

## New base year 2021 for the turnover indices in industry and construction

From 29 March 2024, with the publication of the provisional figures for January 2024, and in accordance with the European Business Statistics Regulation and its Implementing Regulation, the turnover indices in industry and construction are disseminated in reference and base 100 in 2021. Which means that the indices have an average of 100 over the year 2021 (instead of 2015 previously). Apart from the change of the reference year, the rebasing brings with it other changes, the main ones being detailed below.

### Update of the weights

The weights are calculated on the basis of production data at base prices by industry from the annual National Accounts. The weights have been updated for the period 2018 to 2023 using now 2021 data from the annual National Accounts (instead of 2015 data before). As the effects of the health crisis have persisted after 2020, the activity breakdown of production in 2021 is significantly different from that in 2015 (Figure 1). Updating the weights with 2021 data thus leads to significant revisions in certain sectors.

Figure 1: Weights in industry (BE) in base 2015 and in base 2021

Nace classification	Weight 2015	Weight 2021	Percent change
<b>BE: INDUSTRY</b>	<b>10,000</b>	<b>10,000</b>	<b>0.0%</b>
<b>CZ: MANUFACTURING INDUSTRY</b>	<b>8,371</b>	<b>7,969</b>	<b>-4.8%</b>
(C1): Man. of food products and beverages	1,809	1,746	-3.5%
(C2): Man. of coke and refined petroleum products	423	343	-18.9%
(C3): Machinery and equipment goods	944	914	-3.2%
[CI] Man. of computer, electronic and optical products	286	297	3.8%
[CJ] Man. of electrical equipment	225	205	-8.9%
[CK] Man. of machinery and equipment n.e.c.	433	412	-4.8%
(C4): Man. of transport equipment	1,387	1,178	-15.1%
[CL1] Man. of motor vehicles, trailers and semi-trailers	648	617	-4.8%
[CL2] Man. of other transport equipment	739	560	-24.2%
(C5): Other manufacturing	3,808	3,788	-0.5%
[CB] Man. of textiles, wearing apparel, leather and related products	188	177	-5.9%
[CC] Man. of wood and paper products; printing and reproduction of recorded media	402	389	-3.2%
[CE] Man. of chemicals and chemical products	768	778	1.3%
[CF] Man. of basic pharmaceutical products and pharmaceutical preparations	296	313	5.7%
[CG] Man. of rubber and plastics products, and other non-metallic mineral products	613	587	-4.2%
[CH] Man. of basic metals and fabricated metal products, except machinery and equ	867	871	0.5%
[CM] Other manufacturing; repair and installation of machinery and equipment	673	673	0.0%
<b>DE: Mining and quarrying; energy, water supply, sewerage, waste management</b>	<b>1,629</b>	<b>2,031</b>	<b>24.7%</b>
[BZ] Mining and quarrying	60	57	-5.0%
[DZ] Electricity, gas, steam and air-conditioning supply	1,204	1,571	30.5%
[EZ] Water supply; sewerage, waste management and remediation	365	403	10.4%

For the previous rebasing in 2015, we innovated by not using constant weights over the entire index calculation period, but by using two different sets of weights for two sub-periods, the aim was to better reflect changes over time in the share of each sector within overall activity. With the current 2021 rebasing, there are 3 different sets of weights (2010, 2015 and 2021). 2010 weights are used for the aggregation of elementary indices between 1999 and 2012, 2015 weights are used between 2013 and 2017, and 2021 weights are used from 2018. The calculation on the whole period is then achieved by chaining sub-series (computation of a chain-linking coefficient applied on the years 2013 and 2018).

### Update of the SA-WDA models

The series are seasonally adjusted (SA) and working day adjusted (WDA). The corresponding seasonal and WD coefficients are estimated using the X13-Arima method of the JDemetra+ software at NACE rev. 2 class level. The SA-WDA indices of the higher-level positions are obtained by aggregating the SA-WDA indices of the classes that make them up. The models are updated every year. With the current 2021 rebasing, the main change concerns the estimation period for the models, which now begins in 2012 for all NAF rev. 2 classes, compared with 2005 previously for most of them.

