

Methodological sheet

Gross domestic product

I. Definition and content

Gross domestic product (GDP) is the monetary expression of the total value of goods and services newly created in a given period in a particular territory; it is used to determine the output of the economy. It can be defined or calculated in three ways: the production method, the expenditure method and the income method.

The GDP of the Czech Republic (the key indicator of the system of national accounting) and the main components of GDP expenditure are calculated as far as possible in compliance with Eurostat national accounting methodology (ESA 2010).

All the indicators are initially calculated at current prices and then converted to constant prices to exclude the influence of price fluctuations.

II. Sources and methodology of ascertainment

When the national accounts are compiled, information is drawn from a large number of data sources taken both from statistical surveys organised by the Czech Statistical Office (CZSO) and from administrative data sources from external institutions. All the data sources are broken down into main and supplementary ones according to their character of use.

With the exception of household budget surveys, the main data sources are always comprehensive. This enables an entire sequence of accounts – all current accounts, accumulation accounts and balance sheet accounts – to be compiled for each such source. Supplementary data sources are used to supplement, refine and otherwise correct individual accounts compiled from the main data sources.

The quarterly estimates of economic growth are methodologically closely linked to the annual national accounts in terms of the content of the indicators, but differ quite substantially in terms of scope and procedures used. The basic aims of the quarterly and annual calculations are also different – the point of short periodicity is to obtain a relatively quick yet reasonably accurate estimate of the year-on-year rate of formation and use of GDP. The time series of methodologically comparable quarterly indicators, which can be a suitable tool for forecasting, also play an important role.

III. Breakdown

The main data sources for the quarterly estimates include short-term statistical surveys, customs and price statistics, outputs from the processing of the statements of budgetary and contributory organisations, information on taxes and subsidies from the Ministry of Finance, and banking and balance of payments statistics from the Czech National Bank.

Two price levels are used at the CZSO to assess the level and growth of the economy:

- a) data at *current prices* reflect the recorded prices at which all purchases and sales were executed in the period under review. In the case of inventories the values determined in this way are net of any gains or losses resulting from holding inventories due to price fluctuations;
- b) *constant prices* express the evolution of volume indicators net of price effects.

IV. Method of calculation

Gross domestic product can be calculated in three ways:

- (1) Using the *production method*, GDP is calculated as the sum of gross value added of the various institutional sectors or the various industries plus net taxes on products (which are allocated to sectors and industries). It is also the balancing item of the total economy production account, where output is recognised on the resources side and intermediate consumption on the use side. Gross value added is the difference between output and intermediate consumption. Since output is valued at basic prices and use at purchase prices, the resources side for the total economy is supplemented by taxes net of subsidies on products.
- (2) Using the *expenditure method*, GDP is calculated as the sum of final uses of goods and services by resident institutional units (actual final consumption and gross capital formation) plus exports and minus imports of goods and services. Actual final consumption is derived via social transfers in kind from the final consumption of households, government and non-profit institutions serving households. Gross capital formation is broken down into gross fixed capital formation, changes in inventories and net acquisitions of valuables.
- (3) Using the *income method*, GDP is calculated as the sum of primary incomes for the total economy: compensation of employees, taxes on production and exports less subsidies, gross operating surplus and mixed income (or net operating surplus and mixed income and fixed capital consumption).

V. Change in methodology

In October 2014 the CZSO published revised national accounts for the Czech Republic from 1990 to the present under the ESA 2010 European methodological standard (based on the SNA 2008 global standard). This extraordinary revision affected the entire system of national accounts, including the main macroeconomic aggregates, among them GDP. The most important changes connected with the implementation of ESA 2010 in the area of GDP are capitalisation of research and development expenditure, capitalisation of sundry assets, capitalisation of military expenditure, the way in which globalisation is captured, and changes relating to financial corporations (i.e. different classification into sectors and changes in the estimates of insurance services). The extraordinary revision also involved changing the reference year for constant price indicators (to 2010).

The values of GDP and other macroeconomic indicators at constant prices are based, in compliance with Eurostat requirements, on the price level of the 2010 base year and were calculated using annually chained data indices expressed in prices of the previous year.

The published data are mutually comparable in the time series and are methodologically consistent with ESA 2010, which is the new standard in the EU (after ESA 1995). The time series were retroactively adjusted to reflect changes in the indicators stemming from the revision of external sources (for example in the area of foreign trade) and from the application of Eurostat methodological guidelines.

VI. Reporting population

The CZSO's National Accounts Department obtains numerical source data for the quarterly GDP estimates from the CZSO's departments of industry and cross-sectional statistics and from external sources (in particular the Czech National Bank

and the Ministry of Finance). The most important sources of information, however, are the results of the processing of quarterly statistical statements, which are always supplemented so as to arrive at a complete set of units.

More detailed GDP data can be found on the CZSO website at www.czso.cz.