

# The statistical data revision policy

Statistic Poland

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## Introduction

This document describes the principles for statistical revisions and the correction of publication errors, defining the basic concepts of revision and publication error, their types, and how to publish and notify users of changes. These rules may be amended and supplemented for consistency with guidelines of the European Union or other international organizations and due to changes in data collection methods or data sources. The European Statistics Code of Practice obliges the member states of the European Union to pursue a revising policy that affects, among other things, the accuracy and reliability of the data presented by statistics. A properly conducted revision is intended to make available higher quality statistics, compiled from the most current source data, prepared according to new calculation methods and/or classifications.

Statistical revisions are regularly used in many areas of statistical research, including in particular: national accounts, short-term statistics (STS), price surveys, labour market, production, foreign trade, and businesses statistics.

The revision of data does not apply to the values and indicators that the President of Statistics Poland is obliged to publish on the basis of legal acts that indicate a deadline for their implementation. This means that announcements and notices of the President of Statistics Poland published in the Monitor Polski and Official Journal of Statistics Poland are not subject to re-announcement even after Statistics Poland obtains more up-to-date information.

A different problem is the occurrence of publication errors, which can happen despite the greatest care and accuracy in compiling statistical data. Correction of publication errors is not a common phenomenon, so it is very important to distinguish it from revisions that are inherent in the methodology of statistical research.

## Definition of revision

Statistical revision means actions taken by public statistics services to modify published statistics.

Correction of errors in published data is related to the occurrence of inadvertent errors in the statistical production process. The rules for dealing with publication errors and ways of informing users about them are described in the document entitled *Rules for dealing with publication errors*.

### Types of Revision

There are the following types of revisions:

**1) planned** – to be executed both in the shorter and longer time horizon, they are divided into:

- routine – resulting from changes inherent in the survey specification and methodology, e. g. publication of preliminary and final data, revision of time series due to working day adjustments and seasonality,
- major in which there are:
  - irregular revisions resulting from methodological changes in classifications, definitions, standards, specific events such as the enlargement of the Eurozone or the entry into force of a new legal act,
  - regular revisions conducted on a regular basis e. g. every 5 years, 10 years to implement changes related to new data sources (surveys, census) and/or new estimation methods,

**2) unplanned (ad-hoc)** – result from events that could not be taken into account at the planning stage of the survey/statistical process; unplanned revisions may include e. g. discontinuation of activity of some economic entity, the results of which are statistically significant in the studied population or changes in classification of some entity during the year (e. g. a change between the sections of NACE rev.2)

The frequency of revisions is mainly due to the nature of the statistics and the system solutions adopted. In most statistical areas, the revision process is governed by the European Union legal acts on Community statistics as well as by the ESS revision policy guidelines for the Principal European Economic Indicators

(PEEIs). The Statistics Poland assumes that estimates and preliminary data from monthly and quarterly surveys, as well as working-day and seasonally adjusted data, are always subject to routine revisions.

The specific rules for revising statistical data in each study area are described below.

## **Routine revisions in consumer price surveys**

Final data for months February-December released approximately 15 days after the reporting month are not subject to revision. Only data for the month of January are announced twice, i. e. , preliminary data compiled using the weighting system (which is the structure of household expenditures on the purchase of consumer goods and services) from two years ago approximately 15 days after the reporting month and final data calculated using the weighting system from the year preceding the year under the survey approximately 45 days after the reporting month.

## **Routine revisions of service producer price statistics**

For the Business Services Producer Price Survey and the Transportation, Warehousing, and Telecommunications Services Survey (Short-Term Service Producer Price Indices - SPPIs), data are released as final. Once every five years there is a change in the base year and a new weighting system is introduced into the calculation. A revision of the data is then performed going back to the beginning of the new base year. The revised data are calculated using the same price data and a new weighting system.

