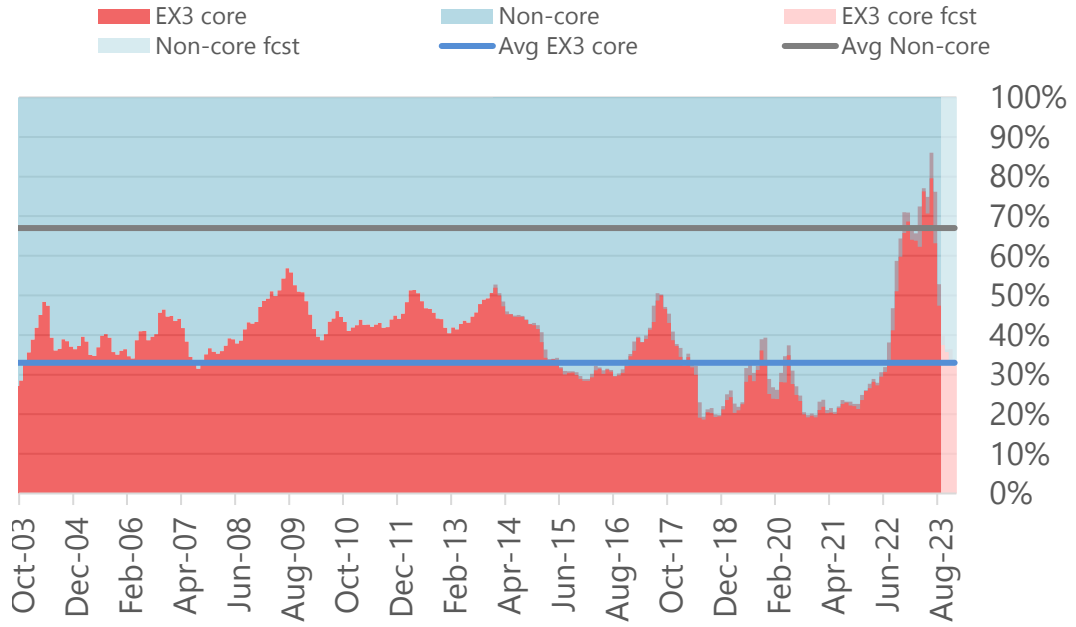
- The disinflation process is in a period where volatile (mostly monitored prices) and headline inflation are rebounding, but core/sticky inflation is decelerating
- The rebound – expected to last until September – should not interfere in the disinflation process (therefore, a risk factor)
- The contribution of the core to headline inflation should continue the downward trend until the end of the year and recede back to account for around 30% of total inflation (which is the historical average)

IPCA decomposition: core and non-core



Sources: IBGE, Santander.

Contribution of core and non-core to headline IPCA



Sources: IBGE, Santander.

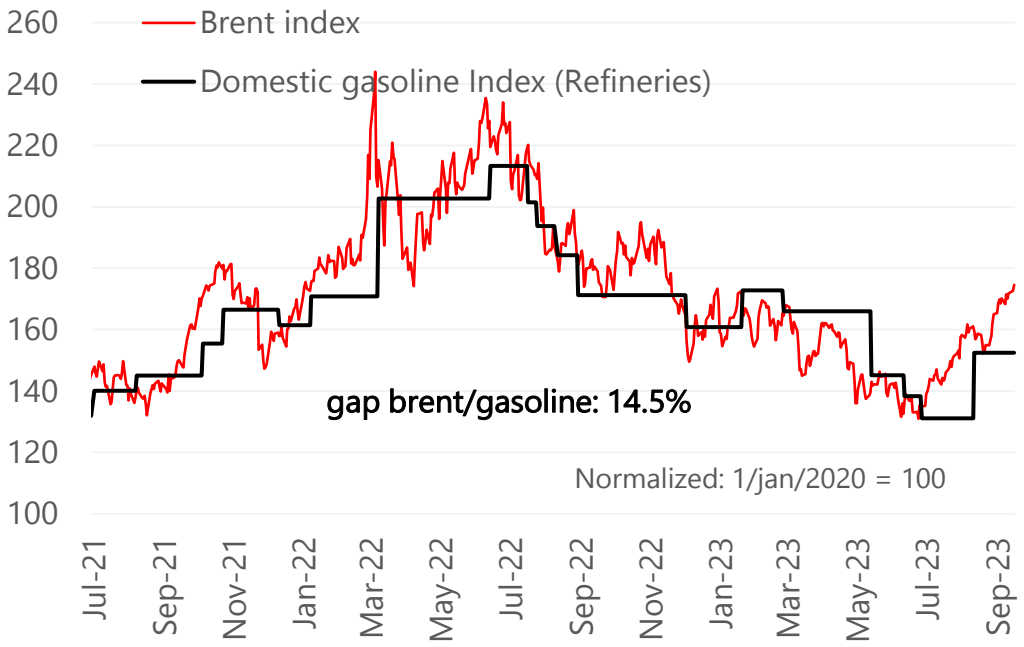
Main Risks: persistently higher oil prices, partial re-anchored expectations and El Niño

