

**MOVING SIDEWAYS**

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- **Industrial production (IP) dropped 0.3% MoM-sa (+0.3% YoY) in January.** This result was in line with market consensus but below our forecast of 0.0% MoM-sa. As announced by the IBGE, the series underwent a deep methodological review, which placed the YoY result below expectations (Santander: +2.0%; consensus: +1.1%). January's figure reflected a decrease in manufacturing (-0.8% MoM-sa) and an increase in mining (+1.8% MoM-sa), a partial recovery from the sharp tumbles in November and December.
- **Across major economic categories, mostly negative readings.** Capital goods (-4.1% MoM-sa) were the lowlight, probably influenced by a steep drop in the production of heavy vehicles, due to regulatory changes regarding emissions by diesel engines, which caused some anticipation in production in 4Q22. Intermediate goods (-0.8% MoM-sa), and durable goods (-1.3% MoM-sa) also posted contractions at the margin. Non-durable goods inched up 0.1% MoM-sa. Construction supplies (also related to investments as capital goods output) increased 2.8% MoM-sa, a partial recovery after two consecutive decreases.
- **Across industrial activities, we saw a mixed bag.** Indeed, 14 of 25 industrial activities expanded at the margin, with the diffusion index reaching 56% (vs. 52% and 64% in December and November, respectively). In terms of contribution, mining (+0.21 p.p.), miscellaneous (+0.09 p.p.), and non-metallic minerals (+0.07 p.p.) contributed the most, while vehicles (-0.61 p.p.), food products (-0.30 p.p.), and pharmaceuticals (-0.30 p.p.) contributed the least.
- **All in all, a flat result with a negative breakdown in January.** The revisions in the series did not change the perception of flat industrial production throughout 4Q22, and January's data indicated another month of near stability. The breakdown shows a positive impact from mining as manufacturing contracted, following negative variations in most economic categories. In quarterly terms, January's result implies a -0.1% QoQ-sa carryover to 1Q23. For manufacturing, we calculate a -0.3% QoQ-sa carryover to 1Q23. Our 1Q23 GDP tracking is currently at +0.5% QoQ-sa, following an expected positive contribution from agriculture.
- **Contractionary effects of shaky financial conditions started to be felt in 3Q22, mainly hitting goods-related sectors.** In our view, restrictive financial conditions are likely to continue stifling the performance of industrial output and retail sales in the coming quarters.
- **We are maintaining our 1Q23 GDP growth tracking at +0.5% QoQ-sa, following an expected positive contribution from agriculture.** For full year 2023, we forecast GDP growth at +0.8%, with a significant slowdown in domestic demand and in cyclical supply components, stemming mainly from the expected global recession and the tight BCB policy, but we also expect strong growth for non-cyclical farm output, reflecting an all-time high forecast for the grain harvest.

