

# PRODUCTIVITY IN BRAZILIAN MANUFACTURING

ECONOMIC INDICATORS **CNI**

**CNI**  
Brazilian National Confederation of Industry  
THE FUTURE OF INDUSTRY

## Drop in productivity hits the mark of 2.8% in the first quarter as a result of the Covid-19 crisis

In 2019, seven industries recorded a drop in productivity

In the first quarter of 2020, labor productivity in the Brazilian manufacturing industry declined by 2.8% compared to the fourth quarter of 2019 in the seasonally adjusted series due to the economic downturn caused by the Covid-19 pandemic. This was the second sharpest drop in the indicator since the second quarter of 2018, when it decreased by 3.3% due to the truck drivers' strike held in May 2018.

In 2019, labor productivity in the Brazilian manufacturing industry rose by 0.6% in the annual comparison. Of the 18 sectors analyzed, seven recorded a drop in productivity and for the Chemicals sector the indicator remained virtually stable (0.3%). The sharpest increases were recorded by the following sectors: Furniture (7.5%), Wearing apparel (6.1%), Motor vehicles, trailers and semi-trailers (5.7%) and Textiles (4.2%).

### Quarterly labor productivity, Brazilian Manufacturing industry

Output per hours worked - Seasonally adjusted - Index, base: 2010 average = 100



## QUARTERLY LABOR PRODUCTIVITY

In the first quarter of 2020, labor productivity in the Brazilian manufacturing industry decreased by 2.8% in relation to the fourth quarter of 2019 in the series without seasonal effects. This was the second sharpest drop in the indicator since the second quarter of 2018, when it decreased by 3.3% due to the truck drivers' strike in May 2018.

Labor productivity is the ratio between the volume produced and the number of hours worked in production. In the first quarter of 2020, manufacturing industry's production dropped by 3% in relation to the fourth quarter of 2019, while hours worked hardly changed (-0.2%).

The fall in labor productivity resulted from the downturn in economic activity caused by the Covid-19 pandemic. As a result of the

sharp drop in demand, industrial companies were forced to reduce or even halt production altogether. In the second quarter of 2020, labor productivity is likely to remain on a downward path, but at a slower pace of decline.

In April, the effects of the pandemic on employment will likely become more intense than observed in March, at a pace closer to that of the sharp decline seen in industrial activity. The indices measuring the changes in the number of employees and in production reported in CNI's Industrial Survey dropped to their lowest levels in the monthly series in April. The percentage of capacity utilization showed that half the productive capacity of companies was idle in that month. For the coming months, a sharp fall in production and employment is likely<sup>1</sup>.

In addition, government measures that relaxed the rules for moving up holidays, reducing wages and working hours, and suspending employment contracts, among others implemented to protect employment and income during the crisis, came into effect in April. Hours worked in production also tend to fall as a result of these measures.

### Quarterly labor productivity, Brazilian Manufacturing industry

Output per hours worked

| QUARTER   | SEASONALLY ADJUSTED INDEX<br>(BASE: 2010 AVERAGE=100) | SEASONALLY ADJUSTED CHANGE FROM<br>THE IMMEDIATELY PRECEDING QUARTER<br>(%) | CHANGE FROM THE SAME QUARTER THE<br>YEAR BEFORE<br>(%) | CUMULATIVE CHANGE OVER 4 QUARTERS<br>(COMPARED TO THE SAME PERIOD THE<br>YEAR BEFORE, %) |
|-----------|-------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------|
| 2017 - Q1 | 105.7                                                 | 1.7                                                                         | 3.6                                                    | 2.6                                                                                      |
| 2017 - Q2 | 106.5                                                 | 0.8                                                                         | 3.0                                                    | 2.4                                                                                      |
| 2017 - Q3 | 108.3                                                 | 1.7                                                                         | 5.4                                                    | 3.3                                                                                      |
| 2017 - Q4 | 110.7                                                 | 2.2                                                                         | 5.7                                                    | 4.5                                                                                      |
| 2018 - Q1 | 109.8                                                 | -0.8                                                                        | 3.1                                                    | 4.3                                                                                      |
| 2018 - Q2 | 106.2                                                 | -3.3                                                                        | 0.8                                                    | 3.7                                                                                      |
| 2018 - Q3 | 109.8                                                 | 3.4                                                                         | 1.3                                                    | 2.7                                                                                      |
| 2018 - Q4 | 107.8                                                 | -1.8                                                                        | -1.6                                                   | 0.8                                                                                      |
| 2019 - Q1 | 108.0                                                 | 0.2                                                                         | -1.5                                                   | -0.3                                                                                     |
| 2019 - Q2 | 109.5                                                 | 1.4                                                                         | 2.6                                                    | 0.2                                                                                      |
| 2019 - Q3 | 109.2                                                 | -0.3                                                                        | 0.0                                                    | -0.2                                                                                     |
| 2019 - Q4 | 110.3                                                 | 1.0                                                                         | 1.6                                                    | 0.6                                                                                      |
| 2020 - Q1 | 107.2                                                 | -2.8                                                                        | 0.1                                                    | 1.1                                                                                      |