## **Routine revisions in internal trade surveys**

### ***Turnover indices for retail trade***

Current monthly data are estimated and presented as preliminary data, and monthly results for the most recent quarter are revised after the reporting runoff. Once a year, the range of seasonally and calendar adjusted data is also updated.

### ***Retail sales, wholesale and catering activities***

Annual preliminary results are published in the sixth month after the reporting period, then after the flow of full reporting, a revision is made and final data are published at the end of the tenth month.

Monthly dynamics of retail sales calculated as indicators of the base year - seasonally adjusted data are revised at the beginning of each year.

### ***Deliveries to the domestic market***

Deliveries are calculated on the basis of the production of industrial products and foreign trade collections, revisions are related to revisions made in these statistical sets.

## **Routine revisions in foreign trade statistical collections**

Due to the nature of foreign trade statistical collections, every month all previously published data are revised. Data for prior months are subject to change due to:

- submitted data revisions for previous months;
- submitting missing data;
- exchange of estimated Intrastat data with actual data.

The data reported always includes all months from the beginning of the year to the reporting month. Annual data are approved in June following the reporting year (T+6). And after this period the data can be generated, however, by law, adjustments can be made for two years (T+24). This means that after this date, it is possible to speak of a final assembly.

## **Routine reviews in real estate sales**

In the survey of real estate sales, the statistical sets are "open sets" because data registration takes place throughout the reporting year in the powiat starosta offices and offices of cities with powiat status. Every quarter, the preliminary data are obtained in order to calculate price indices of residential premises.

The revision relates to data for four quarters of the reporting year and involves the inclusion of missing information acquired after the reporting quarter.

Between April and May after the reporting year, the data are again obtained for the whole reporting year and then final results are calculated for the reporting year broken down into 4 quarters.

## **Routine reviews in road freight surveys**

In the sample-based road freight survey, conducted with representative method, the statistical sets are "open sets" in that their processing takes place throughout the reporting year. Every quarter, the data are generalized and transmitted to Eurostat.

The revision relates to data for the first three quarters of the reporting year and involves the inclusion of missing information acquired after the reporting quarter.

In May after the reporting year, the data are reweighted and then final results are calculated with generalized data for the reporting year broken down into 4 quarters.

## **Routine revisions in industry survey**

### ***Sold production of industry***

Monthly indices of sold production of industry (at constant prices) are revised monthly due to producer price updates. Preliminary data are published by the 25th day after the reporting month and final data are published by the 55th day after the reporting month.

In addition, these indices are regularly revised once a year due to working day and seasonality adjustments, as well as every 5 years due to a change in the base year.

Annual preliminary data on production compiled on the basis of monthly economic activity report and estimates, are published within 7 months after the reporting year. Whereas, final data based on annual reporting, are published 12 months after the reporting year.

### **Monthly price of sold production of industry**

Preliminary data, compiled from the Business Activity Report, are published by the 20th day after the reporting month. Final data, compiled from the Producer Price Report for goods and services, are made available by the 50th day after the reporting month.

The monthly price indices are regularly revised every 5 years due to a change in the base year.

### ***Manufacturing of industrial products (PRODCOM)***

Monthly data on industrial product production may be revised monthly up to 14 months after the end of the year to which the monthly reporting periods were related.

Annual data on industrial product production may be revised three times a year for a period of four years after the end of the reporting year. In exceptional cases, the data may be subject to revision over a longer period of time due to the specificity of the industrial products survey related to difficulties in classifying some products in the relevant PKWiU/PRODPOL headings.

## **Routine revisions in the business tendency survey**

Seasonally adjusted data revisions are made each month by correcting entire published time series. In February each year revision of seasonal adjustment model is made regarding business tendency surveys.

## **Routine revisions in construction survey**

### ***Construction and assembly production sales***

The monthly total construction output sales index is revised monthly for producer price updates. Preliminary data are published by the 25th day after the reporting month and final data are published by the 55th day after the reporting month.

