

BRAZIL MACRO

MONETARY POLICY PREVIEW

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NO TIME TO SHUT THE DOOR (ON FUTURE HIKES)

- The Copom gathers next week (Wednesday, August 3) to announce its monetary policy decision. For that meeting, we are aligned with the broad market consensus that the Brazilian Central Bank (BCB) will hike the Selic rate (for the twelfth consecutive time in this cycle) by 50 bps, to 13.75%.
- In the most interesting part of the statement, we believe the BCB could signal another rate increase (of flexible magnitude, 25 or 50 bps) for the September 20-21 policy meeting a view that is clearly out of consensus, at least for now. In our view, the adverse evolution of the inflation outlook since the last Copom (June 14-15), in a context of greater than usual uncertainty, could prevent the BCB from committing to the end of the cycle at this stage.
- Our view is based on the belief that there has been marked deterioration in the inflation outlook since the June Copom meeting. The approval of new rounds of fiscal stimuli, the narrower economic slack on the heels of a tighter job market, and the brisk gain in inflation expectations for 2023 could not only lead to higher inflation forecasts by the authority (for the relevant policy horizon) but also prompt an upward asymmetry in the balance of risks.
- In turn, we believe these developments could increase the budget of Selic hikes necessary for the BCB to achieve its goal of bringing its 2023 IPCA estimate "around the target" (i.e., below 4%, to say the least).
 We expect the BCB to maintain its ("smoothing interest rate") strategy laid out in the last Copom meeting, where the authority signals keeping the Selic rate higher for longer.
- As per our interest-rate outlook, we continue to expect an additional tightening of 50 bps (probably in the September meeting), with interest rates reaching 14.25% and staying at this level up to 2Q23. After that, we expect gradual Selic cuts toward 12.00% for YE2023 and 9.00% for YE2024.

SOME BACKGROUND ON THE LATEST POLICY MOVE AND SIGNALS

In the last Copom meeting¹ (June 14-15), the BCB hiked the policy rate by 50 bps, taking it to 13.25%, the highest level since mid-2017. At the occasion, the authority signaled another hike "of the same or lower magnitude" (read 25 or 50 bps) for next week's (August 2-3) Copom meeting. The BCB also estimated for the reference scenario² IPCA 2023 at 4.0%, assuming a Selic rate of 13.25% for YE2022 and 10.00% for YE2023. In the 2Q22 inflation report³, the authority also revealed a simulation where, by assuming a stable Selic of 13.25% for all the relevant period, the IPCA inflation estimate would stand at 3.7% for 2023.

In the Copom minutes⁴, the authority summarized its strategy to navigate such a challenging inflation outlook and massive uncertainty. That strategy includes: (i) a terminal Selic rate above the level of 13.25% used in the reference scenario; (ii) "the maintenance of the interest rate in significantly contractionary territory for a longer period than that used in the reference scenario"; and (iii) "inflation convergence to a level around its target throughout the relevant horizon [read 2023]". Thus, the monetary authority recognizes the need for a more contractionary policy stance than the Selic path used in the BCB's reference scenario, so as to bring inflation near (but not necessarily to land "at") the target. Our interpretation is that this is kind of "smoothing" strategy planned by the BCB paves the way for a possible extension of the inflation-convergence horizon to the midtarget and avoids an "overkill" in monetary policy.

In the last meeting, the Copom also mentioned that "the uncertainty in its assumptions and projections is higher than usual and has increased since the previous meeting." In our view, this could be an additional reason for the committee to seek a somewhat greater degree of freedom for its flight path at this juncture, as the BCB duly avoided providing more signals about its steps after the August meeting.

THE CONTEXT FOR THE JULY COPOM MEETING

Since the last policy meeting, we have seen three key developments that could influence the BCB's scenario assessment, inflation estimates, balance of risks and policy decision. The first major development is the approval of new rounds of fiscal stimulus, both via tax breaks (PLP 18/2022^s) and government transfers (PEC 15/2022^s). These measures basically aimed to ease the impact of higher energy prices on Brazilian households. As an undesired consequence, the initiative could contribute to further delays in the expected (and unfortunately necessary) softening in economic activity, possibly helping trigger even more inflation persistence for the coming months and the policy horizon. And that could be particularly true if one takes into account the more closed output gap than previously thought.

The second major development is the unexpected job-market strength of late, as the unemployment rate has fallen back to single-digit territory (9.5% sa) in May, reaching the lowest level since the 2015-2016 recession. Moreover, our monthly breakdown of IBGE's household survey point to further possible declines in the jobless rate ahead⁷. In our calculations, joblessness is already moving below the NAIRU (structural level of unemployment), which poses the risk that a wage-price spiral makes further damage to the (already difficult) disinflation process expected ahead, especially in a context of increased fiscal stimuli.

