Macroeconomic Indicators

Loredana Ionela Văduva
„Dimitrie Cantemir" Christian University
Faculty of Touristic and Commercial Management, Bucharest, Romania
Email: loredanaionela_vaduva@yahoo.com

Abstract

Currently, the macroeconomic indicators for results are determined and analyzed by the System of National Accounts (SNA), a macroeconomic analysis system which meets the demands of information and economic analysis of the companies based on market economy. The National Accounts (NC) requires the main filing system and macroeconomic analysis used by most of the countries within international statistics. The macroeconomic indicators are: the domestic product, private consumption, government consumption gross investment (gross capital formation), national product and disposable income personal income, household income, personal income of the population.

The macro-economic indicators can be analyzed according to the following aspects: development analysis, economic dynamics, structure analysis and changes in economic structure, calculation and analysis of input use efficiency; comparison level, comparison of structure and national economic development to other countries.

Keywords: macroeconomic indicators, national economy, macroeconomic analysis, domestic product, national product, national income;
J.E.L. Classification: E60

1. Introduction

The indicators expressing the results of the national economy have an important role within the system of macroeconomic indicators. They are also called economic aggregates and highlight the different aspects of the production of goods and services obtained by the economic agents within a period of time.

These indicators characterize and analyze the size and structure of national production, its evolution in time and - by linking with other macroeconomic indicators - the efficiency of both the overall economic potential of national economy and its structural elements are calculated and analyzed.

Currently, the macroeconomic indicators for results are determined and analyzed according to the System of National Accounts (SNA), a macroeconomic analysis system which meets the demands of information and economic analysis of the companies based on market economy.

The System of National Accounts or The National Accounts (NA) we mean the main accounting and macroeconomic analysis system used by most of the countries within international statistics.

The macroeconomic indicators are:

- Domestic product
- Private consumption
- Government consumption
- Gross investments (Gross capital formation)
- National Product
- Disposable income and Household income
- Personal income of the population

The domestic product and the national product are macroeconomic indicators, which express the final output of goods, the first one starting from the “internal” criterion and the second one from the “national” criterion.

The following three methods of calculation are used:

- The production method or the value added method;
- Method of distribution or the income approach;
- Method of using income or expenditure

2. The macroeconomic indicators

I. Gross Domestic Product expresses the gross value of the final products during the period of economic calculation by the economic agents that perform their production activities within the country.

Production method consists of measuring and highlighting the gross value added (GVA) created by the factors of production in all units within the country, producing consumer goods and services for the public sectors and the aggregation of these sizes according to industry branches and national economy as a whole.

$$GDP = \Sigma\ VABi, \qquad (1)$$

where i represents the economic sectors or industries.

Out of the gross or total value (PBI) they decrease intermediate consumption (CII), namely the value of material goods and services produced during the calculation period and used to produce new products. Gross value added is thus obtained (VABi) for the economic industry or branch. So,

$$VABi = Pbi\text{-}Cii \text{ and } PIB=\sum PBI\text{-}=\sum Cii \qquad (2)$$

Indirect taxes are also excluded from the production value, but net indirect taxes are added, so GDP within the prices of the production factors is obtained.

$$PIBpf= =\sum VABpf + I\ net\ indirect= =\sum VAB\ pf + I\ indirect\text{-}Sv \qquad (3)$$

According to the method of final use (expenditure approach) GDPpp is the sum of the elements representing the final use of the economic goods (materials and services) valued at market prices, less the value of imported goods.

$$GDPpp= Ppv + Cpb + FBC + EXPnet \qquad (4)$$

II. Private consumption can be measured starting with two concepts:

The market or restricted concept, according to which private consumption includes only the household purchases in the market. This indicator can be determined based on the information regarding the sales to the public within a period of time.

The general concept, according to which private consumption is calculated as the sum of values of all the materials and services that have been used to meet needs.

Household consumption refers to the following elements: land purchases; purchases of property included in gross capital formation and household purchases of tools and materials.

III. Government consumption comprises the consumption of central and local government institutions, made for the provision of public services.

IV. Gross investments include gross fixed capital formation (GFCF) or gross capital investment (Iv.b) and inventories (DS).

$$Iv.b = Iv.n + Am \tag{5}$$

The following elements are not included in the gross capital investments:

- work clothing, spare parts and tools of little value, even if they are more than one year old (they are considered intermediate consumption)
- durable goods obtained by households for domestic needs;
- military unit goods, which are outlined in intermediate consumption;
- Land and intangible assets.

The distribution method, according to which the gross domestic product is obtained as the sum of the income of the production factors plus amortization of fixed capital, and the net domestic product as the sum of production factors income (VF).

$$PIB = \sum VF + A \tag{6}$$

$$PIN = \sum VF \tag{7}$$

V. The national product is calculated as gross national product (PNB) and net national product (PNN). The national product is calculated by adding the balance of the production factors income compared to the foreign production to the domestic product.

$$PNB = PIB + SVFS \tag{8}$$

$$PNN = PIN + SVFS \tag{9}$$

The net national product represented by the prices of the production factors is the national income of society (VN).

$$VN = PNNpf \tag{10}$$

VI. Disposable income and Household income

The national income represents the sum of net added value created by the national production factors within the country and in other countries as well. By correction of national income with the balance of current transfers to foreign countries another macroeconomic indicator is obtained : the national disposable income (VND).

$$VND = VN + STCS \tag{11}$$

VII. Personal income of the population represents the nominal income of the population.

$$VPM = VN – CAS, \tag{12}$$

undistributed profit, tax on the profit, etc + retirement allowances, scholarships, etc.

$$VDM = VPM – Imp.\ pop. \tag{13}$$

$$VDM = C + E \tag{14}$$

The GDP deflator is the ratio between GDP expressed in current prices and GDP expressed in comparable prices.

By adding result macroeconomic indicators to other indicators, the following aspects can be analyzed:

1. Analysis of the economic evolution and dynamics;
2. Analysis of economic structure and its changes;
3. Calculation and analysis of the efficiency of using production factors;
4. Analysis of the main macroeconomic correlations;
5. Comparison between the level, the structure and the evolution of the national economy and those of other countries

References

Capanu, I., (1998), *Macroeconomic Indicators –contents and functions*, Economic Publishing House Bucharest;

Constantin, A., Capanu, I., (2001), *Macroeconomic Indicators -contents, calculation methodology and economic analysis*, Economic Publishing House, Bucharest;

Constantin, A., Capanu, I., (2003), *Macroeconomic Indicators - calculation and economic analysis*, Economic Publishing House, Bucharest;

Popescu I., Manea, G., (2005), *Economics*, Cermaprint Publishing House, Bucharest.