Brazil Macroeconomics Research

2 DECEMBER 2020

Industrial Production

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Sequential Improvement in Industrial Production

- Industrial production data for October has confirmed expectations of a sixth consecutive monthly gain, following April's sharp drop and marking a favorable start to the sequence of 4Q20 IP releases, with the headline index pointing to growth of 1.1% MoM s.a. (0.3% YoY), versus consensus of 1.4% MoM s.a. (with an upward revision for September).
- October's positive result implies a sequential gain for industrial production, after fully recovering last month from the crisis' impact, surpassing February's reading. Compared to the pre-crisis level, the headline number has risen 1.4% since February. With today's result, and assuming no growth in the remaining months of the year (carryover), we calculate quarterly growth at 4.1%.
- Preliminary soft data for November points to continued industrial production improvement. According to the FGV, industrial business confidence is at its highest reading since 2010, with high capacity utilization and all-time low inventories. Based on this data, we project a rise of 2.0% MoM s.a. (4.7% YoY) for November.

Figure 1. Industrial Production Breakdown

		% MoM			%YoY			%QoQ	
	Aug-20	Sep-20	Oct-20	Aug-20	Sep-20	Oct-20	Aug-20	Sep-20	Oct-20
Mining	1.7	-4.7	-2.4	-1.9	-4.1	-6.0	6.7	7.6	3.5
Manufacturing Industry	3.4	4.0	1.2	-2.5	4.4	1.0	17.2	25.6	16.6
Capital goods	5.5	8.3	7.0	-14.8	-0.3	2.1	25.3	45.1	30.3
Intermediate goods	2.2	1.2	-0.2	2.0	5.8	3.2	10.8	18.2	11.5
Consumer goods	2.6	4.7	0.7	-7.1	2.0	-4.5	23.3	31.2	18.5
Durable goods	9.7	9.1	1.4	-10.0	2.1	-8.3	85.4	147.7	64.7
Non-durable goods	1.2	3.7	-0.1	-6.3	1.9	-3.4	13.8	16.2	9.9
Total Industrial Production	3.4	2.8	1.1	-2.5	3.4	0.3	14.8	22.2	14.8
Construction Supplies	1.4	3.8	1.8	4.0	10.9	10.4	26.5	30.8	16.9

Sources: IBGE and Santander.

Continuing Industrial Recovery

Industrial production data has confirmed market expectations of a sixth consecutive monthly gain, following April's sharp drop. The headline index pointed to growth of 1.1% MoM s.a., better than our forecast (1.9%) and market consensus (1.4%), following a decrease in mining (-2.4%) and an increase in manufacturing (1.2%). September's figure was revised from 3.4% YoY to 3.7% YoY. Compared to October 2019, the YoY gap remains positive, increasing 0.3%. This positive result implies a sequential gain for industrial production, after fully recovering last month from the trough wrought by the crisis. Compared to the pre-crisis level, the headline number has risen 1.4 % since February. The mining industry, which has shown some resilience during this crisis, as it was not crucially hurt by lockdown measures, is now running at levels

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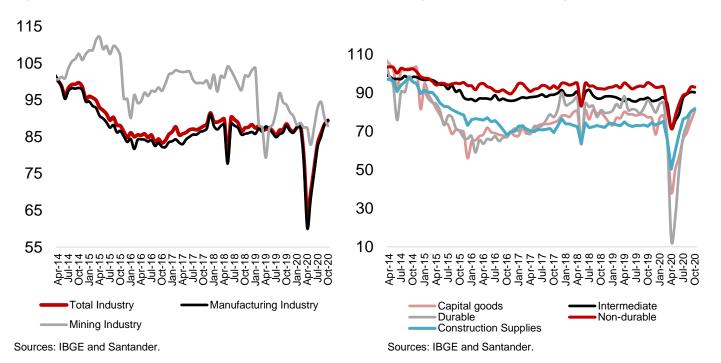
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1.0% below February's, after two consecutive monthly declines. After consistently recovering in 3Q20 following 2Q20's tumble, especially from the manufacturing industry, we still see no evidence of a sequential drop in 4Q20, on the heels of solid demand for goods, but possibly the start of a movement of accommodation.

