



TRADE OPENNESS INDICATORS

FUNCEX



National Confederation of Industry
Brazil
CNI. THE STRENGTH OF THE BRAZILIAN INDUSTRY

Foreign market importance to industry's sales remains unchanged

In the 12 months ended in June 2018, industry did not increase its sales focus on the foreign market in relation to 2017 (January-December), while its import growth rate remained on the rise.

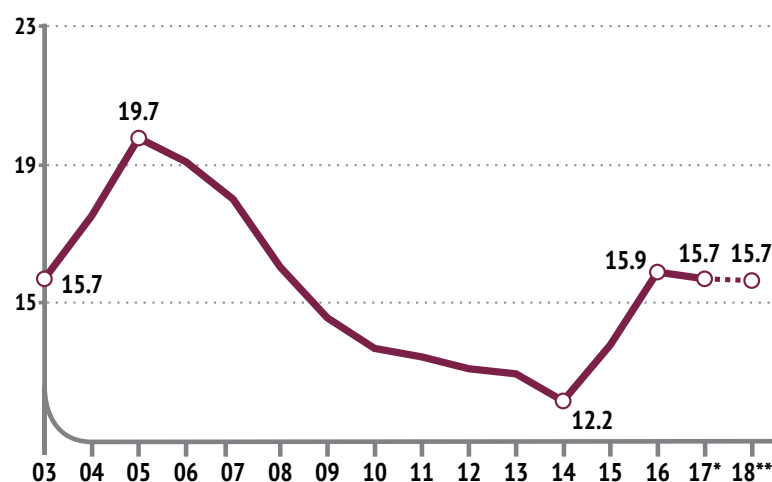
The export to output ratio, which measures the share of exports in production, remained stable at 15.7% in 12 months to June 2018 in the constant-price series. Between 2017 and the year to June 2018, the volume exported by manufacturing industry increased by 1.6%, at

almost the same pace as that recorded for the segment's production (1.9%, at 2007 prices).

The appreciation of the Brazilian currency over the past two years contributed to the decline in the export volume observed in 2017. Since late January 2018, the exchange rate has been on a downward trend, stimulating exports, but it is still too early for this effect to be actually felt. In addition, the scenario has become more unstable, giving rise to uncertainties about revenues and reducing that positive effect on sales abroad.

Export to output ratio at constant prices in Manufacturing

In % - Constant prices



*Estimate

**Estimated figure in the 12 months ending in June.

The Brazilian currency depreciated by 10.6% against a basket of currencies between the 12-month period to June 2018 and the same period to June 2017. The behavior of the foreign exchange market is the result of uncertainties abroad and domestically.

In the international scenario, the policy of raising interest rates adopted by the United States has been putting pressure on the currencies of emerging countries. Argentina, a major trading partner of Brazil in manufactured goods, is one of the most affected economies, a fact that puts additional pressures on Brazil to recover its exports. The exchange rate in Brazil is also affected by uncertainties prevailing in the domestic market, marked by a slow recovery in business and consumer confidence and an unclear political scenario.

As for imports, the import penetration ratio, which measures the share of imports in apparent consumption (production for the domestic market plus imports), rose from 17.1% in 2017 to 17.5% in 12 months to June 2018 in the constant-price series. Despite the exchange rate instability, the indicator has remained on an upward trend since 2017, after falling for three years in a row.

A depreciated real discourages imports, as it pushes their price up, but it is still too early for this effect to be felt on imported quantities. The upturn in the import penetration ratio still reflects the appreciation of the Brazilian currency in 2016 and 2017, as well as a recovery, albeit weak, of domestic demand.

A similar behavior can be observed in the imported input share. Between 2017 and the 12-month period to June 2018, the share of imports in total industrial inputs consumed by manufacturing industry increased from 23.1% to 23.4% in the constant-price series.

The stability of sales abroad and the increase, albeit moderate, in the consumption of imported industrial inputs, put additional pressure on the downward trend of the net export to output ratio observed since 2017, following a two-year period on the rise. The indicator, which shows the difference between revenues from exports and spending on imported industrial inputs (both measured in relation to the production value), fell from 6.5% in 2017 to 6.1% in the 12-month period to June 2018 in the current-price series.