The third development is the more hawkish response by major central banks, notably the Federal Reserve and the European Central Bank. Both monetary authorities have decided to move fast in the tightening process, with the former raising the Fed Funds rate by 75-bp increments and with the latter inaugurating its rate-hiking cycle with a 50-bp adjustment in the whole corridor. This faster pace of monetary tightening has ignited market talks about an imminent global recession, weighing further on risk sentiment and financial conditions.

¹ Santander Brazil: "Copom Decision: Keeping Options Open, For Now" – June 16, 2022 – Available on: https://bit.ly/Std-COPOM-jun22 ² This scenario assumes FX rate starting at USD/BRL 4.90 (and moving along with PPP afterward), oil price "ending the year [2022] at

USD110/barrel, and then start increasing 2% per year in January 2023", and Selic rate at 13.25% for YE2022, 10.00% for YE2023.

³ On June 23, BCB Governor Roberto Campos Neto and Economic Policy Director Diogo Guillen gave a press conference, which usually follows the publication of the Inflation Report. The latter was published a week later (June 30), due to the strike of BCB workers.

⁴ Santander Brazil: "Copom Minutes: Going for the Smoothing Strategy?" – June 22, 2022 – Available on: https://bit.ly/Std-COPOM-min-jun22 ⁵ Santander Brazil – Macro Compass: "Brazilian Assets Sell Off on Fed Hawkishness" – June 17, 2022- Available on: https://bit.ly/Stdmacrocomp-061722

⁶ Santander Brazil – Macro Compass: "Commodity Prices Trend in BRL Sees (Tentative) Stabilization" – July 15, 2022- Available on: https://bit.ly/Std-macrocomp-071522

⁷ Santander Brazil Labor Market: "Another Month of Strong Labor Market Results" – June 30, 2022 – Available on: https://bit.ly/Std-labor-063022

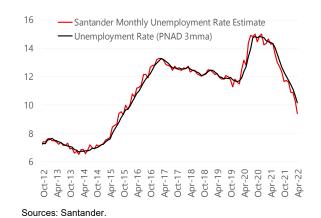
As per the evolution of macro variables, inflation expectations have evolved in a mixed manner in recent weeks, on the heels of new rounds of fiscal policy measures (especially tax breaks on energy). The (oneoff) improvement for the short-term contrasts with the (persistent) deterioration for the medium-term, spilling over unfavorably on the BCB's policy horizon. The net effect is clearly adverse for the BCB's struggle to bring CPI back to target in a reasonable timing. The BCB's Focus survey on analysts' expectations shows that inflation estimates for 2022 have fallen by 1.2 p.p., to 7.30%, since the last policy meeting, reflecting the effects of the tax breaks. For next year, the most important policy horizon for the BCB at this juncture, the median IPCA estimate rose 0.6 p.p. since the eve of the last Copom meeting, reaching 5.30% (mid-target: 3.25%; upper target: 4.75%), likely reflecting expectations for a partial reversal on some of the tax measures recently announced (namely, the federal tax cuts on gasoline). The expectation for 2024 has barely changed, edging higher by 5 bps to 3.30% since the previous Copom (mid-target: 3.00%).

| Figure 1. Impact of Recent 1 | Tax measures on the IPCP | | |
|------------------------------|--------------------------|--|--|
| 2022 | 2023 | | |

at of Decent Tay Measures on the

| 2022 | | 2023 | | |
|---------------------------------|--------------|----------------------------|--------------|--|
| Items (measures) | Impact (bps) | Items (measures) | Impact (bps) | |
| Gasoline (ICMS) | -61 | Gasoline (Pis/Cofins) | 49 | |
| Gasoline (Pis/Cofins) | -49 | Higher expectations (risk) | 30 | |
| Electricity (ICMS) | -42 | Lower inertia | -40 | |
| Electricity (TUSD/TUST) | 0 | | | |
| Electricity ("tax credit") | -20 | | | |
| Telecom (ICMS) | -22 | | | |
| Income-effect (fiscal stimulus) | 33 | | | |
| IPCA 2022 (prev. 9.5) | 7.9 | IPCA 2023 (prev. 5.3) | 5.7 | |
| | | | | |

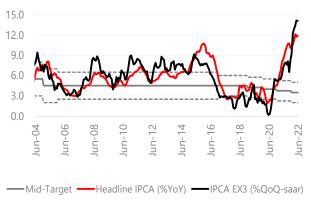




Sources: Santander.

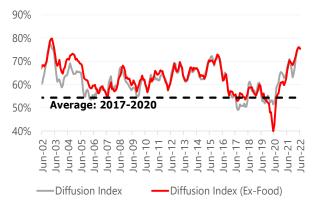
In 3Q22, calendar-year 2024 joins the BCB's policy horizon, accounting for 25% of the implicit-target metrics (the weight of 2023 is 75%). This natural rollover of the policy horizon caused a reduction in our estimate for the 18-month ahead inflation expectations, which fell to 4.80% as of July 22, compared to 5.00% at the end of June. But that reading was at 4.70% on the eve of the June 14-15 Copom, so that the gap between the calendar-adjusted target (which fell to 3.19%, from 3.25% for the same period) and the calendar-adjusted expectations metrics widened to 161 bps from 145 bps previously.