04

Gasoline gap is a risk to this scenario

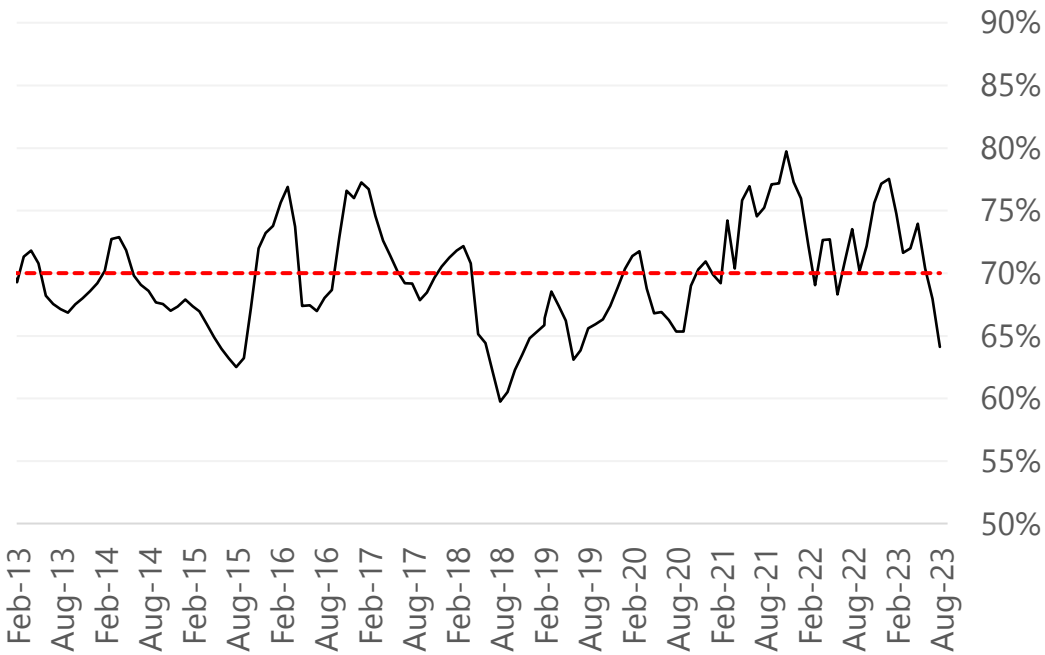
- After the last gasoline adjustment, we do not envision any other adjustment in prices this year. Brent above US$90/bbl is a risk
- The gasoline gap using Brent (instead of the international gasoline – Gulf) is around 15%, as Brent is around US$95/bbl
- At the consumer level, ethanol prices have gaining competitiveness compared to gasoline