In addition, this ratio is regularly revised once a year due to working day and seasonality adjustments, as well as every 5 years due to a change in the base year.

The revision of the sales indices for construction and civil engineering works, compiled on a monthly basis for Eurostat only, is carried out similarly to the revision of the sales index for total construction and civil engineering works.

Annual preliminary data on construction and assembly production carried out in the national economy (commissioned and economic system) are prepared on the basis of reporting data and estimates and published within 7 months after the reporting year.

In contrast, final data, based on annual reporting (commissioned system) and estimates (economic system) are published 10 months after the reporting year.

### ***Monthly data on the number of dwellings completed and their useful floor area as well as the number of dwellings under construction***

Revision of data is made after compilation of quarterly data, i. e:

- in June - for all months in Q1 and for the period from January to April
- in September - for all months in Q2 and for the period from January to July
- in December - for all months in Q3 and for the period from January to October
- in March of the following year - for all months in Q4
- in May of the following year - a final update for all months of the previous year.

### ***Monthly data on the number of dwellings for which permits have been granted or which have been registered with a construction project***

Revision of data is made after compilation of quarterly data, i. e:

- in June - for all months in Q1 and for the period from January to April
- in September - for all months in the period of Q1-Q2 and for the period from January to July
- in December - for all months in the period of Q1-Q3 and for the period from January to October
- in March of the following year - for all months in the period of Q1-Q4

### ***Quarterly data on residential buildings and dwellings completed***

Revision of quarterly data is made after final annual study, which is being conducted in May next year.

### ***Quarterly data on building permits granted and registrations with a construction project***

The revision of the data can be made after each quarter for the previous quarters of the reporting year. Data on building permits and registrations with a construction project, adjusted for working days and seasonality, compiled for Eurostat needs only, can be additionally revised once a year due to the update of the re-adjustment of the model.

### **Monthly price indices of construction and assembly production**

Preliminary data, estimated based on information on changes in prices of individual production factors, are published by the 20th day after the reporting month. Final data, compiled from the Construction and Assembly Work Producer Price Report, are released by the 50th day after the reporting month. The monthly price indices are regularly revised every 5 years due to a change in the base year.

## **Revisions in demographic and labour market surveys**

### **Major revisions**

In survey on **population balances and vital statistics**, the data is generally not subject to revision. Exceptions are adjustments/revisions of population balances after conducting and compiling the results of the National Population and Housing Census (every 10 years). For example, after the 2021 Census, previously disseminated population balance for 2020 and 2021 were revised, i.e., redeveloped on the basis of the 2021 census results (in such a situation, all demographic rates are also subject to revision/correction). It is important to note that both pre-revision and post-revision data are equally available (to maintain data continuity and the ability to compare over time).

In the **Labour Force Survey** (a sample-based household survey), revisions are associated with a cyclical change in the basis for generalizing the survey results to the general population.

LFS results are generalized on the basis of data on the Polish population, which are derived from balance sheets prepared on the basis of general population and housing censuses conducted about every 10 years. Once the new basis for generalizing the results used in subsequent rounds of the survey is obtained, data from earlier periods (usually 2 years back) are also recalculated to allow comparisons for the time series, and data for such an interim period are presented in two variants.

Seasonally adjusted data are subject to more frequent revisions. Major revisions of adjusted data occur when unadjusted data are changed and after the time series analysis model has been revised to better match the current seasonality pattern, as standard once a year. Minor revisions of historical data may also occur after adding another quarterly observation to the time series.

### **Routine revisions**

Data on **employed persons**, are presented in:

- Statistical Bulletin - where, in the second month following the quarter, quarterly data are published on units with 10 or more employed persons and budgetary units regardless of the number of employed persons, which are subject to revision in the next month.

Data on **employment and earnings** are presented in:

- Concise Statistical Yearbook of Poland - in the form of preliminary data,
- Statistical Yearbook of the Republic of Poland - as final data,
- Statistical Bulletin - where, in the second month following the quarter, quarterly data are published on units with 10 or more employed persons and budgetary units regardless of the number of employed persons, which are subject to revision in the next month.