Trade openness indicators in Manufacturing – constant prices

12-month period ended in the reference month
In %

INDICATORS	DEC/15	JUN/16	DEC/16	JUN/17*	DEC/17*	JUN/18*
Export to output ratio	13.8	15.7	15.9	15.6	15.7	15.7
Import Penetration ratio	16.7	16.4	16.5	16.8	17.1	17.5
Imported Input share ¹	23.7	23.2	22.1	22.7	23.1	23.4
Net export to output ratio	2.1	4.5	4.9	4.3	4.0	3.8

* Estimate

1 - Only inputs from Mining and quarrying and Manufacturing are considered

Trade openness indicators in Manufacturing – current prices

12-month period ended in the reference month
In %

INDICATORS	DEC/15	JUN/16	DEC/16	JUN/17*	DEC/17*	JUN/18*
Export to output ratio	18.4	20.3	19.0	18.1	18.3	18.8
Import Penetration ratio	21.2	21.0	18.8	17.8	18.2	19.5
Imported Input share ¹	27.9	27.3	24.0	23.0	23.5	24.6
Net export to output ratio	3.9	6.6	7.3	6.9	6.5	6.1

* Estimate

1 - Only inputs from Mining and quarrying and Manufacturing are considered



EXPORT TO OUTPUT RATIO

Share of exports in industrial production has not resumed growth

The export to output ratio of Brazilian manufacturing industry remained stable at 15.7% in 12 months to June 2018 in relation to 2017 (at constant prices). The indicator, which increased from 12.2% to 15.9% between 2014 and 2016, has remained relatively stable since then.

This indicator measures the importance of the foreign market for industrial production. In the 12-month period to June 2018, the volume exported by manufacturing industry showed some recovery. In relation to 2017 (January-December), the volume exported grew by 1.6%, virtually at the same pace of increase recorded for the volume produced (1.9%). In 12 months to June 2017, the volume exported decreased by 0.5% as compared to 2016, while the volume produced increased by 1.3%.

The appreciation of the Brazilian currency over the past two years contributed to the decline in the export volume observed in 2017. Since late January 2018, the exchange rate has been on a downward trend, which tends to stimulate exports, but the scenario is one of greater instability.

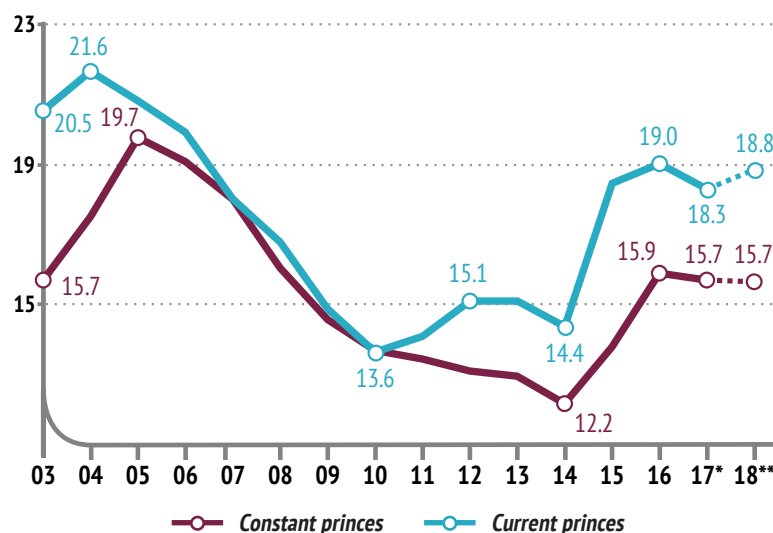
In the external scenario, the policy of raising interest rates adopted by the United States to accommodate changes in domestic conditions, albeit gradually, reduced international liquidity and put pressure mainly on the currencies of emerging economies. Argentina, a major trading partner of Brazil in manufactured goods, is one of the most affected economies, a fact that puts additional pressures on Brazil to recover its exports. There are also risks associated with trade tensions between the main players in global trade.

In Brazil, exchange rate pressures are also the result of uncertainties in the domestic market, which has been marked by slow recovery in business and consumer confidence and an unclear political scenario. In the 12-month period to June 2018, the Brazilian currency depreciated by 10.6% against a basket of currencies in relation to the same previous period (12 months to June 2017).

In the current-price series, the export to output ratio of manufacturing industry has once again resumed an upward trend.

