Santander
Macroeconomic Research

BRAZIL MACRO

December 16, 2021

MONETARY POLICY – INFLATION REPORT

HIGHER NEUTRAL RATE AND STICKIER GDP SLACK

Mauricio Oreng*
mauricio.oreng@santander.com.br
+5511 3553 5404

- The Brazilian Central Bank (BCB) has published the 4Q21 inflation report, releasing further information on the authority's economic analyses, simulations and forecasts, as well as policy discussions.
- No additional news was provided in terms of policy signals, with the report repeating the message of the Copom statement and minutes. The BCB remains primarily focused on reining in inflation expectations.
- Important macro parameters have been re-estimated: the neutral interest rate is now seen at 3.6% (previously: 3.0%), which in our view implies a higher terminal rate for the cycle. The higher structural rate also was among those that drove upward the BCB's own inflation forecasts and is in line with the thesis we have been supporting since 1Q21.
- The 3Q21 output gap is calculated at -1.7%, and forecast at -1.8% for 4Q21, and at -2.1% (revised from -1.2%) for 4Q22, with the persistent economic slack reflecting a tighter monetary policy and worse financial conditions. The gap follows markdowns in the BCB's GDP forecasts (2021: to 4.4% from 4.7%; 2022: to 1.0% from 2.1%). BCB figures are below consensus for 2021 (4.65%) and above consensus for 2022 (0.50%).
- While the weakening activity imparts downside risks for the BCB's own inflation forecasts for 2023 (key horizon now), we believe this is largely overshadowed by the other elements driving the upward asymmetry in the balance of risks – such as the fiscal risks and the de-anchoring of inflation expectations. Once again, we highlight the worse policy trade-off (i.e., higher inflation and slower activity for any given Selic level) generated by the worsening fiscal outlook.
- We continue to forecast a terminal Selic rate of 12.25% for the cycle, as we anticipate a couple of 150-bp hikes in February 2022 and March 2022. We still see the outcome for February as fairly consolidated, with the decision for March (and onward) being a little more data-dependent.

IMPORTANT DISCLOSURES/CERTIFICATIONS ARE IN THE "IMPORTANT DISCLOSURES" SECTION OF THIS REPORT.
U.S. investors' inquiries should be directed to Santander Investment Securities Inc. at (212) 583-4629 / (212) 350-3918.
* Employed by a non-US affiliate of Santander Investment Securities, Inc. and is not registered/qualified as a research analyst under FINRA rules.

The BCB has published the 4Q21 inflation report[1], releasing further information on the monetary authority's macroeconomic analyses, simulations and forecasts, as well as policy discussions.

Below, we detail the BCB's macroeconomic parameters and forecast.

Having already published its inflation estimates for the relevant policy horizons and the key elements comprising the balance of risks in the Copom statement[2] and minutes[3], the inflation report brings fresh estimates for key macroeconomic parameters used by the BCB in its simulations, forecasts and decisions.

To start with, the BCB makes explicit that its baseline macro scenario assumes the fading of the pandemic, dwindling economic uncertainty overtime and no further fiscal actions that could worsen the debt outlook and widen the risk premia (in Brazilian assets).

On economic activity, the authority forecasts 2021 GDP at +4.4% (previously +4.7%). As has been the case for most of this year, the BCB estimate is below the consensus of +4.65%[4]. For 2022, the BCB projects GDP growth of +1.0% (previously: +2.1%), which stands above the consensus estimate of +0.50%. For 2021, most the downward revision was driven by farm and industrial output, with supply constraints playing a key role. For 2022, in spite of an expected recovery in farm output, the markdown in the BCB forecast was mostly led by industry and services (supply side) or consumption and investment (demand side), basically reflecting worse financial conditions. This deterioration in financial conditions is related to a higher domestic interest rate, country risk, FX rate, in addition to lower stock prices as well as higher U.S. yields. In the case of domestic variables, the movement is largely associated with the increase in the fiscal risk.

Accounting for this revised GDP path, the BCB sees the economy running 1.7% below its potential in 3Q21 (nearly in line with the estimate shown in the previous inflation report). The BCB also forecasts an output gap of -1.8% for 4Q21. According to the BCB, the economy reached a trough in 3Q20, when the economy was estimated to be 5.2% below potential. The BCB also expects the output gap to stand at -2.1% for 4Q22. In the last report, the BCB projected the output gap at -1.2%; in the 2Q21 inflation report, the BCB anticipated a fully close gap sometime in 2022.

