

POSITIVE IP COMPOSITION DESPITE NEGATIVE HEADLINE

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- **Industrial production (IP) dropped 0.6% MoM-sa (+2.8% YoY) in August.** This result was in line with the market consensus of -0.6% MoM-sa (+2.4% YoY) and above our forecast of -1.0% MoM-sa (+2.2% YoY). August's print stemmed from a tumble in mining (-3.6% MoM-sa) and from a decline in manufacturing (-0.2% MoM-sa). The headline index remains 1.5% below the levels observed before the pandemic outbreak (February 2020).
- **Mixed signals across major economic categories.** Capital goods (+5.2% MoM-sa) and durable goods (+6.1% MoM-sa) jumped at the margin, while intermediate goods (-1.4% MoM-sa) and non-durable goods (-1.4% MoM-sa) weakened in the month.
- **Despite the negative headline, the details point to widespread growth (diffusion index reached 69% vs. 35% previously).** Indeed, 18 of 26 industrial activities surveyed posted growth at the margin, with the major contributions coming from vehicles (+1.09 p.p.), machines and equipment (+0.61 p.p.) and other chemical products (+0.50 p.p.), while oil and biofuel coke (-0.44 p.p.), mining (-0.40 p.p.), and food products (-0.36 p.p.) contributed the least.
- **We calculate a null statistical carryover to 3Q22 (0% QoQ-sa).** The surveys for September points to weak prints: FGV's industrial confidence fell to 99.5 points (from 100.3), below the 100 neutral mark, while manufacturing PMI fell to 51.1 points (from 51.9), slightly above the 50 neutral threshold. Moreover, the capacity utilization level inched down to 80.8% (from 82.2%) but remains well above the 2017-2019 average (75%). If confirmed a weak figure, it would be the first negative quarterly figure since 3Q21.
- **We are upwardly revising our August IBC-Br to -1.4% MoM-sa (from -1.5% MoM-sa previously).** We are maintaining our 3Q22 GDP growth tracking at +0.6% QoQ-sa (slight revision to +3.8% YoY from +3.7% YoY), imparting slight upside risks to our current 2022 GDP forecast (+2.6%).

Figure 1 – Monthly Industrial Survey

	Weights	Industrial Production Breakdown									
		% MoM			% YoY			% QoQ			Feb-20 %
		Jun-22	Jul-22	Aug-22	Jun-22	Jul-22	Aug-22	Mar-22	Jun-22	Aug-22	Aug-22
Total Industry	100%	-0.4	0.6	-0.6	-0.4	-0.4	2.8	0.6	0.9	0.1	-1.5
Mining	11%	2.2	2.4	-3.6	-5.1	-3.5	-7.3	0.3	-0.5	-1.3	-3.9
Manufacturing	89%	-0.3	0.4	-0.2	0.2	0.1	4.1	0.8	1.4	0.5	-0.6
Capital Goods	8%	-1.8	-3.5	5.2	-0.8	-6.3	4.0	-1.8	1.6	-1.1	14.6
Intermediate Goods	60%	-0.7	1.8	-1.4	-1.3	0.3	2.1	0.9	1.0	-0.3	1.7
Consumer goods	32%	0.2	1.0	-1.0	1.0	0.2	4.0	0.5	0.9	1.5	-10.3
Durable	7%	6.1	-6.7	6.1	2.1	0.1	13.6	-2.4	5.8	5.3	-16.5
Non-Durable	25%	-1.0	1.5	-1.4	0.7	0.2	1.9	1.5	0.4	0.7	-7.0
Construction Supplies	-	-2.2	0.4	-1.9	-6.9	-5.8	-4.3	-0.6	0.7	-1.2	3.1

Sources: IBGE, Santander.

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

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Industrial output confirmed expectations of a sequential decline in August. The headline index dropped 0.6% MoM-sa (+2.8% YoY), in line with the market consensus of -0.6% MoM-sa (+2.4% YoY) and above our forecast of -1.0% MoM-sa (+2.2% YoY), and stemming both from declines in mining (-3.6% MoM-sa) and manufacturing (-0.2% MoM-sa). August's result marked the second retreat in three months (after reaching five gains between January and July), placing industrial output 1.5% below the pre-pandemic benchmark.