Sources: Brazilian Central Bank, IBGE, Santander. Note: The EX3 gauge includes core services and core industrial prices.





Sources: Brazilian Central Bank, IBGE, Santander.

Despite the temporary relief for headline CPI from the recently implemented tax breaks (whose effects are seen more clearly in the July inflation preview³), the IPCA composition remains quite unfavorable. Based on the latest full-month IPCA figures (for June), we realize that not only the trend core gauges keep moving at a hefty sequential pace of 13-14% QoQ-saar, but also that diffusion indexes continue to trend in the neighborhood of 70-75% in seasonally adjusted terms, meaning a gap of about 2 standard deviations from the

⁸ Santander Brazil Inflation: "July's IPCA-15: Tax Cut Measures Start to Take Effect" – July 26, 2022 – Available on: https://bit.ly/Std-IPCA15jul22.

average seen in periods of low inflation (2017—2020, averaging at ~55%). The numbers mean that inflation pressures continue to spread across the CPI basket, with sluggish components (such as services) playing a key role in the high readings of late, suggesting a slow disinflation process ahead – especially now that economic slack seem to be eroding.

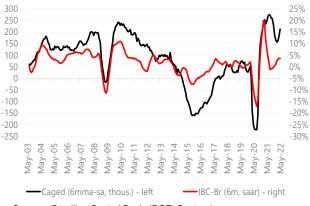
In terms of economic activity, in general the numbers continue to surprise in the upside for the short term, but analysts (including ourselves) still expect a softening pace next year. With significant help from services (and its reopening), a likely overheated job market poses greater challenges for the BCB. Economic activity was once again better than expected. Across the 2Q22, our sequential growth forecast has been gradually revised to 0.8% (after the May data^a), as compared to an ex-ante forecast of 0.3% earlier in the quarter (i.e., before the publication of sector-based data). While this could also have been a byproduct of an anticipation of consumer spending due to temporary stimulus¹⁰, in our view the numbers also reflect a stronger-than-expected impulse from the economic (mainly services) reopening, given the improvement in health conditions related to the pandemic (due to widespread vaccines).

Figure 5. Evolution of Our 2Q22 GDP Tracking

| 2Q22 GDP Growth | | | | | | | | |
|-----------------|---------------------|-----------|--------------|-----|---------------|-----|--|--|
| | | | Tracking (%) | | Projection (% | | | |
| Date | Release | Reference | QoQ-sa | YoY | QoQ-sa | YoY | | |
| 01-Jun-22 | Labor Market | Apr-22 | 0.3 | 1.9 | 0.2 | 1.8 | | |
| 03-Jun-22 | Industry | Apr-22 | 0.4 | 2.0 | 0.2 | 1.8 | | |
| 10-Jun-22 | Retail Sales | Apr-22 | 0.4 | 2.1 | 0.2 | 1.8 | | |
| 14-Jun-22 | Services | Apr-22 | 0.4 | 2.2 | 0.2 | 1.8 | | |
| 30-Jun-22 | Labor Market | May-22 | 0.5 | 2.4 | 0.2 | 1.8 | | |
| 05-Jul-22 | Industry | May-22 | 0.5 | 2.4 | 0.2 | 1.8 | | |
| 07-Jul-22 | IBC-Br | Apr-22 | 0.6 | 2.5 | 0.2 | 1.8 | | |
| 12-Jul-22 | Services | May-22 | 0.7 | 2.6 | 0.2 | 1.8 | | |
| 13-Jul-22 | Retail Sales | May-22 | 0.7 | 2.6 | 0.2 | 1.8 | | |
| 14-Jul-22 | IBC-Br | May-22 | 0.8 | 2.7 | 0.7 | 2.6 | | |

Sources: Brazilian Central Bank, IBGE, Santander.

Figure 6. Job Creation and Broad Activity



Sources: Brazilian Central Bank, IBGE, Santander.

The composition of activity, with an apparently lead from services consumption, likely helps justify the solid job market readings of late¹¹, as discussed above. On that front, an additional interesting point to note is that the real wage bill is posting solid gains even as the real average income remains muted. The explanation is that a rising contingent of people are being able to find a (formal or informal) job on the one side, but the average earnings still seem to be corroded by inflation on the other side. However, the risk here is that if the job market is actually overheating as we think, average real wages could start picking up, adding to inflationary pressures not only from the standpoint of aggregate consumer spending, but also from the standpoint of marginal costs for firms.

In terms of analysts' expectations for the economy, analysts have revised higher their 2022 GDP expectations by 0.52 p.p. since the last Copom meeting, reaching 1.93%. 4ut economists revised lower the estimate for 2024 in the same period (to 1.7% from 2.0%). The number for 2023 has barely changed, running at 0.5% – a forecast for which we see considerable downside (giver our own forecast of -0.6%). A point of note, in our view, iss that the consensus estimates hide beneath a more inflationary activity composition, given such a solid employment in a context of high inflation pressures.