### Annual labor productivity, Brazilian Manufacturing industry

Output per hours worked

| YEAR | ANNUAL CHANGE (%) |
|------|-------------------|
| 2009 | 0.7               |
| 2010 | 2.1               |
| 2011 | -0.8              |
| 2012 | -0.5              |
| 2013 | 2.6               |
| 2014 | -0.3              |
| 2015 | 0.3               |
| 2016 | 1.8               |
| 2017 | 4.5               |
| 2018 | 0.8               |
| 2019 | 0.6               |

| YEAR        | CUMULATIVE CHANGE (%) |
|-------------|-----------------------|
| Last decade |                       |
| 2009-2014   | 3.2                   |
| 2014-2019   | 8.2                   |
| 2009-2019   | 11.6                  |

Source: Prepared by CNI, based on statistics from IBGE and CNI.

<sup>1</sup> CNI. Industrial activity on a sharper downturn in April. **Industrial Survey**, year 23, No. 4, April 2020.

## SECTORAL PRODUCTIVITY

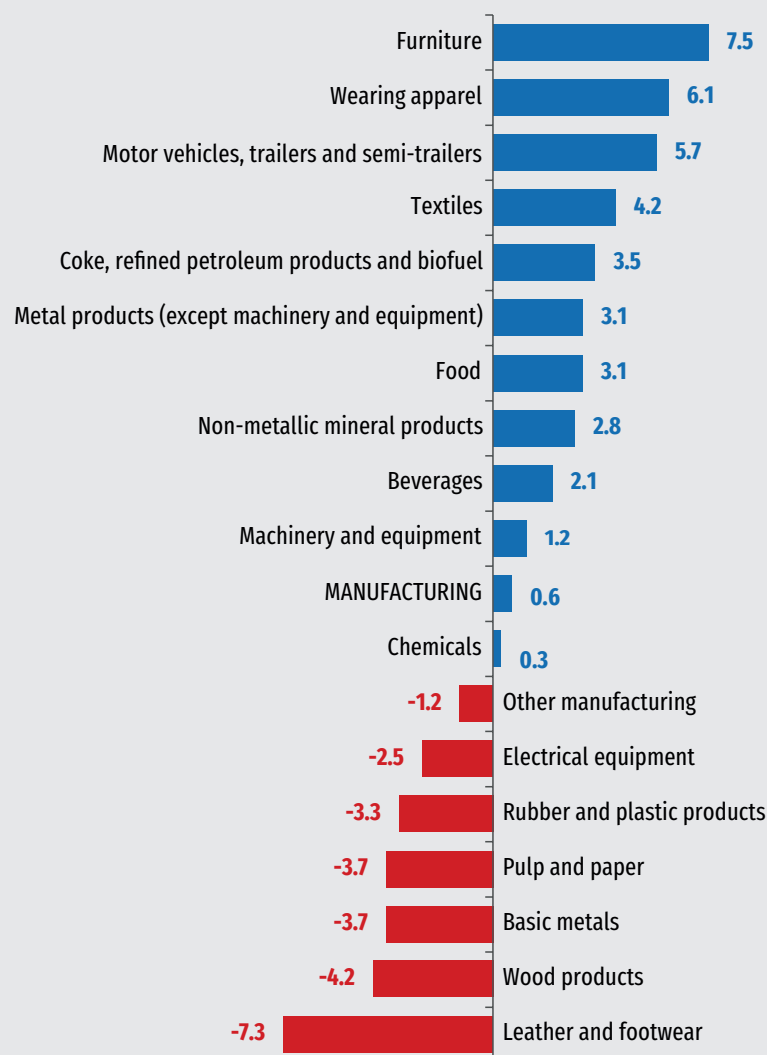
### Seven industries recorded a downturn in productivity in 2019

In 2019, labor productivity in the Brazilian manufacturing industry increased by 0.6% as compared to 2018. Although the segment recorded an increase in productivity over the last five years, the indicator increased by less than 1% for the second year in a row. In 2018, labor productivity grew by 0.8%.

Of the 18 sectors analyzed, seven recorded a downturn in labor productivity and the indicator for the Chemicals sector hardly changed (0.3%) in the annual comparison. The sectors that experienced the greatest efficiency losses are the following ones: Leather and footwear (-7.3%) and Wood products (-4.2%). In the Leather and footwear sector, the volume of goods produced fell by 0.5%, while hours worked in production increased by 7.3%. In the Wood products sector, there was a decline in production (-5.5%), with a smaller decrease in worked hours (-1.4%).

The greatest efficiency gains were those recorded in the following sectors: Furniture (7.5%), Wearing apparel (6.1%), Motor vehicles, trailers and semi-trailers (5.7%) and Textiles (4.2%), as compared to the same period between 2018 and 2019. In these sectors, the volume of goods produced increased or hardly changed, while worked hours decreased.

**Labor productivity, Brazilian manufacturing industry sectors**  
Output per hours worked - Change between 2018 and 2019 (%)



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