



BRAZIL MACRO

February 24, 2023

DATA ANALYSIS - INFLATION

Daniel Karp* daniel.karp@santander.com.br +55 11 3553 9828

Felipe Kotinda* felipe.kotinda@santander.com.br +55 11 3553 8071

A Mixed Showing in Qualitative Measures

- IPCA-15 rose 0.76% MoM in February, slightly above the consensus estimate of 0.72% and our forecast of 0.73%. The YoY change fell to 5.6%. The trend (3MMA-saar) continued to rebound, reaching 6.2% 3MMA-saar (from 5.0%).
- Upward surprises came in food and industrial goods, while downward surprises were concentrated in services, although in a volatile item: airline tickets.
- Broad qualitative measures once again showed mixed signals. The EX3 (the one more correlated with the output gap) saw a drop to 5.5% 3MMA-saar (from 5.9%). The diffusion index moved higher, reaching 67.1% s.a. (from 61.4%).
- All in all, we still see a divergence between short-term inflation and medium- and long-term expectations.
 Although short-term inflation is still high, and despite some mixed signals in the qualitative measures,
 we maintain our view that in broad terms short-term inflation continues to improve (both headline and
 core), whereas medium- and long-term expectations keep rising, given uncertainties regarding the path
 to achieving structural reforms and the debate around the possible increase of the inflation target. We
 are maintaining our IPCA 2023 tracking at 5.9% and our IPCA 2024 tracking at 3.7%.

IPCA-15 rose 0.76% MoM in February, slightly above the consensus estimate of 0.72% and our forecast of 0.73%. The YoY change fell to 5.6%. The trend (3MMA-saar) continued to rebound, reaching 6.2% 3MMA-saar (from 5.0%).

In the breakdown, upward surprises came in food and industrial goods, with each group contributing +5 bps to the headline error. On the other side, downward surprises were concentrated in services (-6 bps), although in a volatile item: airline tickets. However, we highlight that although we are getting education inflation right (6.4% MoM), we believe the market had higher estimates, so we believe downward revisions for that line are likely for February's IPCA. Regulated prices came in line with our estimate.

In trend terms, food-at-home rose to 7.0% 3MMA-saar (from 6.5%), driven by dairy products. Meanwhile, industrial goods fell to 5.0% 3MMA-saar (from 5.4%). On the other side, the services inflation trend rose to 6.0% 3MMA-saar (from 4.3%), with all but one of the services subgroups contributing to the rise. The exception was airline tickets, which fell to 9.4% MoM. Finally, regulated prices trend fell to 3.3% 3MMA-saar (from 5.4%).

Broad qualitative measures once again showed mixed signals, with some rising and some falling, and as a result, the average saw an uptick to 6.3% 3MMA-saar (from 5.8%). The EX3 (the one more correlated with the output gap) saw a drop to 5.5% 3MMA-saar (from 5.9%). The MS core also decelerated, while EX0, DP, and P55 accelerated. The diffusion index moved higher, reaching 67.1% s.a. (from 61.4%). It is worth highlighting that the latter's level exceeds the average for the years of low inflation (2017-2020).

All in all, we still see a divergence between short-term inflation and medium- and long-term expectations. Although short-term inflation is still high, and despite some mixed signals in the qualitative measures, we

IMPORTANT DISCLOSURES/CERTIFICATIONS ARE IN THE "IMPORTANT DISCLOSURES" SECTION OF THIS REPORT.

U.S. investors' inquiries should be directed to Santander US Capital Markets LLC at (212) 583-4629 / (212) 350-3918.

* Employed by a non-US affiliate of Santander US Capital Markets LLC and is not registered/qualified as a research analyst under FINRA rules.



