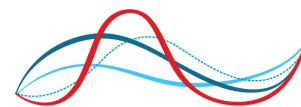




REPUBLIC OF CROATIA
CROATIAN BUREAU OF STATISTICS



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**Revision policy for the domain of
National Accounts and Government finance statistics /
Excessive deficit procedure statistics**

Croatian Revision Policy for National Accounts and Government finance statistics / Excessive deficit procedure statistics

Introduction

Revision of published statistics is one of components in the process of production and dissemination of statistical data. Revisions are motivated by acquiring new information and data that could not have been used in the initial preparation and publication of the results of official statistics. They are implemented regardless of whether completely new information was acquired or there were subsequent changes of previously submitted, processed and published data, or there were changes or improvements in the adherence to statistical standards impacting classifications, definitions, compilation methodologies, etc. Finally, revisions can also occur in order to eliminate errors. In most cases, revisions are planned. However, events that cannot be predicted in advance can trigger unplanned revisions.

At the European level, existence of a national Revision Policy is enabled by the European statistical Law and relies on the principles of the European Statistics Code of Practice. They set the framework within which individual statistical areas develop their own approach to data revisions in accordance with the best statistical practices.

Regulation (EC) No 223/2009 sets out the legal framework for developing, producing and disseminating European statistics. European statistics are compiled through European statistical programmes and according to the statistical principles of professional independence, impartiality, objectivity, reliability, statistical confidentiality and cost effectiveness. Article 16, Regulation (EC) 223/2009 on the 'European approach to statistics' states that 'If necessary, a coordinated release and revision policy shall be established in cooperation with Member States'. It also specifies that, where necessary, this apply to European statistics covered by European statistical programmes.

Within the mission of the European Statistical System (ESS), as defined in the quality declaration of the ESS and included in the European Statistics Code of Practice, is to 'provide independent high quality statistical information at European, national and regional levels and to make this information available to everyone for decision-making, research and debate'. These quality criteria also apply to ESA 2010 and are assessed using quality indicators.

The Code of Practice defines the following indicators for assessing revision quality:

Principle 6 'Impartiality and Objectivity':

'Advance notice is given on major revisions or changes in methodologies.' (Indicator 6.6);

Principle 8 'Appropriate Statistical Procedures':

'Statistical processes are routinely monitored and revised as required.' (Indicator 8.3);

'Revisions follow standard, well-established and transparent procedures.' (Indicator 8.5);

Principle 12 'Accuracy and Reliability':

'Revisions are regularly analysed in order to improve source data, statistical processes and outputs.' (Indicator 12.3).

Each ESS data compiler must comply with the European Statistics Code of Practice. Eurostat carries out peer reviews to assess implementation of the code in the national statistical systems of EU Member States. The European Statistical Governance Advisory Board (ESGAP) carries out a similar review for Eurostat.

Revision Policy of the Croatian Bureau of Statistics is based on the above-mentioned principles of the European Code of Practice. It sets the framework within which individual statistical areas develop their own approach in accordance with the best statistical practices. Revision policy as a whole, including the revision policy of individual statistical areas, provides the necessary level of quality, stability and consistency within and between statistical areas.

Statistics strives to provide the highest quality information to the users of statistical data at any time. Since new information continuously becomes available, determination of revision policies of individual statistical areas has to balance between making new statistical data available to users as soon as possible, hampering the communication with the public by allowing too many revisions in a short period of time. It is necessary to examine the significance of the changes and choose the optimal dissemination method and timing.

Timeliness and punctuality, accuracy and reliability are the principles of official statistics, which, among others, are worth mentioning in the context of the quality of statistical data. Revisions are one way of meeting user needs for accurate and reliable data in timely manner.

Data revision and consistency of the accounts in National Accounts and Government finance statistics / Excessive deficit procedure statistics

Revisions are an essential part of a good quarterly and annual National Accounts (NA) compilation practice as well as compilation of Government finance statistics / Excessive deficit procedure (GFS/EDP) statistics. They enable statisticians to provide users with data that are as timely and accurate as possible. These statistics are produced from a large variety of data sources where data sources are reconciled using an approach based on an agreed set of international guidelines. The compilation of the sources used to estimate macroeconomic aggregates are provided with varying degrees of timeliness, taking up to three years or more in the case of structural sources.

NA and GFS/EDP data are transmitted to Eurostat under the ESA 2010 transmission programme (ESA 2010 TP), Annex B to Regulation (EU) No 549/2013, and in accordance with Council Regulation (EC) No 479/2009 of 25 May 2009 on the application of the Protocol on the excessive deficit procedure annexed to the Treaty establishing the European Community.

The data compiled at the national level are also used by Eurostat for administrative purposes i.e. EDP and related data, Gross National Income (GNI) data used for own resource purposes.