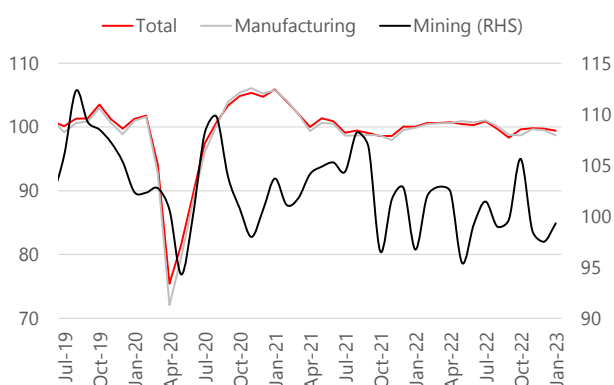


**Figure 1 – Monthly Industrial Survey**

Industrial Production Breakdown											
	Weights	% MoM			% YoY			% QoQ			
		Nov-22	Dec-22	Jan-23	Nov-22	Dec-22	Jan-23	Sep-22	Dec-22	Jan-23	
<b>Total Industry</b>	<b>100%</b>	<b>0.2</b>	<b>0.0</b>	<b>-0.3</b>	<b>0.8</b>	<b>-0.4</b>	<b>0.3</b>	<b>-0.9</b>	<b>0.1</b>	<b>0.4</b>	
<b>Mining</b>	<b>11%</b>	<b>-6.7</b>	<b>-1.1</b>	<b>1.8</b>	<b>-3.7</b>	<b>-4.5</b>	<b>2.0</b>	<b>1.0</b>	<b>0.5</b>	<b>-2.9</b>	
<b>Manufacturing</b>	<b>89%</b>	<b>1.0</b>	<b>-0.2</b>	<b>-0.8</b>	<b>1.5</b>	<b>-0.2</b>	<b>-0.1</b>	<b>-0.8</b>	<b>-0.7</b>	<b>0.1</b>	
Capital Goods	8%	3.3	-1.6	-4.2	-0.1	-5.3	-6.6	-1.7	-3.0	-3.0	
Intermediate Goods	60%	0.6	-0.7	-0.8	1.2	-0.2	-1.7	-1.7	1.2	1.1	
Consumer goods	32%	-0.1	2.0	0.1	0.5	0.7	5.8	1.4	-1.6	0.7	
Durable	7%	2.8	2.4	-1.3	6.5	-4.3	13.9	1.8	1.1	1.6	
Non-Durable	25%	0.0	2.0	0.1	-0.5	1.5	4.6	0.8	-2.1	0.5	
<b>Construction Supplies</b>	<b>-</b>	<b>-3.2</b>	<b>-1.9</b>	<b>2.8</b>	<b>-5.8</b>	<b>-8.8</b>	<b>-2.9</b>	<b>-2.5</b>	<b>-3.1</b>	<b>-3.4</b>	

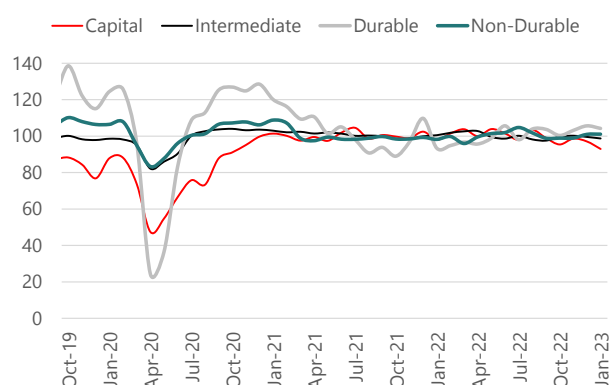
Sources: IBGE, Santander.

**Figure 2 – Industrial Production Index (sa, 2022=100)**



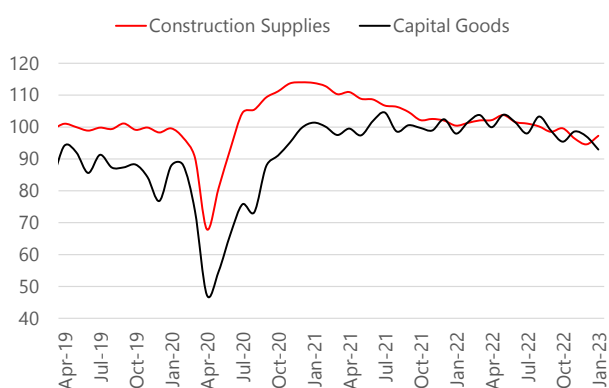
Sources: IBGE, Santander.

**Figure 3 – Economic Categories (sa, 2022=100)**



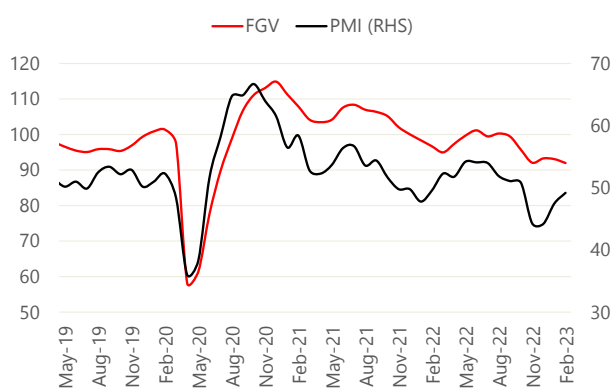
Sources: IBGE, Santander.

**Figure 4 – Related to Investment (sa, 2022=100)**



Sources: IBGE, Santander.

**Figure 5 – Manufacturing Soft Data (sa)\***

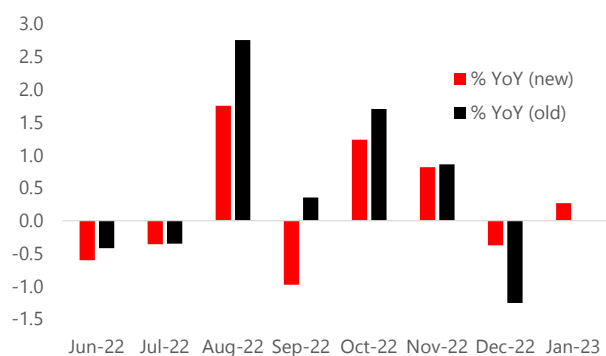


Sources: Markit, FGV, Santander.

