

New base year 2021 for the Industrial Production Index and the Index of Production in Construction

From 5 March 2024, with the publication of the first figures for January 2024, and in accordance with the European Business Statistics Regulation and its Implementing Regulation, the Industrial Production Index (IPI) and the Index of Production in Construction (IPVC) have a base year of 2021, which means that the indices have an average of 100 over the year 2021 (instead of 2015 previously). Apart from this change of reference year, which has not taken place for 6 years, most of the changes linked to the switch to the 2021 base are part of the annual reweighting process for these indices that has been in place since the switch to the 2015 base.

Annual update of the weights

Since the changeover to the previous 2015 base, the IPI and IPVC are chain-linked indices with annual weights. The weights are calculated on the basis of gross value added data at basic prices by industry from the annual National Accounts. The latest available annual data relate to the year 2021. The weights have therefore been updated with these data for the period 2020 to 2023, and will be used for 2024.

Given the special nature of 2020 due to the health crisis, the last national accounts data previously used for the period 2020 to 2023 related to 2019. Last year, therefore, the weights were not updated with the 2020 National Accounts data. As the effects of the health crisis have persisted after 2020, the activity breakdown of value added in 2021 is significantly different from that in 2019. Updating the weights with 2021 data therefore leads to significant revisions in certain branches.

The switch to a 2021 reference year also entails a change in the index chain, with the pivot year becoming 2021 instead of 2015, leading to revisions over the period 2016-2020.

Annual review of products

Since the switch to the previous 2015 base, the IPI series have been subject to an annual review process over a 5 to 7 year cycle. The aim is to guarantee the robustness of the indices and to adapt them to economic or technical developments, in particular by including the monitoring of new products and eliminating those whose production has become very low. The results of the first wave of the new cycle, which covers around one-fifth of the indices, are included in this publication. The renovated series are recalculated on the new product perimeter over the last three years, 2021 to 2023, which represents an additional source of revision for the corresponding series. Before that date, the profile of the indices is broadly unchanged.

Annual update of the SA-WDA models

The series are seasonally adjusted (SA) and working day adjusted (WDA). These effects 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 each year. This year, 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. The WDA coefficients have also been revised.

Revisions

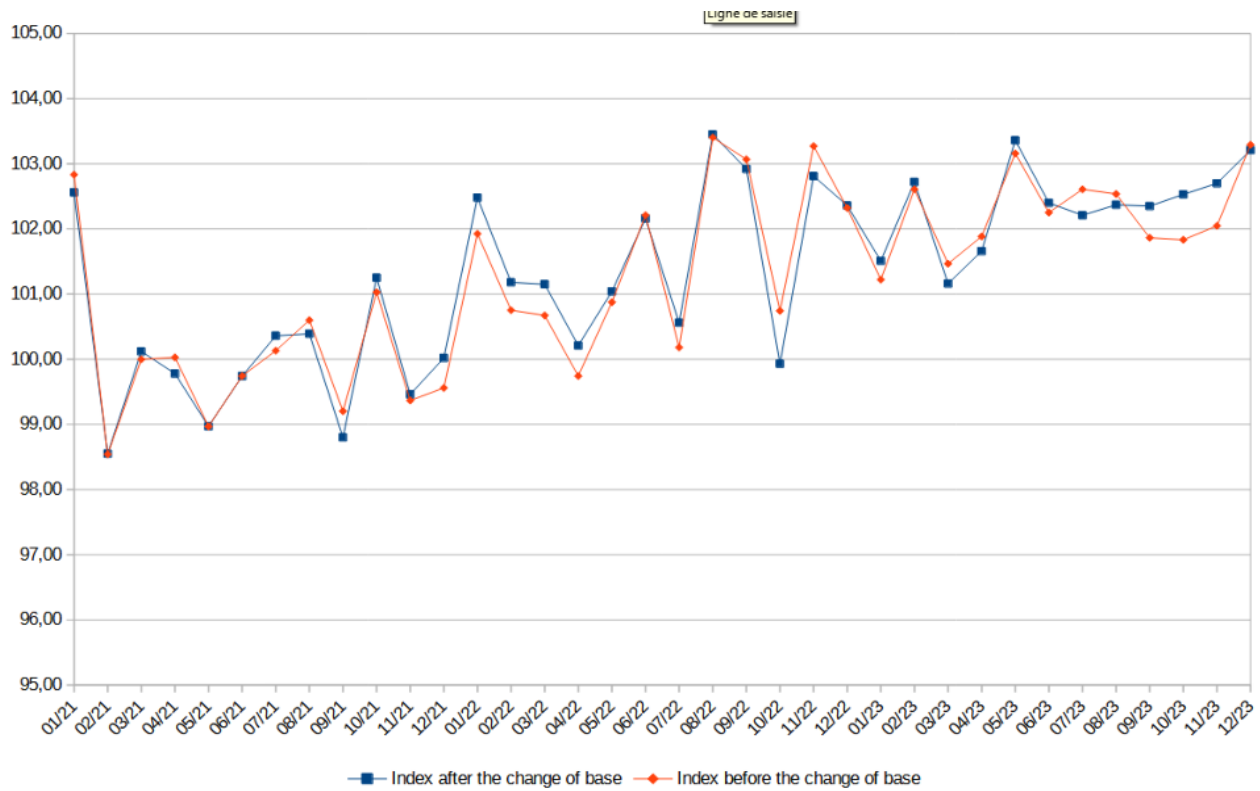
The main factors that lead to revisions are :