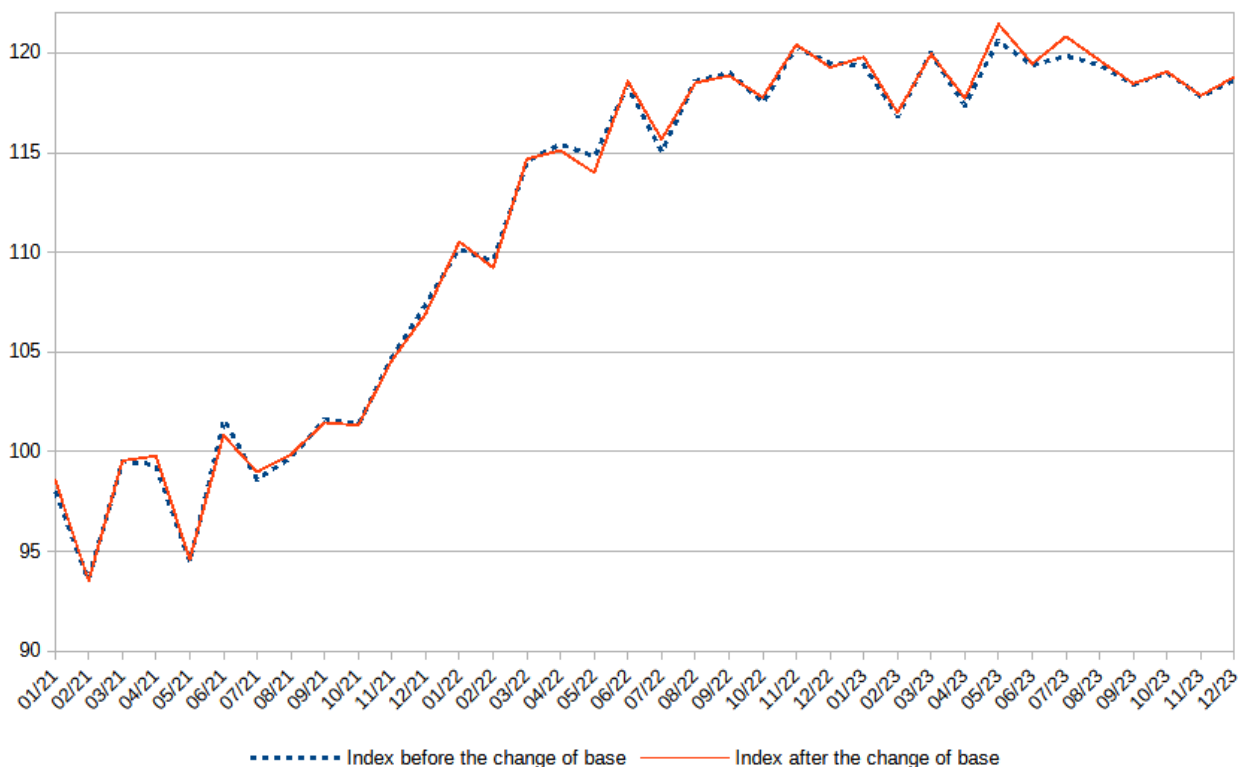
### Revisions

The main factors that lead to revisions are:

- (i) the switch to year 2021 as pivot year for chain-linking;
- (ii) the update of the weights for the period 2020 to 2023;
- (iii) the update of the SA-WDA models.

For the whole manufacturing industry (CZ), revisions for the SA-WDA index lie between -0.8 and +1.0 index points over the 2021-2023 period (Figure 2). The revisions for monthly variations of the index lie between -1.0 et +1.2 percentage points over the 2021-2023 period.

Figure 2: Impact of the 2021 base change on the SA-WDA index of manufacturing industry (CZ)



Note: the index before the change of base (in base 2015) has been divided by its average over the year 2021, to facilitate comparison by taking it back to the same base year as the 2021-based index.

Source: INSEE