

WEAKER-THAN-EXPECTED START TO 1Q22

Lucas Maynard*
 lucas.maynard.da.silva@santander.com.br
 +5511 3553 8487

- **Industrial production shrank 2.4% MoM-sa in January, below market consensus and our estimate (-1.9% and -1.3%, respectively).** Compared to the same month of 2021, industrial output decreased 7.2% (market: -6.3%, our call: -5.4%). Regarding the pre-pandemic period, the headline index remains 3.5% below the levels seen in February 2020. January's decline virtually offsets the positive surprise of the previous month (when industrial output broke a streak of six declines) and implies a negative carryover of 0.6% QoQ-sa to 1Q22.
- **Manufacturing shrank 2.2% MoM-sa (-7.3% YoY), while mining disappointed and retreated 5.2% MoM-sa (-6.6% YoY),** virtually retroacting to October's level (when it posted a sharp tumble of 8.0%).
- **Among the big economic categories, durable goods were the lowlight (-11.5% MoM-sa), fully giving back the previous gain (+7.5%).** The weak figures seen both in capital goods (-5.6% MoM-sa) and intermediate goods (-1.9% MoM-sa) also gave back the previous gains (+5.4% and +1.4%, respectively). Non-durable goods also retreated at the margin (-0.5% MoM-sa) but not enough to fully offset December's growth (+1.5%).
- **Among industrial activities, a widespread decline.** The diffusion index (which captures the percentage of industrial activities that show monthly expansion) reached 23% (after 77% and 50% in December and November, respectively). Vehicles contributed the least (-1.76 p.p.), followed by mining (-0.58 p.p), beverages (-0.15 p.p) and metallurgy (-0.15 p.p). Conversely, oil and biofuel coke (+0.36 p.p) and food products (+0.19 p.p) contributed the most.
- **The negative carryover calculated to 1Q22 is likely a risk to our expectations of short-term relief for overall industrial output in the period.** However, we still see GDP growing (currently, our estimate stands at +0.5% QoQ-sa), owing mainly to a continued strengthening of farm output and a continued rebound of mobility-related services activities (as we saw in 4Q21). Our tracking of IBC-Br in January stands at 0% MoM-sa.

Figure 1 – Industrial Production Breakdown

	Weights	% MoM			% YoY			% QoQ			Feb-20 %
		Nov-21	Dec-21	Jan-22	Nov-21	Dec-21	Jan-22	Nov-21	Dec-21	Jan-22	Jan-22
Total Industry	100%	0.0	2.9	-2.4	-4.3	-4.9	-7.2	-1.7	-0.1	0.5	-3.5
Mining	11%	5.2	0.7	-5.2	4.5	1.9	-6.6	-2.5	-3.4	-1.1	-6.4
Manufacturing	89%	-0.2	2.6	-2.2	-5.5	-5.9	-7.3	-1.5	0.1	0.5	-3.0
Capital Goods	8%	-3.0	5.4	-5.6	4.4	3.7	-8.0	-1.7	-0.1	-0.8	12.2
Intermediate Goods	60%	0.1	1.4	-1.9	-2.9	-4.0	-5.1	-1.5	-0.8	-0.4	-1.8
Consumer goods	32%	0.2	3.6	-2.5	-9.6	-9.4	-11.9	-0.2	1.0	1.6	-10.8
Durable	7%	2.0	7.5	-11.5	-20.8	-16.6	-25.8	-4.3	0.3	1.4	-26.4
Non-Durable	25%	-0.1	1.5	-0.5	-6.4	-7.5	-8.3	-0.6	-0.7	-0.1	-7.0
Construction Supplies	-	-0.2	-0.1	-0.5	-8.0	-11.8	-10.9	-6.7	-5.3	-2.8	-2.2

Sources: IBGE, Santander.

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

U.S. investors' inquiries should be directed to Santander Investment at (212) 350-0707.

*Employed by a non-US affiliate of Santander Investment Securities Inc. and is not registered/qualified as a research analyst under FINRA rules.



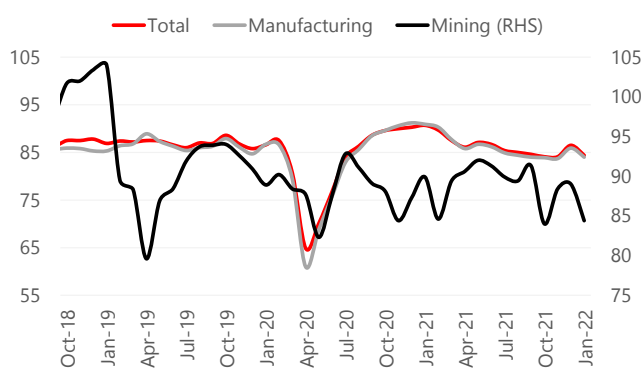
Industrial output surprised to the downside at the start of 2021. Domestic industry plummeted 2.4% MoM-sa in January (-7.2% YoY), after jumping 2.9% MoM-sa in the previous month, a negative surprise over our expectations (-1.3% MoM-sa) and market consensus (-1.9% MoM-sa). January's figure places industrial output 3.5% below the pre-pandemic mark (set at February 2020) and implies a negative carryover of 0.6% to 1Q22.

