

## Annual national accounts (nama10)

Reference Metadata in Euro SDMX Metadata Structure (ESMS)  
Compiling agency: Eurostat, the statistical office of the European Union

### Eurostat metadata

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### 1. Contact [Top](#)

<b>1.1. Contact organisation</b>	Eurostat, the statistical office of the European Union
<b>1.2. Contact organisation unit</b>	Unit C2 - National Accounts - production
<b>1.5. Contact mail address</b>	2920 Luxembourg LUXEMBOURG

### 2. Metadata update [Top](#)

<b>2.1. Metadata last certified</b>	14/03/2024
<b>2.2. Metadata last posted</b>	14/03/2024
<b>2.3. Metadata last update</b>	14/03/2024

### 3. Statistical presentation [Top](#)

#### 3.1. Data description

National accounts are a coherent and consistent set of macroeconomic indicators, which provide an overall picture of the economic situation and are widely used for economic analysis and forecasting, policy design and policy making. Eurostat publishes annual and quarterly national accounts, annual and quarterly sector accounts as well as supply, use and input-output tables, which are each presented with associated metadata. Even though consistency checks are a major aspect of data validation, temporary (usually limited) inconsistencies between datasets may occur, mainly due to vintage effects.

Annual national accounts are compiled in accordance with the European System of Accounts - [ESA 2010](#) as defined in Annex B of the Council Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013, amended by Council Regulation (EU) 2023/734 of 15 March 2023.

The previous European System of Accounts, ESA95, was reviewed to bring national accounts in the European Union, in line with new economic environment, advances in methodological research and needs of users and the updated national accounts framework at the international level, the [SNA 2008](#). The associated [transmission programme](#) is also updated and data transmissions in accordance with ESA 2010 are compulsory from September 2014 onwards.

[Further information](#) is presented on the Eurostat website.

The domain consists of the following collections:

1. Main GDP aggregates: main components from the output, expenditure and income side, expenditure breakdowns by durability and exports and imports by origin.

<b>nama_10_ma</b>	<b>Main GDP aggregates</b>
nama_10_gdp	GDP and main components (output, expenditure and income)
nama_10_fcs	Final consumption aggregates by durability
nama_10_exi	Exports and imports by Member States of the EU/third countries

2. Key auxiliary indicators such as population and employment data, which are used to derive main GDP aggregates per capita as well as productivity and unit labour cost indicators.

<b>nama_10_aux</b>	<b>Auxiliary indicators (population, GDP per capita and productivity)</b>
nama_10_pe	Population and employment
nama_10_pc	Main GDP aggregates per capita
nama_10_lp_ulc	Labour productivity and unit labour costs

3. Breakdowns of GDP aggregates and employment data by main industries and asset classes.

<b>nama_10_bbr</b>	<b>Basic breakdowns of main GDP aggregates and employment (by industry and by assets)</b>
nama_10_a10	Gross value added and income by A*10 industry breakdowns
nama_10_an6	Gross fixed capital formation by AN_F6 asset type
nama_10_a10_e	Employment by A*10 industry breakdowns

4. Breakdowns of main GDP aggregates (by industry and consumption purpose)

<b>nama_10_dbr</b>	<b>Detailed breakdowns of main GDP aggregates (by industry and consumption purpose)</b>
nama_10_a64	National Accounts aggregates by industry (up to NACE A*64)
nama_10_a64_p5	Gross capital formation by industry (up to NACE A*64)
nama_10_a64_e	National Accounts employment data by industry (up to NACE A*64)
nama_10_co3_p3	Final consumption expenditure of households by consumption purpose (COICOP 3 digit)

5. Breakdowns of non-financial assets by type, industry and sector

<b>nama_10_nfa</b>	<b>Breakdowns of non-financial assets by type, industry and sector</b>
nama_10_nfa_st	Cross-classification of fixed assets by industry and by asset (stocks)
nama_10_nfa_fl	Cross-classification of gross fixed capital formation by industry and by asset(flows)
nama_10_nfa_bs	Balance sheets for non-financial assets

Geographical entities covered are the European Union, the euro area, EU Member States, EFTA countries and Candidate Countries. Data from other countries (e.g. US, Japan and other countries) are received via the OECD and IMF and published in Eurobase in the `naid_10` collection.

Data sources: National Statistical Institutes

### 3.2. Classification system

The standard followed is the European System of National and Regional Accounts (ESA 2010). This is the newest internationally compatible EU accounting framework for a systematic and detailed description of an economy. The ESA 2010 was published in the Official Journal on 26 June 2013. From September 2014 the data transmission from Member States to Eurostat follows ESA 2010 rules.