\* Neutral level: 100 points for FGV and 50 points for PMI.

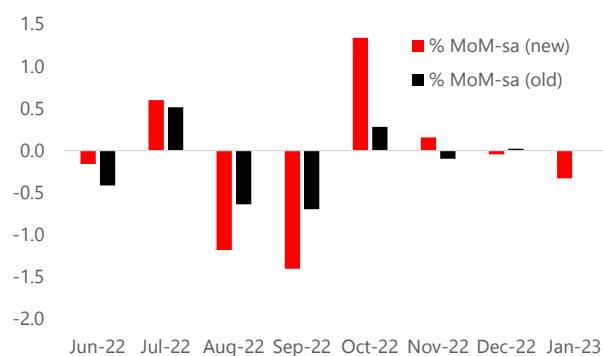


Figure 6 – Industrial Production Revisions (% YoY)



Sources: IBGE, Santander.

Figure 7 – Industrial Production Revisions (% MoM-sa)



Sources: IBGE, Santander.

Figure 8 - Heatmap Showing Industrial Production by Activity

	By Activity (% MoM sa)											
	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
Mining	5.37	0.94	-0.48	-6.81	3.99	2.24	-2.42	0.71	5.95	-6.66	-1.10	1.84
Food products	6.65	-2.32	-9.40	-4.42	-0.82	2.38	-1.56	-2.66	7.06	7.45	4.05	-2.14
Oil and biofuel coke	-4.06	-5.32	13.22	5.13	-0.86	4.70	-5.48	-4.39	-1.66	0.95	-0.67	-1.47
Vehicles	2.57	1.88	-2.23	0.21	5.56	-6.14	13.11	0.56	-9.33	7.13	-3.68	-6.02
Metallurgy	3.20	1.78	-0.84	-0.01	-2.72	2.17	0.84	-7.63	5.14	4.30	-7.02	-0.96
Machines and equipments	5.62	3.31	-1.65	2.24	-0.54	-4.42	4.43	-2.88	-3.47	0.24	-2.91	0.46
Metallic products except machines and equipments	0.13	-2.27	1.71	3.55	-1.08	-4.76	-0.63	2.19	-1.13	-1.77	5.86	-2.80
Non-metallic minerals	0.67	0.38	-0.60	-0.71	-1.58	-1.25	2.22	-3.42	-2.32	-1.37	-4.10	2.06
Rubber and plastic products	3.12	-0.50	2.15	1.24	-0.08	-0.55	0.95	-0.87	-3.02	1.64	-0.13	1.63
Beverages	2.95	7.28	3.48	-0.56	-2.29	-1.10	2.15	-5.41	-6.46	7.31	-1.59	0.84
Cellulose,paper and paper-based products	-4.54	3.47	1.72	-3.37	6.00	1.99	-1.63	-1.77	-1.56	0.50	0.35	-1.34
Machines, equipments and electric material	1.03	-3.61	2.18	8.08	-2.97	-5.00	1.39	-0.82	-2.18	0.07	1.02	-3.20
Computer equipments, electronics and optical products	0.46	5.09	-1.30	3.43	-4.32	-4.23	-1.62	-2.57	-0.96	-3.15	2.10	-3.47
Pharmaceuticals	12.43	-4.43	-3.38	2.09	3.24	5.14	5.10	-6.05	1.00	7.13	17.48	-12.97
Manufacture of clothing and accessories	2.09	-4.36	-0.55	-0.77	3.50	-6.86	4.35	-3.73	-9.22	-2.15	10.59	0.78
Leather, travel items and footwears	1.24	6.29	1.79	8.11	-1.72	-9.51	3.44	-1.33	-10.51	-1.50	5.29	0.27
Textile products	-1.30	-2.52	4.34	1.99	-0.06	-1.45	-6.01	-1.55	0.94	-4.94	2.69	3.27
Other transport equipments, except motor vehicles	20.37	-7.25	-8.30	9.05	3.42	-2.53	3.19	3.82	0.04	-1.30	2.81	2.99
Repair of machines and equipments	-2.39	3.83	-1.93	5.16	0.49	-4.61	1.82	-2.77	-4.40	0.32	2.14	0.63
Furniture	6.52	-3.51	3.64	1.38	-0.98	-5.62	-0.37	-0.74	-7.15	7.44	6.30	2.63
Personal Care	1.40	3.30	1.14	-2.64	2.47	-4.58	1.22	-0.34	-3.96	1.39	-0.61	-1.35
Wood products	-2.00	-0.37	-3.97	2.53	-4.91	-4.95	0.39	-10.18	-11.09	11.25	-0.56	2.90
Printing and playback of recordings	-9.32	-3.54	10.06	1.58	-13.31	-4.37	-1.38	-1.99	4.22	-1.70	5.17	-6.77
Miscellaneous	6.34	-1.59	-3.94	4.87	-2.69	-3.03	5.75	-5.89	-8.36	10.74	-13.48	9.24
Tobacco products	2.38	20.95	-12.37	-3.21	-2.25	-3.92	1.71	8.70	-5.29	0.72	-7.96	7.50

Sources: IBGE, Santander.