Figure 2-A. Industrial Production (s.a., 2012=100)

Figure 2-B. Economic Categories (s.a., 2012=100)



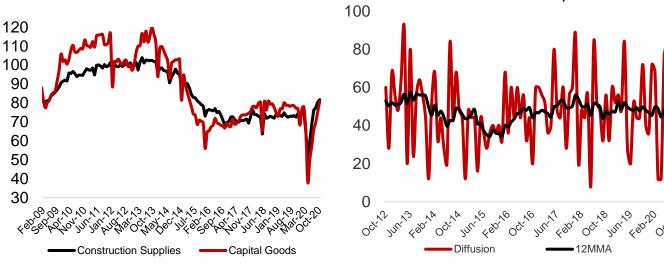
Among categories, we highlight capital goods once more, up 7.0%, while intermediate and non-durable goods posted declines of -0.2% and -0.1%, respectively, after five consecutive monthly gains. Construction supplies, also related to investments, increased 1.8%. In our view, these measures' behavior points to a possible rise in investments, especially in an environment with looser financial conditions. In fact, based on our monthly investment proxy, our tracking of investments in 3Q20 is at -6.1% YoY. Regarding 4Q20, our proxy points to monthly growth of 2.2% for October, and, in a carryover exercise, our tracking for 4Q20 is at 12.0% YoY.

Regarding the accumulated drop, construction supplies and intermediate goods, the first to surpass pre-crisis levels, are 3.0% and 8.8% above February's reading. Durable goods, which were seriously hit by the pandemic, have recovered 95% of the losses registered in the crisis, but it is still 4.2% below pre-crisis level. Capital goods, which were the laggard in the economic recovery, have surpassed the pre-crisis reading with this sharp increase and are now 3.5% above February's reading.

In the survey details, the positive highlights were vehicles (11.2%), clothing manufacturing (10.1%), and leather and travel items (13.8%); on the other hand, personal care and other transport equipment posted declines of -3.0% and -2.9%, respectively. In general terms, the monthly gains are less widespread than in the previous month, with the diffusion index (percentage of industrial categories with monthly growth) reaching 60.0% (vs. 88.0% in September).



Figure 3-A: Construction Supplies and Capital Goods (s.a., 2012=100) Figure 3-B: Diffusion Index (% of sector with monthly increase)



Sources: IBGE and Santander.

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Figure 4: Recovery Breakdown

Oct-20	MoM%	YoY%	Rec% *	Feb% **
Capital Goods	7.0	2.1	-	3.5
Intermediate Goods	-0.2	3.2	-	3.0
Consumer goods	0.7	-4.5	99.1	-0.3
Durables	1.4	-8.3	95.0	-4.2
Non-Durables	-0.1	-3.4	99.5	-0.1
Construction Supplies	1.8	10.4	-	8.8
Manufacturing	1.2	1.0	- 1	2.2
Total	1.1	0.3	-	1.4

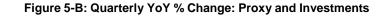
^{*} Percentage of the drop already recovered

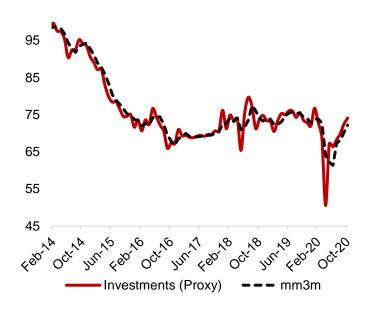
Preliminary soft data for November points to continued industrial production improvement. According to FGV, industrial business confidence is at the highest since 2010. Industrial capacity utilization was virtually stable (moving to 79.7% from 79.8%). While this number is running close to the historical average (80.0%), it does not indicate severe and lasting supply constraints, in our view. Inventories are running at the lowest level ever, which we see as a good indicator for future production. We still are unconcerned about supply/demand mismatches in the medium term, as we also expect demand to shift from the goods to the services sector on the heels of the economy's reopening. Additionally, part of the solid demand for goods is about to fade with end of fiscal stimuli, in our view. Based on this preliminary data, we project a rise of 2.0% MoM (s.a.) (4.7% YoY) for November.