Large gasoline gap



Sources: Bloomberg, Santander

Ethanol/Gasoline - Price at gas station

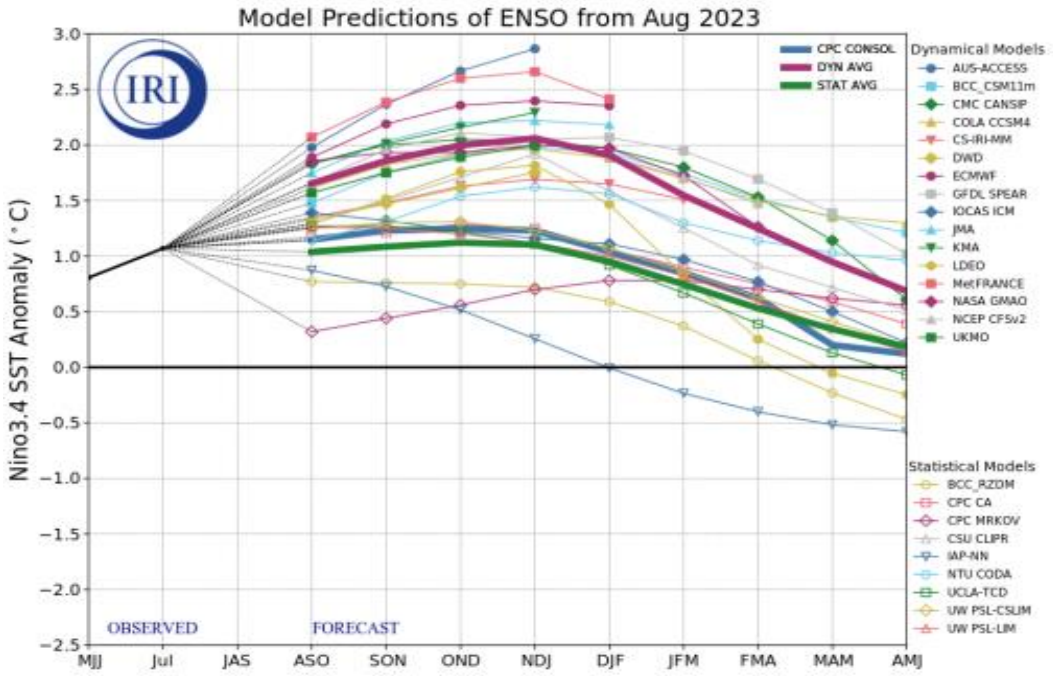


Sources: ANP, Santander

El Niño: The first phenomenon in four years

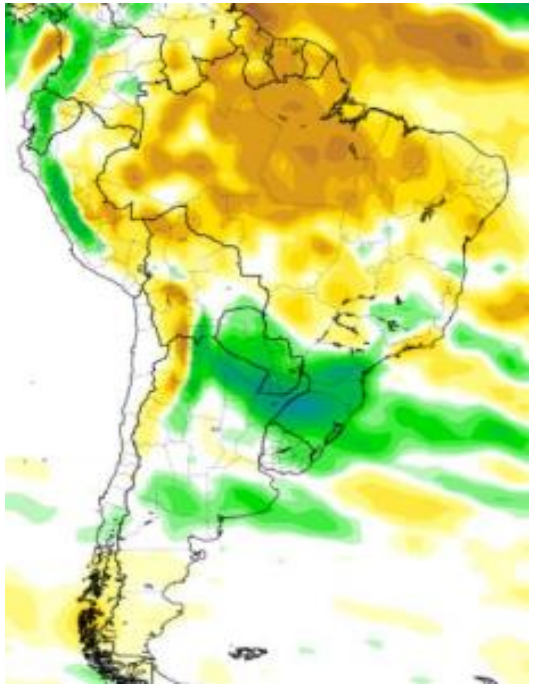
- A strong El Niño will take place and alter the rainfall pattern (associated with an increased rainfall in the South, Southeast, and Central-West). Potentially impacting energy and food prices
- For electrical energy, it should guarantee an endured period of “green flag”
- Currently, we see some risk that the drought in the northeast part of the country spreads out to the mid-west, hitting key grain producer states

Model Predictions of ENSO



Sources: IBGE, Santander.

Anomaly for November - Forecast CFS (as of 28 Aug)

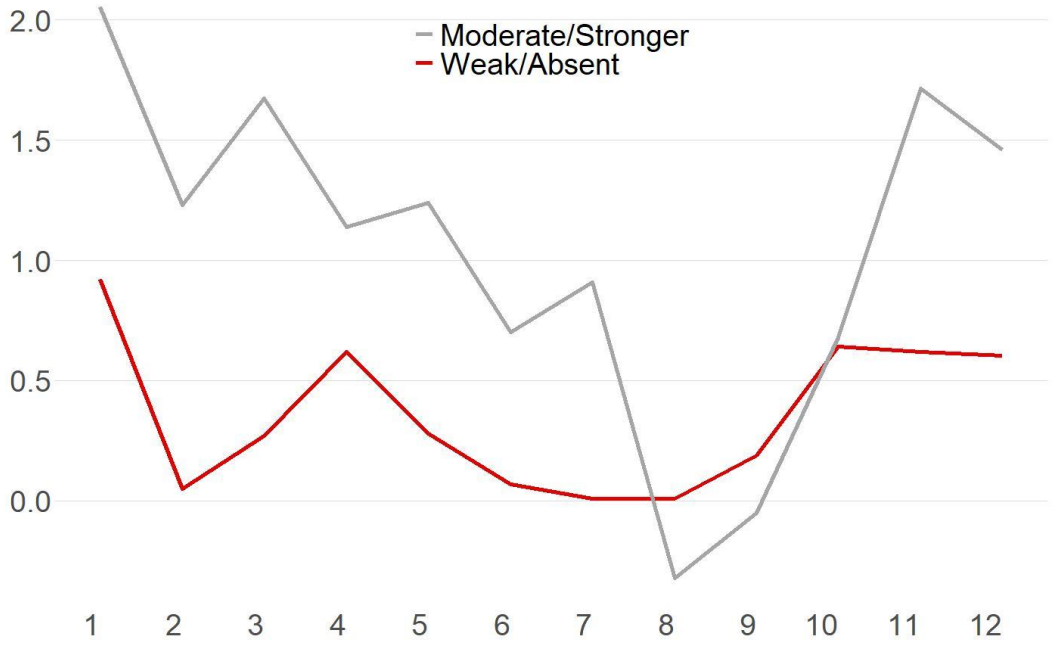


Sources: IBGE, Santander.

El Niño: The first phenomenon in four years

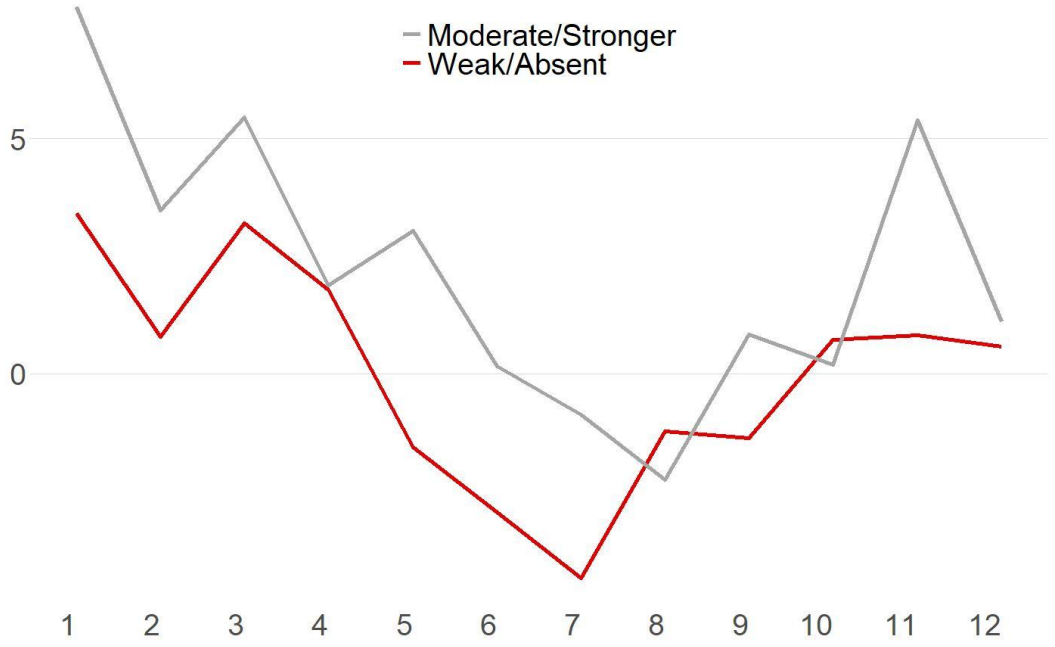
- For food-at-home, El Niño is historically associated with higher fresh-food inflation. This is because excessive rainfall and above-average temperatures may damage supply of items in this group
- Thus, an upward risk for 4Q23 and 2024 inflation

MoM food-at-home is usually higher during moderate or stronger El Niño



Sources: IBGE, Santander.