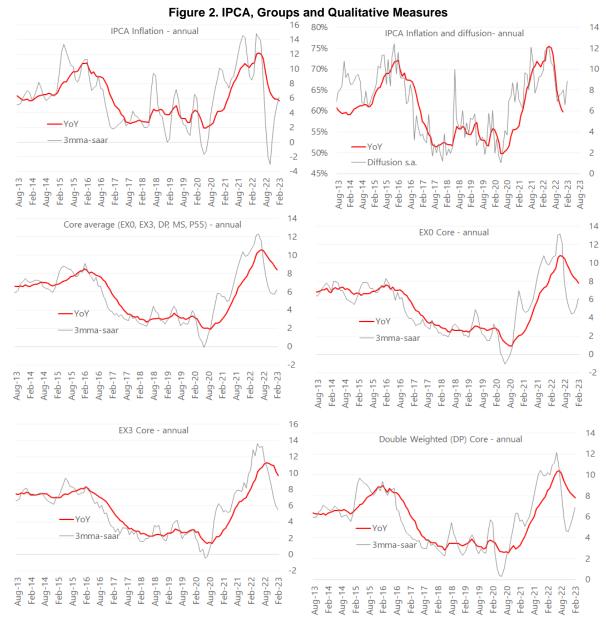
maintain our view that in broad terms short-term inflation continues to improve (both headline and core), while medium- and long-term expectations keep rising, given uncertainties regarding the path to achieving structural reforms and the debate around the possible increase of the inflation target. **We are maintaining our IPCA 2023 tracking at 5.9%, and our IPCA 2024 tracking at 3.7%.**

Figure 1. February's IPCA-15 Details (%)

	MoM			YoY		3MMA-saar	
	Feb-23	Santander	Desv.	Jan-23	Feb-23	Jan-23	Feb-23
IPCA-15	0.76	0.73	0.03	5.9	5.6	5.0	6.2
Food and beverag	0.39	0.23	0.03	11.5	10.6		
Food-at-home	0.38	0.06	0.05	13.1	11.8	6.5	7.0
Food service	0.40	0.70	-0.02	7.5	7.5		
Housing	0.63	0.43	0.03	-0.2	0.2		
Electrical energy	0.35	0.30	0.00	-18.8	-17.9		
Household article	0.71	0.57	0.01	7.3	6.0		
Apparel	-0.05	-0.32	0.01	17.2	15.8		
Transportation	80.0	0.47	-0.08	-0.4	-1.2		
Airline tickets	-9.45	-1.00	-0.06	51.3	44.3		
Gasoline	-0.04	0.40	-0.02	-24.6	-24.7		
Health and persor	0.55	0.40	0.02	11.4	12.1		
Personal spending	0.63	0.61	0.00	7.5	7.3		
Education	6.41	6.34	0.00	7.5	8.3		
Communication	0.78	0.77	0.00	0.1	0.6		
Administered	0.57	0.61	-0.01	-3.0	-2.6	5.4	3.3
Free	0.82	0.77	0.04	9.2	8.6		
Food-at-home	0.38	0.06	0.05	13.1	11.8	6.5	7.0
Industrial goods	0.39	0.18	0.05	8.9	8.0	5.4	5.0
Services	1.32	1.49	-0.06	7.7	7.6	4.3	6.0
EX3 Core	0.45	0.46	-0.01	10.2	9.7	5.9	5.5
Average of cores	0.68	-		8.7	8.4	5.8	6.3

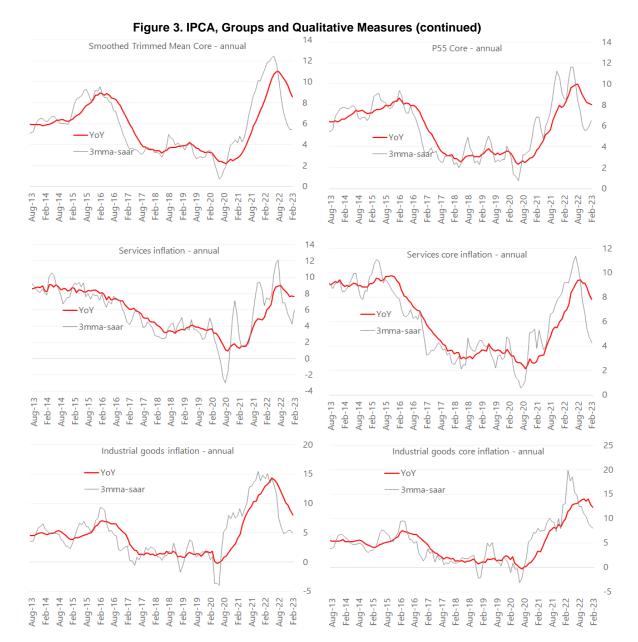
Sources: Brazilian Central Bank, IBGE, Santander.





Sources for all charts: IBGE and Santander.