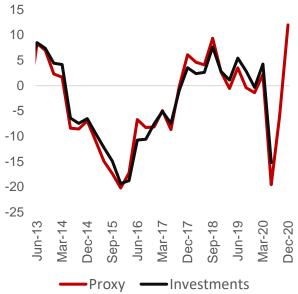
^{**} Variation relative to February's reading



Figure 5-A: Monthly Investments Proxy (s.a., 2013=100)







Sources: IBGE and Santander.

Figure 6-A. "Heatmap" Showing Industrial Production by Activities

	By Activity (% 3MMA seasonally ajusted)													
	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20
Food products	0.35	2.02	0.14	0.14	-0.35	0.97	0.69	1.19	0.84	0.84	0.53	0.66	1.40	-0.32
Oil and biofuel coke	0.86	0.28	-0.11	1.64	2.77	1.54	0.10	-6.72	-1.77	-2.64	6.07	2.13	3.30	1.08
Vehicles	1.20	0.25	-0.41	-3.65	-1.96	0.43	-7.30	-33.36	-40.49	-23.62	72.62	35.05	22.21	11.22
Metalurgy	-0.90	-1.27	-1.45	-1.88	1.00	1.61	1.26	-10.24	-8.96	-9.06	9.37	6.88	8.05	3.45
Other chemical products	-1.27	1.10	0.25	-0.54	-0.33	1.46	-0.25	-3.25	-4.92	-0.51	4.49	4.44	1.84	-1.10
Machines and equipments	0.13	-0.59	-0.04	-3.05	-0.13	0.61	0.87	-12.50	-11.23	-5.49	12.98	9.09	9.47	5.27
Metalic products except machines and equipments	0.68	1.13	1.51	-0.61	-0.40	-0.09	-3.06	-11.49	-8.84	-0.17	14.43	9.72	6.30	3.05
Non-mentalic minerals	0.49	0.78	0.37	-0.69	-1.02	-0.37	-3.64	-12.29	-8.53	1.55	15.40	10.44	6.84	3.80
Rubber and plastic products	0.00	-0.04	1.30	0.47	0.62	0.73	-3.43	-11.89	-11.43	-1.42	13.15	11.14	6.63	3.45
Beverages	-1.13	1.21	2.53	1.03	0.03	-0.27	-6.85	-17.62	-6.04	12.09	25.16	7.02	2.27	-0.16
Cellulose,paper and paper-based products	1.04	1.09	-0.22	0.25	0.13	1.52	1.13	0.06	-2.81	-2.48	-1.24	2.08	2.82	1.29
Machines, equipments and eletric material	0.18	2.00	0.74	-0.09	0.00	0.04	-2.99	-14.35	-11.43	0.53	19.17	12.64	6.86	3.25
Computer equipments, eletronics and optical products	-0.87	1.70	1.45	-0.85	1.58	-1.82	-3.12	-15.70	-8.24	1.27	20.05	11.29	7.13	2.07
Pharmaceuticals	-0.55	0.75	1.34	0.54	-0.85	1.05	-0.89	-0.74	-0.04	4.24	1.96	-2.66	-1.18	0.38
Manufacture of clothing and accessories	-0.29	-1.04	1.35	1.45	1.06	0.16	-13.55	-24.13	-27.99	-10.79	19.00	17.02	17.88	10.07
Leather, travel items and footwears	-0.15	-0.18	-0.18	-2.91	-1.10	-1.57	-9.15	-24.85	-23.55	-5.07	23.64	15.84	17.68	13.78
Textile products	1.17	0.94	0.81	0.25	0.67	0.84	-6.67	-18.57	-21.44	-4.79	24.51	21.85	13.15	6.00
Other transport equipments, except motor vehicles	3.68	2.48	-0.49	-1.60	-3.31	-5.52	-5.10	-28.82	-29.21	-8.10	52.45	24.22	0.52	-2.88
Repair of Machines and equipments	0.32	-1.19	-1.81	-2.34	-3.11	-1.21	-0.61	-2.91	-3.82	-4.06	-0.79	-0.84	0.00	0.50
Furniture	2.24	0.96	1.61	-3.29	-0.13	0.80	-7.46	-19.69	-15.53	8.18	28.05	16.35	7.78	1.83
Personal Care	1.95	0.94	-0.61	-0.29	-0.13	1.59	1.63	2.24	-0.77	-0.28	0.56	0.83	0.15	-3.03
Wood products	-1.09	-0.35	-0.21	0.53	0.39	0.53	-4.91	-7.71	-7.83	4.21	10.61	9.00	4.85	2.79
Printing and playback of recordings	-8.11	-2.60	0.87	26.03	-6.01	-13.09	-29.05	-8.85	-9.80	11.27	0.00	-0.65	-21.32	2.60
Miscellaneous	-0.71	1.00	1.94	1.94	-0.07	-0.24	-4.84	-13.41	-19.50	-10.75	13.54	20.65	10.33	3.86
Tobacco products	-1.18	-0.14	0.46	1.70	0.72	3.58	-0.86	-5.54	-2.82	3.18	6.91	3.05	10.04	0.00