MoM fresh food is the driver behind higher food-at-home inflation

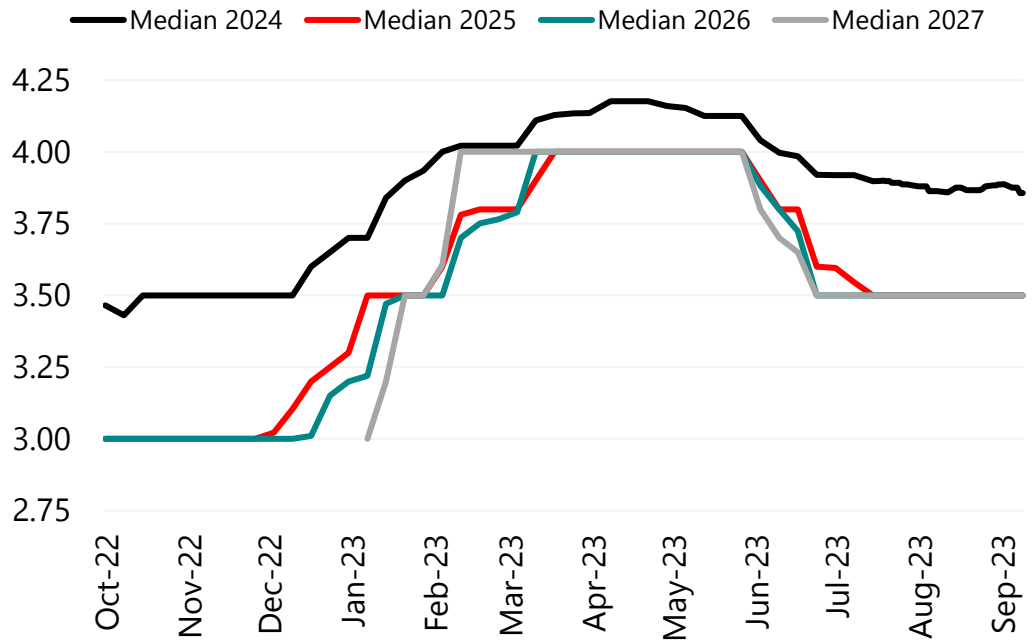


Sources: IBGE, Santander.

Further re-anchoring in inflation expectations seems unlikely right now

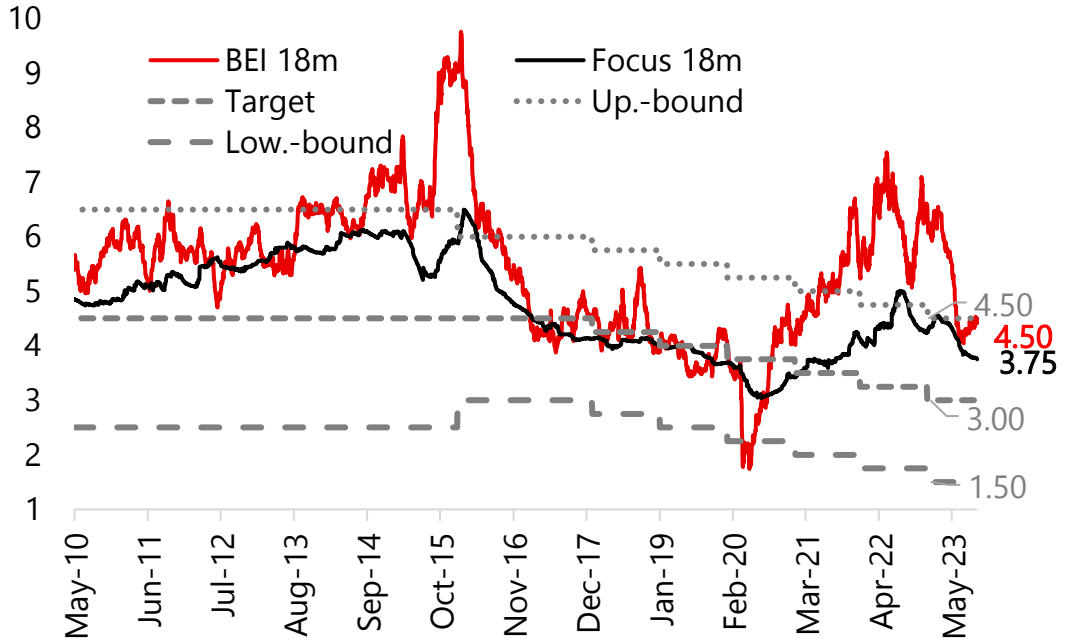
- Long-term expectations re-anchored only partially, remaining +50 bps above the target, which makes the inflation convergence process to the target more difficult
- BEI fell sharply, however, it already rebounded from the year bottom, and is above both the survey-based expectations and target
- Although less likely, a further inflation re-anchoring depends on: (i) BCB's action/communication; (ii) short-term inflation dynamics; and (iii) the approvement of measures that improves the primary balance in the medium-term

Survey-based Inflation expectations are above the target



Sources: BCB, Santander.