While the revisions of the output gap probably contributed to lower the BCB's own inflation estimates, that factor was largely overshadowed by other elements. Amongst them, we highlight the higher-than-expected inflation numbers of late, the higher CPI inertia (from higher readings), the increase in inflation expectations, and the weaker exchange rate. One interesting element in this context was the estimated increase in the neutral level of real interest rates, which is now seen at 3.6% for 4Q21 (up from 3.0% previously), probably on the back of the increase in fiscal risks and anchoring, especially (but not exclusively) after recent changes in key legislation for the fiscal framework (read the *Precatórios* amendment). This higher level of the structural rate implies a higher terminal Selic level for any planned monetary contraction, and that particularly seems to be the case now. This upward revision in estimates for the neutral level of interest rate comes in line with the thesis we have been supporting since 1Q21.

On inflation, complementing the forecasts (and balance of risks) already discussed in the Copom statement and minutes, the BCB points to a cumulative upside inflationary surprise of 1.42% from September to November 2021. That follows another upside surprise of 1.18% from June to August. The BCB mainly associates the surprise in the last-three-month period with higher-than-expected fuel costs, reflecting both the global increase in energy prices as well as the FX depreciation. Other volatile items such as air tickets and raw foods also played a role in this surprise. Yet the authority recognizes that the surprises have been highly disseminated, and were also related to core inflation items.

---

[1] Refer to the Inflation Report boxes (https://www.bcb.gov.br/en/publications/inflationreportboxes) and presentation (https://www.bcb.gov.br/en/about/presentatspeechs)

[2] **Santander Brazil Monetary Policy - *"Inflation Expectations, Target, and (Almost) Nothing Else Matters"* –** December 8, 2021 – Available on: https://bit.ly/Std-COPOM-dec21

[3] **Santander Brazil Monetary Policy - *"Copom Minutes: Focus on Inflation Expectations, Aiming (Interest Rate) Above the Baseline"* –** December 14, 2021 – Available on: https://bit.ly/Std-COPOM-min-dec21

[4] Refer to the BCB's Focus weekly survey among professional forecasters (https://www.bcb.gov.br/en/publications/focusmarketreadout)

For the short term, the BCB expects an IPCA change of 1.47% from December to February, with YoY inflation implicitly easing to 9.6% by next February[5] (as compared to 10.7% in November). The consensus of analysts stands at 2.0% for the period of December to February, with annual inflation at 10.2% in February 2022. The BCB justifies the below-consensus estimate with an expected decline in fuel prices and air tickets, particularly in January. In the press conference, BCB director Fabio Kanczuk downplayed the low expected print for these months (especially January's 0.15% estimate), highlighting that incoming information could make the BCB change its short-term forecasts and these short-term numbers are not very important for monetary policy.

As per the fan charts of inflation forecasts, which illustrate the probability distribution of expected inflation outcomes perceived (or estimated) by for the relevant policy horizons, the BCB sees a 41% probability of breaching the upper end of the inflation target band (5.00%) next year. For 2023, the central bank estimates a probability of 13% that the IPCA could stand above the upper target (4.75%), which is not very different from the likelihood associated with a scenario of breaching below the lower bound of the target for that year (i.e., IPCA below 1.75% for 2023): this probability is estimated at 15%.

Boxes: Revisited Inflation Model; Discussions on Services Inflation and Global Trade

In one of the most important boxes of studies in the 4Q21 inflation report, the BCB focuses on the evolution of services inflation, from the steep decline early in the pandemic to the recent acceleration in the wake of the economic reopening. The BCB shows that typical drivers for inflation – i.e., inertia, expectations, output gap – help explain the recent dynamics, even though this is not the case for some segments mostly directly impacted by social-distancing measures. While the BCB sees moderation ahead in the ongoing pickup in previously depressed services prices (as a reflection of the reopening process), the authority expresses caution about the evolution of inflation inertia and expectations, which could continue to produce upward pressures on services costs in the near term. The BCB highlights that this possibility requires a close monitoring and intervention from the policymakers.

As part of a continuous work of the BCB staff, the authority revisited the framework of econometric models, a key input in the Copom's decision making. Few significant changes were made, with the key foundations of the (Bayesian) model kept in place. Apart from the technical discussion (very important for economists but not the focus of this piece), we find it interesting to highlight a few practical results from the impulse-response functions generated by the set of BCB models:

i) 1 p.p. increase in the Selic rate causes a maximum IPCA (downward) impact in about 18 months, reducing annual inflation in about 0.33 p.p. for that time window, all else equal.
ii) 10% FX depreciation causes a maximum (upward) impact on the IPCA in about 12 months, elevating annual inflation in about 1.10 p.p. for that time window, all else equal.
iii) 1 p.p. decline in the output gap (i.e, a demand shock) reduces IPCA in ~0.45 p.p. after a year.