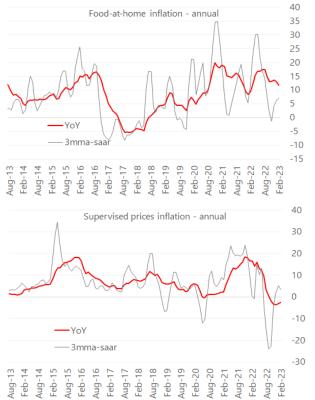




Sources for all charts: IBGE and Santander.



Figure 4. IPCA, Groups and Qualitative Measures (continued)



Feb-12 Aug-13 Aug-13 Aug-13 Aug-13 Aug-13 Aug-13 Aug-13 Aug-13 Aug-14 Aug-14 Aug-15 Seb-16 Aug-17 Aug-18 Aug-17 Aug-18 Aug-17 Aug-18 Aug-18 Aug-18 Aug-19 Au

Sources for all charts: IBGE and Santander.



CONTACTS / IMPORTANT DISCLOSURES

Brazil Macro Resea	rch						
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 – Commodities	felipe.kotinda@santander.com.br	5511-3553-8071				
Gabriel Couto* Fabiana Moreira*	Economist – Special Projects Economist – Credit	gabriel.couto@santander.com.br fabiana.de.oliveira@santander.com.br	5511-3553-8487				
Gilmar Lima*			5511-3553-6120 5511-3553-6327				
Global Macro Resea	Economist – Modeling	gilmar.lima@santander.com.br	5511-3553-6321				
			40.00.504.4000				
Maciej Reluga*	Head Macro, Rates & FX Strategy – CEE	maciej.reluga@santander.pl	48-22-534-1888				
Rodrigo Park *	Economist – Argentina	rpark@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				
Walter Chiarvesio*	Head, Argentina	wchiarvesio@santanderrio.com.ar	5411-4341-1564				
Mariana Cahen Margulies*	Head, Brazil	mmargulies@santander.com.br	5511-3553-1684				
Electronic			23 2222 1001				

Bloomberg SIEQ <GO>
Reuters Pages SISEMA through SISEMZ

This research report ("report") has been prepared by Santander US Capital Markets LLC (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 report 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. Santander US Capital Markets LLC, 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: Daniel Karp* and Felipe Kotinda*. Employed by a non-US affiliate of Santander US Capital Markets LLC and is not registered/qualified as a research analyst under FINRA rules and is not an associated person of the member firm and therefore is not subject to FINRA Rule 2241 or FINRA Rule 2242 and restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The information contained within this report has been compiled from sources believed to be reliable. Although all reasonable care has been taken to ensure the information contained within these reports is not untrue or misleading, we make no representation that such information is accurate or complete and it should not be relied upon as such. All opinions and estimates included within this report constitute our judgment as of the date of the 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 Santander US Capital Markets LLC, 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. Hong Kong (HK): This report is distributed in Hong Kong by Banco Santander, S.A. (a public limited liability company incorporated in Spain) which has a branch in Hong Kong. Banco Santander, S.A., Hong Kong Branch is regulated as a Registered Institution by the Hong Kong Monetary Authority for the conduct of Advising and Dealing in Securities (Regulated Activity Type 4 and 1 respectively) under the Securities and Futures Ordinance. This report is not intended for distribution to any persons other than professional investors. Banco Santander, S.A. or its affiliates may have a holding in any of the securities discussed in this report; for securities where the holding is greater than 1%, the specific holding is disclosed in the Important Disclosures section above. The recipient of this report must not



distribute it to any person without the prior written consent of Banco Santander, S.A.. Singapore (SG): This report is distributed in Singapore by Banco Santander, S.A. which has a branch in Singapore. It is not intended for distribution to any persons other than institutional investors, accredited investors and expert investors (each as defined in the Securities and Futures Act 2001 of Singapore). Recipients of this report should contact Banco Santander, S.A., Singapore Branch at researchsingapore@gruposantander.com for matters arising from, or in connection with, this report. Mainland China (CN): This report is being distributed in Mainland China by Banco Santander, S.A. which has two branches in Mainland China, being Shanghai Branch and Beijing Branch ("Santander China"). Santander China is regulated by China Banking and Insurance Regulatory Commission. Banco Santander, S.A., Shanghai Branch is licensed for foreign currency business, RMB business and derivative business. Banco Santander, S.A., Beijing Branch is licensed with foreign currency business. The recipient of this report must not distribute it to any person without the prior written consent of Banco Santander, S.A.© 2023 by Santander US Capital Markets LLC All Rights Reserved.