18-month ahead survey- and market-based inflation expectations

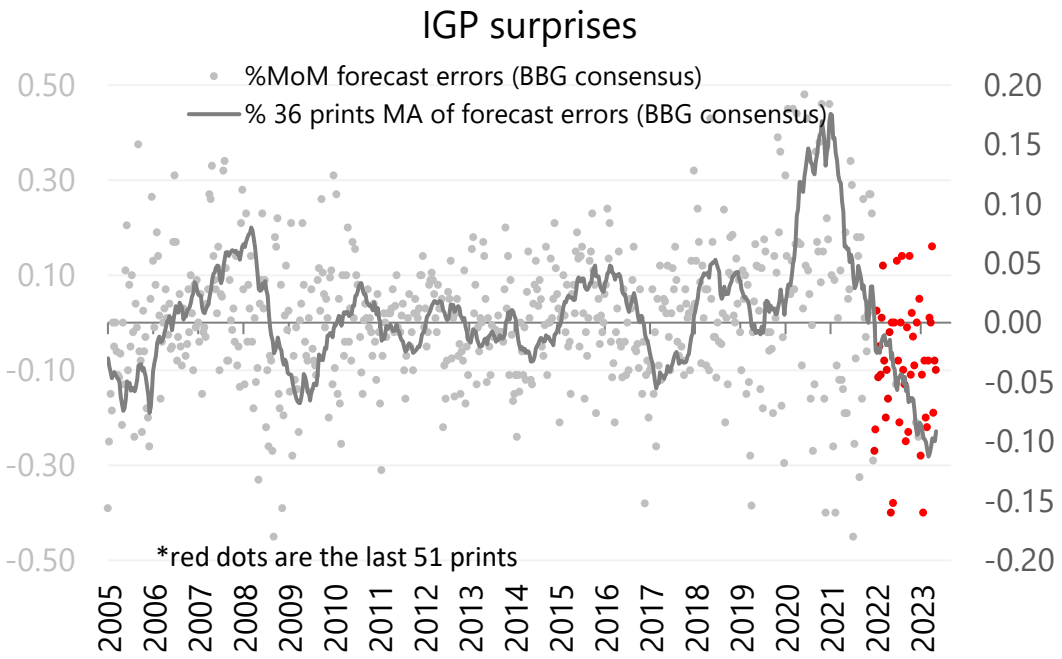


Sources: BCB, Bloomberg, Santander.

A (less likely) stronger disinflation could help further re-anchoring

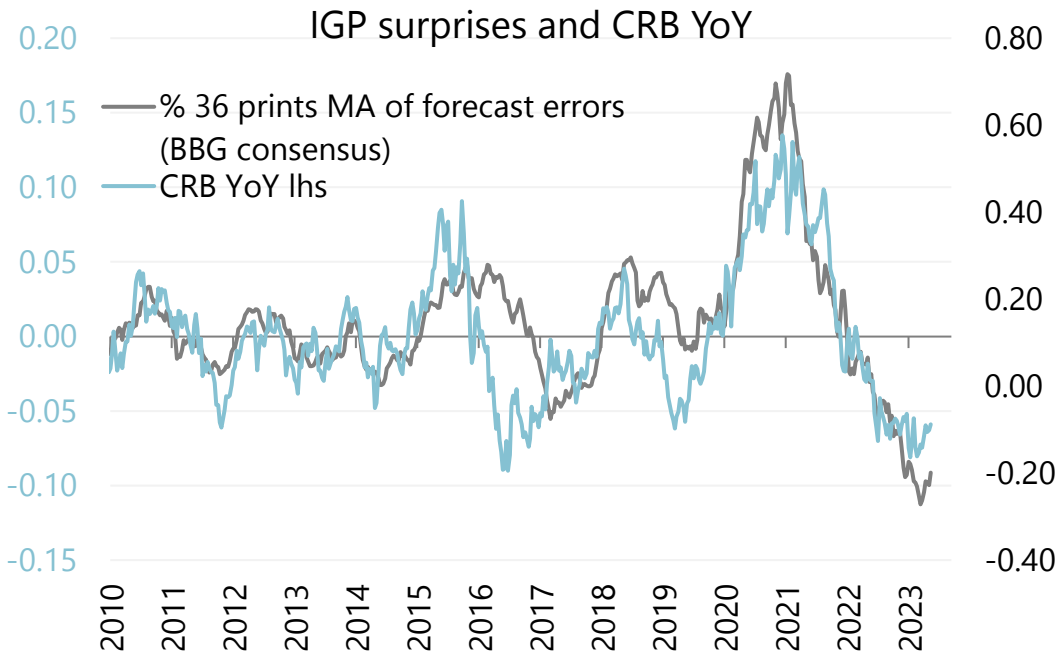
- In the short-term, the inflation dynamic may be the only positive channel for further expectations re-anchoring. However, its probability has decreased
- In the IGPs, for the past 51 prints, 71% came in below expectations (10% came in line and just 19% came in above forecasts)
- But the surprises appear to be mostly driven by the commodity prices in BRL terms, that appears to be rebounding (+ oil risks)

Inflation surprises at the wholesale/producer level (IGP-10, IGP-M, IGP-DI)



Sources: FGV, Bloomberg, Santander.

