

INDUSTRIAL COST INDICATOR

ECONOMIC INDICATORS **CNI**

CNI

Brazilian National Confederation of Industry
THE FUTURE OF INDUSTRY

Industrial cost indicator interrupts downward trend and records an increase in the fourth quarter of 2023

In the fourth quarter of 2023, the Industrial Cost Indicator (ICI) interrupted a sequence of five consecutive declines, which had been occurring since the third quarter of 2022, and showed an increase of 4.0%.








This increase compared to the third quarter of 2023 can be explained by the rise in two out of the three components of the ICI: production costs increased by 3.9% and tax costs grew by 10.3%. Although the fourth quarter is usually a period when tax costs rise, they also increased compared to the fourth quarter of 2023 with the fourth quarter of 2022.

On the other hand, capital costs fell by 5.6% in the same period, which was not enough to offset the increase in the other components of the index.

With the increase in industrial costs in the fourth quarter of 2023, the indicator remains at a high level: 30.1% above the pre-pandemic level (first quarter of 2020).

Variation of the Industrial Cost Indicator and its Components

In (%)

	Q4 2023/ Q3 2023	Q4 2023/ Q4 2022	Four-quarter cumulative rate
 Industrial Cost Indicator	4.0%	-5.6%	-8.1%
 Production Cost	3.9%	-6.9%	-8.0%
 Energy Cost	3.0%	-2.9%	-9.0%
 Personnel Cost	13.1%	6.1%	6.8%
 Goods Cost	1.7%	-10.1%	-11.0%
 Capital Cost	-5.6%	-7.8%	-0.3%
 Tax cost	10.3%	5.5%	-12.4%

PRODUCTION COST

Production costs increase in the fourth quarter of 2023

After five consecutive quarters of decline, the index measuring the cost of industrial production showed an increase of 3.9% in the fourth quarter of 2023. With this rise, the indicator was 46.6% above the pre-pandemic level (first quarter of 2020).

Analyzing the three components of production costs, all of them increased from the third to the fourth quarter. The first component, personnel costs, contributed the most to the index's growth, as it increased by 13.1% in the quarter.

This increase is typical of the fourth quarter of the year, but in 2023, it was driven by a more intense increase in the wage bill. Thus, with the rise, personnel costs are 6.1% higher than those observed in the fourth quarter of 2022.

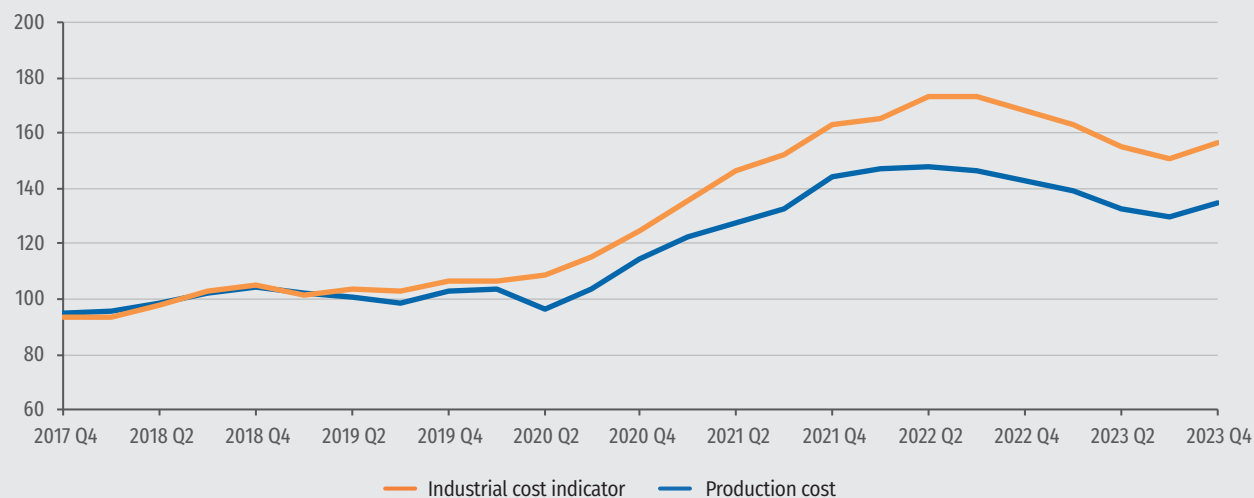
The second component, costs of intermediate goods, rose by 1.7% due to the increase in costs of domestic intermediate goods - costs of imported intermediate goods declined.