Looking at the breakdown, manufacturing drove the plummet, but mining was the main disappointment. Mining's 5.2% MoM-sa weakening likely reflects iron ore disruptions (due to heavy rains Minas Gerais state during the first days of the month) more than offsetting oil production's positive prints. Manufacturing's plunge can mainly be attributed to weak vehicle-manufacturing, following the production anticipated to December due to regulatory issues. Both components remain below their pre-pandemic levels, down 6.4% and 3.0%, respectively, and January's figures imply negative carryover of -0.6% and -3.1% to 1Q22.

Among the big economic categories, December's gains were broadly offset. Durable goods were the lowlight (-11.5% MoM-sa), fully giving back the previous gain (+7.5%). The weak figures seen both in capital goods (-5.6% MoM-sa) and intermediate goods (-1.9% MoM-sa) also gave back the previous gains (+5.4% and +1.4%, respectively). Non-durable goods also retreated at the margin (-0.5% MoM-sa) but not enough to fully offset December's growth (+1.5%). Among industrial activities, the decline was widespread, with the diffusion index (which captures the percentage of industrial activities that show monthly expansion) reaching 23% (after 77% and 50% in December and November, respectively). In terms of contributions, vehicles contributed the least (-1.76 p.p), followed by mining (-0.58 p.p), beverages (-0.15 p.p) and metallurgy (-0.15 p.p). Conversely, oil and biofuel coke (+0.36 p.p), and food products (+0.19 p.p) contributed the most. In comparison to the pre-crisis mark, moreover, 17 out of 26 industrial activities remain below the pre-pandemic mark.

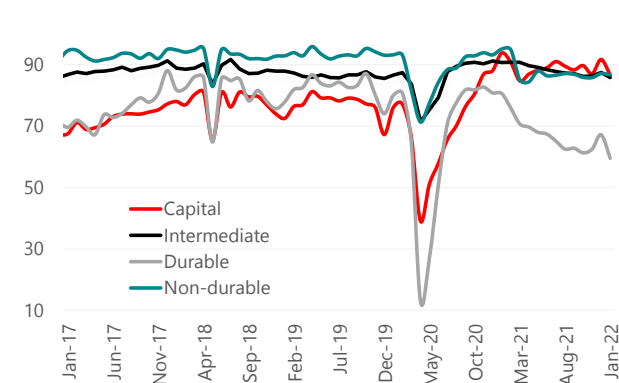
The negative carryover calculated to 1Q22 is likely risk to our expectations of a short-term relief of industrial output for overall activity in the period. However, we still see GDP growing (currently, our estimate stands at +0.5% QoQ-sa), owing mainly to continued strengthening of farm output and an ongoing rebound of mobility-related services activities (as we saw in 4Q21). Our tracking of IBC-Br for January stands at 0% MoM-sa.

Figure 2.A. – Industrial Production Index (sa, 2012=100)



Sources: IBGE, Santander.

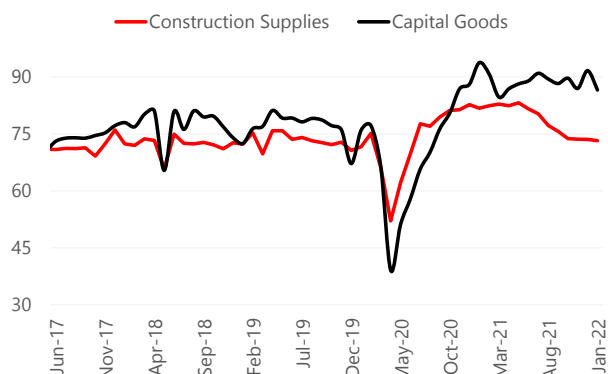
Figure 2.B. – Economic Categories (sa, 2012=100)



Sources: IBGE, Santander.