IGP (PPI) surprises tend to be led by commodity prices in BRL terms

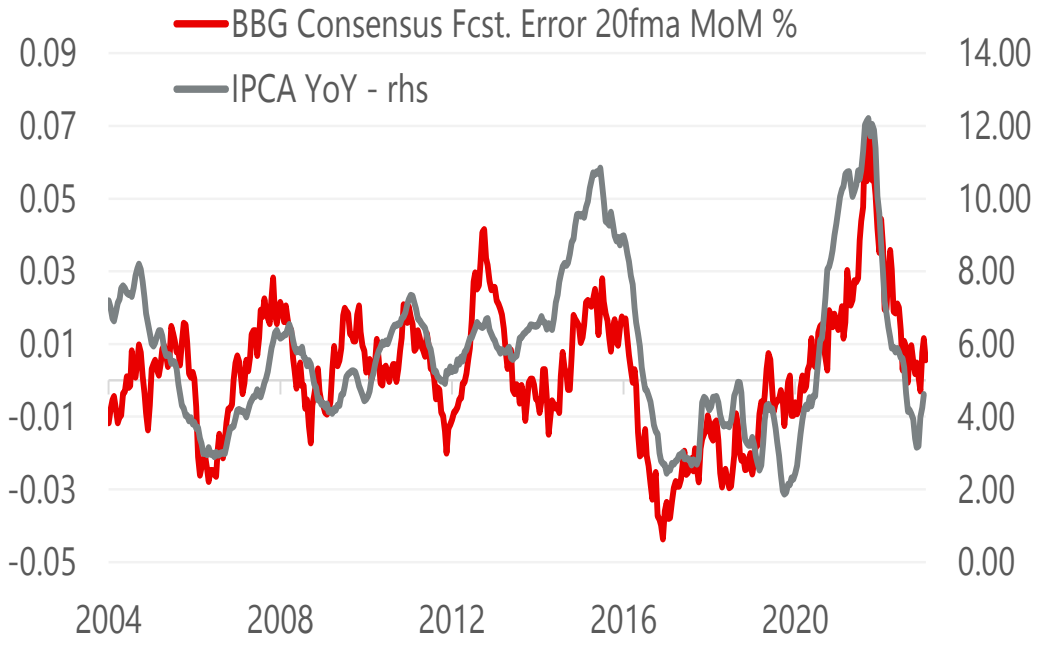


Sources: FGV, Bloomberg, Santander.

Nevertheless, surprises at the producer level may have not fully reached consumers

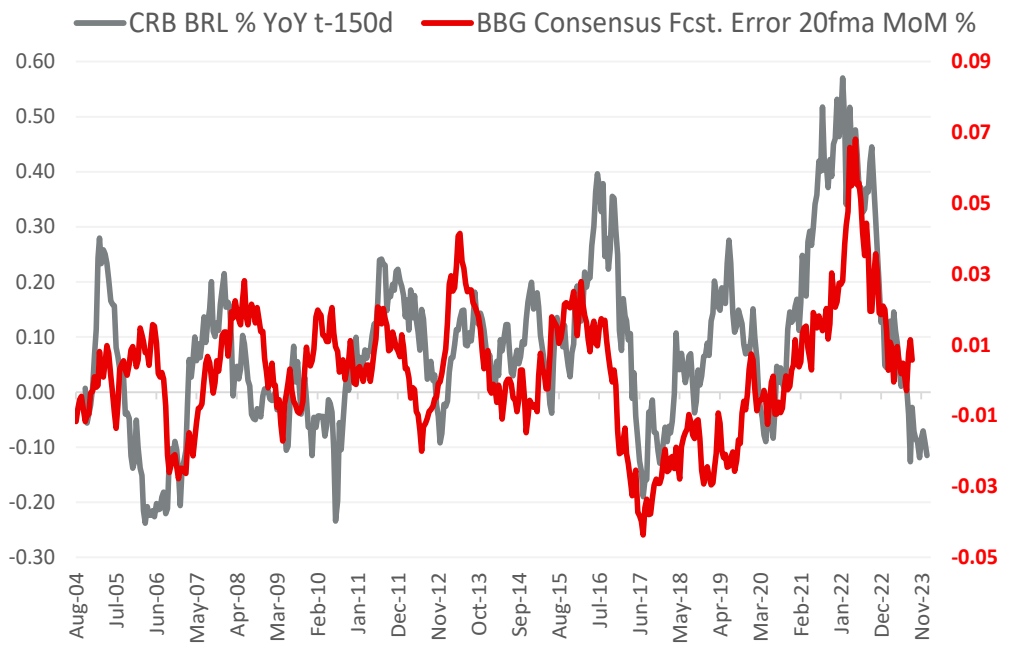
- IPCA inflation surprises are lagging the CRB deceleration, what could imply more downward surprises
- Although the correlation between current headline inflation (which is rebounding) and surprises suggests that we might not see more negative surprises in the short-term

IPCA inflation surprises are highly correlated to the state of inflation



Sources: IBGE, Bloomberg, Santander.