The third component, energy costs, recorded an increase of 3.0%, due to the rise in costs of electricity, fuel oil, and natural gas compared to the third quarter of 2023.

Industrial cost indicator and production cost index

Fixed base index (Base: 2018=100)

Production cost (Q4 2023/Q3 2023) **↑ 3.9%**



Source: CNI

Electricity, fuel oil, and natural gas contribute to the increase in energy costs

The energy cost index, which had been trending downward for five quarters, increased by 3.0% from the third to the fourth quarter of 2023. This result is due to the rise in all three components that form the energy cost index.

After four consecutive quarterly declines, the natural gas cost index increased by 3.8% from the third to the fourth quarter of 2023. This component of energy costs remains below the high level recorded at the beginning of the Russia-Ukraine war (down 3.5% compared to the first quarter of 2022), but it is still above the pre-pandemic level (66.9% above the first quarter of 2020).

Meanwhile, the cost of fuel oil increased by 3.0% in the fourth quarter of 2023. The index had been declining since the third quarter of 2022 but had already interrupted this trend in the third quarter of 2023 and, in the fourth quarter of 2024, recorded an increase for the second consecutive time. This increase occurred simultaneously with the rise in energy commodity prices in the fourth quarter, given the oil production cuts and geopolitical conflicts.

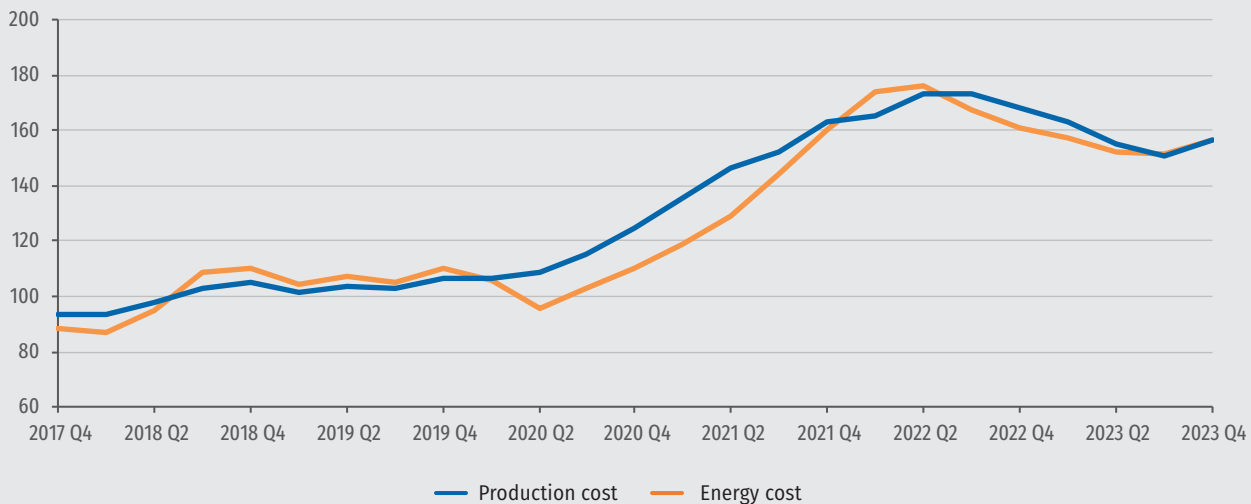
Lastly, the cost of electricity, measured by the average electricity tariff for industrial captive consumers, has been on an upward trajectory for five quarters. In the comparison between the fourth and third quarters of 2023, the index increased by 2.6%.

Production Cost Indicator and Energy Cost Index

Fixed base index (Base: 2018=100)

Energy costs (Q4 2023/Q3 2023)

↑ 3.0%



Source: CNI, based on ANP and ANEEL data.

The personnel cost recorded a significant growth in the quarter

The personnel cost, measured by the average earnings of workers in the industry, showed significant growth: an increase of 13.1% compared to the third quarter of 2023.