Export to output ratio in Manufacturing

In %



*Estimate

**Estimated figure in the 12 months ending in June.

The indicator increased from 18.3% in 2017 to 18.8% in 12 months to June 2018 and has virtually returned to the level recorded in 2016 (19%), before the reversal of its upward trend. This result reflects the effect, in reals, of a depreciated Brazilian currency on the prices of exported products, which sums up with the effect on exported quantities. In reals, the value of exports increased by 6.5% between 2017 and the 12-month period ending in June 2018. On the same basis of comparison, the value of production at current prices increased by 3.6%.

In the 12-month period to June 2018, most sectors of manufacturing industry experienced a reduction in or a stable export to output ratio at constant prices in relation to 2017. The sharpest declines were recorded in the following sectors: Basic metals, Motor vehicles, trailers and semi-trailers, Pharmaceutical chemicals and pharmaceuticals,

and Food. In the case of Motor vehicles, trailers and semi-trailers, the increase observed in the volume exported was lower than the one recorded for the volume produced (1.5% against 8.4%), which reflects a resumption in domestic demand. In the remaining sectors, the exported volume decreased, while the volume produced increased or dropped less sharply.

Among the sectors in which an increase in the export to output ratio was recorded, the following ones stand out: Other transport equipment, Tobacco, Wood products, Pulp and paper, and Textiles. In the Wood products and Pulp and Paper sectors, the increase in volume produced was accompanied by an even greater growth in export volume. In the other sectors, the increase in the ratio resulted from a higher export volume, which was intensified by a decrease in volume produced.

Export to output ratio

Sectors with the highest variations

Variation between the 12-month period to December 2017 and the 12-month period to June 2018
Constant prices

SECTORS		INDICATORS		VARIATION (percentage points)
		12-month period ended in the reference month (%)		
		DEC/17*	JUN/18*	
Most significant increases	Other transport equipment	37.3	49.6	12.3
	Tobacco products	40.2	46.7	6.5
	Wood products	34.4	35.4	1.0
	Pulp and Paper	31.7	32.5	0.8
	Textiles products	11.7	12.4	0.7
Most significant decreases	Basic metals	37.5	35.6	-1.9
	Motor vehicles, trailers and semi-trailers	15.1	14.2	-0.9
	Pharmaceutical chemicals and pharmaceuticals	12.1	11.5	-0.6
	Food products	20.8	20.3	-0.5

* Estimate

The share of exports in production of the Machinery and equipment sector continues to grow

The export to output ratio of the Machinery and Equipment sector has remained on an upward trend since 2015. In comparison with 2013, the year in which its lowest percentage was recorded since the beginning of the historical series in 2003, the indicator increased from 11.6% to 19.1% in the 12-month period to June 2018 in the constant-price series. The increase of 7.5 percentage points (p.p.) observed in this sector is second only to the those recorded in the Wood Products (16.3 p.p.), Basic metals (11.1 p.p.), and Pulp and Paper (8.5 p.p.) sectors.

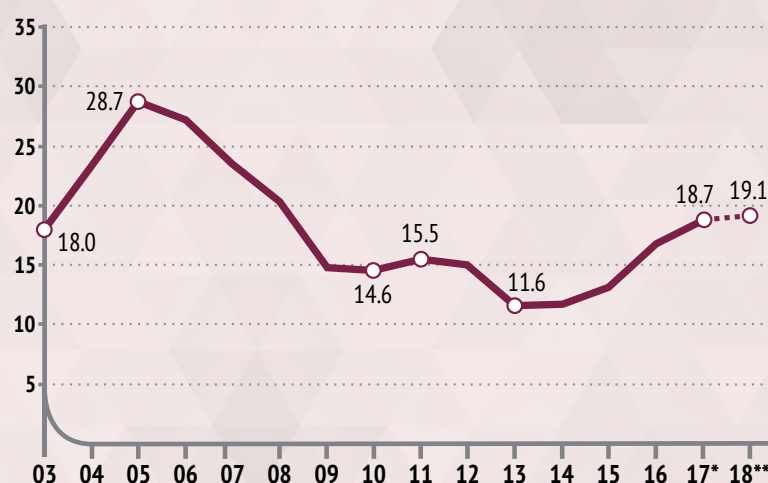
It should be noted that the effect of a depreciated real in 2012-2015 was only felt in exports of machinery and equipment in 2016, the year in which the sector's exported quantities began to take an upturn. In addition, the main reason for the increase in its export to output ratio was a

slowdown in domestic activity. Between 2013 and 2015, while exported quantities declined by 12.8%, production experienced a drop of 23.2% (at 2007 prices). In 2016, an increase in the sector's exported quantities (9.2%) began to be observed, but production continued to decline due to a lower domestic demand (14.5%) as compared to 2015.