Financial conditions have worsened of late in Brazil, on the heels of higher domestic yields and idiosyncratic risk premium, a weaker FX rate and lower commodity prices, in a context of continued monetary tightening and increased local uncertainties about economic policy. A role in this deterioration is also played by a reduced risk appetite abroad, given the tightening in monetary policy and financial conditions in advanced economies, as well as the increased global recession jitters. Since the last Copom meeting, nominal yields sold off across the curve (30—60bps), and the FX rate average rose to nearly USD/BRL 5.40 in recent days, as compared to an average level of ~USD/BRL4.90 before the last Copom (meaning a ~10% BRL loss for the period). Commodity prices also fell, with Brent oil down to ~USD100 bbl (from USD115 bbl

⁹ Santander Brazil Economic Activity: "A New Weak Print for IBC-Br" – July 14, 2022 – Available on: https://bit.ly/Std-econact-071422.

¹⁰ This includes the extraordinary withdrawal from FGTS (mandatory savings) accounts and the anticipation of yearend bonuses for pensioners.
¹¹ Santander Brazil – Macro Compass: "Job Market Is Solid (And Likely Overheating)" – July 22, 2022 – Available on: https://bit.ly/Std-macrocomp-072222.

previously) and CRB futures down nearly 11% for the period. Although the daily quoting of commodity prices points to a 5% drop, the 50-day average (a better gauge on the pass-through of exchange prices to "real-economy" prices) is up about 1% since the last Copom meeting¹². This mean no emergence of major deflationary cost pressures for the time being.

OUR "BEST GUESS" ON THE BCB'S INFLATION FORECAST

In this section, we present an exercise, where seek the elusive¹³ answer on what possible changes will be in the BCB's inflation estimates. Those could be a key input for the Copom's scenario views and policy decisions, eventually.

To try to "replicate" the BCB simulations, we use the elasticities of their models presented in a box of the 4Q21 inflation report¹⁴. We also set a few hypotheses on the possible changes in the set of key assumptions laid out by the BCB. We list them below:

- ✓ Changes in the BCB's administered price forecast are assumed to be similar to the changes for administered price expectations in the Focus survey;
- ✓ Changes in the BCB's GDP forecasts assumed similar to the changes in the Focus survey for the same variable;
- ✓ Output gap changes evolve accordingly with the expected GDP (i.e., no changes in potential GDP growth estimates are assumed);
- ✓ GDP and output gap changes are also susceptible to the effects of changes in the Selic rate outlook, also based on the Focus survey;
- ✓ All other hypotheses used by the BCB are assumed constant since the previous publication. This is notably the case of the BCB's oil price assumption of USD110/bbl for YE2022 (and seen stable in real terms afterward).
- ✓ We take FX rate at 5.40 and evolving with PPP (purchasing power parity afterward), that compares with the 4.90 rounded 5-day average used in the last Copom meeting.

Assuming a Selic rate path as per the Focus report on July 22, 2022 – with median interest-rate forecasts at 13.75% for YE2022, at 10.75% for YE2023, and 8.00% for YE2024 – our simulations show that the BCB could see the following results (see graphs below):

- ✓ IPCA 2022: revised down to 7.3% (prior: 8.8%), mainly on the back of administered prices, following the latest round of energy tax cuts.
- ✓ IPCA 2023: revised higher to 4.5% (prior: 4.0%), as higher inflation for regulated prices (given the partial reversal of energy tax cuts as of 2022, especially on gasoline) and higher inflation expectations more than offset the effects of reduced inflation inertia (from 2022).
- ✓ IPCA 2024: seen edging higher by a tenth, to 2.8%, as inertia (from 2023) and expectations offset the downward effect of a more open output gap (i.e., economy further below its potential) for that horizon.

Inspired by the BCB simulations presented in the 2Q22 inflation report, we also calculate what the authority's scenarios could look like under different assumptions for the Selic rate. Firstly, we calculate the IPCA numbers assuming a stable Selic at 13.75%, as per the current consensus of economists for the terminal rate in the cycle, according to the Focus survey. For that scenario, our best guess for the BCB's IPCA estimate for 2023 is 4.0%, which compares with 3.7% in the last inflation report¹⁵. We also tested the possible effect of a hypothetical path with Selic rate stable all the way at 14.25%, which yields an IPCA 2023 estimate at 3.8%. The key question here is: if our numbers are minimally close to the mark (that is, the actual estimates presented by the BCB), would 3.8% be considered "around the target" [3.25%] for next year? Maybe not...

¹² These prices have been last updated on July 22.