It is important to stress that the consistency between national accounts data used for administrative purposes and data transmitted to Eurostat as part of the ESA 2010 transmission programme is fundamental. Moreover, consistency with other domains that do not directly fall under the ESA 2010 framework but have clear methodological links with the ESA 2010 methodology (such as Balance of payments (BoP) statistics and different satellite accounts) should be expected as well.

A major asset of National Accounts data is their internal consistency, consistency between tables of the same periodicity (quarterly or annual) within the same set of accounts (main aggregates, financial or non-financial sector accounts), consistency between variables with the same concept and definition across the accounts.

The Croatian NA and GFS/EDP Revision Policy covers all quarterly and annual series within the Croatian NA and GFS/EDP statistics. This includes all the data that appear in the following statistical areas:

- Main aggregates - quarterly data
- Main aggregates -annual data and detailed annual tables (e.g. balance sheets, with industry breakdowns, etc.)
- Non-financial accounts by sector - quarterly
- Non-financial accounts by sector - annual
- Excessive deficit procedure data
- Main aggregates of the general government - quarterly
- Main aggregates of the general government, detailed taxes and social contributions, COFOG data - annual
- Supply and Use tables and Input - Output tables
- Tables by industry and by region, NUTS level 2 — annual

Achieving the full consistency between all domains is a difficult task and a long-term process that requires the cooperation of all departments in the Macroeconomic statistics directorate, other statistics producers as well as with the Ministry of Finance and Croatian National Bank. However, in practice when compiling ESA 2010 based NA statistics, CBS conducts balancing and reconciliation to ensure internal consistency of each account, consistency of time series of each account over time and alignment of annual and quarterly data for each account. Also, consistency between Balance of payments (BoP) statistics and 'rest of the world' (RoW) accounts and consistency between NA statistics and the data for administrative purposes (GNI OR/EDP) is assured.

Three important revision types used in the process of compiling NA are considered:

1. Routine revisions (or current revisions) encompass all changes in national accounts estimates for a particular period from the first to the final estimate. These revisions are in principle based on the availability of new information from data sources used to achieve full comparability in volume and price changes with the previous year and for all indicators. Routine revisions and their proper interpretation have effects on both users and producers of statistical data. From the users' perspective, revisions improve the information available and thus are welcome. However, they may also lead to an adjustment of measures used in economic analysis and as a consequence result in different assessment of the state of the economy. From the producers' perspective, the new information brought by the revisions describes economic developments more precisely, but frequent revisions can damage data credibility. Moreover, absence of revisions can also indicate that indicators for which more accurate source data are available are not being updated and that errors are not being corrected, i.e. that the statistics published are stable but potentially inaccurate.
2. Benchmark revisions (or major regular revisions) are revisions of data sources or methods used to estimate national accounts indicators. Major revisions imply significant changes in the data due to changes in classifications, definitions, methodologies, changes in the base period, development of new sources and methods or availability of new statistical data like, for example, census data.

Major revisions are conducted in larger time intervals. They are announced in advance, in order to inform users of the release dates, the reasons for conducting a major revision and, if possible, with the probable impact on the most important indicators. Major revisions include provision of longer data series by recalculation, to the extent possible, in order to minimize the negative effects of breaks in data series. After the dissemination of the revised data it is necessary to disseminate also the analysis of the impact of changes to the data.

3. Non-scheduled revisions are caused by events that were not possible to predict, such as, for example, significant unforeseen subsequent changes in the data sources due to revisions/modification of data or subsequently determined errors in previously submitted data.

Normally, the revised data are disseminated as soon as possible. Exceptionally, if the changes in data are not large, the revised data may be disseminated within the next regular revision or with the next dissemination of the same data, with the indication that it is the case of the revised data. In any case it is necessary to clarify the reasons for such a revision.

According to Harmonized European Revision Policy (HERP) that covers domains with annual and quarterly frequencies, alignment between all domains in both frequencies should occur at a minimum at one point in time in a year at the European level and between the national accounts and balance of payments domains. Usually it is in the third quarter of the year. At the national level, alignment should be achieved in September.

CBS compiles and transmits quarterly and annual data to Eurostat according to the ESA 2010 transmission programme. Quarterly data are short-term indicators by their nature and are often based on estimated values. Annual data are compiled based on reported figures and present benchmark totals. In the period of time during the year when annual data are produced, CBS has to revise quarterly data and align them with the annual data. Those adjustments are data-driven and are therefore part of routine revisions.

Besides once-a-year routine revision in September, CBS does not revise quarterly main aggregates GDP data during the year. Once a year in September CBS assures the consistency of all NA tables. As regards the BoP statistics, which are compiled by the CNB, the same approach to revision is followed, i.e. the consistency is achieved in September. CBS has a significant number of GNI reservations and action points and these issues are normally solved during the routine revision in September.

