Methodology sheet

Industrial production index

I. Definitions and content
Pursuant to CZ-NACE, industrial activities are considered to be activities classified under sections B (Mining and quarrying), C (Manufacturing), D (Electricity, gas, heat and air conditioning supply) and E (Water supply; Activities related to wastewater, waste and rehabilitation). The scope of provided data depends on the current Eurostat regulations concerning short-term statistics, which explicitly exclude some activities from short-term statistics (e.g. section E).
With respect to these requirements, industrial short-term statistics only cover sections B, C, and D.

The Industrial Production Index (IPI) is the basic indicator of industrial short-term statistics. It measures the output of industrial sectors and industry in total, adjusted for price effects.

II. Survey source and methodology
The calculations of the monthly indicators of short-term statistics are based on the results from the processing of the Prům 1-12 monthly statistical report. Templates of the statistical questionnaires are available at http://apl.czso.cz/pl/vykazy/pdf1.

III. Classification
Same period of the previous year = 100
Average for 2015 = 100
In addition to unadjusted data, the CZSO´s Public Database
(https://vdb.czso.cz/vdbvo2/faces/en/index.jsf?page=statistiky#katalog=30835) contains data adjusted for seasonal effects and data adjusted for calendar effects. Besides unadjusted data, the ARAD database contains the following adjusted indicators:
Corresponding period of previous year = 100, monthly data adjusted for calendar effects
2015 average = 100, monthly data adjusted for seasonal effect

IV. Calculation method
The calculation is largely based on sales of own goods and services converted to constant prices, while in certain economic activities physical production volumes of representative products are used to characterise developments in the sector. The index is primarily calculated as a monthly base index, currently relative to the average month of 2015, and at the level of two-digit CZ-NACE divisions. Weights derived from the structure of value added in the base year are used for higher-level aggregations (up to sections, main industrial groupings, and industry in total). Year-on-year indices and potential cumulations over time (quarterly, half-year, annual) are derived from the base indices. In compliance with Eurostat regulations, the industrial production index covers CZ-NACE sections B, C, and D (excluding group 35.3).

V.   **Change in methodology**

Together with the published results for January 2018, the base period for short-term statistics was changed, which is a standard step performed every five years and coordinated within the European Statistical System:

- The base period for the base indices of industrial production changed from the 2010 average to the 2015 average.
- New weighting schemes derived from the results of structural business statistics for 2015 were used.
- New price indices were used for conversion into constant prices (also based on 2015).
- According to the Eurostat manual on short-term statistics, the new weights were used to recalculate data back to 2014. This entails a revision of data for 2014–2017.
- Data for 2000–2013 were connected with the updated results via conversion bridges using the annual overlap method.

The historic time series based on 2010 and published until the end of 2017 are still available in the time series archive for industry statistics.

Simultaneously with the publication of the January 2019 results, the model used to adjust time series of the Industrial Production Index was changed – an indirect adjustment method is now employed which uses the lowest source aggregates of the Industrial Production Index, and the adjustment of higher aggregations is obtained as a weighted average of the adjusted source data. As from the same date, working day-adjusted data were emphasised in the CZSO's News Releases (Industry).

VI.   **Reporting population**

Reporting business entities are selected from the Register of Economic Entities based on their main (principal) economic activity. The sample consists of a sample part and an exhaustive part. In general, the content and purpose of the surveys, the reporting population, the method of statistical surveys, the periodicity and the deadlines for provision of data are regulated in the Decree on the Program of Statistical Surveys for the relevant calendar year.