

DIRECTIVE ON METHODS AND PRINCIPLES REGARDING REVISIONS ON STATISTICAL DATA PRODUCED BY TURKISH STATISTICAL INSTITUTE

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PART ONE

Purpose, Coverage, Legal Basis and Definitions

Purpose

ARTICLE 1- This Directive is prepared with the purpose of defining the methods and principles which are required for releasing revision policies and publishing statistics, revised after being produced and published by Turkish Statistical Institute in the context of Official Statistical Programme.

Coverage

ARTICLE 2- The provisions in this Directive cover the statistics produced by Turkish Statistical Institute in the context of Official Statistical Programme.

ARTICLE 3- (1) The regulations carried out in the situations about errors detected in published data are excluded from the coverage of this Directive. The correction of errors in the process of statistical production is identified by “Directives on Methods and Principles Regarding the Correction of Errors in Statistical Data and Information” published by Turkish Statistical Institute.

(2) Statistics produced by international comparison programmes (Purchasing Power Parity, etc.) are excluded from the coverage of this Directive.

Legal Basis

ARTICLE 4- This Directive has been prepared based on the 4th article of Statistics Law of Turkey dated 10/11/2005 and numbered 5429.

Definitions

ARTICLE 5- In the implementation of this Directive, the terms used herein shall refer to the following;

- a) President: The President of Turkish Statistical Institute,
- b) Presidency: The Presidency of Turkish Statistical Institute,
- c) Current Revision Plan: The table presenting the revision policies of the press releases published within the Institution as a whole,
- d) Preliminary results: Statistics prepared and published with more general information in order to inform the public sooner due to the stipulated form determined by international methodology and regulations of the related statistical field and/or late incoming of administrative records,
- e) Revision History: The table consisting of major revisions in the statistics published within the Institution implemented between 1989 and the current year,
- f) Press Release: The communique showing briefed statistical results, published periodically (monthly, quarterly, semi-annually, annually, etc.) or non-periodically by the statistical production units of Presidency in order to declare to the public,
- g) Error: Any error in published data or information specified in “Directives on Methods and Principles Regarding the Correction of Errors in Statistical Data and Information”,
- h) Official Statistics Programme: The programme - based on 3rd article of Statistics Law of Turkey numbered 5429- prepared for five-year periods, on the purpose of identifying fundamentals and standards regarding to the production and publication of official statistics, ensuring the production of reliable, timely, transparent and impartial data required at national and international level,
- i) Revision: Updates on any published statistical data after publication except for error correction

- j) Revision measurement table: The table that constitutes the data set that represents the last estimate for each reference point in the time series at a certain point in time.
- k) Subject matter unit: Department responsible for statistical production,

PART TWO

Factors Causing Revision on Statistical Data and Revision Types

Causes of revision

ARTICLES 6- Factors causing revision on statistical data are defined below.

- a) **Changes in base year and reference year:** Changes that occur because of the updating of base year of indices and construction of more up-to-date weight structures reflecting structural changes in the economy and using new methodologies. (For example alterations in the national accounts system due to the updating of supply and use tables, the shift from indices with 2010 as base year to indices with 2015 as base year in short term business statistics).
- b) **Benchmarking:** Ensuring consistency among monthly, quarterly or biannually dataset based on the final annual data set.
- c) **Changes in source data:** Alterations made on data by respondents after the publication of data that are collected monthly, quarterly, semiannually, annually from enterprises and/or, from administrative records.
- d) **Changes in linked data:** Changes due to routine revision made in another published data used as a data source in statistical production. For example, the "Ratio of R&D Expenditure in Gross Domestic Product (GDP)" indicator could be revised due to a routine revision in GDP even if there is no routine revision in R&D expenditure.
- e) **Changes in seasonal and calendar effects adjusted data:** Continuous change in data as a result of model-based method used for adjusting effects resulting from seasonal changes and/or number of working days in a month.
- f) **Changes in classifications, definitions and coverage:** Differences due to changes in classifications and definitions (although convertible) and changes in coverage.
- g) **Changes in methodology, implementation and questionnaire structure:** Changes in a methodology, implementation and structure of content and response options.
- h) **Change of the data source:** Switching to new data sources by changing one or more of these sources used in the calculation of a statistic. For example, using administrative records instead of surveys as the source of Turnover Index data.
- i) **Legal regulations:** Changes in data in case of a modification on the information founded on legislation and used in statistical production (For example changes in administrative division).

