



BRAZIL MACRO April 1, 2022

## DATA ANALYSIS - ECONOMIC ACTIVITY

## PARTIAL RECOVERY IN INDUSTRIAL PRODUCTION IN FEBRUARY

Gabriel Couto\* gabriel.couto@santander.com.br +5511 3553 8487

- Industrial production increased 0.7% MoM-sa in February, between market consensus (+0.5% MoM-sa) and our estimate (+0.8% MoM-sa). Compared to the same month of 2021, industrial output decreased 4.3% (market: -4.9%; our call: -4.3%). Relative to the pre-pandemic period, the headline index remains 2.6% below its level in February 2020. February's print implies a 0.0% QoQ-sa carryover to 1Q22.
- In the breakdown, manufacturing increased 0.6% MoM-sa (-4.9% YoY), not enough to fully give back the previous drop (-2.0% MoM-sa). Mining climbed 5.3% MoM-sa (+0.9% YoY), completely offsetting the previous tumble (-5.1% MoM-sa), which mainly reflected iron ore disruptions due to heavy rains in Minas Gerais state during the first days of January.
- Among the major economic categories, capital goods (+1.9% MoM-sa) and intermediate goods (+1.6% MoM-sa) rebounded from January's tumbles. For capital goods, however, the result was far from offsetting January's drop (-8.8%). Non-durable goods also contributed positively (+1.5% MoM-sa), while durables had a smaller increase (+0.5% MoM-sa).
- Among industrial activities, contributions were mostly positive. Mining contributed the most (+0.6 p.p.), followed by food products (+0.3 p.p.) and vehicles (+0.3 p.p.). Conversely, oil and biofuel coke (-0.2 p.p.) and printing/playback of recordings (-0.2 p.p.) contributed the least.
- Our calculated neutral carryover to 1Q22 suggests short-term relief being transmitted from industry to overall activity in the period, following the continued weakening seen recently. We see GDP growing in 1Q22 (our tracking was maintained at +0.3% QoQ-sa), owing mainly to strengthening in farm output and a continued rebound of mobility-related services activities (as we saw in 4Q21). Our tracking of IBC-Br in February stands at +0.4% MoM-sa.

Figure 1 - Industrial Production Breakdown

			% МоМ			% YoY			% QoQ		Feb-20 %
	Weights	Dec-21	Jan-22	Feb-22	Dec-21	Jan-22	Feb-22	Dec-21	Jan-22	Feb-22	Feb-22
Total Industry	100%	2.7	-2.2	0.7	-5.0	-7.2	-4.3	-0.1	0.6	1.3	-2.6
Mining	11%	1.7	-5.1	5.3	1.9	-6.7	0.9	-5.5	-3.3	-0.8	-0.2
Manufacturing	89%	2.9	-2.0	0.6	-5.9	-7.3	-4.9	-0.1	0.7	1.6	-1.9
Capital Goods	8%	3.6	-8.8	1.9	3.7	-8.1	-5.0	-1.5	-1.4	-2.3	6.9
Intermediate Goods	60%	1.2	-1.3	1.6	-4.1	-5.0	-2.6	-1.0	-0.3	0.6	1.3
Consumer goods	32%	4.2	-1.7	0.3	-9.4	-12.0	-7.7	8.0	2.3	3.3	-10.3
Durable	7%	9.0	-11.7	0.5	-16.7	-25.8	-17.6	2.9	7.1	4.0	-26.2
Non-Durable	25%	2.2	0.1	1.5	-7.5	-8.4	-4.9	-0.6	0.6	2.4	-5.7
<b>Construction Supplies</b>	-	-0.4	-0.1	-0.3	-11.8	-10.8	-9.3	-3.8	-3.0	-1.7	5.1



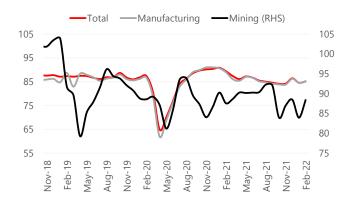
Industrial output partially rebounded from January's plunge. Following the previous plummet (-2.2% MoMsa), domestic industry jumped 0.7% MoMsa (-4.3% YoY) in February, between market consensus of +0.5% MoMsa (-4.9% YoY) and our estimate of +0.8% MoMsa (-4.3% YoY). In comparison to the pre-pandemic period, the headline index remains 2.6% below its level in February 2020.

