

Differences between the nominal values of the gross domestic product and the provisional and semi-final variant

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Abstract. *The sensitive statistical indicators, among which the gross domestic product is a significant one, have been always, mainly during the periods of economic and financial crises, analyzed from all points of view: from the data sources and construction to the processing and dissemination.*

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In the international and European Union practice, as well as in the practice of the national statistics, that data concerning the gross domestic product make the subject of certain normal procedures of revision/adjustment and periodical updating. These procedures are not dictated by political factors or certain interests but are established in a professional manner by the need of an operative knowledge meant to satisfy the requirements of all the users, on one hand, and by the availability of the data sources by the time of calculation, on the other hand. Thus, according to the Regulation concerning the transmission of the macroeconomic aggregates by all the Eurostat member states according to the Accounts European System (SEC) 95, Romania is calculating and transmitting (to see also the annual Catalogue of the statistical publications and press releases, submitted at the beginning of each year to the users' knowledge and posted on the INS site) over a period of 21 months after the closing of the reference year, three estimating variants/versions for the annual indicators: provisional (at 70 days), semi-final (at 12 months) and final (at 21 months). The differences (bigger or smaller, positive or negative) between the three variants are normal and unanimously recognized. Each variant is based on the same method of calculation, the differences arising from the data sources available by the respective moment, which can be considered when calculating these indicators.

In the frame of the program of producing and disseminating the data at the national level, the National Institute of Statistics applied always, mainly during the last eight years, ad-litteram, professionally and consequently, the provisions of the EU regulations in the field as well as the corresponding calculation methodologies, while letting them be of public knowledge for all the users, including the procedure of revision/adjustment.

Scientifically, theoretically and practically, the differences between the gross domestic product estimated nominal values are explained further on.

1. Differences recorded by the estimated nominal values of the gross domestic product

Historically speaking, in the case of both the final and the semi-final variants of the gross domestic product, the difference is usually insignificant, as both of them are using the same sources of statistical and administrative data. Also as a rule, a bigger or a smaller difference, either as plus or as minus, may be recorded between the semi-final variant and the provisional one. For this last one, the available data sources taken into account are incomplete, circumstantial and not at all detailed which generates different estimates for the results.

This methodological procedure approach of calculation shows basically as follows:

1.1. GDP estimate in the provisional variant case

For the GDP estimate in the case of the provisional variant (at 70 days as against the reference year) there are no complete primary data sources available.

The complete primary data missing implies, as is the case in all the other countries, the utilization of indirect sources, derived indicators of entry into the process, estimated and exploited on the basis of the infra-annual data (monthly and quarterly). These are the following:

- the infra-annual inquiries concerning the indices of the industrial production, the indices of the building works, the indices of the turnover of the retail trade and services to the population, the indices of the goods and passengers route, the indices of the investments, the value indices of the turnover of the wholesale and services to the companies; the indices of prices for the industrial production, the indices of the consumption prices, the cost indices in constructions; the indices of the unit value for the foreign trade (out of the researches issued and published by INS);
- the production account of the agriculture, issued on the basis of the operative data issued by the Agriculture Ministry;
- the infra-annual inquiries concerning the wage gains and the employees number (issued by INS);
- the provisional version of the foreign payments balance (supplied by BNR);
- the provisional execution of the general consolidated budget (supplied by MFP);
- the accounting provisional balance sheets of the financial institutions (supplied by BNR);

The calculation of the gross domestic product (the gross added value + tax on product – subsidies on product) implies the separate estimation of each and every of its component elements, as follows:

The production estimation

- for the non-financial companies (enterprises), the population households and the non-profit institutions, the production has been estimated, by branches of activity (the main 10 branches), by extending in volume and price, or in value, the production of the year

2010, using the indices of volume, price and value available out of the statistical data described above;

- as for the financial companies and public administration, the production has been established directly, on the basis of the accounting balance sheets of the financial institutions and the general consolidated budget.

The intermediary consumption estimation

- for the non-financial companies (enterprises), the population households and the non-profit institutions, the intermediary consumption has been estimated by branches of activity (the main 10 branches), by applying the weight of the intermediary consumption in the production of the previous year (2010), as substitute for the actual weights of the year 2011, still unavailable. The same procedure has been applied also for the previous years, being explained also by the tendency relatively stable of those weights.
- as for the financial companies and public administration, the intermediary consumption has been established directly, on the basis of the accounting balance sheets of the financial institutions and the general consolidated budget.

The gross added value estimation

The gross added value has been calculated as balance between the production and the intermediary consumption.

The calculation of the taxes and subsidies on product has been achieved on the basis of the data out the consolidated budget.

1.2. The GDP estimation in the case of the semi-final variant

In calculating the GDP, contrary to the provisional variant, for the semi-final variant sources of primary data of higher level of exhaustivity and detailation have been used, which were not available by the time the provisional variant has been established, namely:

Statistical sources

- The structural inquiry by enterprises (ASA) – on a representative sample of 60 thousand units out of all the branches of activity;
- The inquiry of the family budgets (ABF) – representative sample of 38 thousand households;
- The inquiry of the labor force in the households (AMIGO) – representative sample of 112 thousand households;
- The Economic Accounts for Agriculture (CEA);

- The balance of the agricultural products;
- The inquiry on the labor force cost;
- Other annual and infra-annual available inquiries concerning the industrial production, constructions, services, trade; the agricultural production account etc.

Administrative sources from the Ministry of Public Finances

- The execution of the General Budget of the public administrations (budgetary reports), composed of: the Budget of the central public administration; the Budgets of the local administrations; the Budget of the social security, composed by: the Unemployment Fund, the Health Securities Fund, the Social Security Fund;
- The statements on the global income out of independent activities, submitted by the individual entrepreneurs and family associations to the MFP.