Figure 9 - Industrial Production by Activity

	Industrial Activities Breakdown									
	Weights	% MoM			% YoY			% QoQ		
		Nov-22	Dec-22	Jan-23	Nov-22	Dec-22	Jan-23	Jun-22	Dec-22	Jan-23
<b>Mining</b>	<b>11.2%</b>	<b>-6.7</b>	<b>-1.1</b>	<b>1.8</b>	<b>-3.7</b>	<b>-4.5</b>	<b>2.0</b>	<b>1.0</b>	<b>0.5</b>	<b>-2.9</b>
Food products	13.9%	7.4	4.1	-2.1	11.0	12.0	4.6	-11.8	11.3	13.6
Oil and biofuel coke	10.3%	1.0	-0.7	-1.5	1.3	-0.4	-2.1	10.9	-6.0	-2.6
Vehicles	10.1%	7.1	-3.7	-6.0	14.5	1.2	2.2	1.8	-2.1	-4.0
Metallurgy	5.4%	4.3	-7.0	-1.0	5.3	-7.1	-3.4	0.4	0.4	-0.3
Other chemical products	5.3%	1.4	-0.6	-1.3	-0.7	-3.5	-2.6	2.8	-3.1	-2.3
Machines and equipments	4.9%	0.2	-2.9	0.5	-3.7	-8.3	-0.6	3.6	-4.8	-4.8
Metallic products except machines and equipments	3.6%	-1.8	5.9	-2.8	-7.7	1.8	-1.7	2.2	0.8	1.1
Non-metallic minerals	3.6%	-1.4	-4.1	2.1	-8.5	-14.9	-10.6	-1.1	-6.0	-6.0
Rubber and plastic products	3.5%	1.6	-0.1	1.6	-1.4	-1.2	5.6	3.7	-2.3	-0.3
Beverages	3.3%	7.3	-1.6	0.8	4.5	-0.6	4.8	8.2	-5.3	-0.2
Cellulose,paper and paper-based products	3.0%	0.5	0.4	-1.3	2.4	1.5	-0.5	2.1	-2.8	-1.4
Machines, equipments and electric material	2.6%	0.1	1.0	-3.2	-6.9	-3.9	-5.5	4.4	-1.9	-2.1
Computer equipments, electronics and optical products	2.5%	-3.1	2.1	-3.5	-6.4	-15.0	-12.6	3.0	-4.6	-4.4
Pharmaceuticals	2.3%	7.1	17.5	-13.0	7.6	48.3	34.1	-0.2	9.3	12.5
Manufacture of clothing and accessories	2.3%	-2.2	10.6	0.8	-16.7	-9.6	-8.5	-2.2	-8.4	-2.9
Leather, travel items and footwears	1.6%	-1.5	5.3	0.3	-6.5	-4.8	-0.1	11.5	-9.6	-5.8
Textile products	1.6%	-4.9	2.7	3.3	-15.3	-13.6	-2.6	3.5	-4.6	-2.1
Other transport equipments, except motor vehicles	1.5%	-1.3	2.8	3.0	18.8	23.3	27.0	-0.8	3.7	2.8
Repair of machines and equipments	1.3%	0.3	2.1	0.6	-8.2	-10.2	-2.4	3.3	-4.7	-2.0
Furniture	1.3%	7.4	6.3	2.6	-11.8	-3.6	9.2	3.9	-1.1	7.2
Wood products	1.0%	11.2	-0.6	2.9	-24.7	-28.0	-21.5	-4.9	-11.2	-0.6
Printing and playback of recordings	1.0%	-1.7	5.2	-6.8	1.8	-2.8	-21.2	0.3	2.9	1.4
Miscellaneous	1.0%	10.7	-13.5	9.2	1.1	-21.4	-6.2	-0.8	-8.4	-4.3
Tobacco products	0.6%	0.7	-8.0	7.5	7.9	-10.2	3.8	-3.1	-1.6	-3.2

Sources: IBGE, Santander.



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