The increase from the third to the fourth quarter of each year is seasonal, expected for the fourth quarter of the year. However, comparing the fourth quarter of 2023 with the fourth quarter

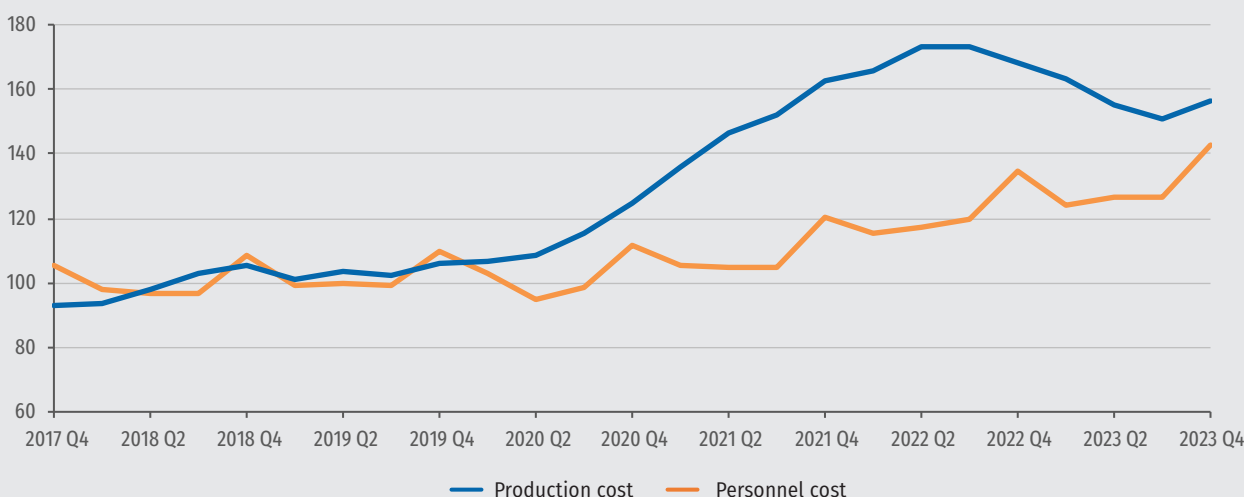
of 2022, there is a 6.1% increase in personnel costs observed by manufacturing industries. Thus, this index showed the highest growth among the components of production costs in the fourth quarter, driving the increase in the industrial cost index.

This result occurred due to the strong increase in the industrial worker's wage bill (+13.1%) between the third and fourth quarters of 2023, as industrial employment remained stable during the period (+0.0%). This is the third consecutive increase in the wage bill, explained by the heated labor market.

Production Cost Indicator and Personnel Cost Index

Fixed base index (Base: 2018=100)

Personnel cost (Q4 2023/Q3 2023) **↑ 13.1%**



Source: CNI.

Note: The historical series of the ICI exhibits structural breaks in 2016 and 2020. When comparing figures before these periods, it is crucial to consider these breaks. For more detailed information, please refer to the reformulated ICI methodology.

Domestic goods drive up the cost of intermediate goods

The cost of intermediate goods closed the fourth quarter of 2023 with an increase of 1.7%. This rise was influenced by the increase in the cost of domestic intermediate goods, which increased by 2.3%.

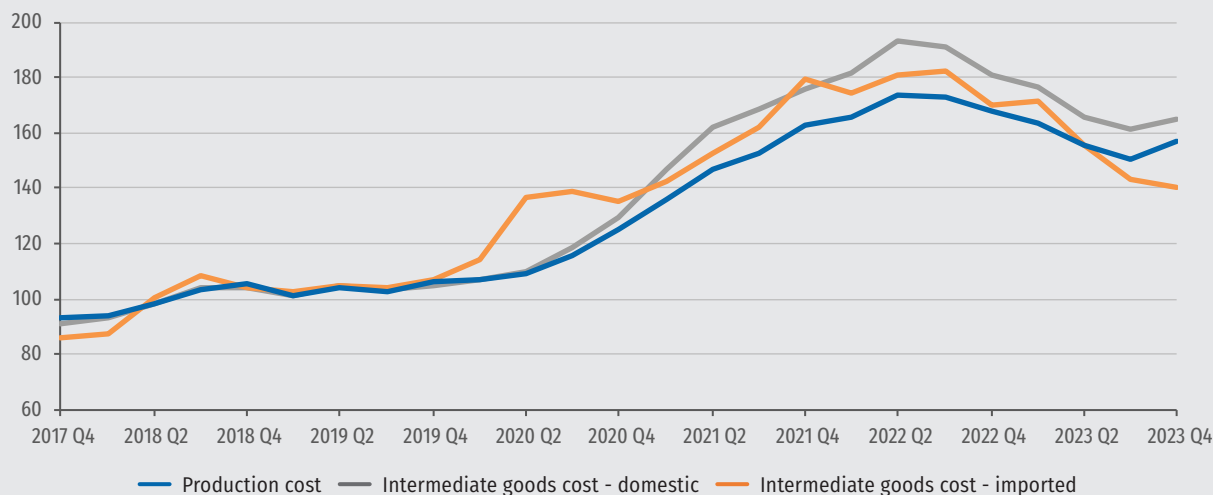
The cost of imported intermediate goods, on the other hand, fell by 1.9% in the quarter.