Revision types

ARTICLE 7- Revision types related to statistical data are defined below:

- a) **Routine revisions:** Revisions sourced by factors mentioned in the 6th article of this Directive, namely benchmarking, changes in source data, changes in linked data and seasonal and calendar effects adjusted data.
- b) **Major revisions:** Revisions sourced by factors mentioned in the 6th article of this Directive, namely changes in base year and reference year, changes in classifications, definitions and coverage, changes in methodology, implementation and questionnaire structure, change of the data source and legal regulations.

PART THREE

Methods and Principles Regarding the Implementation of Revisions

Routine revision implementations

ARTICLE 8- (1) For statistics published annually or more frequently (monthly, quarterly, etc.), the routine revision implementations are divided into three sections such as enterprise, household and administrative registers by data source type.

(a) For surveys using enterprises/local units as major data source; in case of routine revision practices on monthly statistics, monthly data can be revised up to last two months and with the publication of the last data of the year, the data up to last three years can be revised. In case of routine revisions on quarterly statistics, quarterly data can be revised for up to last two quarters and at the end of each year the data up to last three years can be revised. In case of routine revision on annual statistics, data of up to last five years can be revised. In case of situations that partially affect the availability of the data (natural disasters, epidemics, etc.), with the Presidential approval it is possible to make revisions for the data of the relevant months, quarters or years when the missing data is completed.

(b) Routine revision is not implemented on non-adjusted data of surveys where the data source is households.

(2) Routine revision is not implemented on price, consumer confidence and sectoral confidence indices.

Special cases in implementations of routine revisions

ARTICLE 9- (1) Statistics that are published first as provisional and finalized later (within the year or in later years) are revised in a routine manner.

(2) In the context of United Nations Framework Convention on Climate Change, due to changes in methodology and parameters, on which the calculation of The Inventory of National Greenhouse Gas Emission is based on, the series is revised as a whole starting from the reporting base year of the inventory.

(3) Prospective revision of population projections is carried out when the compliance ratio of projections with administrative records to Turkey's total population from the base year on falls below 99% value in the Turkey total population from the base year on. In the absence of this condition, it is carried out every 5 years.

(4) The Economic Confidence Index is revised due to the extension of the period -in which the average and standard deviation values used for the normalization process are calculated- to cover the previous completed year in transition to the new working year.

(5) Controlled Current Adjustment revision method is used for chained GDP volume indices and GDP at Current Prices with respect to the European Statistical Office guidelines on Seasonal Adjustment. Seasonal factors are determined once a year, in the second quarter. Projected seasonal factors and outliers are checked every quarter and revised if necessary.

(6) Monthly published data on Statistics on International Trade in Goods can be revised monthly until (and including) the sixth month of the following year for the whole previous year.

(7) Building Permit Statistics can be revised for each period up to the last three years.

(8) Monthly Paid Worker/Employee Statistics are revised up to five months before the current month in order to ensure consistency with quarterly Labour Input Index.

(9) Due to Government Accounts Statistics, annual GDP data can be revised for up to the past four years. Accordingly, all relevant quarterly GDP data can also be revised.

Implementations of major revisions

ARTICLE 10- (1) As major revisions are extensive revisions, they require an optimization taking the frequency, size and coverage of the revision into account. For this reason, it is essential to carry out a major revision at once by considering all other potential revisions.

(2) Both revised and non-revised versions of the data are monitored by the subject matter unit for at least one year to measure the effects of factors mentioned in the 6th article of this Directive, except for legal regulations. After determining this effect, it is decided to be revised or not (For example; tracking the changes in Household Labour Force Survey by simultaneous implementation and double coding in business statistics)

(3) In case of an average absolute percentage revision size of 1% or below calculated for revision length and depth determined in the revision information form, major revisions are implemented but not announced to the public.