The shift in the trajectory of the exchange rate from 2016 - with appreciation of the real over the past two years - did not affect the upward movement of the export to output ratio. Between 2016 and 2017, the sector's production resumed an upward path (increasing by 2.9%), but its exported quantities increased even more (15%). In the 12-month period to June 2018, the growth pace of exports slowed down (by 4.3%), but it remained above the production growth pace (2.1%) in relation to 2017.

Export to output ratio - Machinery and equipment

In% - Constant prices



*Estimate

**Estimated figure in the 12 months ending in June.

IMPORT PENETRATION RATIO

Share of imports in consumption continues on the rise

In 12 months to June 2018, the import penetration ratio of manufacturing industry increased from 17.1% in 2017 to 17.5% (at constant prices). The indicator confirmed an upward trend initiated in 2017, after a three-year decline. Between 2016 and the 12-month period to June 2018, the ratio rose by 1.0 p.p., and virtually returned to the level recorded in 2014 (17.8%).

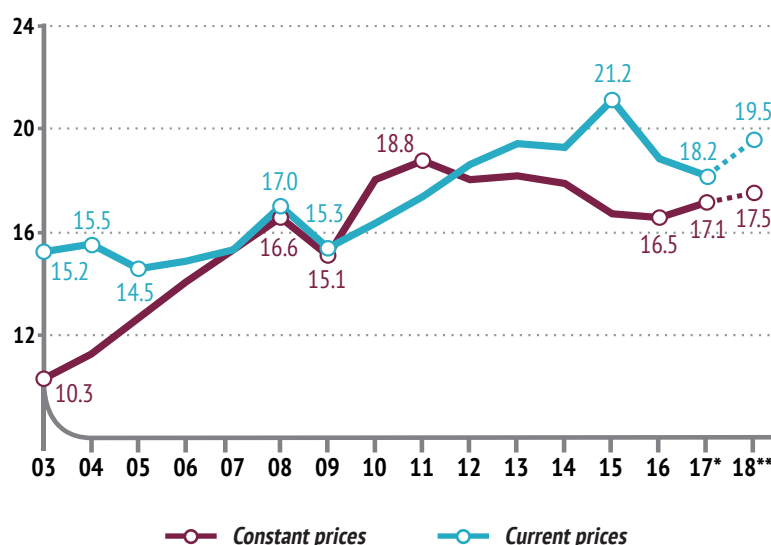
The import penetration ratio measures the share of imported products in apparent consumption (production for the domestic market plus imports). Between 2017 and the 12-month period to June 2018, the volume imported increased by 4.8%, exceeding the 2.5% increase recorded for apparent consumption (at 2007 prices). It should be noted that the current import volume growth pace also exceeded the one recorded in the same previous period (3.7% between 2016 and the 12-month period to June 2017). Back then, apparent consumption increased by 2.0%.

A more depreciated Brazilian currency discourages imports, as they become more expensive. This effect has not yet been felt on imported quantities, which remain on an upward path. The rise in the indicator still reflects the appreciation of the real in 2016 and 2017, as well as the recovery of domestic demand.

At current prices, the import penetration ratio interrupted a downward movement observed since 2016. Between 2017 and the 12-month period to June 2018, the indicator increased from 18.2% to 19.5%. As a result of a more depreciated real, the price of imports in the Brazilian currency has increased. This effect sums with the increase in imported quantities, which explains the even more pronounced growth observed in the ratio at current prices. On the same basis of comparison, while imports increased by 4.8%, the value of imports in the Brazilian currency increased by 12.5%.

Import Penetration ratio in Manufacturing

In %



*Estimate

**Estimated figure in the 12 months ending in June.

In the 12-month period to June 2018, only 2 of the 23 sectors of manufacturing industry (Coke, refined petroleum products and biofuel and Computer, electronic and optical products) experienced a decline in the import penetration ratio (at constant prices) in relation to 2017. The other 21 sectors experienced stability or an increase in the indicator.

The highest increases in the period were those recorded in the following sectors: Other transport equipment, Other manufacturing, Machinery and equipment, Wearing apparel, Pharmaceutical chemicals and pharmaceuticals, and Metal products (except machinery and equipment). In the cases of the Other transport equipment and Wearing apparel sectors, apparent consumption decreased while imported quantities increased. In the remaining sectors, the increase in imported quantities exceeded the growth observed in apparent consumption.