Accounting and financial sources

- The financial situations of the financial companies (available from the BNR);
- The financial situations of other economic agents (available from the MFP)

Other data sources

- The payments balance (supplied by BNR)

The GDP components for the semi-final variant have been estimated as follows:

The production and intermediary consumption have been established directly on the basis of the available data sources;

The gross added value has been calculated as difference between the production and the intermediary consumption;

The taxes and subsidies on product have been calculated on the basis of data out of the consolidated budget.

1.3. A first conclusion

The difference between the GDP semi-final variant and the provisional one are usually, including for the year 2011, established by:

- different data sources depending on the moment of the estimates achievement;

- utilisation of direct methods, on the basis of data sources, for the semi-final variant, respectively indirect methods of estimation of production and intermediary consumption, by extrapolation, for the provisional variant, mainly in the case of the non-financial companies (enterprises) and the population households.

For the year 2011, out of the analysis of the aggregated economic results on the basis of the available data, it resulted an increase of the weight of the intermediary consumption in production, from 61.3% (estimated weight for the year 2010 and used for the provisional estimation for 2011) to 64.6% (calculated weight on the basis of the data complete sources) in the semi-final data. The most significant contribution to the increase of the intermediary consumption has been brought by the non-financial companies (enterprises), which led to an increase of the nominal intermediary consumption for the year 2011 and, implicitly, to a reduction of the gross added value and the GDP by approximately 26 billion lei. This higher weight has been also recorded during the period 1995-1997. Over the following years, the intermediary consumption did not represent more than 59-62% of the production value. The increase could not be anticipated by the statistics of the provisional variant due to lack of any information concerning the actual intermediary consumptions for the year 2011.

- analyzing deeply these differences (between the semi-final and the provisional variants of the GDP estimated value) it can be observed that differences between the estimated values of the GDP deflator as well as between other values may inductively occur.

2. Differences recorded in the GDP deflator estimation

Explaining the differences recorded when estimating the GDP deflator, in the semi-final and provisional variants, implies the analysis of the GDP components.

2.1. The impact on the differences between the gross added value (VAB) deflator

In the case of the provisional variant of GDP estimation (implicitly of VAB), the utilization of the indirect sources, of the derived indicators estimated or extended in volume and price of the values of the previous years, based on the hypothesis of the constancy of the technological coefficients from one year to another, mainly in the area of the non-financial companies, led to the obtaining of volume and price indices relatively closed to each other for the production, intermediary consumption and VAB for the main 10 branches used for calculating the provisional GDP.

In the case of the semi-final variant, the estimation of the production, intermediary consumption and VAB in current prices has been done directly, on the basis of the available data sources, more complete and detailed, at the level of 88 branches (by CAEN divisions). The estimation of the production in constant prices, for calculating the dynamics, has been scientifically achieved, by using the corresponding price indices (the industrial production indices, the consumption prices indices, the cost indices in constructions, the price indices in services etc.), by branches of activity. The price indices used for deflating the intermediary consumption, by branches, have been calculated, according to the methodology in force, as weighted production indices, using as weighting elements the structure of the intermediary consumption by products, for each and every branch of activity, which structure is available from the table of the intermediary consumptions of the year 2010. Within the procedure approach, there is an analysis achieved as to the consistency of the production volume indices as against those of the intermediary consumption, aiming the correlation between the increases in volume of the production to which a relatively close increase of the intermediary consumption volume should correspond.

For the year 2011, it resulted that the acquisition prices for the raw materials, fuels, services etc., used for the production process increased more than those of the achieved products. Consequently, the resulting increase of the weight of the intermediary consumption in the production generated the decrease of the aggregated index of VAB, from 105.4% in the provisional variant to 102.8% in the semi-final variant. This aspect resulted as well from the comparative analysis of the index of the industrial production index for the domestic market as an overall, which recorded in 2011 an increase (8.1% as against the previous year), with the price index of the industrial production for the domestic market for intermediary goods (10.2%).

2.2. Differences between the deflators of the taxes on product

The following extremely important statement should be made: the data concerning the taxes on product are calculated on the basis supplied by the budgetary executions which are available in the provisional and final variants, depending on the moment these data are available.

The differences of the deflator of the taxes on product between the two variants aroused from the estimation of a lower level of the taxes on product for the year 2010, for which, in the case of the provisional variant, the data from the accounts of the public administrations, in the final variant, were not available.

3. What is to be known

- In order to know, to ground the efficient decisions and policies, the statistics is a national asset and must be protected against any pressure, except the scientific improvement with the purpose to satisfy all the users.
- The official statistic of Romania, as a member state of the EU, is and must be an independent institution from scientific point of view. In this respect, we have to underline the 15 fundamental principles of the official statistic as stated by the code of good practices and operatively monitorized in details: the professional independence; the mandate to collect the necessary data; the adequation of the necessary resources; the commitment concerning the quality of the statistic data and informations; the statistical confidentiality; the impartiality and objectivity (the statistical authorities develop, produce and disseminate by observing the scientific independence in an objective, professional and transparent manner, treating all the users in an equal mode); solid methodology, adequate statistical procedures; adequate response task for the respondents; ratio cost-efficiency; relevance, accuracy and fiability; promptitude and punctuality; coherence and comparability; accessibility and clearness. Observing these principles and implementing them cratively, the statistics cannot be otherwise but protected against pressures of any kind.
- One thing must be clear, namely that the statistic is an element of entering into prognosis and budgetary forecasts.
- The official statistic is an independent institution, harmonized to the international standards and bears the risks of its optimal activity. This is the essential reason for which the statistic did not turn of its mission, from its methodology, irrespectively of the interests of those using the outcomes of the scientific step.

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