**Looking at the breakdown, manufacturing jumped 0.6% MoM-sa (-1.9% YoY).** Despite the positive figure, it was not enough to fully give back the previous tumble (-2.0% MoM-sa). Mining rebounded, climbing 5.3% MoM-sa (-0.2% YoY) following its plummet in January due to iron ore disruptions in the period (due to heavy rains in Minas Gerais state during the first days of the month).

Among the major economic categories, a partial rebound from January's tumbles. Capital goods (+1.9% MoM-sa) was the highlight, albeit far from fully offsetting the previous drop (-8.8%). Intermediate goods (which accounts for nearly 60% of industrial output) also contributed positively (+1.6% MoM-sa). Conversely, durable goods were the lowlight, despite still showing positive growth (+0.5%). Non-durables also had a positive performance, expanding 1.5%. Among industrial activities, mining contributed the most (+0.6 p.p.), followed by food products (+0.3 p.p.) and vehicles (+0.3 p.p.). Conversely, oil and biofuel coke (-0.2 p.p.) and printing/playback of recordings (-0.2 p.p.) contributed the least.

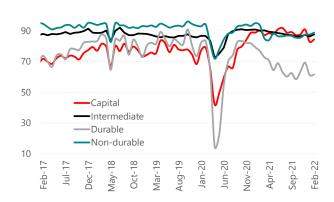
In the short term, we see some relief being transmitted from industry to overall activity. Following the continued weakening seen recently (mainly in manufacturing), our calculated neutral carryover to 1Q22 suggests a better performance in the period. We see GDP growing in 1Q22 (our tracking was maintained at +0.3% QoQ-sa), owing mainly to strengthening in farm output and a continued rebound of mobility-related services activities (as we saw in 4Q21). Our tracking of IBC-Br in February stands at +0.4% MoM-sa. For details on Santander's activity outlook, please refer to our last chartbook¹.

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



Sources: IBGE, Santander.

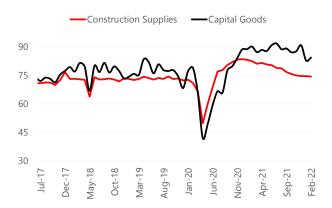
Figure 2.B. – Economic Categories (sa, 2012=100)



<sup>&</sup>lt;sup>1</sup> Santander Brazil Economic Activity: "Positive Surprises Reinforce Resilience Outlook for 2022" – March 14, 2022 – Available on: https://bit.ly/Std-chart-econact-mar22

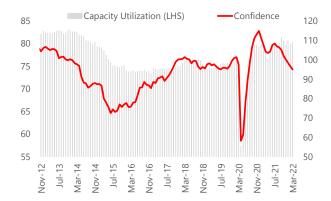
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Figure 3.A. – Industrial Production Related to Investment (sa, 2012=100)



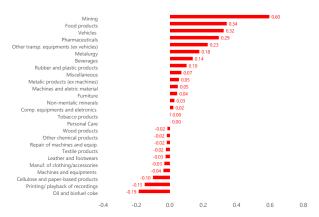
Sources: IBGE, Santander.

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



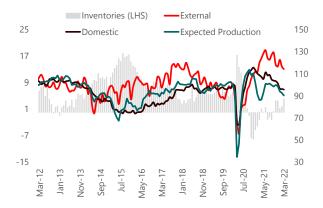
Sources: FGV, Santander.