Production Cost Indicator and Intermediate Goods Cost Index

Fixed base index (Base: 2018=100)

Cost with intermediaries
(Q4 2023/Q3 2023)

↑ 2.3% Domestic
↓ 1.9% Imported



Source: CNI, based on data from the Brazilian Central Bank, IBGE, and MDIC.

COST OF CAPITAL

The cost of capital decreases for the third consecutive quarter

The cost of capital index recorded the third consecutive decrease in the fourth quarter of 2023. The cost of capital decreased by 5.6% and was the only component of the ICI to decline in the quarter. Despite the decrease in the cost of capital in the fourth quarter of 2023,

compared to the pre-pandemic period (first quarter of 2020), this cost shows an increase of 36.7%.

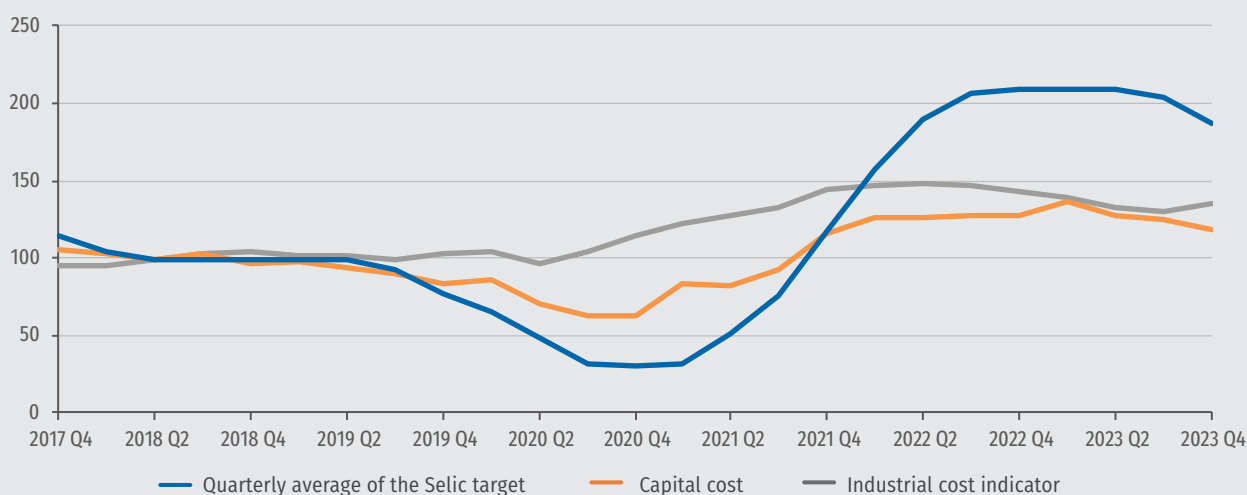
This decline in the indicator is related to the reduction of the basic interest rate, Selic, which underwent four cuts of 0.5 percentage points between August 2023 and the end of the fourth quarter of 2023.

Industrial Cost Indicator and Cost of Capital Index

Fixed base index (Base: 2018=100)

Cost of capital (Q4 2023/Q3 2023)

↓ 5.6%



Source: CNI, based on data from the Central Bank of Brazil.