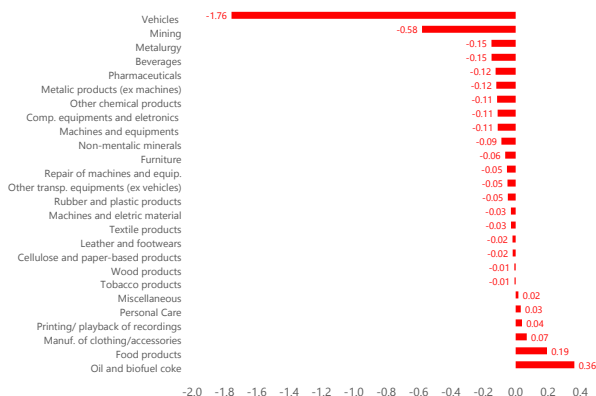


Figure 3.A – Industrial Production Related to Investment (sa, 2012=100)



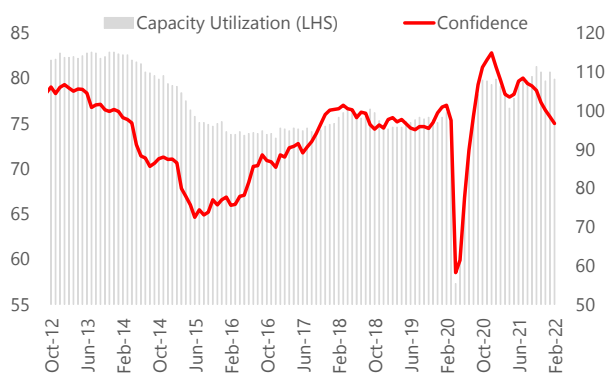
Sources: IBGE, Santander.

Figure 3.B – Contributions by activities (sa, p,p)



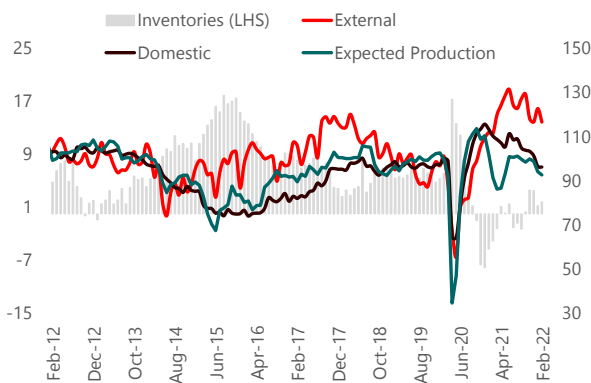
Sources: IBGE, Santander

Figure 4.A – Confidence (points, sa) x Capacity Utilization (% , sa)



Sources: FGV, Santander.

Figure 4.B – Inventories Perception (Excessive-Insufficient) and Demand (points, sa)



Sources: FGV, Santander.