(4) In order to ensure the consistency of the time series of data, the data produced according to the previous definition is back casted to be aligned with the revised data. If information in accordance with the revision definition is available from previous year's data set, then back casting with micro technique would be carried out. In cases which information in accordance with the revision definition is not available back casting is carried out by macro or model based techniques. In the back casting process, subject matter unit asks for the opinion of Methodology Department.

Revisions on seasonal and calendar adjusted data

ARTICLE 11- (1) In seasonal and calendar adjusted data; model, filters, outliers and suitable calendar data are determined by Methodology Department. Parameters and factors are re-estimated for each press release period during the entire subsequent year. Because of the changes sourced by the re-estimation of seasonal and calendar factors, seasonal and calendar adjusted data is revised, for the current year and 3 years prior to that. However, in case the base year of the published data falls within the last three years before the current year, then the base year and years before that are not subject to revision (For example Industrial Production Index Statistics published with base year 2015, is revised in 2018 only for the current year and two years prior to that). Subject matter unit measures the size of the revision in accordance with the 12th article of this Directive.

(2) Tendency and expectation related statistics are not revised due to seasonal and calendar adjustment.

PART FOUR

Methods and Principles Regarding Measurement and Publication of Revision Sizes

Measurement of revision sizes

ARTICLE 12- The effects of routine and major revisions on data are defined as absolute percentage revision and average absolute percentage revision sizes as mentioned in (a) and (b) items and measured by subject matter unit.

- a) Absolute Percentage Revision: Size of the revision on a level value of any statistical observation is calculated by dividing the absolute value of the difference between the published value and revised value by the revised value and turning the division into percentage. This is called "absolute percentage revision". Absolute percentage revision is calculated as the absolute value of the difference between the published and revised value of the statistics without calculating any additional percentage value for statistics defined as proportions or percentages.
- b) Average Absolute Percentage Revision: Size of the revision for a time period on a value of any statistical observation is calculated by taking the arithmetic mean of revisions calculated in item (a) and it is called average absolute percentage revision.

Registering the revision sizes

ARTICLE 13- (1) Revision sizes are kept in the revision measurement table showing the change between the value of data on its first publication date and its latest value.

(2) Revision measurement table regarding routine revisions is kept in revision database. Information Technologies Department is responsible for the database management of the revision measurement tables

PART FIVE

Methods and Principles on Documentation and Publication of Revision Information

Publication of revision information form and methodological document

ARTICLE 14- (1) “Revision Information Form” given in the Appendix-1 of this Directive is the document that defines the revisions on statistical data by causes of revision, publishing date, length and depth (level) of revision. The preparation of “Revision Information Form” is the responsibility of the subject matter unit.

(2) In the preparation of “Revision Information Form”, used as a guide given in the Appendix-2, the matters indicated in the “Handbook of Revision Policy” are taken into consideration. Metadata and Register Systems Department carries out the duty of ensuring the timeliness of the content of “Handbook of Revision Policy” and the standardization of revision policy.

(3) The “Methodological Document” contains the details of the causes of major revisions, table and graphical comparisons of revised and non-revised data and the table showing major revision sizes measured as defined in the 12th and 13th articles of this Directive and (if applied) back casting methodology used. The contents to be included in the “Methodological Document” are covered by “Handbook of Revision Policy”. The main responsible for the preparation of the “Methodological Document” is the subject matter unit.

(4) The subject matter unit prepares the “Revision Information Form” for each statistics within the period defined in Appendix-1 of this Directive Instruction for each statistics. Prepared forms are sent to Metadata and Register Systems Department to be checked. Subsequently, subject matter unit receives Presidential approval for publication of Revision information form.

(5) If a change is planned in “Revision Information Form”, subject matter unit sends modified “Revision Information Form” for control to Metadata and Register Systems Department in November of each year, prior to the preparation of the National Data Release Calendar. Subsequently, subject matter unit receives Presidential approval for the publication of the revision information form.

(6) Producing units, which are to implement major revisions in relevant year’s National Data Dissemination Calendar period, receive the opinion of Metadata and Register Systems Department and Methodology Department for the “Methodological Document” they have prepared a month before of major revision published. Afterwards, Presidency approval is received by subject matter unit to publish major revision together with the “Methodological Document”.