In case that GFS /EDP data incorporate significant changes during the April notification, CBS will ensure consistency in GDP tables and publish revised data for the EDP notification period in April. As concerns annual GDP calculation, in September data for t-2 are final while data for t-1 are preliminary.

The GDP data for the Republic of Croatia at NUTS 2013 – 2nd level and counties, are based on the final annual GDP data. In December each year data for region and counties covers data for t-2 year and first estimates for regions for t-1 year. The revision of this data is in line with the revision of the annual GDP data.

Main aggregates of the general government (annual data) are produced twice a year while quarterly data are produced each quarter. Main aggregates of the general government are directly connected with the production of EDP data. At the level of the EU, EDP is recognized as a strong mechanism for improving national accounts data.

Continuity of the time series has priority in national accounts and, therefore, GFS. As a result of this policy, GFS data are consistent over time and all changes are incorporated in the scheduled national accounts, regularly in September/October every year.

For the non-financial government accounts, consistent series of GFS annual and quarterly data for the general government exist from 1999 onwards. All quarterly revisions are done with the same frequency as the revisions of annual data.

The revision of the general government data is performed twice a year, in March/April and in September/October. The revision in April is performed for the EDP notification period (t-4, t-3, t-2 and t-1). Quarterly government accounts (ESA T25) are revised for all 16 quarters (EDP notification years) accordingly. The final sector classification of reporting units that affect the April notification is determined by February of year t for the year t-1. Usually, no revision of historical data is performed in March/April.

Major revisions with an impact on B.9 and B.9f are regularly performed in September/October, because some data sources are available only for the second EDP notification. September/October revisions include possible methodological changes, improvements in data sources, reclassification of units and correction of errors. The final sector classification of reporting units for the October EDP notification is determined by July, including revisions based on the market/non-market test and other sectorization criteria. The revision of data for the October EDP notification is performed for all EDP notification periods as well as for all applicable historical years. Quarterly government accounts are revised in October for all applicable quarters (EDP notification period and historical years).

Even though changes on tax revenues occur continuously and are incorporated in transmission tables that are due in March/April (i.e. ESA T0200, ESA T2500 and EDP), the revision and transmission of ESA T0900 together with NTL is done once a year, in September, in line with transmission deadlines.

The revision of data according to COFOG classification of expenditure (ESA T1100) is performed once a year, in December, in line with transmission deadlines.

The government accounts data are consistent in the EDP and GFS ESA2010 tables and are regularly transmitted to Eurostat and mainly published nationally.

The CBS also compiles and transmits to Eurostat tables with the data on non-financial accounts by sectors (annually and quarterly) which should be consistent with other tables. The full consistency is targeted with main aggregates (GDP data) and main aggregates of the general government on annual and quarterly basis: for quarterly data with each quarterly transmission, and for annual data in September when the GDP as well as GFS/EDP data are completely revised and aligned. During the EDP clarification period, after the EDP reporting in March and September, revisions of GFS data are possible so in Quarterly Sector Accounts and in Annual Sector Accounts inconsistencies could occur between GDP and GFS.

If the inconsistencies between Main NA aggregates (GDP) and GFS data in March/April are smaller than 0,3% of GDP, the GDP data will not be immediately revised. In this case, the differences in the accounts will be smoothed and adjusted in non-financial sector accounts. In case of inconsistencies between Main NA aggregates (GDP) and GFS data larger than 0,3% of GDP, the revision of Main NA aggregates (GDP) will be performed for the period of four notification years (t-1, t-2, t-3, t-4) as well as for all corresponding quarterly data (16 quarters) for the same period by the time of EDP/GFS publication. Consequently, Sector Accounts data will be aligned.

The data on Sector accounts are regularly published in Eurostat database.

The supply and use tables which are transmitted to Eurostat at t+36 should be aligned with the revised GDP and GFS/EDP data with the next regular transmission at the end of the year. The same applies for Input-Output tables, only at a five-yearly basis.

