

## **METHODOLOGY**

**Direct material input (DMI)** – measures the input of used materials in the economy, i.e. all materials that have an economic value and are used for production and consumption. DMI is domestic used extraction (extracted raw materials, grown biomass) plus import. Direct (used) material inputs includes all solid, liquid and gaseous substances that enter the economy for further use in the manufacturing process or consumption. Water and atmosphere are excluded except those parts contained in materials. Indicators of material inputs are derived from the material balance, it is possible, though, to derive them from individual material flow accounts (MFA) without having to set up a total material balance and introduce adjusting items.

**Domestic material consumption (DMC)** – measures the total amount of materials directly used in the economy, without hidden flows. DMC is calculated as DMI minus export.

**Physical trade balance (PTB)** – measures the surplus or deficit of the physical foreign trade of the economy. It is calculated as imports minus exports.

Indicators of material flow accounts of the Czech Republic mentioned above were divided into following categories:

- Biomass (raw materials, semi-manufactured and final products from biomass);
- Fossil fuels (raw materials, semi-manufactured and final products from fossil fuels);
- Metal ores (raw materials, semi-manufactured and final products from metal ores);
- Non-metallic minerals (raw materials, semi-manufactured and final products from industria and construction minerals);
- Other unspecified products;
- Waste.

For the calculation of these indicators, two basic material flow accounts had to be developed:

- **Domestic used extraction account** – contains material inputs of domestic origin, which obtained a status of a product;
- **Foreign trade account** – covers import and export.

Further, indicators of economic performance can be related to the input and output indicators of material flows. For example GDP per unit DMI or DMC indicates direct **material productivity** of the economy. On the other hand, if we relate the input indicator to GDP, we get **material demands** of the economy.

Compared to previous publications, methodological changes were made in line with the Regulation (EU) No 691/2011 of the European Parliament and of the Council, where the import and export of liquid fuels were adjusted according to the residence principle. In addition, the quantity of imported natural gas was adjusted from 2014 in line with the revision of the national accounts.

The following symbols have been used throughout:

The symbol of dash (-) in place of a figure indicates that the phenomenon did not occur.

The symbol of (0) used in table designates figures smaller than a half of the unit of measure chosen.

The symbol of dot (.) shows that the figure is not available or cannot be relied on.

The symbol of horizontal small cross (x) shows that the figure is not applicable.

The calculations in the tables are performed using unrounded figures (including the sums).