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



Sources: IBGE, 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)													
		Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22
11.2%	Mining	1.22	1.83	-0.08	0.10	0.13	2.08	-0.25	-8.77	3.64	1.68	-5.14	5.32
13.9%	Food products	-0.46	-2.10	1.97	-1.56	-1.58	2.50	-3.69	-5.67	6.47	3.87	0.66	2.45
10.3%	Oil and biofuel coke	1.72	-7.52	0.47	6.52	1.68	-2.27	0.92	4.30	-0.87	0.03	3.13	-1.82
10.1%	Vehicles	-6.26	-2.66	0.43	4.03	-5.03	-4.83	0.70	-5.06	7.92	10.68	-14.86	3.19
5.4%	Metallurgy	-0.25	-0.68	4.51	-0.03	-1.84	-0.07	-2.90	-2.54	-2.41	1.68	-2.88	3.26
5.3%	Other chemical products	-3.35	0.61	1.30	0.32	-1.57	-5.99	2.57	1.33	1.48	-0.20	-3.33	-0.35
4.9%	Machines and equipments	0.67	-1.99	1.42	2.12	-2.66	0.23	1.80	-4.68	0.95	-0.27	-2.23	-0.80
3.6%	Metalic products except machines and equipments	-1.41	-2.05	-4.47	0.45	-1.64	-0.90	0.58	-4.87	1.30	-0.88	-4.52	1.51
3.6%	Non-mentalic minerals	-0.17	-0.57	-0.74	0.39	-1.84	-0.60	0.07	-2.91	1.87	1.92	-2.76	0.75
3.5%	Rubber and plastic products	-2.49	-2.36	-4.52	1.06	-3.05	-1.74	2.07	-0.97	-2.20	-0.45	-3.75	2.85
3.3%	Beverages	-5.24	5.28	5.33	2.39	-10.91	6.03	-0.15	-3.52	-1.84	2.63	-5.67	4.14
3.0%	Cellulose,paper and paper-based products	-1.58	-2.40	-0.43	-0.77	0.36	-0.33	1.07	1.16	-0.40	2.65	-1.78	-3.40
2.6%	Machines, equipments and eletric material	-1.40	-4.64	-2.00	2.37	-4.53	-0.66	4.43	-12.56	5.87	-2.17	-3.89	1.82
2.5%	Computer equipments, eletronics and optical products	-0.15	-5.68	-1.05	5.68	-4.08	-7.23	0.29	-7.57	7.73	14.05	-11.73	0.82
2.3%	Pharmaceuticals	-2.95	-4.61	7.04	0.93	3.01	-10.96	8.28	-8.86	7.37	-7.59	-3.13	12.73
2.3%	Manufacture of clothing and accessories	-18.64	-4.92	5.89	1.58	-0.38	0.36	1.59	-8.77	7.56	-0.57	-0.99	-1.46
1.6%	Leather, travel items and footwears	-8.76	-11.41	4.05	13.00	-8.25	-0.20	-1.57	-6.13	3.52	5.96	-7.21	-1.65
1.6%	Textile products	-7.20	-3.98	0.68	-0.48	-2.92	2.25	-1.80	-6.27	1.62	-0.63	-1.80	-1.51
1.5%	Other transport equipments, except motor vehicles	24.76	0.13	-6.68	8.12	-5.78	-2.91	-1.74	-2.48	6.63	3.24	-5.13	15.09
1.3%	Repair of Machines and equipments	3.07	-0.59	-2.30	-2.20	1.40	2.02	-1.63	-1.16	3.43	5.35	-6.12	-1.44
1.3%	Furniture	-15.87	-6.24	1.02	-0.80	-0.66	-1.07	-3.28	-3.83	2.22	0.75	-4.61	3.33
1.3%	Personal Care	1.32	-3.53	-0.65	-1.06	2.32	-1.49	2.11	-3.70	-3.22	0.64	-0.73	0.06
1.0%	Wood products	7.68	-2.77	-4.55	3.45	-3.14	4.02	2.19	-10.15	8.92	2.97	-4.01	-1.51
1.0%	Printing and playback of recordings	10.68	-13.80	-7.75	7.87	-2.46	-10.51	22.78	-16.13	-6.46	19.25	5.23	-15.12
1.0%	Miscellaneous	7.30	-10.27	-0.49	4.30	-9.34	1.12	1.42	-2.95	1.33	3.36	-2.64	6.88
0.6%	Tobacco products	6.14	-6.08	0.17	-3.55	-11.31	-3.92	2.34	6.75	4.73	4.39	-0.57	0.47

