

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. Import and export are classified according to the level of processing into raw materials, raw products, final products and other products (rough classifications are raw materials and products). Other products are products without further description, usually products from the food industry.

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

- Biomass (raw materials and raw products from biomass);
- Fossil fuels (raw materials and raw products from fossil fuels);
- Metal ores (raw materials and raw products from metal ores);
- Non-ferrous metal ores (raw materials and raw products from non-ferrous metal ores);
- Others (final products, other products, packing materials)¹.

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 including packing.

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.

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).

¹ This category is negative in the case of the DMC, as the Czech Republic exports larger volumes of final and other products compared to their imports. Consumption of domestically produced final and other products is not covered by this category, as they are included in other categories as raw materials and semi-manufactured products needed for their production.