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

For the whole manufacturing industry (CZ), revisions for the SA-WDA index are moderate. They lie between -0.8 and +0.7 index points over the 2021-2023 period (*Figure 1*). The revisions are more significant in the second half of 2023, due to late responses and changes by some companies to their recent declarations to the monthly industry surveys, which are the data source for calculating the index. The revisions for monthly variations of the index lie between -0.7 et +0.7 percentage points over the 2021-2023 period.

For construction (FZ), revisions for the SA-WDA index are a bit higher. They lie between -1.7 and +1.0 points over the 2021-2023 period (*Figure 2*). Indexes for construction were revised last year for the switch to the new data source « Déclarations sociales nominatives (DSN) », thus not update occurs this year. Revisions are due to the three other factors : the update of the weights, the switch to year 2021 as pivot year for chain-linking and the update of the SA-WDA models.

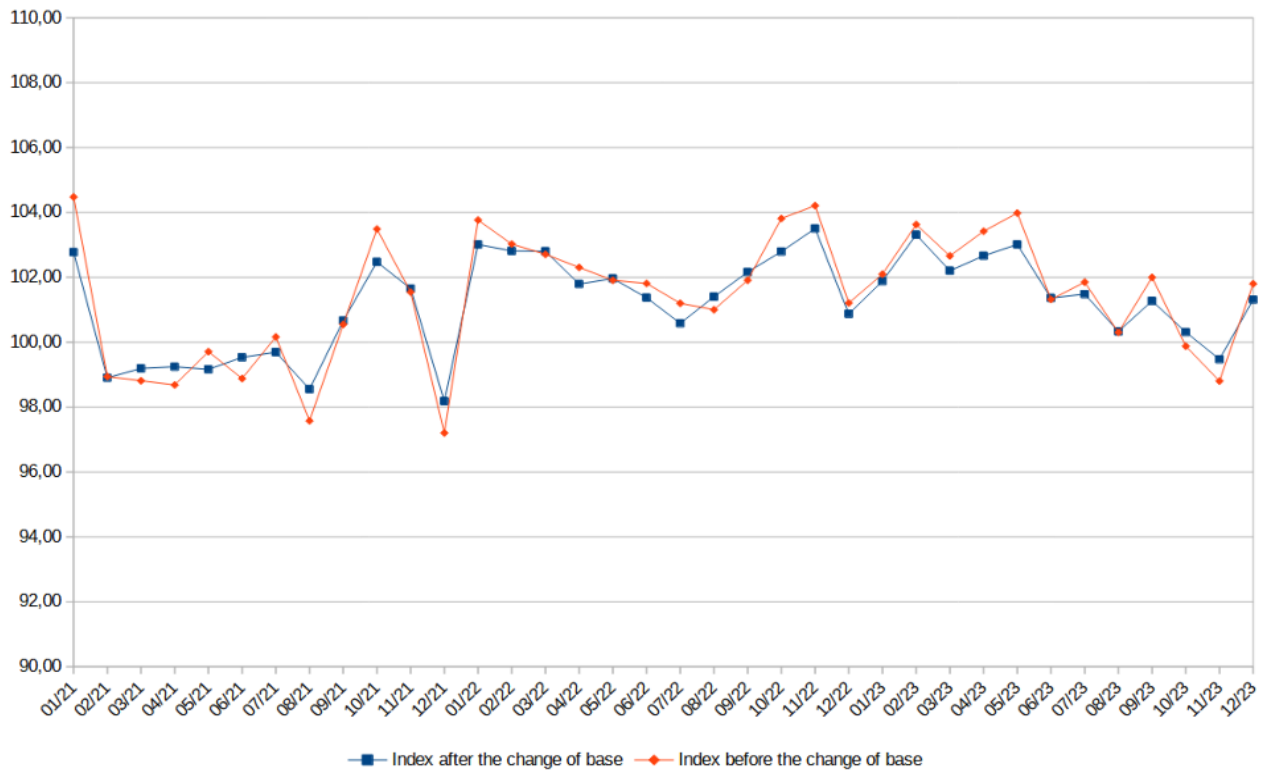
Figure 1: Impact of the 2021 base change on the SA-WDA index of manufacturing production (CZ)



Note: the index before the change of base (in base 2015) 2015-based index 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

Figure 2: Impact of the 2021 base change on the SA-WDA index of production in construction (FZ)



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