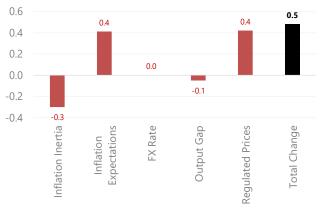
¹³ This exercise should naturally be taken with a high degree of caution, since the BCB's estimates follow a number of hypotheses that are hard to anticipate. The numbers presented in this piece are only based on key variables we can observe and quantify. The exercise also assumes no big changes (or discontinuity) in the BCB's methodology since the last publication of inflation forecasts.

¹⁴ Refer to the box entitled "Revision of the small-scale aggregate model" (https://www.bcb.gov.br/content/ri/inflationreport/202112/ri202112b7i.pdf). ¹⁵ The BCB assumed a stable Selic rate at 13.25% at that moment (following the Focus survey at the occasion).

The turn of the quarter made 2024 join the BCB's policy horizon, even with a lesser weight (25%) at this stage. Thus, it could also be interesting to see the expectations for the BCB numbers based in the metrics of 18-months ahead estimates, as that would be a proxy for the actual horizon seen by the BCB, summarized by a simpler statistic. This statistic could better reflect the eventual tradeoffs between achieving the targets for 2023 and 2024. Our results show the following BCB-proxy estimates for IPCA IN this 18-month horizon:

- ✓ Selic as per the Focus report: 4.0% (mid-target: 3.2%);
- ✓ Selic stable at 13.75%: 3.6% (mid-target: 3.2%);
- ✓ Selic stable at 14.25%: 3.4% (mid-target: 3.2%).

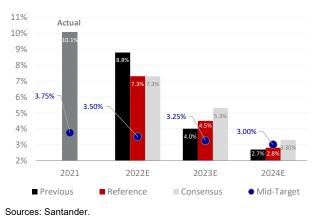
Figure 7. Our Expectation for Possible Changes in the BCB's IPCA Forecast for 2023 (Reference Scenario)



Sources: Santander.

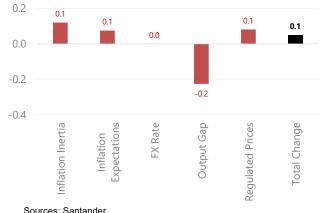
Note: In June 2022, the BCB forecasted IPCA 2023 at 4.0%.

Figure 9. Our "Guess" for the BCB's IPCA Forecasts in REFERECE SCENARIO



Note: Assumes Selic rate as per the Focus report.

Figure 8. Our Expectation for Possible Changes in the BCB's IPCA Forecast for 2023 (Reference Scenario)



Note: In June 2022, the BCB forecasted IPCA 2024 at 2.7%.

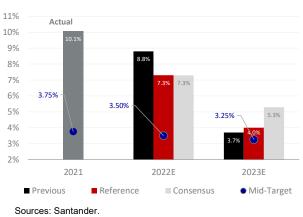


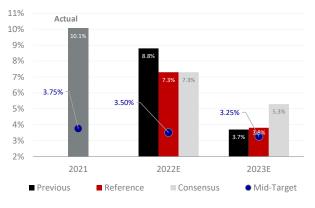
Figure 10. Our "Guess" for the BCB's IPCA Forecasts in STABLE SELIC SCENARIO (13.75%)

Note: Assumes stable Selic, as per the terminal rate in the Focus report.

Thus, the numbers naturally show that by hiking to 14.25%, the BCB would get closer to the target at this stage and that is a policy response better fitting the BCB's strategy to take IPCA below 4% next year.

All in all, our exercise just illustrates the deterioration in the inflation outlook in place since the last Copom meeting. We believe that will probably lead to an upward revision in the BCB's own inflation estimates, so that the Copom may have to hike the Selic rate a bit more than market analysts currently think. We believe that this additional tightening would be necessary for the authority to achieve its objective of getting the IPCA "around the target" in 2023 (that is, short of 4%, to say the least).

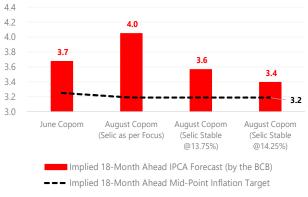
Figure 11. Figure 8. Our "Guess" for the BCB's IPCA Forecasts in the STABLE SELIC SCENARIO (14.25%)



Sources: Santander.

Note: Assumes stable Selic, as per the terminal rate in the Focus report.

Figure 12. Our "Guess" for BCB's IPCA Forecasts for 18-Months Ahead



Sources: Santander.

Note: Weighted average of the estimates and target for calendar-years of 2023 (75%) and 2024 (25%), as per the CB's rule of thumb.

WHAT TO EXPECT FOR THE AUGUST MEETING AND THE SUBSEQUENT POLICY STEPS?