Import Penetration ratio

Sectors with the highest variations

Variation between the 12-month period to December 2017 and the 12-month period to June 2018
Constant prices

SECTORS		INDICATORS		VARIATION (percentage points)
		12-month period ended in the reference month (%)		
		DEC/17*	JUN/18*	
Most significant increases	Other transport equipment	19.0	30.4	11.4
	Other manufacturing	30.2	32.5	2.3
	Machinery and equipment	29.1	30.9	1.8
	Wearing apparel	8.3	9.6	1.3
	Pharmaceutical chemicals and pharmaceuticals	39.5	40.7	1.2
	Metal products (except machinery and equipment)	13.9	15.0	1.1
Most significant decreases	Coke, refined petroleum products and biofuel	29.6	28.2	-1.4
	Computer, electronic and optical products	21.7	21.2	-0.5

* Estimate

IMPORTED INPUT SHARE

Use of imported industrial inputs continues on the rise, but at a slower pace

The share of imported industrial inputs in total industrial inputs used by manufacturing industry - as measured by the imported input share - has also remained on an upward path since 2017, but it has been growing at a slower pace. The indicator at constant prices increased from 23.1% in 2017 to 23.4% in the 12-month period to June 2018 (up by 0.3 percentage points). In the same previous period (between 2016 and the 12-month period to June 2017), the indicator increased by 0.6 percentage points, from 22.1%

to 22.7%. Between 2016 and 2017, the indicator grew by 1.0 percentage points, from 22.1% to 23.1%.

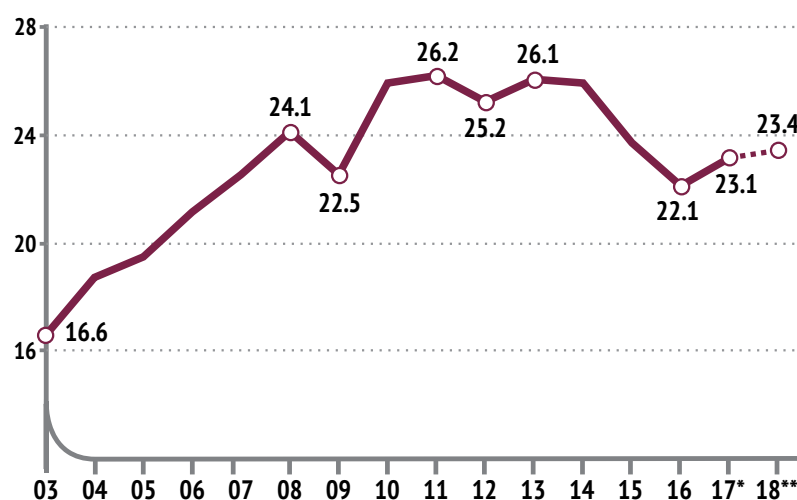
The upturn in the imported input share still reflects the appreciation of the real over the past two years. Between 2017 and the 12-month period to June 2018, consumption of imported industrial inputs grew by 3.1%, while consumption of domestic industrial inputs increased by 1.4%.

Of the 19 sectors considered, only the imported input share recorded for the Chemicals and Basic Metals sectors decreased in the 12-month period to June 2018 as compared to 2017. In the Chemicals sector, total consumption of industrial inputs declined over the period and consumption of imported inputs decreased more sharply than that of domestic inputs. In the Basic metals sector, in turn, while consumption of domestic industrial inputs increased, that of imported industrial inputs fell.

The highest increases in the imported input share over the period in question were those recorded in the Other transport equipment, Pharmaceutical chemicals and pharmaceuticals, Machinery and equipment, and Electrical equipment sectors. In the Other transport equipment sector, the share of consumption of domestic industrial inputs remained the same, while that of imported industrial inputs increased. In the other sectors analyzed, the increase in the consumption of imported industrial inputs exceeded the increase recorded in the consumption of domestic industrial inputs.