Major economic categories showed a mixed bag. On the one hand, capital goods climbed at the margin (+5.2% MoM-sa), fully giving back July's retreat (-3.5% MoM-sa) and reaching levels ~15% above its pre-pandemic benchmark. In our view, this result reflects the steep climb in heavy vehicles production (+26.8% MoM-sa), as pointed out by ANFAVEA's report. Durable goods also jumped at the margin (+6.1% MoM-sa), virtually giving back the previous tumble (-6.7% MoM-sa) but remaining at levels roughly 16% below the pre-pandemic benchmark. We calculate statistical carryovers of 0.7% QoQ-sa and 0.5% QoQ-sa for 3Q22, respectively. On the other hand, intermediate goods and non-durable goods tumbled at the margin (both dropped 1.4% MoM-sa), marking the second decline in three months. The former still runs 1.7% above the pre-pandemic mark, while the latter is idled by almost 7.0%. Lastly, construction supplies (related to investments, as capital goods production) tumbled at the margin (-1.9% MoM-sa), implying a -1.7% QoQ-sa carryover to the quarter, which brings mixed signals to investments quarterly performance in the period.

As per the diffusion index, widespread growth, despite the negative headline. The diffusion index reached 69% (vs. 35% previously), with 18 of 26 industrial activities surveyed posting growth at the margin. The major contributions came from vehicles (+1.09 p.p.), machines and equipment (+0.61 p.p.) and other chemical products (+0.50 p.p.), while oil and biofuel coke (-0.44 p.p.), mining (-0.40 p.p.), and food products (-0.36 p.p.) contributed the least. In comparison with the pre-pandemic benchmark, 17 industrial activities remain idled, with furniture (down 30%), manufacture of clothing accessories (down 16%) and repair of machines and equipment (down 15%) as the lowlights. Conversely, machines equipment (up 18.9%) and other chemical products (up 6.9%) are the positive highlights.

In the short-term, August's figure led a null carryover (0% QoQ-sa) to 3Q22. The surveys for September points to weak prints: FGV's industrial confidence fell to 99.5 points (from 100.3), below the 100 neutral mark, while manufacturing PMI fell to 51.1 points (from 51.9), slightly above the 50 neutral threshold. Moreover, the capacity utilization level inched down to 80.8% (from 82.2%) but remains well above the 2017-2019 average (75%). If confirmed a weak figure, it would be the first negative quarterly figure since 3Q21.

We are upwardly revising our August IBC-Br to -1.4% MoM-sa (from -1.5% MoM-sa previously). We are awaiting the releases of tertiary sector data, for which our tracking point to an -1.0% MoM-sa decline (-2.0% YoY) of broad retail sales and an 0.7% MoM-sa (+6.3% YoY) retreat for services' real revenue. We are maintaining our 3Q22 GDP growth tracking at +0.6% QoQ-sa (slight revision to +3.8% YoY from +3.7% YoY), imparting slight upside risks to our current 2022 GDP forecast (+2.6%).

For details on Santander's economic outlook, please refer to our last reports¹.

¹ **Santander Brazil Special Report: "A Model to Forecast Probability of Recession in Brazil"** – June 08, 2022 – Available on: <https://bit.ly/Std-special-060822>

Santander Brazil Special Report: "Resilience Factors for GDP Growth: What Has Changed Since January" – June 30, 2022 – Available on: <https://bit.ly/Std-special-GDP-062922>

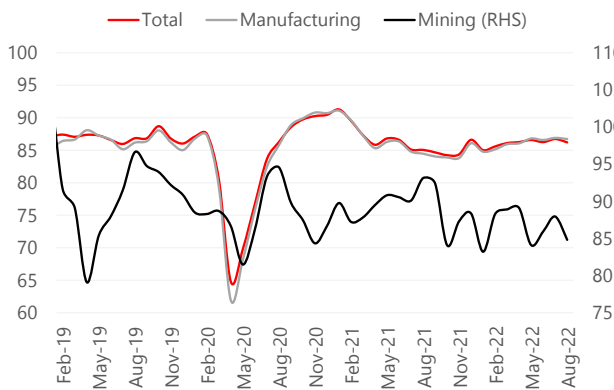
Santander Brazil Special Report: "Tightest Financial Conditions since 2009" – August 11, 2022 – Available on: <https://bit.ly/Std-special-081122>