All in all, we believe the recent bout of fiscal stimulus, the signs of (an over-) heated job market - meaning narrower economic slack - and the notable deterioration in inflation expectations for the relevant policy horizon have increased the necessary dose of tightening for the BCB to achieve its objectives. Importantly, in a context of greater than usual uncertainty, these developments may also prevent the BCB from committing to the end of cycle at this stage, given the risks that the economy may take even longer to soften, and that inflation will be even more persistent than previously thought. While we recognize the tremendous amount of uncertainty in trying to anticipate the output of the BCB's models and estimates, the worsening in the inflation outlook is clear anywhere you look (we only tried to quantify this deterioration here, by "loaning the glasses of the BCB" and "mimicking" its models). While our exercise deals mostly with the baseline scenario, the balance of risks also play an important role. In the last policy communiqué, the balance-of-risk assessment by the BCB provided additional elements to make the case for a more hawkish BCB response now. The BCB saw as an upside risk for inflation "an increase in the risk premium due to the uncertainty about the country's future fiscal framework and fiscal policies that support aggregate demand". Thus, given the significant size of the recent stimuli, it is possible that recent fiscal developments will bring about an upward tilt in the BCB's balance of risks, which would also entail the need for a little more tightening (given the IPCA estimates in the reference scenario).

All that said, we believe the decision to hike interest rate by 50 bps, to 13.75%, in next week's policy meeting (a widely expected outcome) will be accompanied in the communiqué by the signal of another Selic move (either of 25 or 50bps) for the September 20-21 meeting. Naturally, with 50bps being almost an unanimity for the August 2-3 meeting, the signal about the future policy step will be the most interesting part of the Copom statement. Importantly, we believe this eventual additional adjustment will not mean the abandonment of the BCB's (smoothing rate) strategy, but just another tilt in it. In our view, the BCB statement will continue to signal "the maintenance of the interest rate in significantly contractionary territory for a longer period than that used in the reference scenario" in order to lead to an IPCA inflation "convergence around the target". Of course, our view that a September move would be the last one in the cycle is conditional on a future stabilization of inflation expectations.

As per our Selic rate scenario, we continue to look for an additional hike of 50 bps (probably in September), with interest rate reaching 14.25% staying at this level until 2Q23. Then we expect gradual Selic cuts toward 12.00% for YE2023 and 9.00% for YE2024.

Refer to a summary of the Copom dataset and a few interesting graphs below.

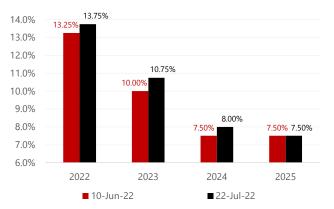
Figure 13. Calendar-Adjusted IPCA Estimates, Target (18 months ahead)



Sources: Brazilian Central Bank, Santander.

Note 1: IPCA expectations and target adjusted for the weight of each calendaryear as a policy horizon. For 3Q22, this means 75% for 2023, 25% for 2024. Note 2: Figures for the end of month. For July 2022, last data for the 22nd.

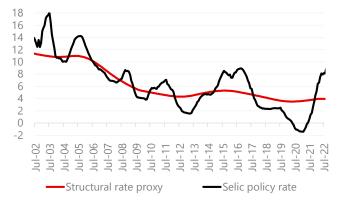
Figure 15. Median Selic Rate Expectations (% annual)



Sources: Brazilian Central Bank, Santander.

Note: As of the most recent BCB Focus report: July 22, 2022.

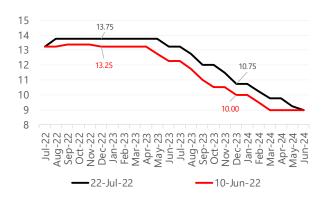
Figure 17. Real Rates: Short Term vs. Long Term (monthly average, % annual)



Sources: Brazilian Central Bank, Bloomberg, Santander.

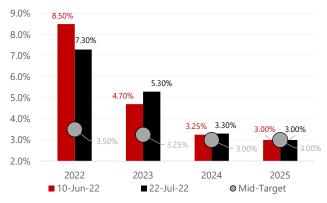
Note 1: The neutral rate proxy is based on long-term real yields (5y5y forward) adjusted by a constant historical term premium of 100bps. Note 2: Average data for July 2022 up to the 22nd.

Figure 14. Median Selic Rate Expectations (% annual, monthly path)



Sources: Brazilian Central Bank, Bloomberg, Santander. Note: As of the most recent BCB Focus report: July 22, 2022.

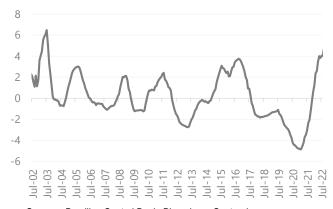
Figure 16. Median IPCA Inflation Expectations (% annual)



Sources: Brazilian Central Bank, Santander.

Note 1: As of the most recent BCB Focus report: July 22, 2022.

Figure 18. Estimated Monetary Policy Stance (gap between long and short-term real rates)



Sources: Brazilian Central Bank, Bloomberg, Santander. Note 1: To calculate the policy stimulus, we subtract from the real policy rate the real level of neutral rate proxy (see graph on the left side). Note 2: Average data for July 2022 up to the 22nd.