CRB in BRL is pointing to further deceleration of IPCA inflation surprises

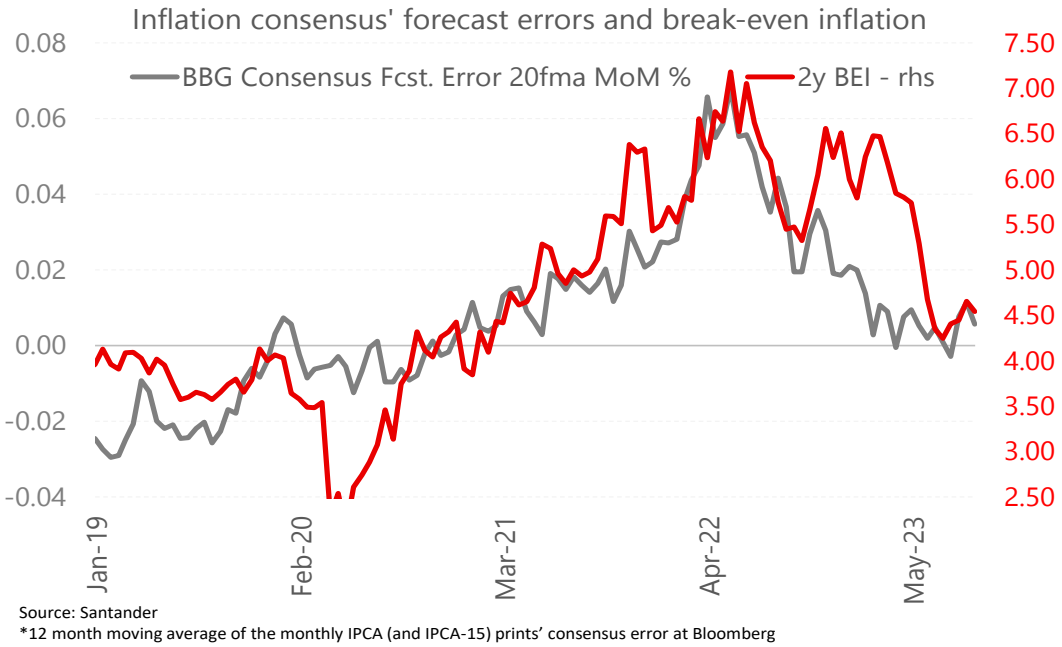


Sources: Bloomberg, Santander.

If we see short-term inflation surprises, it could influence medium/long-term expectations

- Short-term surprises usually are incorporated in market-based (BEI) long-term expectations
- Then the BEI tends to drive the survey-based expectations

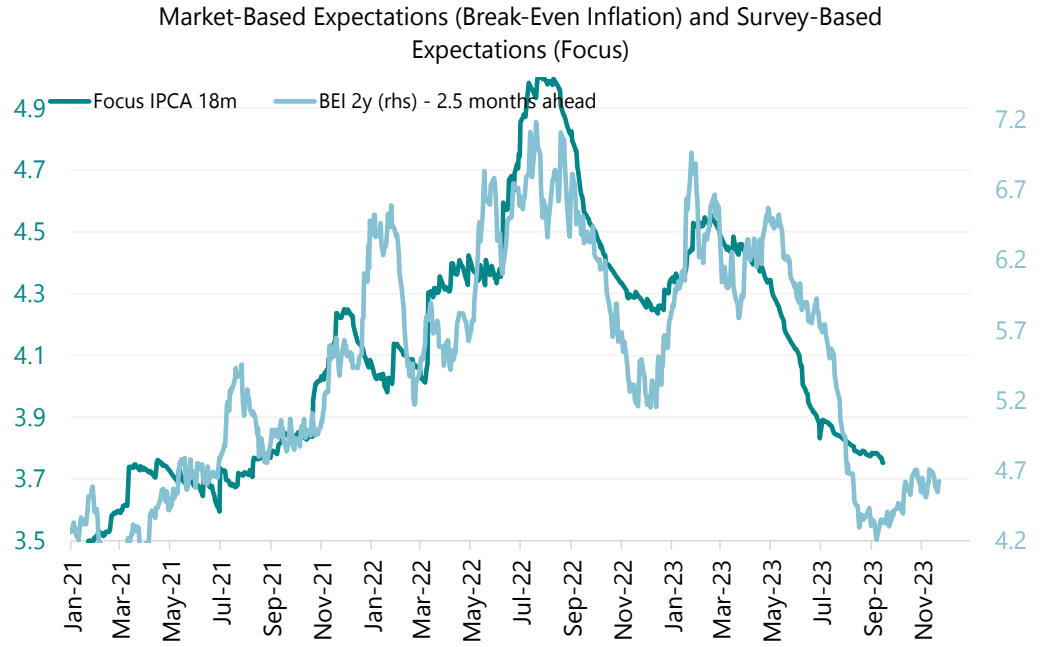
2y BEI is starting to fall at the margin, because of recent IPCA downward surprises



Source: Santander
*12 month moving average of the monthly IPCA (and IPCA-15) prints' consensus error at Bloomberg

Sources: Bloomberg, Santander.