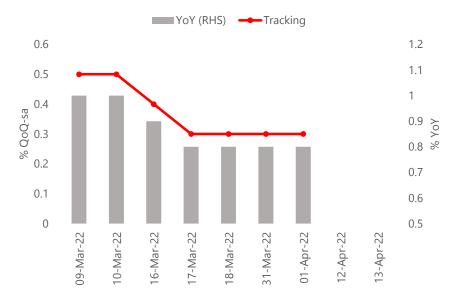


Figure 6 - Heatmap Showing Industrial Production by Economic Category

		Ву	Activity (	% MoM sa	)								
		Mar-21	Арг-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22
Capital Goods	Computer equipments, eletronics and optical products	-5.2	-4.0	8.0	4.2	-3.9	-6.8	3.0	-6.5	2.5	12.2	-2.4	-11.0
	Machines, equipments and eletric material	4.9	-0.8	0.6	-5.4	-5.5	8.9	1.8	2.3	-0.3	-4.4	0.6	0.5
	Machines and equipments	-3.1	0.1	0.2	3.1	-2.0	3.9	0.8	-2.6	-1.0	-2.8	-0.4	-2.1
	Vehicles	0.0	1.2	2.6	4.0	8.3	-8.6	-8.9	1.3	-3.0	10.2	-23.6	9.6
	Other transport equipments, except motor vehicles	0.0	-1.4	15.8	-1.4	0.3	-21.8	7.5	-12.0	13.4	15.2	-14.3	65.2
	Miscellaneous	-1.1	-1.1	-0.6	-7.7	-3.6	-0.1	-3.2	4.4	4.2	1.3	-5.4	-5.0
ntermediate Goods	Mining	0.3	2.9	0.9	-0.4	-2.0	1.1	0.0	-5.9	3.9	0.6	-6.1	6.4
	Food products	2.0	-3.8	0.6	-2.8	0.0	0.8	-1.2	-16.1	20.2	7.2	1.2	2.3
	Textile products	-1.1	-6.4	-1.9	-0.3	-1.9	1.6	-4.2	-4.6	-0.8	-1.5	-1.5	0.2
	Cellulose,paper and paper-based products	-2.4	-1.6	1.0	-0.9	-0.8	-0.8	1.5	1.1	-0.5	2.7	-2.1	-4.4
	Oil and biofuel coke	2.4	-10.0	-2.8	10.2	3.5	-4.1	0.9	6.8	0.4	-1.2	2.6	-0.7
	Other chemical products	-4.3	0.0	2.9	-0.8	-1.9	-4.9	1.5	3.1	0.4	-0.4	-2.2	-0.7
	Rubber and plastic products	-1.9	-2.6	-2.7	-0.6	-3.8	-1.0	1.4	3.6	-6.4	-0.5	-1.9	2.1
	Non-mentalic minerals	-1.0	1.7	-1.7	1.9	-2.6	-0.3	-0.2	-3.8	2.3	1.9	-3.2	0.7
	Metalurgy	0.8	-1.8	5.5	-0.2	-1.5	-0.2	-3.3	-3.0	-2.7	1.7	-3.1	4.3
	Metalic products except machines and equipments	-1.1	-1.9	-1.4	-3.4	-1.7	-0.3	-0.9	-1.5	-1.6	-1.0	-1.3	-1.0
	Machines and equipments	1.7	-0.5	3.6	-1.9	-2.9	-2.4	0.8	-2.7	1.2	2.7	-1.5	1.7
	Vehicles	-5.8	-0.9	0.9	-0.6	-7.5	2.5	-1.1	-4.4	3.6	3.5	-0.8	3.8
	Miscellaneous	1.1	-1.8	-0.4	2.1	-6.0	-1.4	3.5	-2.2	-1.3	4.4	-1.3	0.7
Ourable Goods	Computer equipments, eletronics and optical products	3.8	-2.4	-2.0	1.1	-4.0	-10.5	-5.2	-2.0	2.2	15.0	-9.3	2.1
	Machines, equipments and eletric material	-2.0	-3.8	-3.1	3.7	-4.6	0.4	1.5	-20.9	7.3	-4.6	-4.5	1.1
	Vehicles	-14.8	-0.8	-8.7	2.1	-13.8	-13.7	16.7	-2.9	16.8	27.2	-19.4	-0.6
	Other transport equipments, except motor vehicles	72.9	-7.6	-7.5	17.8	-17.5	7.7	-3.8	-5.2	5.3	-3.7	-11.4	12.6
	Furniture	-7.5	-14.6	6.5	-7.9	3.3	-3.1	-3.3	-0.7	-9.0	3.2	-12.4	5.2
	Miscellaneous	15.8	-12.6	-1.6	-1.0	-0.9	-4.1	0.5	-23.8	23.9	0.5	6.3	-6.0
ion Durable Goods	Food products	-1.0	0.4	2.4	-0.8	-2.7	0.5	-4.6	2.1	-0.9	4.3	-1.2	1.9
	Beverages	0.4	-8.2	6.0	-2.9	-1.0	-1.2	-2.4	-3.5	0.0	6.6	-5.6	5.2
	Textile products	-9.7	-6.1	8.3	-1.6	-1.0	-2.4	1.0	-7.4	0.7	-2.6	0.2	0.6
	Manufacture of clothing and accessories	-21.6	-7.2	6.2	-0.3	3.0	0.5	2.4	-2.2	-0.1	1.3	5.2	-3.8
	Leather, travel items and footwears	-24.1	-2.8	2.1	8.4	-2.2	2.1	0.7	0.7	1.7	3.6	-2.0	-2.5
	Printing and playback of recordings	22.5	-34.3	-9.4	-10.2	21.2	-5.9	22.7	-34.2	6.2	32.7	10.1	-24.4
	Oil and biofuel coke	-6.3	5.7	5.9	-2.8	0.7	0.4	0.5	-6.1	4.1	4.5	6.0	-5.6
	Personal Care	0.6	-4.0	2.3	-2.3	1.3	-0.3	1.1	-2.0	-7.0	1.0	2.0	-0.4
	Pharmaceuticals	-7.8	-1.7	8.3	1.8	4.0	-16.4	10.6	-6.5	6.4	-8.5	-4.9	16.7
	Miscellaneous	0.4	-8.2	6.0	-2.9	-1.0	-1.2	-2.4	-3.5	0.0	6.6	-5.6	5.2