Sources: IBGE and Santander.



Figure 6-B. "Heatmap" Showing Industrial Production by Economic Category

		By Activity (% MoM seasonally ajusted)											
		Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20
	Computer equipments, eletronics and optical products	-6.6	9.2	5.0	-21.2	21.4	-37.3	14.2	12.6	13.1	11.7	-2.9	0.2
	Machines, equipments and eletric material	-0.7	14.4	-1.2	-12.9	7.0	-25.4	-4.6	34.3	-6.2	-4.2	14.3	7.2
Capital	Machines and equipments	0.8	-8.2	17.5	-6.1	-2.2	-38.4	13.7	19.3	12.2	0.1	18.8	1.3
Goods	Vehicles	-3.6	-5.2	21.1	-5.8	-5.1	-90.1	331.9	57.4	9.7	5.4	33.4	6.7
	Other transport equipments, except motor vehicles	4.4	-2.1	-13.5	-31.9	23.6	-50.9	20.3	34.5	10.5	-14.9	-0.2	-7.9
	Miscellaneous	1.3	-5.0	-3.7	-0.7	-14.5	-5.8	7.4	9.1	6.0	0.8	-1.4	-4.3
	Mining	-2.3	-3.0	-3.4	18.3	-0.8	10.1	-14.1	4.9	2.6	-3.2	-2.4	-1.9
	Food products	-22.2	-0.2	11.0	-0.9	-0.1	19.8	-8.1	-1.2	3.0	-4.8	7.2	-10.6
	Textile products	-0.7	10.2	-8.5	5.0	-13.3	-42.3	1.9	42.8	21.5	8.6	11.0	1.2
	Cellulose,paper and paper-based products	-2.2	3.2	6.2	2.4	-1.8	-2.4	-7.1	7.7	1.7	-0.2	5.8	-3.3
	Oil and biofuel coke	9.1	9.1	1.5	-2.4	-1.5	-16.7	16.2	-2.2	6.0	2.5	-3.3	4.1
Intermed	Other chemical products	-2.3	2.1	-0.7	6.0	-2.4	-16.3	-1.8	13.6	11.6	-1.6	0.7	-5.8
iate	Rubber and plastic products	1.8	2.5	-3.5	4.7	-7.7	-30.7	10.3	24.2	9.0	4.8	4.0	-0.5
Goods	Non-mentalic minerals	-1.9	-3.1	2.1	-0.8	-8.5	-29.7	20.9	23.6	7.8	3.0	6.9	-1.3
	Metalurgy	-0.9	-2.1	8.7	5.8	-7.7	-30.2	9.4	3.3	18.9	3.7	6.6	5.3
	Metalic products except machines and equipments	-2.4	1.9	-4.6	1.9	-4.6	-34.4	19.5	21.6	9.8	4.0	3.2	1.3
	Machines and equipments	0.9	-11.2	9.2	-12.4	8.2	-43.2	9.5	32.0	13.5	7.4	9.9	1.7
