Annual Gross Domestic Product

Methodological notes

The Gross Domestic Product at market prices (GDP), the main macroeconomic aggregate of national accountancy, represents the final result of production activities carried out by resident productive units, during a defined period, namely a year. The Gross Domestic Product at market prices, in current prices, is estimated based on the three method briefly described below: production method, expenditure method and income method. When estimating the Gross Domestic Product at average prices of previous year, only the first two methods are used.

Production method	Expenditure method	Income method
QGDP = GVA+TP-PS, where: GVA = gross value added at basic price; TP = taxes on product; PS = product subsidies	QGDP = FC+GCF+E-I, where: FC = actual final consumption; GCF = gross capital formation; E = exports of goods and services; I = imports of goods and services.	QGDP = CE+TPI-TS+GOS, where: CE = compensation of employees; TPI = taxes on production and imports; TS = total subsidies; GOS = gross operating surplus.

I. GDP estimate in the provisional version

For the GDP estimate – provisional version - indirect sources, estimation and extrapolation methods are used, top a large extent – due to the lack of complete primary data, unavailable at the moment of GDP compilation in the provisional version.

The main data sources used for annual Gross Domestic Product estimation, in the provisional version, are as follows:

- **Statistical sources**
  - infra-annual surveys on industrial production indices, indices of construction works, turnover volume indices of retail and services rendered to the population, indices of goods and passengers travel, investment indices, value indices of turnover in wholesale and business services; industrial production price indices, consumer price indices, construction cost indices, price indices for services, unit value indices for foreign trade;
  - production account of agriculture, developed based on operational data from the Ministry of Agriculture - provisional data;
  - infra-annual surveys on earnings and number of employees.

- **Administrative sources**
  - Provisional execution of general consolidated budget.
- **Accountancy and financial sources**
  - Balance sheets of financial institutions;
- **Other data sources:** Balance of external payments – provisional data.

GDP estimation at current and constant prices (average prices of previous year)

1. ***Output approach***

Estimation of production:

- for non-financial companies (enterprises), households and non-profit institutions the output is estimated, by activity branches (10 branches), by extrapolating in terms of volume and price or value, the output of the previous year, using the volume, price and value indices available from statistical data sources;
- for financial corporations and government, the output is directly calculated based on data sources (balance sheets and budgetary executions).

Estimation of intermediate consumption:

- for non-financial companies (enterprises), population households and non-profit institutions the intermediate consumption is estimated, by activity branches (10 branches), by applying the intermediate consumption weight in production from the previous year (based on the assumption of technological coefficients steadiness) in the lack of information on actual weights for the current year;
- for financial corporations and government, intermediate consumption is directly calculated based on data sources (balance sheets and budgetary executions).

Estimation of Gross Value Added:

Gross Value Added is calculated as the balance between production and intermediate consumption.

Calculation of taxes and subsidies on product:

Taxes and subsidies on products are directly determined based on data of consolidated budget.

2. ***Expenditure approach***

The main GDP components in the expenditure method are:

- Final consumption expenditure
  - Actual final consumption of households, which includes:
    - Final consumption expenditure of households;
    - Final consumption expenditure of general government;
    - Final consumption expenditure of non-profit institutions serving households (NPISH);
  - Actual final consumption of general government.;
- Gross capital formation, which includes:
  - Gross Fixed Capital Formation;
  - Change in inventories.
- Net exports of goods and services, calculates as a balance between:
  - Exports of goods and services;
  - Imports of goods and services.

Estimation of final consumption expenditure of households and Gross Fixed Capital Formation is done by extrapolating in terms of volume and price, or value, the data of the previous year, using the volume, price and value indices available from statistical data sources on retail, services rendered to population, passengers travel, investments, consumer price indices, construction cost indices, agricultural production price indices.

The final consumption expenditure of general government: is directly estimated based on budgetary executions data.

Estimation of final consumption expenditure of non-profit institutions serving households Is done by extrapolation, based on certain value and price assumptions.

The exports and imports of goods and services are directly determined based on the Balance of Payments data.

II. GDP estimation in semi-final and final version

The main data sources used for annual Goss Domestic Product estimation in the semi-final and final versions are:

- **Statistical sources**
    - Structural Business Survey;
    - Family Budgets Survey;
    - Households Labour Force Survey (HLFS);
    - Economic Accounts for Agriculture;
    - Balance of agricultural products;
    - Labour Cost;
    - Population and Housing Census;
    - Specific surveys carried out by specialised departments within the INS on industry, transports, trade, construction, services, number of employees, earnings, etc.;
    - Other annual and infra-annual available surveys on industrial production, construction, services, trade;
    - Price indices.
- **Administrative sources**
    - Execution of public administrations general budget – budgetary reports, consisting of: Central public administration budget; Local administrations budget; Social security budget, consisting of: Unemployment fund, Health insurance fund, Social security fund.
    - Statements on global income from independent activities, submitted by individual entrepreneurs and family associations to the Ministry of Public Finances (MPF).
- **Accountancy and financial sources**
    - Financial balance sheets of financial companies;
    - Financial balance sheets of other economic operators.
- **Other data sources**
    - Balance of Payments

GDP estimation at current prices

1. ***Output approach***

The valuation of production and intermediate consumption at current prices is directly done, by institutional sectors and activity branches, based on information from available data sources.

Gross Value Added is estimated as the balance between production and intermediate consumption.

Calculation of taxes and subsidies on product is based on budgetary execution data.

2. ***Expenditure approach***

   The valuation of each component is directly done based on information from available data sources.

3. ***Income approach***

In the income method, GDP is obtained by summing up the following components: compensation of employees (earnings and gross allowances and social fees paid by the employer), gross operating surplus, other taxes on production, taxes on products, less other subsidies on production and subsidies on products.

The estimation of compensation of employees, taxes and subsidies is directly done based on information from available data sources.

The gross operating surplus is the balancing item of operating account and represents the remaining part of the value added, newly created in the production process, after the compensation of employees and the taxes on production payments.

GDP estimation at constant prices (average prices of previous year)

The Gross Domestic Product at constant prices is estimated within the Romanian system of national accounts by two methods: the ***output approach*** and the ***expenditure approach***. For each method, independent indices of components are used, while final results are subject to reconciliation.

The Gross Domestic Product at constant prices results from the aggregation of its components, evaluated at constant prices.

The main methods for the assessment at constant prices are:

- ***Price deflating*** methods are using the following price indices to deflate the values expressed at current prices: industrial production price indices, construction cost indices, consumer price indices, unit value indices, “inputs” prices, e.g. labour force price or an average price of intermediate consumptions, etc.
- ***Volume extrapolation*** method, using production volume indices, volume indicators of “inputs”, e.g. number of employees or output change in volume.