Sources: IBGE, Santander.

Figure 7 – 1Q22 GDP Growth Tracking (%, QoQ-sa and YoY-nsa)



Sources: IBGE, Santander

Figure 8 - Santander Tracking

1Q22 GDP Growth							
			Tracking	g (%)	Projecti	on (%)	
Date	Release	Reference	QoQ-sa	YoY	QoQ-sa	YoY	
09-Mar-22	Industry	Jan-22	0.5	1.0	0.5	1.0	
10-Mar-22	Retail Sales	Jan-22	0.5	1.0	0.5	1.0	
16-Mar-22	Services	Jan-22	0.4	0.9	0.5	1.0	
17-Mar-22	IBC-Br	Jan-22	0.3	8.0	0.5	1.0	
18-Mar-22	PNAD	Jan-22	0.3	8.0	0.5	1.0	
31-Mar-22	PNAD	Feb-22	0.3	8.0	0.5	1.0	
01-Apr-22	Industry	Feb-22	0.3	8.0	0.5	1.0	



## **CONTACTS / IMPORTANT DISCLOSURES**

Brazil Macro Resear	voh.		
Ana Paula Vescovi*	Chief Economist	anavescovi@santander.com.br	5511-3553-8567
Mauricio Oreng*	Head of Macro Research	mauricio.oreng@santander.com.br	5511-3553-5507
Jankiel Santos*	Economist – External Sector	jankiel.santos@santander.com.br	5511-3012-5726
Ítalo Franca*	Economist – External Sector	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 Resea	rch	·	
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 Resea	ırch		
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			

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