Note: The historical series of the ICI exhibits structural breaks in 2016 and 2020. When comparing figures before these periods, it is crucial to consider these breaks. For more detailed information, please refer to the reformulated ICI methodology.

TAX COST

The tax cost of the industry increases in the fourth quarter

The tax cost, measured by the sum of federal and state taxes paid by the industry divided by the industrial GDP, increased by 10.3% from the third to the fourth quarter of 2023. This movement is mainly explained by the seasonality of tax collection in the last quarter of the year, which tends to be higher. However, compared to the fourth quarter of 2022, the tax cost is 5.5% higher.

On one hand, the sum of federal taxes (IPI, PIS/Cofins) paid increased by 12.7%. On the other hand, payments of state tax (ICMS) declined by 0.4%. Meanwhile, the industrial GDP, in current values, decreased by 5.5% in the quarter.

With the increase in total taxes concurrent with the decline in industrial GDP, the indicator increased between the third and fourth quarters of 2023.

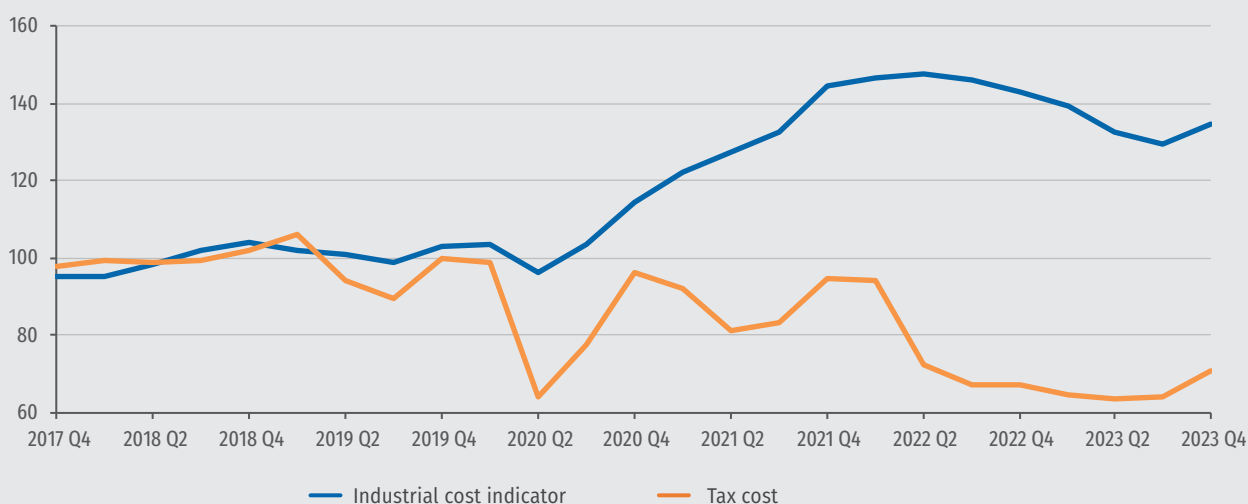
Despite the increase in the quarter, the tax cost is at a lower level than observed pre-pandemic (first quarter of 2020). This is due to the enactment of Complementary Law 194/2022, which limited the ICMS rates on fuels, telecommunications, transportation, and electricity and temporarily reduced the PIS/Cofins rates on fuels and cooking gas - reducing the collection of these taxes. There is also the impact of the enactment of Decree 11,158/2022, which permanently reduced the Industrialized Products Tax (IPI) rate by up to 35% for most products manufactured by the Brazilian industry. However, it is worth noting that the PIS/Cofins rates on fuels were partially reinstated in 2023.

Industrial Cost Indicator and Tax Cost Index

Fixed Base Index (Base: 2018=100)

Tax cost (Q4 2023/Q3 2023)

↑ 10.3%



Source: CNI, based on data from the Federal Revenue Service, Confaz, and IBGE.

Note: The historical series of the ICI exhibits structural breaks in 2016 and 2020. When comparing figures before these periods, it is crucial to consider these breaks. For more detailed information, please refer to the reformulated ICI methodology.