5



| ECONOMIC TOPIC | LATEST DATA | | THIS MEETING | LAST MEETING | SECOND LAST |
|--|------------------------|--------|--------------|--------------|--------------|
| Key Variables | When? | | Jul-22 | Jun-22 | May-22 |
| | when: | | Jul-22 | Jun-22 | 1-10y-22 |
| INFLATION | | | | | |
| Forecasts (% p.a.) - BCB's Focus report | 22-Jul-22 | Ŷ | 4.80 | 4.70 | 4.10 |
| Calendar-Weighted Forecast (~18 months) Calendar-Weighted Target (~18 months) | 22-Jul-22 | -T- | 3.19 | 3.25 | 3.25 |
| Forecast for a year ahead (12 months) | 22-Jul-22 | Ť | 5.38 | 5.91 | 5.51 |
| Forecast for 2022 - target: 3.50% | 22-Jul-22 | Ť | 7.30 | 8.50 | 7.89 |
| Forecast for 2023 - target: 3.25% | 22-Jul-22 | - P | 5.30 | 4.70 | 4.10 |
| Forecast for 2024 - target: 3.00% | 22-Jul-22 | n l | 3.30 | 3.25 | 3.20 |
| Forecast for 2025 - target: 3.00% | 22-Jul-22 | Ð | 3.00 | 3.00 | 3.00 |
| Breakeven inflation rates (% p.a.) | 22 301 22 | - | 5.00 | 5.00 | 5.00 |
| 1-year | 22-Jul-22 | Ŷ | 6.15 | 5.58 | 5.62 |
| 2-year | 22-Jul-22 | ŵ | 6.16 | 5.62 | 5.65 |
| 5-year | 22-Jul-22 | • | 3.97 | 5.55 | 8.01 |
| 10-year | 22-Jul-22 | Ū. | 6.81 | 7.00 | 6.36 |
| Actual CPI data | | - | | | |
| Headline (% YoY) | Jun-22 | Ŷ | 11.9 | 11.7 | 12.1 |
| Headline (% QoQ, saar) | Jun-22 | • | 13.0 | 15.3 | 15.4 |
| Core IPCA EX3 (% YoY) | Jun-22 | P | 10.7 | 10.2 | 9.6 |
| Core IPCA EX3 (% QoQ, saar) | Jun-22 | 4 | 14.1 | 14.1 | 13.4 |
| New cores average (% YoY) | Jun-22 | Ŷ | 10.5 | 10.1 | 9.7 |
| New cores average (% QoQ, saar) | Jun-22 | • | 13.0 | 13.1 | 12.4 |
| Diffusion index (sa) | Jun-22 | • | 71.2% | 76.9% | 77.9% |
| Diffusion index ex-food (sa) | Jun-22 | | 73.8% | 76.0% | 76.5% |
| MONETARY POLICY | | | | | |
| Selic rate (% p.a.) | | | | | |
| Current level | 22-Jul-22 | Ŷ | 13.25 | 12.75 | 11.75 |
| Forecast for 2022 | 22-Jul-22 | Ŷ | 13.75 | 13.25 | 13.25 |
| Forecast for 2023 | 22-Jul-22 | Ŷ | 10.75 | 10.00 | 9.25 |
| Forecast for 2024 | 22-Jul-22 | Ŷ | 8.00 | 7.50 | 7.50 |
| Forecast for 2025 | 22-Jul-22 | Ð | 7.50 | 7.50 | 7.00 |
| Yield curve (% p.a.) | | | | | |
| 1-year OIS swaps (pré-DI) | 22-Jul-22 | Ŷ | 13.9 | 13.6 | 12.9 |
| 2-year OIS swaps (pré-DI) | 22-Jul-22 | Ŷ | 13.4 | 13.2 | 12.3 |
| Ex-ante real interest rate (% p.a.) | | | | | |
| 1-year (OIS swaps vs. inflation forecast) | 22-Jul-22 | Ŷ | 8.1 | 7.3 | 7.1 |
| FISCAL POLICY | | | | | |
| Primary Fiscal Balance (% GDP) | | | | | |
| Forecast for 2022 | 22-Jul-22 | ጭ | 0.2 | 0.2 | -0.3 |
| Forecast for 2023 | 22-Jul-22 | Ð | -0.3 | -0.3 | -0.5 |
| Forecast for 2027 | 22-Jul-22 | • | 0.5 | 0.6 | 0.5 |
| Forecast for 2030 | 22-Jul-22 | • | 1.0 | 1.1 | 1.2 |
| Gross General Government Debt (% GDP) | | | | | |
| | | | | | |
| Forecast for 2022 | 22-Jul-22 | P | 79.0 | 78.9 | 81.0 |
| Forecast for 2022 Forecast for 2023 | 22-Jul-22 22-Jul-22 | P | 79.0 82.0 | 78.9 81.5 | 81.0 83.8 |
| | | - | | | |

Sources: IBGE, FGV, Brazilian Central Bank, Anbima, Bloomberg, Santander. Last update: July 25, 2022.