	Vehicles	-1.0	-2.5	-3.9	-4.4	-16.5	-81.6	99.3	65.1	37.0	10.0	14.0	-2.2
	Miscellaneous	-2.1	5.0	-5.2	1.3	-10.1	-29.0	6.6	34.8	10.1	-2.9	15.8	-7.5
	Computer equipments, eletronics and optical products	18.9	-1.1	-12.0	-17.6	10.5	-50.4	38.2	61.8	11.4	-7.8	16.5	-10.2
	Machines, equipments and eletric material	-5.2	-2.7	3.7	-2.8	-3.6	-71.1	69.0	104.6	17.3	-2.0	9.2	-12.8
	Metalurgy	-12.1	4.4	-1.7	-14.2	-1.0	-99.9	13900.0	184.3	54.8	20.8	14.4	-8.5
Goods	Other transport equipments, except motor vehicles	-5.6	0.8	9.6	-18.9	14.4	-97.3	513.8	538.8	-8.6	-16.4	29.9	-23.4
	Furniture	-6.9	1.5	-0.1	5.0	-15.1	-59.2	72.7	62.7	6.7	7.2	-2.3	-5.5
	Miscellaneous	21.8	-26.0	46.6	-25.4	11.1	-64.1	-2.8	17.1	75.3	-3.4	23.0	-6.4
	Food products	-3.8	1.4	-5.5	0.2	4.2	-9.5	-1.7	14.3	-2.5	-3.3	4.9	-7.0
	Beverages	2.5	-1.9	-0.9	1.5	-21.5	-37.3	77.2	27.5	1.7	-3.0	-0.4	-2.6
	Textile products	8.7	8.5	-1.5	-9.3	-19.7	-63.5	64.4	62.7	22.4	3.0	2.6	-3.5
Non Durable Goods	Manufacture of clothing and accessories	0.6	15.4	-11.1	-3.9	-24.3	-54.1	17.7	34.7	24.1	16.9	14.1	5.1
	Leather, travel items and footwears	-0.7	-7.4	9.7	-0.7	-29.7	-63.4	58.1	24.3	25.6	16.8	34.5	-0.6
	Printing and playback of recordings	64.9	46.6	-70.5	14.9	65.9	-38.0	-53.0	164.5	-49.4	-29.3	15.3	35.9
	Oil and biofuel coke	-10.9	-8.7	8.4	-4.1	-9.7	-9.6	6.2	-0.8	3.8	-0.1	12.5	-10.6
	Personal Care	-2.0	1.5	-0.5	2.7	11.3	-4.7	-4.2	14.3	0.7	-13.1	7.6	-7.3
	Pharmaceuticals	-8.7	-14.4	33.8	-10.7	-3.0	2.0	3.7	13.2	-12.8	-4.8	18.4	-8.2
	Miscellaneous	-1.2	-0.9	-2.9	2.1	2.5	-29.1	-1.7	41.4	9.2	-3.1	1.4	-4.4

Sources: IBGE and Santander.



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