The BCB also seeks to illustrate the role of monetary policy in a scenario of cost-push inflation. The BCB simulates a 10% increase in raw materials prices with and without a monetary policy reaction. In case of the policy response, the BCB simulates increases in the Selic policy rate of 1 p.p. and 2 p.p. over a period of a year (two scenarios). The numbers show that, even with a policy reaction, the inflation effects of the cost shocks tend to prevail early on. The simulation also shows that a stronger monetary policy reaction that counterbalances more intensely the initial inflationary effects could generate an "excess" in inflation dynamics later on. Maybe this conclusion underscores recent comments from BCB authorities that the Copom should avoid error types 1 and 2 (meaning a will to not do less or more than necessary to meet the target for the key policy horizons). While doing less than necessary is naturally bad for the management of expectations, the BCB believes that doing a policy overdose could unduly increase the volatility of the policy instrument (i.e., interest rate).

In another box, the BCB focuses on global trade flows and the cyclical determinants, filtering out noise and structural components. The econometric exercises point to a significantly negative relationship between

[5] Assuming the actual November IPCA result of 0.95% (the BCB expected 1.18%). That was not incorporated in the inflation report.

financial conditions cycles, trade policy uncertainty with the global trade flow of goods. The latter is found to be (naturally) favored by the economic cycle, especially in developed economies. The conclusion is a possible weakening in the outlook for global trade, on the heels of a likely deterioration in financial conditions (read tighter monetary policy, especially in DMs) and uncertainties related to trade and environmental policies, as well as geopolitical themes. That could prompt a feedback loop, hampering the current recovery in global GDP. It is possible that this type of discussion is behind the recent downgrades the BCB has made to the global conditions surrounding the Brazilian economy in its recent scenario assessments.

Policy Signals

In the inflation report, the BCB reaffirms the message that "given the increase in its inflation projections and in the risk of de-anchoring long-term expectations, it is appropriate to advance the process of monetary tightening significantly into the restrictive territory." The BCB also stresses again that it "will persist in its strategy until the disinflation process and the expectation anchoring around its targets consolidate." The authority also mentioned (again) the plan to deliver another hike of 150 bps in the February Copom meeting.

In the press conference following this morning's publication, when asked about the possibility of announcing explicit BCB targets activity and employment, Governor Roberto Campos Neto highlighted the secondary role of activity targets in the BCB's statutory mandate. The focus is on inflation as a primary target, as the BCB governor indicates that curbing inflation is a key element to guarantee the purchasing power of wages and long-term economic growth. At least in part, maybe this rationale (with which we agree) helps explains that the policy focus of the BCB has been mostly on inflation, with the BCB showing no weakening in its will to rein in expectations after a batch of softer-than-expected activity numbers. In other words, the BCB focus continues to be on the risks of de-anchoring of expectations, which the BCB sees as the most important element to achieve their inflation targets (and also future growth) in the long run.

Also in the press conference, the authority reaffirmed internal BCB discussions (already shown in the minutes) about a faster pace of hikes and the length of the total adjustment (budget): while the BCB does not know the terminal rate today, they believe the inflation persistence could lead to a longer tightening cycle. So, the risks for the terminal rate continue to be on the upside.

Final Impressions

We look for a terminal Selic rate of 12.25%, as we envision a couple of 150-bp hikes in February 2022 and March 2022. We maintain our view that while only major changes in the scenario could alter the course of BCB action for the next Copom meeting (as consensus already expect a 150-bp move, with 2023 IPCA projections still running above the mid-target), the situation for March could be a little more fluid, depending on the main usual drivers for monetary policy decisions (i.e., current inflation and composition, inflation expectations and forecasts, economic activity and fiscal policy developments).

We expect interest rate to remain around the terminal level at least until 1Q23, mainly conditional on the fiscal policy developments and the outlook for adjustments and reforms. But we continue to recognize the tremendous uncertainty surrounding economic policy and the difficulty in making forecasts at this juncture.