INDUSTRIAL COSTS AND COMPETITIVENESS

The industry experienced a decline in competitiveness and profitability indices

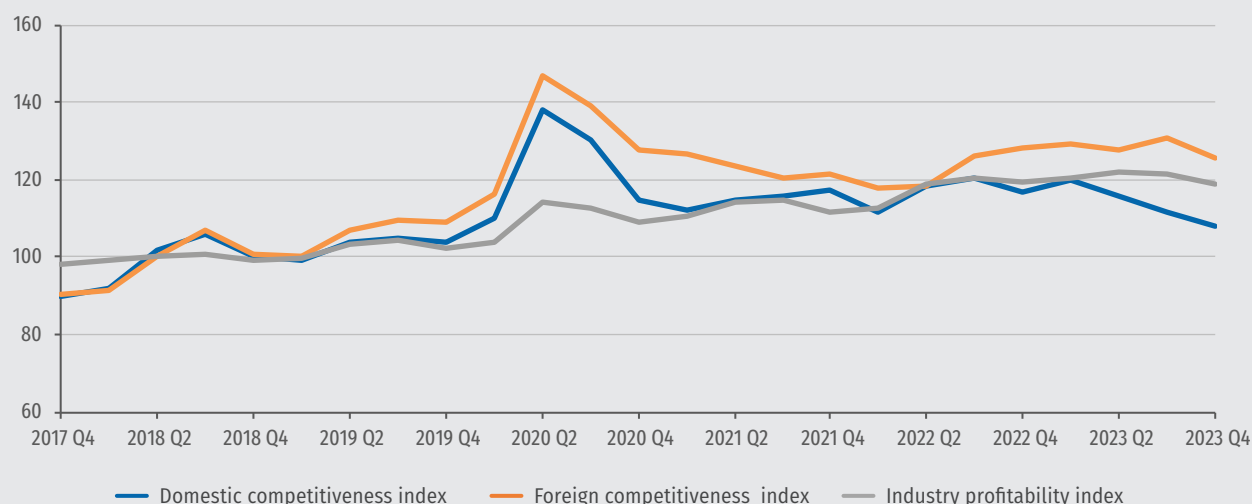
The Brazilian industry experienced a 3.8% decline in the competitiveness index in the external market from the third to the fourth quarter of 2023. This movement occurred due to stability in the cost of industrial products in the United States (+0.1%), while there was an increase in costs for the Brazilian industry (+4.0%). Similarly, in the fourth

quarter of 2023, the indicator measuring competitiveness in the domestic market saw a reduction of 3.5%. This happened because the price of imported goods rose by 0.4%, which was lower than the 4.0% increase in costs for the Brazilian industry during the period.

Finally, the profitability index of the Brazilian industry declined by 2.4% in the third quarter. This occurred because the increase in prices of goods sold by the manufacturing industry, 1.5%, was lower than the increase in industrial costs, 4.0%.

Profitability index of the industry and Price competitiveness index of the industry in external and domestic markets

Fixed Base Index (Base: 2018=100)



Source: CNI.

Note: The industry profitability index is calculated by dividing the national manufacturing industry price index (IPA-IPP Manufacturing Industry) by the Industrial Cost Indicator - ICI. The price competitiveness indexes of the industry in the foreign and domestic markets, on the other hand, are the result of dividing the price index of manufactured goods in the USA, in Reais, and the price index of imported manufacturing products, in Reais, respectively, by the ICI.

¹ Index calculated by the ratio between the price index of imported manufacturing industry products and the cost index of the Brazilian industry.

Learn More

For further information on previous issues, methodology, and historical series, please visit:
www.cni.com.br/e_ici

Document completed in March 26, 2024.

INDUSTRIAL COST INDICATOR | English version of "Indicador de Custos Industriais October/December 2023"
Published quarterly by CNI - National Confederation of Industry | www.cni.com.br | Board of Industrial Development - DDI | Director: Rafael Lucchesi Ramacciotti | Superintendency of Economy - ECON | Superintendent: Mário Sérgio Carraro Telles | Economic Analysis - GAE | Manager: Marcelo Souza Azevedo | Analysis: Paula Verlangeiro Vieira | Statistics Management - GEST | Manager: Edson Velloso | Dissemination Coordination - CDIV | Coordinator: Carla Gadêlha | Graphic Design: Amanda Priscilla Moreira

Customer Service - Phone: +55 (61) 3317-9992 email: sac@cni.com.br

This publication may be copied freely, provided the source is always mentioned.