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Figure 20. Proxy for the Copom Dataset, Part 2

| Key Variables | When? | | Jul-22 | Jun-22 | May-22 |
|---|-----------|---|--------|---------|---------|
| | | | | | |
| GDP forecasts (% p.a.) - BCB's Focus report | | | | | |
| Forecast for 2022 | 22-Jul-22 | Ŷ | 1.93 | 1.42 | 0.70 |
| Forecast for 2023 | 22-Jul-22 | | 0.49 | 0.55 | 1.00 |
| Forecast for 2024 | 22-Jul-22 | | 1.70 | 2.00 | 2.00 |
| Forecast for 2025 | 22-Jul-22 | Ð | 2.00 | 2.00 | 2.00 |
| Actual activity data | | | | | |
| IBC-Br (% QoQ, saar) | May-22 | Ŷ | 3.7 | 4.6 | 4.1 |
| Industrial production (% QoQ, saar) | May-22 | ዋ | 2.7 | 3.2 | 2.5 |
| Retail sales (% QoQ, saar) | May-22 | Ŷ | 6.8 | 9.0 | 5.9 |
| Services volume (% QoQ, saar) | May-22 | Ŷ | 8.2 | 6.3 | 8.7 |
| Unemployment rate (% 3m, SA) | May-22 | | 9.6 | 10.2 | 10.7 |
| Real average wage (% YoY, 3m) | May-22 | Ŷ | -7.2 | -7.9 | -8.7 |
| Real wage bill (% YoY, 3m) | May-22 | Ŷ | 3.0 | 1.9 | 0.2 |
| Caged payrolls (thousands, SA, 3m) | May-22 | Ŷ | 275 | 229 | 184 |
| Economic confidence (2011=100) | Jun-22 | Ŷ | 85.1 | 82.9 | 82.8 |
| EXTERNAL SECTOR | | | | | |
| X rate (USD/BRL) | | | | | |
| Current level | 22-Jul-22 | ዋ | 5.50 | 5.06 | 4.92 |
| Actual: 5-day average (previous week) | 22-Jul-22 | Ŷ | 5.46 | 4.89 | 4.95 |
| USD/BRL (to be) used in simulations | 22-Jul-22 | Ŷ | 5.40 | 4.90 | 4.95 |
| Forecast for 2022 | 22-Jul-22 | Ŷ | 5.20 | 5.01 | 5.00 |
| Forecast for 2023 | 22-Jul-22 | Ŷ | 5.20 | 5.05 | 5.04 |
| Forecast for 2024 | 22-Jul-22 | Ŷ | 5.10 | 5.03 | 5.00 |
| Forecast for 2025 | 22-Jul-22 | Ŷ | 5.15 | 5.13 | 5.02 |
| Current account balance (USD Billions, 12m) | | | | | |
| Forecast for 2022 | 22-Jul-22 | | -18.0 | -16.5 | -13.2 |
| Forecast for 2023 | 22-Jul-22 | Ŷ | -30.0 | -32.0 | -30.2 |
| Forecast for 2024 | 22-Jul-22 | Ŷ | -39.7 | -40.1 | -41.0 |
| Forecast for 2025 | 22-Jul-22 | | -40.0 | -39.3 | -48.0 |
| ASSET PRICES | | | | | |
| Brent Oil Price (USD bbl) / 1st Active Future | 22-Jul-22 | | 103 | 115 | 107 |
| IC-Br (% YoY) | Jun-22 | Ŷ | 32.1 | 28.7 | 26.0 |
| CRB Commodity Index (Futures, USD terms) | 22-Jul-22 | | 281 | 315 | 314 |
| CRB Commodity Index (Futures, BRL terms) | 22-Jul-22 | | 1,535 | 1,609 | 1,570 |
| CRB Commodities in BRL: 50-day average | 22-Jul-22 | Ŷ | 1,552 | 1,545 | 1,456 |
| Brazil 5-year CDS (basis-points) | 22-Jul-22 | Ŷ | 298 | 267 | 227 |
| lbovespa stock index (points) | 22-Jul-22 | | 98,925 | 102,807 | 108,344 |
| DI Jan-23 (% p.a.) / Futures | 22-Jul-22 | Ŷ | 13.86 | 13.60 | 13.04 |
| DI Jan-24 (% p.a.) / Futures | 22-Jul-22 | Ŷ | 13.81 | 13.44 | 12.59 |
| DI Jan-25 (% p.a.) / Futures | 22-Jul-22 | Ŷ | 13.27 | 12.75 | 12.05 |
| NTN-F 2027 (% p.a.) / Pre-Fixed Rate | 22-Jul-22 | Ŷ | 13.41 | 12.87 | 12.08 |
| NTN-F 2029 (% p.a.) / Pre-Fixed Rate | 22-Jul-22 | Ŷ | 13.50 | 12.90 | 12.20 |

Sources: IBGE, FGV, Brazilian Central Bank, Anbima, Bloomberg, Santander. Last update: July 25, 2022.

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