(7) “Current Revision Plan” updated in accordance with current revision policies, revision information forms and major revision plans is published by statistical topics on the official Turkish and English websites of the Presidency in the last week of January each year. “Revision History” is updated in accordance with the implementation of major revisions covered in “Current Revision Plan” and published in the last week of January each year. Metadata and Register Systems Department is responsible for the execution of the process mentioned in this article.

(8) “Methodological Document” is published enclosed to the press release when revised data is published for once and under the metadata of the relevant statistics continuously.

PART SIX

Methods and Principles Regarding the Publication of Revised Data

Publication of revised data

ARTICLE 15- (1) Revised data is shown with an (r) symbol in current press release, in books to be printed or published in electronic media and in static tables if applicable and explanation regarding the revision takes place below the statistical table as a footnote. In order to inform users for a major revision, a pop-up window including an information notice is shown when the users connect the dissemination database. The information notice text is prepared based on the Handbook of Revision Policy. Revision is reflected neither on previously published books (pressed and/or as electronical media) nor on tables given enclosed to previous press releases.

(2) Data undergoing routine revision is published with Presidential approval in press release on publication dates, which are identified in National Data Dissemination Calendar. Data undergoing major revision are published on the date included in “Revision Information Form” with the Presidential approval. The users are informed on both official Turkish and English websites of Presidency with a public announcement; at least one day prior to the publication of data undergoing a major revision.

(3) Back casted time series of data, on which major revision are implemented, is published as a static table enclosed to the press release for once only and it is continued to be published in the database for the following periods. For statistics not published in press releases, back casted time series are shared with public through static tables and/or database.

Coordination of revisions and sharing of data that are not updated

ARTICLE 16- (1) In occurrence of a major revision, Subject matter units make all relevant notifications during the process taking into account that other subject matter units also will be affected.

(2) Tables representing only the period of publication and having no comparability due to a major revision a major revision are published on the official Turkish and English websites of Presidency being accessible to all users.

Revisions excluded in revision information form

ARTICLE 17- Major revisions unforeseen before and do not take place in “Revision Information Form”, but mandatory to be carried out, are determined with President’s approval. Users are informed at least one day prior to its publication on both official Turkish and English websites of Presidency with a public announcement as well as by updating revision information under metadata of relevant statistics, in “Revisions” section and “Current Revision Plan” section on the web page of the Presidency.

PART SEVEN

Final Provisions

Enforcement

ARTICLE 18- This Directive becomes valid with the approval of President of Turkish Statistical Institute on the approval day

Execution

ARTICLE 19- The provisions of this Directive are exercised by the President.

Appendix-1. Turkish Statistical Institute Revision Information Form

Revision Information Form		First Publication Date	
		Date of Update	
Title of Press Release			
Period of Publication			
Routine Revision	Applicable/Non-applicable		
Causes of Revision	<input type="checkbox"/> Changes in source data <input type="checkbox"/> Benchmarking <input type="checkbox"/> Changes in connected data <input type="checkbox"/> Changes in seasonal and calendar effects adjusted data <input type="checkbox"/> Special case (<i>Please specify ...</i>)		
Revision Publication Date			
Length of Revision	Unadjusted Data	Seasonal and Calendar Effects Adjusted Data	
	<input type="checkbox"/> Last 2 months <input type="checkbox"/> Last 2 quarters <input type="checkbox"/> Last 6 months <input type="checkbox"/> Last 3 years <input type="checkbox"/> Last 5 years <input type="checkbox"/> Longer (<i>Please specify ...</i>)	<i>11th Article in the Directive</i>	
Depth of Revision (Level)	Classification:		
	Break-down to be revised:		
Revision Policy of Statistical Tables Published under this Press Release (If it is different)			
Major Revision	Applicable/Non-applicable		
Causes of Revision	<input type="checkbox"/> Changes in base year and reference year <input type="checkbox"/> Changes in classifications, definitions and coverage <input type="checkbox"/> Changes in methodology, implementation and questionnaire structure <input type="checkbox"/> Change of data source <input type="checkbox"/> Legal regulations		
Revision Publication Date			
Length of Revision			
Depth of Revision (Level)	Classification:		
	Break-down to be revised:		