Table 1 Calendar of one year production process with routine revision

	Calendar year N			
	Quarter 1 01/01 - 31/03	Quarter 2 01/04 – 30/06	Quarter 3 01/07 – 30/09	Quarter 4 01/10 – 31 /12
T1_Q	Q4 Year t-1 (end of Feb) Rev: Q1-Q4 Year t-1 Q1-Q4 Year t-2 Q1-Q4 Year t-3 Q1-Q4 Year t-4 (end of Mar) ¹⁾	Q1 Year t (end of May)	Q2 Year t (end of Aug) Rev: unlimited quarters (end of Sep)	Q3 Year t (end of Nov)
T1_A	Year t-1 first estimate (sum of 4 quarters) (end of Feb)		Year t-2 final Year t-1 preliminary Rev: unlimited years (end of Sep)	
T2_A	Year t-1 prelim. Rev.(EDP rev.cycle) Year t-2 Year t-3 Year t-4 (end of Mar)		Year t-1 final Rev.(EDP rev.cycle): Unlimited years (end of Sep)	
T25_Q	Q4 Year t-1 Rev: Q1-Q4 Year t-1 Q1-Q4 Year t-2 Q1-Q4 Year t-3 Q1-Q4 Year t-4 (end of Mar)	Q1 Year t (end of Jun)	Q2 Year t Rev: Unlimited quarters (end of Sep)	Q3 Year t (end of Dec)
T8_A			Year t-1 final Rev: unlimited years (end of Sep)	
T801_Q	Q4 Year t-1 Rev: Q1-Q4 Year t-1 Q1-Q4 Year t-2 Q1-Q4 Year t-3 Q1-Q4 Year t-4 (end of Mar)	Q1 Year t (end of Jun)	Q2 Year t Rev: Unlimited quarters (end of Sep)	Q3 Year t (end of Dec)

1) The revision is done only in case significant changes are done in GFS/EDP

Benchmark revisions

Benchmark revisions (or major regular revisions) are revisions of data sources or methods used for estimation of national accounts indicators. These can affect GDP, as well as other important macroeconomic indicators, and can cause discontinuities in time series.

Benchmark revisions that take place on a regular basis (approx. every 5 to 10 years) to incorporate results of changes in basic data sources (surveys and census) and/or new estimation methods. Benchmark revisions presents comprehensive update of all possible sources and methods with impact on all tables of the ESA 2010 Transmission Programme:

- All ESA tables are aligned
- Entire time series (starting from 1995 or 2000- depending on the requirements in the ESA 2010 TP)
- All pending classification issues resolved/implemented
- Major changes in sources or in compilation methods implemented
- Errors identified in an earlier stage corrected

CBS conducts harmonized benchmark revisions (coordinated European major revisions between major ad-hoc revisions) approximately every 5 years according to Eurostat recommendations. Those revisions are carried out in a way that they are introduced during the third quarter of the year t.

CBS takes care that those consistencies are reached during the dissemination of the results of a harmonized benchmark revision for all NA and GFS/EDP data.

Due to the different deadlines in the ESA transmission programme and other reasons (like different requirements by EDP/GFS and GNI/Own Resources), consistency with other domains is usually achieved by the end of the year.

Non – scheduled revision

Major ad-hoc revisions are revisions that originate from different methodological changes or special events. Usually, during these revisions, new or changed basic data sources and/or new estimation models are also incorporated in addition to other conceptual changes.

Like other countries, CBS sometimes has to execute national ad-hoc revisions outside the harmonized approach (in the period between harmonized benchmark revision windows of 5 years). Main reasons for that type of revisions are different changes due to the correction of errors or the implementation of improved sources of methods that lead to bigger changes in data.

During the process of revision, coordinated work between all domains of NA is essential as well as good timing for delivery of all needed inputs and detailed information taking into accounts deadlines from TP.

Communication with users and public dissemination

CBS publishes compiled data on official web site using First Releases and Statistics in line (excel documents with complete data time-series). At each December, CBS publishes release schedule for the coming year specifying exact dates of release for the regular production process (Release Calendar). Calendar is open for changes and, if unexpected need for publishing of data occurs, it is announced at latest three working days before in Release Calendar.

CBS pre-announce the revisions in advance with sufficiently detailed information about the scope of the revision, reasons for the revision and possible breaks in time-series using First releases or different internet platforms. The changes caused by the revisions are explained to users in Methodological explanations in First Releases and Statistics in line.

CBS compiles and transmit to Eurostat much more data than publishes on their web site. Data that are not published always could be found on Eurostat database after the process of validation is finalized.

For communication with users, CBS also uses different mode of advertising like internet platforms (Facebook, Twitter, Instagram) and published data and results of revisions are presented using interesting iconographies.

List of abbreviations

BOP - Balance of payments statistics

COFOG – General Government Expenditure by Function

EDP - Excessive Deficit Procedure

ESA - European System of Accounts

ESA 2010 - European System of Accounts 2010 as defined in Regulation (EU) No 549/2013

ESA 2010 TP - ESA 2010 Transmission programme as defined in Annex B, Regulation (EU) No 549/2013

ESS - European Statistical System

EU - European Union

GDP - Gross domestic product

GFS - Government Finance Statistics

GNI - Gross national income

GVA - Gross Value Added

HERP - Harmonized European Revision Policy

IOTs - Input-output tables

MIP – Macroeconomic Imbalances Procedure

NA - National Accounts

NACE - Statistical classification of economic activities in the European Community

NUTS - Common classification of territorial units for statistics

PEEIs - Principal European Economic Indicators