Figure 5 - Heatmap Showing Industrial Production by Activity

		By Activity (% MoM sa)											
		Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
11.2%	Mining	-5.90	5.67	1.34	1.55	-0.76	-1.53	-0.56	2.13	-8.00	5.24	0.68	-5.17
13.9%	Food products	-0.21	0.32	-3.58	2.51	-1.92	-2.28	2.44	-3.25	-6.84	8.42	3.55	1.39
10.3%	Oil and biofuel coke	0.42	3.17	-9.73	3.41	3.62	2.86	-2.27	1.16	3.96	-0.50	0.10	3.52
10.1%	Vehicles	-7.51	-9.29	2.31	-0.85	-3.41	-1.47	-3.14	-0.46	-0.47	2.65	15.17	-17.39
5.4%	Metallurgy	1.32	-1.09	-0.22	3.08	-0.32	-1.07	-0.11	-2.71	-2.12	-3.76	2.60	-2.77
5.3%	Other chemical products	2.43	-3.76	0.41	2.66	-1.00	-1.31	-5.82	2.39	2.65	0.52	-0.31	-2.16
4.9%	Machines and equipments	3.00	-1.98	2.34	-2.18	2.76	-3.51	-0.53	2.47	-5.04	1.44	0.87	-2.27
3.6%	Metalic products except machines and equipments	-5.07	-1.07	-4.44	0.88	-3.24	-0.51	-0.91	-0.52	-1.97	-2.41	-0.96	-3.32
3.6%	Non-mentalic minerals	-0.64	-2.58	2.10	-0.65	-0.65	-2.08	0.56	-0.56	-0.78	-0.34	1.93	-2.44
3.5%	Rubber and plastic products	-0.10	-3.93	-3.33	-3.23	-1.26	-2.21	-1.19	0.72	2.99	-5.57	-1.85	-1.38
3.3%	Beverages	-2.58	-5.41	4.75	3.91	1.19	-9.70	7.48	-1.51	-1.33	-2.49	1.38	-4.52
3.0%	Cellulose,paper and paper-based products	1.09	0.27	-2.77	0.09	-1.38	0.47	0.00	1.48	0.91	-0.45	1.82	-0.63
2.6%	Machines, equipments and eletric material	-1.39	-2.58	-3.73	-0.38	-3.14	-1.82	-2.38	2.03	-5.84	0.56	-1.54	-1.14
2.5%	Computer equipments, eletronics and optical products	1.45	0.13	-4.66	0.14	2.57	-4.76	-6.38	-1.48	-1.05	1.06	14.44	-4.47
2.3%	Pharmaceuticals	-4.09	-7.60	-0.25	7.38	0.81	3.35	-11.51	6.69	-2.49	1.33	6.71	-5.39
2.3%	Manufacture of clothing and accessories	-3.93	-23.44	-1.73	6.07	-1.20	3.05	-0.59	1.19	-1.76	-0.75	1.51	2.97
1.6%	Leather, travel items and footwears	-6.01	-14.88	-4.64	6.59	4.57	-2.57	0.66	-5.64	-0.97	0.14	3.50	-1.22
1.6%	Textile products	-9.53	-6.12	-5.31	-3.06	0.53	-1.05	2.64	-0.64	-8.29	2.68	0.00	-1.79
1.5%	Other transport equipments, except motor vehicles	4.37	34.73	-0.55	-2.94	10.23	-15.46	0.81	-7.66	1.97	-0.43	-4.30	-3.37
1.3%	Repair of Machines and equipments	0.76	9.20	-3.87	-3.16	-2.08	1.67	1.94	-1.46	-0.30	3.13	4.18	-4.16
1.3%	Furniture	0.24	-10.79	-8.41	5.60	-5.57	-1.01	-2.62	-3.43	-0.93	-3.59	0.49	-4.99
1.3%	Personal Care	-4.10	0.00	-3.01	1.40	-1.68	1.81	-0.59	0.89	-2.06	-6.63	1.83	2.43
1.0%	Wood products	-1.71	4.65	2.69	-5.23	1.24	-1.41	2.67	2.69	-6.96	4.47	2.88	-0.81
1.0%	Printing and playback of recordings	15.92	18.88	-37.36	3.17	7.54	6.49	-0.49	10.78	-7.08	0.48	3.55	3.89
1.0%	Miscellaneous	-8.21	0.21	-3.22	-0.97	-2.60	-4.89	-1.29	1.54	2.10	-4.11	5.24	1.70
0.6%	Tobacco products	12.39	3.60	-6.08	-0.58	-3.84	-11.49	-4.23	2.14	6.98	4.83	3.99	-1.20

Sources: IBGE, Santander.