CONTACTS / IMPORTANT DISCLOSURES

Brazil Macro Research			
Ana Paula Vescovi*	Chief Economist	anavescovi@santander.com.br	5511-3553-8567
Mauricio Oreng*	Head of Macro Research	mauricio.oreng@santander.com.br	5511-3553-5404
Jankiel Santos*	Economist – External Sector	jankiel.santos@santander.com.br	5511-3012-5726
Ítalo Franca*	Economist – Fiscal Policy	italo.franca@santander.com.br	5511-3553-5235
Daniel Karp Vasquez*	Economist – Inflation	daniel.karp@santander.com.br	5511-3553-9828
Tomas Urani*	Economist – Global Economics	tomas.urani@santander.com.br	5511-3553-9520
Lucas Maynard*	Economist – Economic Activity	lucas.maynard.da.silva@santander.com.br	5511-3553-7495
Felipe Kotinda*	Economist – Credit	felipe.kotinda@santander.com.br	5511-3553-8071
Gabriel Couto*	Economist – Special Projects	gabriel.couto@santander.com.br	5511-3553-8487
Gilmar Lima*	Economist – Modeling	gilmar.lima@santander.com.br	5511-3553-6327
Global Macro Research			
Maciej Reluga*	Head Macro, Rates & FX Strategy – CEE	maciej.reluga@santander.pl	48-22-534-1888
Juan Cerruti *	Senior Economist – Argentina	jcerruti@santander.com.ar	54 11 4341 1272
Ana Paula Vescovi*	Economist – Brazil	anavescovi@santander.com.br	5511-3553-8567
Juan Pablo Cabrera*	Economist – Chile	jcabrera@santander.cl	562-2320-3778
Guillermo Aboumrad*	Economist – Mexico	gjaboumrad@santander.com.mx	5255-5257-8170
Piotr Bielski*	Economist – Poland	piotr.bielski@santander.pl	48-22-534-1888
Mike Moran	Head of Macro Research, US	mike.moran@santander.us	212-350-3500
Fixed Income Research			
Juan Arranz*	Chief Rates & FX Strategist – Argentina	jarranz@santanderrio.com.ar	5411-4341-1065
Mauricio Oreng*	Senior Economist/Strategist – Brazil	mauricio.oreng@santander.com.br	5511-3553-5404
Juan Pablo Cabrera*	Chief Rates & FX Strategist – Chile	jcabrera@santander.cl	562-2320-3778
Equity Research			
Miguel Machado*	Head Equity Research Americas	mmachado@santander.com.mx	5255 5269 2228
Alan Alanis*	Head, Mexico	aalanis@santander.com.mx	5552-5269-2103
Andres Soto	Head, Andean	asoto@santander.us	212-407-0976
Claudia Benavente*	Head, Chile	claudia.benavente@santander.cl	562-2336-3361
Walter Chiarvesio*	Head, Argentina	wchiarvesio@santanderrio.com.ar	5411-4341-1564
Henrique Navarro*	Head, Brazil	havieira@santander.com.br	5511-3012-5756
Electronic			
Bloomberg		SIEQ <GO>	
Reuters		Pages SISEMA through SISEMZ	

This report has been prepared by Santander Investment Securities Inc. ("SIS"; SIS is a subsidiary of Santander Holdings USA, Inc. which is wholly owned by Banco Santander, S.A. "Santander"), on behalf of itself and its affiliates (collectively, Grupo Santander) and is provided for information purposes only. This document must not be considered as an offer to sell or a solicitation of an offer to buy any relevant securities (i.e., securities mentioned herein or of the same issuer and/or options, warrants, or rights with respect to or interests in any such securities). Any decision by the recipient to buy or to sell should be based on publicly available information on the related security and, where appropriate, should take into account the content of the related prospectus filed with and available from the entity governing the related market and the company issuing the security. This report is issued in Spain by Santander Investment Bolsa, Sociedad de Valores, S.A. ("Santander Investment Bolsa"), and in the United Kingdom by Banco Santander, S.A., London Branch. Santander London is authorized by the Bank of Spain. This report is not being issued to private customers. SIS, Santander London and Santander Investment Bolsa are members of Grupo Santander.

ANALYST CERTIFICATION: The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed, that their recommendations reflect solely and exclusively their personal opinions, and that such opinions were prepared in an independent and autonomous manner, including as regards the institution to which they are linked, and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report, since their compensation and the compensation system applying to Grupo Santander and any of its affiliates is not pegged to the pricing of any of the securities issued by the companies evaluated in the report, or to the income arising from the businesses and financial transactions carried out by Grupo Santander and any of its affiliates: Mauricio Oreng*.

*Employed by a non-US affiliate of Santander Investment Securities Inc. and not registered/qualified as a research analyst under FINRA rules, and is not an associated person of the member firm, and, therefore, may not be subject to the FINRA Rule 2242 and Incorporated NYSE Rule 472 restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account.

The information contained herein has been compiled from sources believed to be reliable, but, although all reasonable care has been taken to ensure that the information contained herein is not untrue or misleading, we make no representation that it is accurate or complete and it should not be relied upon as such. All opinions and estimates included herein constitute our judgment as at the date of this report and are subject to change without notice.

Any U.S. recipient of this report (other than a registered broker-dealer or a bank acting in a broker-dealer capacity) that would like to effect any transaction in any security discussed herein should contact and place orders in the United States with SIS, which, without in any way limiting the foregoing, accepts responsibility (solely for purposes of and within the meaning of Rule 15a-6 under the U.S. Securities Exchange Act of 1934) for this report and its dissemination in the United States.

© 2021 by Santander Investment Securities Inc. All Rights Reserved.

Santander