**Registered unemployment rate data** – the revision of the data is due to the timing of the availability of data on the full set of employed persons in the national economy. When the final data on employed persons are obtained (at the end of September each year), the data on the registered unemployment rate compiled using preliminary (estimated) information on employed persons in the national economy are revised. The revision applies to monthly data for the period from August of a given year through December of the previous year. This data is marked with an \*.

Data from the **Accidents at work survey** are presented in:

- quarterly *New Releases* and in the *Concise Statistical Yearbook of Poland* – as preliminary data,
- annual publication "*Accidents at Work in...*" and in the *Statistical Yearbook of the Republic of Poland* – as final data.

Data from the **Structure of Wages and Salaries by Occupation** survey are not routinely reviewed. Only for the gender pay gap (GPG) indicator is there a revision of the data. Eurostat requires that data for this indicator be transmitted annually. Due to the availability of results from the Structure of Wages and Salaries by Occupation survey every 2 years, in the periods in between, the data are compiled as preliminary estimates using other data sources. When current information is obtained, data previously reported is updated to make the results consistent with the earnings structure survey data received.

In the survey **Labour Costs and Labour Cost Index** the time series for quarterly Labour Cost Index (LCI) are subject to time series updates due to working day and seasonality adjustments.

# Principles of revision policy of Polish national and regional accounts

## Revisions of quarterly and annual accounts of gross domestic product

The depth of the routine revisions depends on the availability of data sources and the scope of changes introduced to the general government statistics for the purposes of notification of the excessive deficit procedure. Following the HERP policy, the revision in quarterly GDP accounts is limited to a maximum of:

- 15 quarters in the 1<sup>st</sup> quarter;
- 16 quarters in the 2<sup>nd</sup> quarter;
- unlimited number of quarters in the 3<sup>rd</sup> quarter;
- 18 quarters in the 4<sup>th</sup> quarter.

For annual data, the depth of the routine revisions is limited to a maximum of:

- 3 years in the 1<sup>st</sup> quarter (data for the year N-1 may be submitted for the first time);
- 1 year in the 2<sup>nd</sup> quarter (excluding data for the year N-1 that could be provided in the 1<sup>st</sup> quarter);
- unlimited in the 3<sup>rd</sup> quarter;
- 1 year in the 4<sup>th</sup> quarter (excluding year N-1 which was submitted for (at least) the first time in the 3<sup>rd</sup> quarter or earlier).

## Quarterly accounts of gross domestic product

**Quarterly GDP estimates** are published on the following dates:

- flash GDP estimates - 45 days after the reference period,
- preliminary GDP estimates - 2 months after the reference period.

### **Routine revisions**

Factors contributing to revisions of quarterly national accounts include:

- availability of more detailed and up-to-date sources of information during the reference year, when annual data are not yet compiled;
- availability of preliminary and final annual estimates - adjustments of quarterly data to annual data;
- availability of revised annual estimates - adjustment of quarterly data to annual data;
- introducing a new reference year for chain linked volume estimates - usually every 5 years, within the benchmark revisions.

In addition, revision of seasonally adjusted data is performed at the same time at the revision of seasonally unadjusted data, after adding another observation (quarter) to the time series, and after changing the time series analysis model to better fit the current seasonality pattern.

The schedule of routine revisions envisages the preparation of flash GDP estimate and a preliminary GDP estimate in the following months:

- February – flash estimate of Q4 quarter of the year N-1 and preliminary estimate of Q4 quarter of the year N-1;
- April - revision of all quarters of years N-2 and N-1;
- May - flash estimate of Q1 quarter of year N and a preliminary estimate of Q1 quarter of year N;
- August - flash estimate of Q2 quarter of year N and preliminary estimate of Q2 quarter of year N;
- October - revision of all quarters of year N-1 and quarters Q1-Q2 of year N;

- November - flash estimate of Q3 quarter of year N and a preliminary estimate of Q3 quarter of year N.