Figure 6 - Heatmap Showing Industrial Production by Economic Category

		By Activity (% MoM sa)											
		Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Capital Goods	Computer equipments, electronics and optical products	6.5	-4.4	-4.4	9.3	4.7	-3.9	-6.6	3.3	-6.2	2.9	13.1	-0.8
	Machines, equipments and electric material	-6.8	4.4	-0.8	0.5	-5.5	-5.4	8.9	1.6	2.3	-0.4	-4.4	0.5
	Machines and equipments	1.2	-3.0	0.1	0.4	3.0	-1.9	3.9	1.0	-2.6	-0.8	-2.8	-0.2
	Vehicles	1.2	-0.2	-0.7	3.7	2.9	7.6	-7.5	-8.6	1.9	-2.5	12.3	-25.1
	Other transport equipments, except motor vehicles	19.7	-2.2	-3.8	18.0	-1.5	0.2	-22.1	8.0	-11.8	12.9	15.0	-14.5
Miscellaneous	-1.9	-0.6	-0.5	-0.5	-7.8	-3.5	-0.2	-3.1	4.5	4.4	0.4	-4.4	
Intermediate Goods	Mining	-1.9	-0.1	2.9	0.5	-0.3	-2.1	0.0	0.4	-4.8	2.2	1.0	-5.5
	Food products	2.9	1.5	-4.1	0.6	-2.8	0.0	0.8	-1.2	-16.1	19.9	6.6	1.4
	Textile products	-6.6	-1.2	-6.2	-1.5	-0.8	-2.2	1.0	-3.9	-4.8	-1.2	-2.2	-1.7
	Cellulose,paper and paper-based products	1.1	-0.8	-1.8	1.3	-1.2	-0.5	-0.8	1.9	0.9	-0.4	1.9	-1.4
	Oil and biofuel coke	2.5	2.5	-10.3	-2.8	10.3	3.4	-4.1	0.9	6.8	0.3	-1.3	2.5
	Other chemical products	3.1	-4.4	0.3	2.7	-0.8	-2.0	-5.0	1.9	3.0	0.5	-0.4	-2.1
	Rubber and plastic products	-1.2	-2.0	-2.8	-2.5	-0.3	-3.3	-1.8	1.4	2.7	-5.9	-0.7	-1.5
	Non-mentalic minerals	-0.6	-1.0	1.7	-1.7	1.9	-2.6	-0.2	-0.2	-3.8	2.2	1.9	-3.2
	Metalurgy	2.5	-0.3	-1.8	5.6	-0.1	-1.4	-0.3	-3.2	-3.1	-2.9	1.9	-3.6
	Metalic products except machines and equipments	-4.6	-0.7	-1.8	-1.2	-3.5	-1.8	-3.2	-0.7	-1.5	-1.7	-0.7	-0.7
	Machines and equipments	1.4	1.2	-0.7	4.2	-2.1	-3.2	-2.3	0.7	-2.9	1.2	2.6	-1.5
	Vehicles	-5.2	-6.2	-0.8	0.5	-0.6	-7.9	2.8	-1.4	-4.4	3.3	2.9	-0.8
	Miscellaneous	0.5	2.8	-0.7	-0.7	0.6	-7.1	-2.6	2.3	-3.5	-1.1	3.9	-1.4
	Durable Goods	Computer equipments, electronics and optical products	-4.7	-3.8	-3.0	-0.3	1.0	-2.8	-11.6	-6.0	-2.0	1.0	14.8
Machines, equipments and electric material		1.8	-2.1	-4.7	-3.0	3.6	-4.6	0.4	1.5	-20.9	7.4	-4.6	-4.5
Vehicles		-5.6	-12.1	-4.7	-7.5	1.8	-16.5	-11.7	15.1	-2.6	17.9	28.1	-20.4
Other transport equipments, except motor vehicles		2.1	71.2	-7.8	-7.4	17.8	-17.5	7.0	-3.6	-4.8	5.2	-3.7	-12.0
Furniture		2.2	-9.9	-14.5	6.5	-7.8	3.1	-3.2	-3.0	-0.6	-3.3	2.7	-12.0
Miscellaneous		7.4	15.1	-12.6	-1.6	-1.1	-1.0	-4.2	0.5	-23.7	24.1	0.6	6.5
Non Durable Goods	Food products	0.0	-1.9	0.6	2.0	-0.3	-2.9	0.8	-4.8	2.7	-1.4	4.9	-1.9
	Beverages	-1.0	-0.3	-8.2	5.5	-2.7	-1.1	-1.2	-2.7	-3.8	-0.4	7.1	-6.9
	Textile products	-6.4	-10.0	-12.4	15.8	-2.2	-0.9	-2.3	0.0	-7.1	-0.1	-2.7	-0.3
	Manufacture of clothing and accessories	-5.2	-20.5	-6.2	8.7	-1.3	2.8	-0.2	0.8	-1.7	-0.8	1.1	3.3
	Leather, travel items and footwears	-5.6	-23.9	-2.7	2.2	8.5	-2.3	2.1	0.8	0.7	1.8	3.2	-1.5
	Printing and playback of recordings	39.5	19.3	-33.7	-3.5	-10.5	20.6	-6.2	21.8	-33.6	4.7	37.2	10.8
	Oil and biofuel coke	-0.9	-5.8	5.5	6.1	-2.8	0.7	0.5	0.6	-5.9	4.1	4.8	4.7
	Personal Care	-2.1	0.8	-4.0	2.3	-2.3	1.3	-0.3	1.1	-2.0	-7.0	1.0	2.0
	Pharmaceuticals	-0.6	-8.5	-1.8	8.2	1.6	4.1	-16.5	10.6	-6.5	6.3	-3.6	-4.1
	Miscellaneous	-1.0	-0.3	-8.2	5.5	-2.7	-1.1	-1.2	-2.7	-3.8	-0.4	7.1	-6.9

Sources: IBGE, Santander.



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 – Commodities	felipe.kotinda@santander.com.br	5511-3553-8071
Gabriel Couto*	Economist – Special Projects	gabriel.couto@santander.com.br	5511-3553-8487
Fabiana Moreira*	Economist – Credit	fabiana.de.oliveira@santander.com.br	5511-3553-6120
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
Mariana Cahen Margulies*	Head, Brazil	mmargulies@santander.com.br	5511-3553-1684

Electronic

Bloomberg
Reuters

SIEQ <GO>
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: Gabriel Couto*. *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.

© 2022 by Santander Investment Securities Inc. All Rights Reserved.