Santander Brazil Economic Activity: "Financial Conditions Worsen in Mid-September" – September 14, 2022 – Available on: <https://bit.ly/Std-FCI-sep22>

Santander Brazil Economic Activity: "Chartbook: Strengthening in 2022, Slowing Down in 2023" – September 19, 2022 – Available on: <https://bit.ly/Std-chart-econact-sep22>

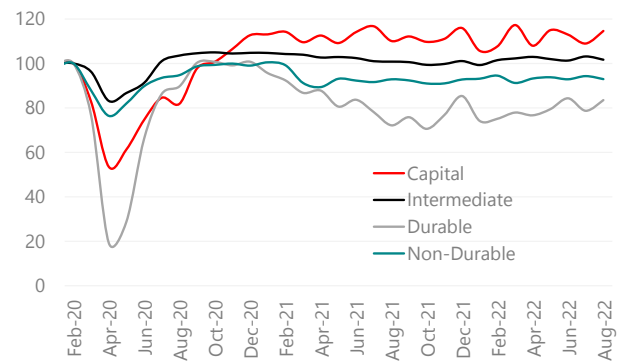


Figure 2.A – Industrial Production Index (sa, 2012=100)



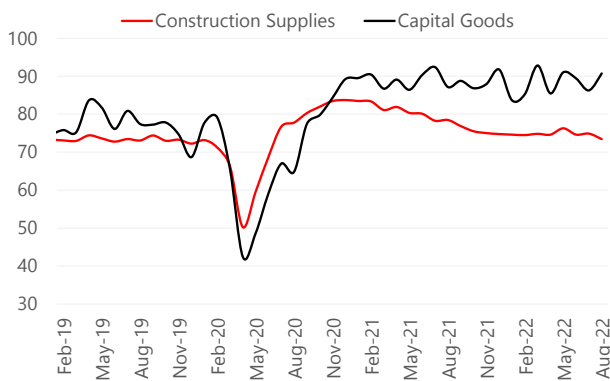
Sources: IBGE, Santander.

Figure 2.B – Economic Categories (sa, Feb/20=100)



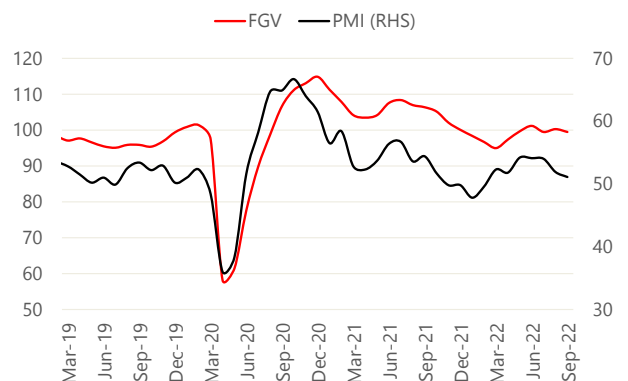
Sources: IBGE, Santander.

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



Sources: IBGE, Santander.

Figure 3.B – Manufacturing Soft Data (sa)*



Sources: Markit, FGV, Santander.