Usually, the BEI anticipates movements on Focus

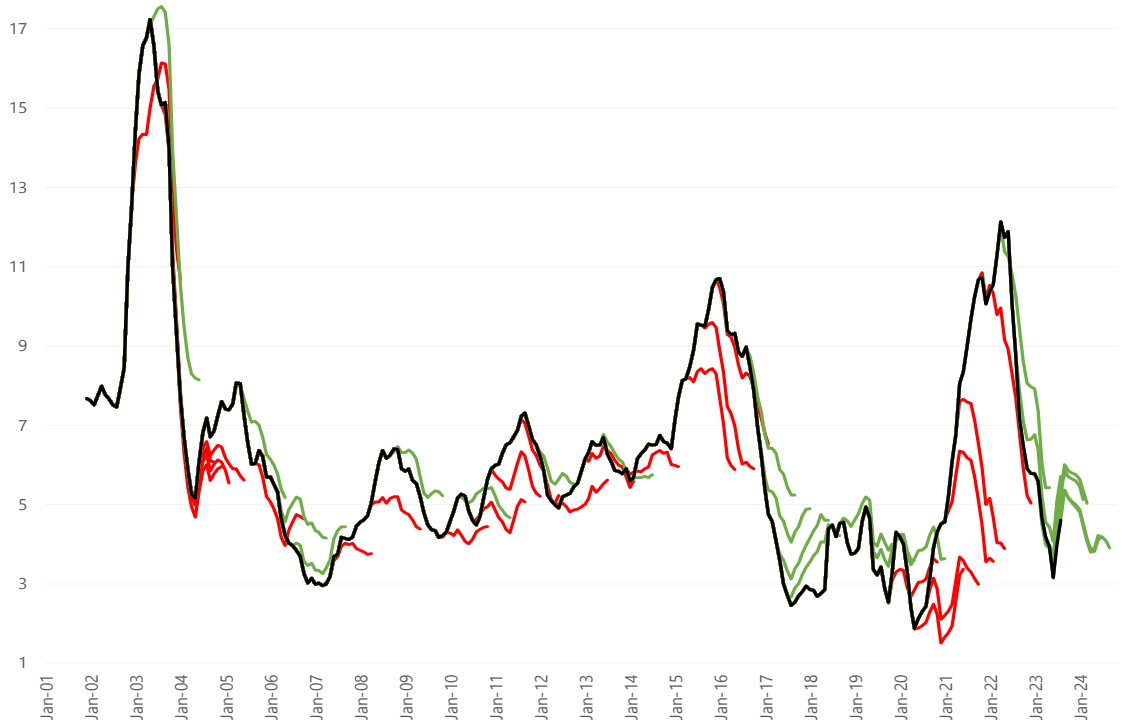


Sources: BCB, Bloomberg, Santander.

History shows that usually we are surprised downwards during disinflation processes

- Survey-based expectations tend to underestimate (overestimate) the inflation path when it is rising (falling)

IPCA YoY and survey-based expectations in different periods of time



Sources: BCB, Santander.

Macro Scenario - Forecasts

Macroeconomic Variables		Previous		Current
GDP (%)	2023E	1.9	↑	2.5
	2024E	1.0	→	1.0
	2025E	1.5	→	1.5
IPCA (%)	2023E	4.9	↓	4.7
	2024E	3.9	↓	3.8
	2025E	4.5	→	4.5
Selic Rate (% end of period)	2023E	11.75	→	11.75
	2024E	10.00	↓	9.50
	2025E	7.50	→	7.50
FX Rate - USDBRL (end of period)	2023E	5.20	↓	5.10
	2024E	5.35	↓	5.25
	2025E	5.40	↓	5.30
Current Account Balance (% of GDP)	2023E	-2.5	→	-2.5
	2024E	-2.7	→	-2.7
	2025E	-2.7	→	-2.7
Primary Fiscal Balance (% of GDP)	2023E	-1.0	→	-1.0
	2024E	-0.9	→	-0.9
	2025E	-0.7	→	-0.7
Gross Public Debt (% of GDP)	2023E	77.0	↓	76.5
	2024E	81.1	↓	80.5
	2025E	83.9	↓	83.2

Note: Our previous forecasts date from August 4, 2023 (Scenario Update: "Better Growth Outlook in 2024 Given a Less Contractionary Monetary Policy" – Available on: https://tinyurl.com/Std-scenreview-aug23).

The forecasts refers to our latest Scenario Review

"Adjustments to Reflect Past Surprises; Same Trends Continuing Ahead"
(sent on September 15, 2023)

For the full report click on the link:

https://bit.ly/std-sce-review-Sep23

Macro Scenario - Santander Brazil's Global Macro Assumptions – Summary

Global Macro Scenario	2018	2019	2020	2021	2022	2023E	2024E	2025E
Global GDP (%)	3.5	2.8	-3.5	5.9	3.4	2.4	2.2	2.8
China GDP (%)	6.7	6.0	2.3	8.1	3.0	5.2	5.1	5.0
US GDP (%)	3.0	2.2	-3.5	5.7	2.1	2.1	0.1	1.8
US Inflation (Core PCE, %)	2.1	1.6	1.5	4.9	5.0	4.0	2.5	2.0
US Interest Rate (FFR, %)	2.50	1.75	0.25	0.25	4.50	5.50	4.00	2.50
US Interest Rate (UST10y, %)	2.7	1.9	0.8	1.8	3.9	4.0	3.5	3.0
Dollar Index - DXY	96	96	90	96	104	103	100	100
Commodity Prices - CRB	409	401	444	571	558	528	474	445

*Core PCE is referred to the y/y variation for Q4.

Source: Santander

The forecasts refers to our latest Scenario Review

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Our purpose is to help people and businesses prosper.

Our culture is based on believing that everything we do should be:

Simple Personal Fair

Santander

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