INTRODUCTION INTO METHODOLOGY
for Basic Indicators of Short-term Statistics on Industry

Part A

The industrial production index (IPI) measures the price-change-adjusted own-output of a branch and of total industry. When calculating the index, sales of own goods and services at constant prices are used. In case of selected sectors (section C, subsection DF and section E) the changes of the sector are characterized by physical volume of production of selected representatives. The index is primarily calculated as the monthly base index (at present the base period is the average month of the base year 2000) at the level of CZ-NACE 2-digit divisions. With aggregating, the weights corresponding to the value added structure in the base year is used (aggregated by subsections, sections and Main Industrial Groupings and by total industry). From the IPI year-on-year and potential cumulative indices (quarterly, half-yearly and yearly cumulating) are derived.
Until the end of 2005, the IPI was calculated only on the basis the product representative group. Since the New Releases in January 2006, the industrial production index (including back-converted time series) is calculated according to the methodology above, which was also published in the Press Release on March 10, 2006.
(http://www.czso.cz/eng/redakce.nsf/i/change_of_methodology_for_the_industrial_production_index).

Part B

Sales of own goods and services in industry represent only sales of goods and services from CPA divisions 10-41; so the sales are adjusted for non-industrial activities of the enterprise. The sales are measured at current prices. The CZSO uses a composite price index to deflate them. The index comprises an industrial producer price index related to the domestic market and an export price index of manufactured goods broken down by CPA.

The **average number of persons employed** encompasses registered employees (permanent, casual or temporary employees contracted to work for the enterprise) even other employed persons who are engaged in the enterprise and are not contracted to that. In all that cases the number of persons is re-counted to the full time.
The CZSO publishes the persons employed data in short-term statistics on industry since January 2007 in compliance with the Eurostat methodology. In previous years, only the number of employees (it means only employees contracted to work for the enterprise) was published. With year-to-year comparison, this indicator could be considered a suitable approximation of number of persons employed.

The **average monthly wage** per person employed includes all incomes from employment (direct wages, personal bonuses, gratuities, shares in economic results and remuneration for time not worked) accounted to registered employees in compliance with appropriate wage regulations (this applies to gross wages). It compromises also payments for persons working outside employment on contract basis and other employed persons to obtain comparability to the number of persons employed indicator.

The **labour productivity** is calculated as the sales in industry index (constant prices) over the index of the total number of persons working for the enterprise. It means the number of persons employed and also the number of agency workers and other enterprise workers temporarily reallocated to work for the enterprise. With this calculating, the influence of eventual mistaking own for agency workers, which could divert the labour productivity data, is eliminated. The labour productivity, which is calculated from sales, represents only the approximation of productivity for the short-term statistics' purpose because the value added data are not available in monthly period. It is assumed that changes of added value can be approximated by changes of sales in a short-term period.
The methodology above (including agency workers) has been applied by the CZSO since January 2007. In the years 2001-2006 the labour productivity was calculated as the sales in industry index over the index of the average registered number of employees only.

Part C

Job orders represent the value of ordered industrial products and work done (at agreed prices exclusive of consumer tax and VAT). The order is accepted if, in the producer's judgement, there is sufficient evidence for a valid agreement regardless the time of beginning of the services and their realization. It includes also the value of production for pre-known customer even if there is no written agreement concluded. Job orders statistics is part of enterprise short-term statistics. This implies that all volumes of job orders concerning manufactured goods and services are measured as a total for an enterprise classified to its respective branch (CZ-NACE) according to its prevailing activity. Hence, the job orders are not measured or published broken down by individual manufactured goods or services. The volume of job orders does not include job orders of goods purchased for resale in the same condition as received. The volumes of job orders are measured in enterprises of selected CZ-NACE divisions (17, 18, 21, 24, 27-35) that mostly produce to order in a rather long production cycle and have a rather large supply of orders. In accordance with the Eurostat methodology the CZSO publishes the **new orders received** indicator in a given reference period.

Part D

The method TRAMO / SEATS implemented in the DEMETRA programme is used for **seasonal adjustment**. This method belongs to the most preferred methods of EUROSTAT for seasonal adjustment of time series of economic indicators.

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Basic indicators of sort-term statistics rest on monthly results **in enterprises with industry as their principal activity and employing 20 or more** people, irrespective of the legal form. Enterprises with 100 or more employees are covered all to calculate basic indicators; a sample is used for enterprises with 20-99 employees and grossing up to the universe is made. Exhaustive survey is taken in enterprises with 20 or more employees to calculate the indicators of physical volume of production, which are also used for calculating the IPI.