Imported Input share in Manufacturing

In % - Constant prices



*Estimate

**Estimated figure in the 12 months ending in June.

Imported Input share

Sectors with the highest variations

Variation between the 12-month period to December 2017 and the 12-month period to June 2018
Constant prices

SECTORS		INDICATORS		VARIATION (percentage points)
		12-month period ended in the reference month (%)		
		DEC/17*	JUN/18*	
Most significant increases	Other transport equipment	19.9	25.1	5.2
	Pharmaceutical chemicals and pharmaceuticals	43.7	44.8	1.1
	Machinery and equipment	20.4	21.3	0.9
	Electrical equipment	25.3	26.2	0.9
Most significant decreases	Chemicals	40.4	39.8	-0.6
	Basic metals	31.2	30.7	-0.5

* Estimate

NET EXPORT TO OUTPUT RATIO

Net export to output ratio still on the decline

The net export to output ratio of manufacturing industry fell at current prices from 6.5% in 2017 to 6.1% in the 12-month period to June 2018. The indicator reinforced the downward trend observed since 2017, when it began to decline after increasing for two years in a row.

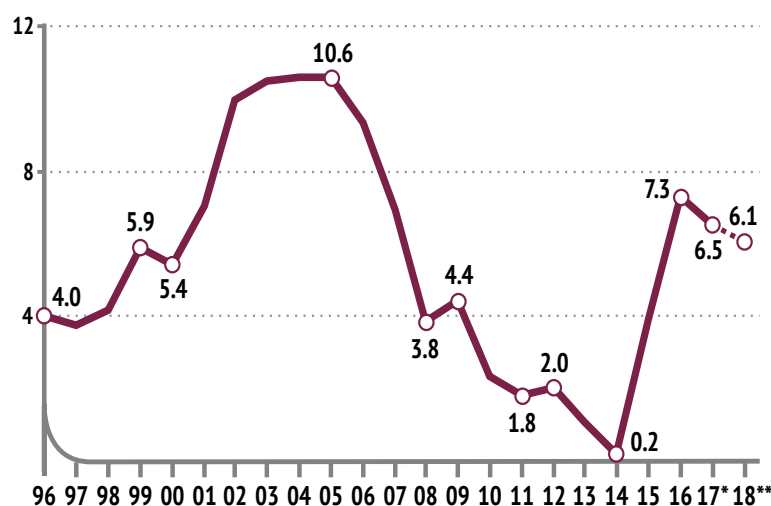
The net export to output ratio is the difference between export revenues and spending on imported industrial inputs (both as measured in relation to the production value). When export revenues exceed spending on imported industrial inputs, the ratio is positive. In this case, a depreciation of the real tends to benefit the sector in the short term, as it increases the value of exports and imports in the Brazilian currency. Because revenues from foreign sales exceed spending on imported inputs, the effect is positive.

Between 2017 and the 12-month period to June 2018, the net export to output ratio declined in most sectors. Despite this downturn, the number of sectors with positive ratios remained the same (10 of 19 of the sectors analyzed). The sharpest declines were recorded in the following sectors: Furniture and other manufacturing, Pharmaceutical chemicals and pharmaceuticals, Printing and reproduction, Motor vehicles, trailers and semi-trailers, and Leather and footwear. Of these, only the Motor vehicles, trailers and semi-trailers and Leather and footwear sectors recorded positive ratios (3.3% and 15.3%, respectively).

Only the Other transport equipment, Wood products, and Pulp and paper sectors had higher export to output ratios over the period in question. These are also the sectors in which the highest net export to output ratio (63.9%; 35.6% and 29.0%, respectively) were recorded.

Net export to output ratio in Manufacturing

In % - Current prices



*Estimate

**Estimated figure in the 12 months ending in June.



Net export to output ratio

Sectors with the highest variations

Variation between the 12-month period to December 2017 and the 12-month period to June 2018
Current prices

SECTORS		INDICATORS		VARIATION (percentage points)
		12-month period ended in the reference month (%)		
		DEC/17*	JUN/18*	
Most significant increases	Other transport equipment	51.5	63.9	12.4
	Pulp and Paper	25.2	29.0	3.8
	Wood products	34.1	35.6	1.5
Most significant decreases	Furniture and other manufacturing	-0.4	-11.2	-10.8
	Pharmaceutical chemicals and pharmaceuticals	-10.5	-12.3	-1.8
	Printing and reproduction of recorded media	-19.8	-21.6	-1.8
	Motor vehicles, trailers and semi-trailers	5.0	3.3	-1.7
	Leather, travel goods and footwear	16.9	15.3	-1.6

* Estimate



Learn more

For more information, including sectoral results, previous editions, methodology and historical series, visit: www.cni.com.br/e_cac