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

Figure 4 - Heatmap Showing Industrial Production by Activity

		By Activity (% MoM sa)											
		Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
11.2%	Mining	-0.76	-9.01	3.83	1.20	-5.83	6.10	0.71	0.20	-5.60	2.18	2.35	-3.57
13.9%	Food products	-3.51	-5.24	6.40	3.55	1.29	3.26	-2.73	-4.15	0.84	0.52	4.58	-2.62
10.3%	Oil and biofuel coke	0.58	4.22	-0.86	0.34	2.84	-2.09	-0.64	4.90	0.21	-1.16	1.85	-4.23
10.1%	Vehicles	2.40	-4.42	7.78	12.28	-15.88	4.64	6.80	-4.50	3.83	5.94	-6.01	10.80
5.4%	Metallurgy	-2.72	-2.46	-2.37	1.78	-4.10	4.47	1.22	-1.03	1.03	-1.80	1.57	0.06
5.3%	Other chemical products	3.58	2.39	1.33	0.07	-2.59	0.35	7.59	3.76	-5.96	0.62	-7.84	9.42
4.9%	Machines and equipments	2.69	-4.49	0.86	-0.09	-2.51	-0.64	5.55	-3.49	7.90	-3.82	-10.29	12.35
3.6%	Metallic products except machines and equipments	0.61	-4.68	1.24	-0.84	-4.09	4.05	-3.93	2.55	1.71	-0.78	-4.08	1.34
3.6%	Non-metallic minerals	-0.15	-3.30	1.93	1.87	-3.69	0.40	0.91	0.07	-0.41	-0.70	-0.67	1.44
3.5%	Rubber and plastic products	3.17	-1.15	-1.89	-0.13	-4.90	4.22	-0.40	2.61	0.98	-0.07	0.35	0.60
3.3%	Beverages	0.85	-2.87	-1.92	3.02	-6.71	6.04	6.73	3.68	-0.73	-0.73	-0.58	1.73
3.0%	Cellulose,paper and paper-based products	1.63	1.03	-0.07	2.56	-1.62	-6.97	4.32	2.87	-1.30	5.41	2.08	-0.15
2.6%	Machines, equipments and electric material	3.88	-12.52	6.14	-1.90	-3.67	2.70	-5.10	1.63	6.08	1.45	-1.66	-0.60
2.5%	Computer equipments, electronics and optical products	1.61	-7.20	7.73	14.12	-11.32	1.02	8.21	-3.05	3.55	-2.36	-7.27	5.96
2.3%	Pharmaceuticals	10.39	-8.86	7.53	-7.74	-2.92	12.41	-8.40	4.90	3.23	-15.70	10.37	9.85
2.3%	Manufacture of clothing and accessories	1.53	-9.87	8.84	-0.57	-0.83	-0.68	-3.89	2.34	0.05	5.97	-4.76	1.60
1.6%	Leather, travel items and footwear	-0.52	-5.53	3.74	5.43	-5.94	-1.45	9.84	0.82	9.51	0.11	-5.38	0.63
1.6%	Textile products	-3.52	-6.25	1.72	-0.46	-1.65	-1.65	-2.83	5.57	1.90	0.26	-1.67	-4.63
1.5%	Other transport equipments, except motor vehicles	-0.14	-3.16	5.88	4.52	-10.52	12.74	3.91	-7.99	10.81	-2.23	-1.59	8.93
1.3%	Repair of machines and equipments	-1.36	-0.94	3.88	6.09	-6.28	-0.75	-0.56	6.55	6.46	0.11	19.66	4.98
1.3%	Furniture	-3.53	-4.28	1.90	-0.12	-4.77	2.19	-4.33	3.66	1.25	-1.62	-5.36	-1.15
1.3%	Personal Care	2.88	-4.22	-3.04	1.55	-1.27	0.29	0.37	1.30	0.62	3.20	-1.17	0.07
1.0%	Wood products	1.04	-10.02	9.03	2.07	-3.51	-2.04	-1.41	-3.15	4.35	-5.94	-7.20	3.17
1.0%	Printing and playback of recordings	10.10	-13.95	-5.06	10.92	1.48	-14.24	-0.51	11.27	1.67	-7.65	3.90	-0.74
1.0%	Miscellaneous	1.42	-3.62	2.22	4.26	-2.62	5.85	-3.19	-4.95	7.01	-4.04	1.75	7.37
0.6%	Tobacco products	2.49	7.52	5.27	4.85	0.21	1.01	17.03	-12.21	-3.49	-2.57	-3.86	3.21

Sources: IBGE, Santander.