### **Major revisions**

Major revisions concern changes of the published data and result from changes introduced to the concepts, definitions, classifications used in national accounts and changes in legal acts, as well as the availability of new data sources, including census data. The major revisions, both of annual and quarterly data, cover the full time series or its significant part.

## **Annual accounts of gross domestic product**

### **Routine revisions**

In the annual national accounts of GDP, routine revisions are made four times.

For the first time, the annual GDP for year N-1, published at the end of January of year N, is compiled on the basis of the quarterly GDP results.

Subsequently, the following revisions are carried out:

- the second preliminary annual GDP estimate for the year N-1 (based on quarterly GDP results);
- the third preliminary annual GDP estimate for the year N-1 (based on quarterly GDP results) - developed on the basis of available, limited sources of data on the annual results of non-financial enterprises), annual data for the general government sector and annual foreign trade turnover (data publication: news release - April, Notification of the general government deficit and debt - April and *Concise Statistical Yearbook of Poland* - July);
- the first annual GDP estimate for the year N-1 - compiled on the basis of annual data obtained from statistical reports, reports of external institutions, final data for the general government sector (data publication: news release on gross domestic product (GDP) and gross national income (GNI) as well as Notification of general government deficit and debt - October, *Statistical Yearbook of the Republic of Poland* - December);
- the final annual GDP estimate for the year N-2 - compiled on the basis of data from statistical reports and administrative sources, (data publication: *Concise Statistical Yearbook of Poland* - July, *National accounts by institutional sectors and subsectors* - July)

Whenever the revision is carried out the revised data are published at Statistics Poland website, i.e. the Knowledge Databases - DBW, Macroeconomic Data Bank - BDM, Local Data Bank - BDL, Poland macroeconomic indicators. Data users are provided with the information on introduced changes in the *Statistical Yearbook of the Republic of Poland (general notes to the National Accounts chapter)*, *Concise Statistical Yearbook of Poland* and the publication *National accounts by institutional sectors and subsectors*.

**Major revisions** concern significant modifications to the published data as a result of conceptual (methodological) changes, changes in applied classifications, basic data sources, definitions and legal acts. The revisions cover all or a large part of the time series, both in current and constant prices.

## Revisions of quarterly and annual sector accounts

### **Routine revisions**

The schedule for the compilation of quarterly and annual sectoral accounts (respectively 3 months and 9 months after the reference period) results from the provisions of the ESA 2010 Regulation. The routine revision of quarterly data is directly related to the update of the main aggregates in national accounts (annual and quarterly GDP data), quarterly and annual accounts of general government sector and quarterly and annual data from the balance of payments. Data is published in April and October on Statistics Poland databases and cyclical publications.

General government data is routinely revised twice a year during the preparation of deficit and debt notifications (in April and in October). These revisions are usually related to a change in the subjective scope of the sector, new methodological guidelines (i.e. updating the Manual on Government Deficit and Debt) and Eurostat recommendations. Routine revisions concern the last three years, i.e. the years covered by the fiscal notification.

**Major revisions** of sectors accounts, as in the case of routine revisions, are the result of changes introduced to the main GDP aggregates, general government data and balance of payments statistics. These changes concern significant modifications to the published data as a result of conceptual (methodological) changes, changes in the classifications used, basic data sources, definitions and legal acts. The main revisions, both of annual and quarterly data, cover the full time series or its significant part.

## Revisions in regional accounts

### **Routine revisions**

In regional accounts routine revisions are carried out twice a year.

Provisional estimates of gross domestic product (GDP) and total gross value added (GVA) at the NUTS 2 level are compiled for the year N-1 and balanced with annual national accounts – first annual estimate of GDP (data publication: provisional estimates are published in the news release *Provisional estimates of gross domestic product in regional breakdown* – December).