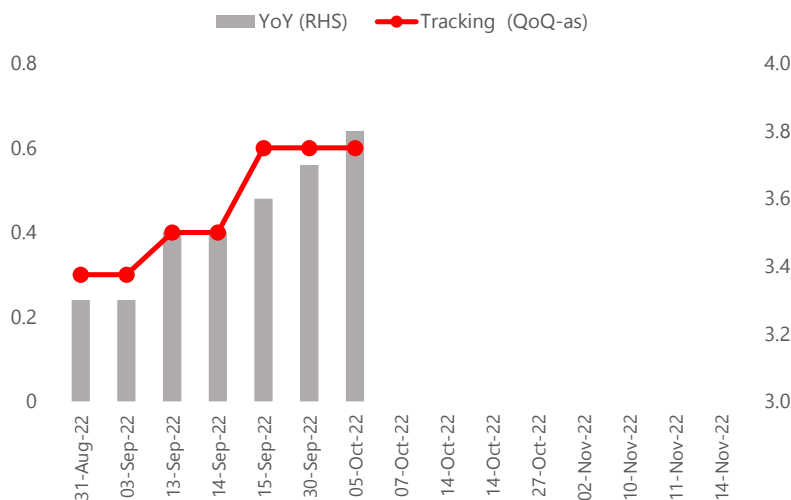


Figure 5 - Heatmap Showing Industrial Production by Economic Category

		By Activity (% MoM sa)											
		Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Capital Goods	Computer equipments, electronics and optical products	2.6	-6.4	2.7	12.4	-1.1	-14.2	21.7	-2.9	-1.8	-4.4	-4.3	-1.7
	Machines, equipments and electric material	0.9	1.9	0.0	-4.5	0.4	-1.9	-3.1	0.3	11.1	-0.1	0.1	-2.4
	Machines and equipments	1.6	-2.1	-2.3	-1.1	-0.9	-5.2	11.2	-7.0	9.4	-3.6	-4.6	4.5
	Vehicles	-15.3	11.5	-6.3	12.9	-23.3	12.6	14.6	-10.9	8.8	-2.4	4.0	5.6
	Other transport equipments, except motor vehicles	1.0	-0.3	1.5	15.0	-6.6	23.8	3.9	3.0	2.3	-3.4	5.3	-4.7
	Miscellaneous	-3.0	4.1	5.2	2.6	-3.4	7.4	-6.4	-3.8	2.4	-6.9	12.3	-1.4
Intermediate Goods	Mining	0.0	-6.3	4.0	0.3	-6.5	6.8	0.2	0.3	-3.6	-0.1	1.2	-5.3
	Food products	-0.4	-16.1	19.2	7.0	-0.1	1.5	-4.9	-9.7	6.2	1.0	3.9	0.3
	Textile products	-4.8	-4.4	0.0	-1.9	-1.5	0.6	-0.3	4.8	1.5	0.3	1.4	-4.1
	Cellulose,paper and paper-based products	1.8	1.4	-0.3	2.5	-1.5	-5.2	4.2	2.5	-0.5	4.7	2.1	-0.5
	Oil and biofuel coke	1.2	5.9	0.5	-0.7	2.1	-0.2	0.7	2.0	0.1	2.1	-1.3	-3.9
	Other chemical products	1.5	5.2	0.3	-0.3	-1.5	-0.5	7.5	2.4	-4.7	-1.0	-5.3	7.5
	Rubber and plastic products	3.3	2.0	-5.4	-0.8	-1.7	2.1	-1.7	3.5	0.8	-0.1	0.6	-0.7
	Non-mentalic minerals	-1.2	-1.6	0.2	2.1	-3.1	0.8	-0.2	-0.2	0.5	-1.5	0.2	0.0
	Metalurgy	-2.7	-2.8	-2.7	1.9	-4.5	5.5	1.1	-1.7	1.8	-2.3	2.3	0.1
	Metalic products except machines and equipments	-1.0	-1.4	-1.7	-1.0	-0.8	-1.5	-2.7	2.9	3.7	-1.6	-1.5	-3.5
	Machines and equipments	1.5	-1.0	-0.3	2.8	-1.1	3.9	3.9	-5.1	3.8	-2.9	-11.7	14.6
	Vehicles	-0.2	-4.0	3.5	2.8	-0.3	3.4	0.7	-5.2	8.0	0.2	2.1	4.4
	Miscellaneous	2.8	-2.1	-1.6	4.5	-1.8	1.4	-1.8	-1.0	1.6	-1.4	-1.0	-2.0
	Durable Goods	Computer equipments, electronics and optical products	-4.7	-1.0	0.6	15.2	-7.7	1.4	3.7	-5.4	18.1	-7.7	-7.9
Machines, equipments and electric material		2.7	-19.2	8.2	-4.0	-4.3	2.8	-12.3	10.9	3.5	0.3	-1.1	-4.9