Subsequently, the following revisions are carried out:

- final data (in September for the year N-2) concerning GDP and GVA by NACE sections at the NUTS 2 level – provisional estimates are revised due to availability of more complete data source and balancing with annual national accounts (data publication: final data are published in the news release *Gross domestic product and gross value added in the regions' breakdown* – September);
- revised data (in November for the year N-2) of GDP and GVA covering extensive set of data from regional accounts at the NUTS 1, NUTS 2 and NUTS 3 levels – include changes implemented in annual national accounts within notification of general government sector deficit and debt (EDP notification in October), (data publication: revised data is presented in the publication *Gross domestic product – regional accounts* – December).

### **Major revisions**

In regional accounts, major revisions are the consequences of changes introduced in annual national accounts.

Major revisions in regional accounts are carried out for the following reasons:

- availability of new data sources and/or new methods applied,
- a change in definitions and classifications used to compile national and regional accounts,
- introducing new legal acts.

Whenever the revision is carried out revised data is published at the Statistics Poland website (Local Data Bank, Knowledge Databases). Data users are provided with the information on introduced changes in the *Statistical Yearbook of the Regions – Poland* (notes to chapter Regional accounts) as well as in the publication *Gross domestic product – regional accounts*.

## Revisions of the supply and use tables and input-output table

**Routine revisions** concern compilation of the supply and use tables and input-output table, containing data from the final, annual GDP estimate, for the year N-3.

The tables are developed with the following frequency:

- supply and use tables - annually,
- input-output table - every 5 years for years ending with 0 and 5.

**Major revisions** are carried out each time after introducing major revisions to the final, annual GDP estimate for the year N-3.

## Revisions in Purchasing Power Parity (PPP) surveys

### Routine revisions

The complete cycle of Purchasing Power Parity (PPP) surveys foretakes implementation of the following routine revisions:

- in March, the „flash estimate” of PPP and GDP in Purchasing Power Standard (PPS) for the year N-1 is published, calculated on the base of the preliminarily verified price data for the year N-1,
- in June, the preliminary estimate (Nowcast) of PPP and GDP in PPS for the year N-1 is disseminated, calculated on the base of data for the year N-1 and updated data for the year N-2,
- in December, revised results for the year N-1 counting latest available price data and GDP expenditure weights, revised estimates for the year N-2 counting updated price data and GDP expenditure weights and the final results for the year N-3, are published.

After the final results is published, the participating in the International Comparison Programme countries do not implement any further revisions despite onward adjustments of estimates in the area of national accounts.

### Major revisions

In Purchasing Power Parity (PPP) surveys, major revisions are conducted only in case of substantial changes in the methodology of PPP calculations, national accounts system (e.g. implementation of revised ESA), classifications etc. Revision of the full series of data requires acceptance of all countries participating in the Eurostat-OECD PPP Programme.

## **Ways to inform users about planned and unplanned revisions**

The Statistics Poland develops an annual schedule of planned revisions of statistical data, which is posted on the Information Portal. This schedule lists all revisions scheduled for the year with dates of data availability after the revision, including obtaining final data. In addition, information on major planned revisions resulting from changes in classifications, standards, methodologies, definitions is provided in specially prepared information notes on the Information Portal well in advance of data publication. Information about the revision should be included in all publications presenting the revised data.

Information about the revision can be found in all publications in which the revised data are presented. In the case of revisions due to changes in methodology, classification, standards, valuation of production, fixed price system, etc. the revised data shall be presented in the longest possible time series (retrospectives) depending on the type of studies carried out, the system and publication arrangements chosen and the possibilities for recalculation. If this is not possible, data for a period (e. g. one year) are recorded twice (e. g. numerator and denominator), i. e. comparable with data before and after the revision. The double collection of data applies to the current issue of the publication; In the following issues, only data are presented in a new perspective.

The contract mark for the marking of revised data is \*.