Vehicles		16.8	-4.5	16.7	27.4	-19.4	0.1	12.5	-11.0	-0.2	17.5	-11.0	6.1
Other transport equipments, except motor vehicles		-1.1	-4.2	5.3	-3.4	-9.9	12.4	10.9	-13.8	20.7	-6.3	-6.6	13.5
Furniture		-3.1	-1.0	-7.7	2.5	-13.9	12.4	-0.3	4.4	3.1	-5.1	-7.5	-8.7
Miscellaneous		0.6	-20.3	20.7	0.4	5.6	-5.6	1.8	-3.9	9.7	-4.2	-4.8	13.7
Non Durable Goods		Food products	-4.6	2.6	-1.2	3.9	0.2	2.3	0.0	0.0	-1.5	0.6	1.1
	Beverages	-2.1	-3.8	0.9	6.8	-6.2	5.6	1.2	3.4	1.3	-0.2	-2.5	-1.8
	Textile products	-2.7	-13.4	8.2	-1.8	-3.5	2.1	0.4	-1.3	1.0	3.3	-16.5	2.1
	Manufacture of clothing and accessories	-1.1	-3.5	-0.8	-0.5	3.3	-3.1	-1.2	2.1	0.2	3.6	1.4	-4.9
	Leather, travel items and footwears	0.2	1.0	0.8	3.4	-1.9	-0.7	-0.8	2.8	6.4	3.0	-5.5	-0.1
	Printing and playback of recordings	21.8	-17.5	-5.3	21.6	25.7	-40.2	-8.4	23.6	4.6	-2.0	2.5	-4.6
	Oil and biofuel coke	-0.4	-6.4	4.2	3.9	6.0	-7.2	-5.5	7.8	0.5	-2.6	0.2	-3.0
	Personal Care	1.7	-2.6	-6.5	2.0	1.2	-0.2	-1.0	1.7	0.8	4.0	0.2	-2.7
	Pharmaceuticals	12.4	-6.5	6.5	-8.8	-3.6	15.0	-12.0	6.1	6.2	-15.9	11.5	6.8
	Miscellaneous	-2.1	-3.8	0.9	6.8	-6.2	5.6	1.2	3.4	1.3	-0.2	-2.5	-1.8

Sources: IBGE, Santander.

Figure 6 – 3Q22 GDP Growth Tracking (% MoM sa and YoY-nsa)²



Sources: IBGE, Santander

² Santander Brazil Special Report: “Nowcasting Brazilian GDP with LASSO” – May 16, 2022 – Available on: <https://bit.ly/Std-special-051622>



Figure 7 – Santander GDP Tracking

3Q22 GDP Growth						
Date	Release	Reference	Tracking (%)		Projection (%)	
			QoQ-sa	YoY	QoQ-sa	YoY
31-Aug-22	Labor Market	Jul-22	0.3	3.3	0.3	3.3
03-Sep-22	Industry	Jul-22	0.3	3.3	0.3	3.3
13-Sep-22	Retail Sales	Jul-22	0.4	3.5	0.3	3.3
14-Sep-22	Services	Jul-22	0.4	3.5	0.3	3.3
15-Sep-22	IBC-Br	Jul-22	0.6	3.6	0.3	3.3
30-Sep-22	Labor Market	Aug-22	0.6	3.7	0.3	3.3
05-Oct-22	Industry	Aug-22	0.6	3.8	0.3	3.3

Sources: IBGE, Santander.



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