Annual national accounts comprise the main aggregates on annual national accounts, including: GDP and its components, employment, final consumption aggregates, exports and imports.

Breakdowns exist for variables by economic activity, type of non-financial asset and final consumption by purpose.

#### Economic activity

ESA2010 uses aggregation levels of the NACE Rev.2 classification to define industry breakdowns (NACE stands for Nomenclature générale des Activités économiques dans les Communautés Européennes). NACE Rev.2 is a

classification of economic activities widely used in statistics and in other domains. Requirements for the transmission of NACE Rev.2 series have been specified in the [Commission Regulation \(EC\) No 715/2010 of 10 August 2010](#)

#### Asset types

The new transmission programme of national accounts data (annex B of Regulation (EC) No 1392/2007) foresees the following asset types (AN\_F6) for quarterly data on gross fixed capital formation:

AN.111 dwellings

AN.112 other buildings and structures

AN.113 + AN.114 machinery and equipment + weapon systems

- AN.1131 transport equipment

- AN.1132 ICT equipment\*

- AN.1139 + AN.114 other machinery and equipment + weapon systems\*

- AN.115 cultivated biological resources

- AN.117 intellectual property products

(\*) *on voluntary basis*

#### Consumption purpose

Household consumption expenditure can be classified by consumption purpose according to the [COICOP classification](#) (Classification Of Individual Consumption by Purpose, see also Commission Regulation 113/2002 of 23 January 2002). COICOP categories at two-digit level are as follows:

01 - Food and non-alcoholic beverages

02 - Alcoholic beverages, tobacco and narcotics

03 - Clothing and footwear

04 - Housing, water, electricity, gas and other fuels

05 - Furnishings, household equipment and routine household maintenance

06 - Health

07 - Transport

08 - Communication

09 - Recreation and culture

10 - Education

11 - Restaurants and hotels

12 - Miscellaneous goods and services\*

(\*) *Coicop groups 12.2 'Prostitution' and 12.7 'Other services, not elsewhere classified' are to be provided as an aggregate.*

For a complete review of classifications used, please refer either to:

- ESA 2010 Chapter 23 '[Classifications](#)',

- 'The European System of Accounts 2010 Transmission Programme' Annex B of the Council Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 (cf. also Article 3 of this regulation);

- [United Nations classification registry](#).

### 3.3. Coverage - sector

Annual national accounts refer to the whole economy, but breakdowns by sectors are provided by the annual sector accounts.

### 3.4. Statistical concepts and definitions

This domain encompasses the main aggregates on national accounts. Its main variables are: GDP and its components, employment, final consumption aggregates, gross capital formation aggregates, income, exports and imports. The above variables are calculated on an annual basis but the majority of them are also calculated on a quarterly basis. Breakdowns exist for certain variables by economic activity (NACE Rev.2), by non-financial asset (AN\_F6) and final consumption purpose (COICOP).

The following are brief definitions of concepts and variables from the European System of Accounts 2010 (ESA 2010). In general, the ESA 2010 which was published in the Official Journal as Annex A of Regulation (EU) No 549/2013, may be referred to for more detailed explanations on methodology.

The main aggregates domain excludes estimates in the allocation of primary income account and Gross National Income, which were previously included as part of the national accounts main aggregates. These estimates have now been reclassified to the national accounts sector accounts dataset.

In summary the key concepts captured by the national accounts main aggregates datasets cover the following definitions:

#### GDP - Gross domestic product

GDP at market prices is the final result of the production activity of resident producer units. It is defined in three ways:

##### a. GDP Output approach

From the production point of view GDP can be measured as the sum of the following components:

**GDP** = Total gross value added (B.1G) + Taxes less subsidies on products (D.21 less D.31)

where:

Gross Value Added (GVA) = Output (P.1) less Intermediate consumption (P.2)

**b. GDP Expenditure approach**

From the expenditure side, GDP can be measured as follows:

**GDP =**

Household and non-profit institutions serving households final expenditure (P.3 in S.14+S.15)  
 + government final consumption expenditure (P.3 in S.13)  
 + gross fixed capital formation (P.51)  
 + changes in inventories (P.52)  
 + acquisition less disposal of valuables (P.53)  
 + exports (P.6)  
 - imports (P.7)

**c. GDP Income approach**

**GDP =**

Compensation of employees (D.1)  
 + gross operating surplus and mixed income (B.2g and B.3g)  
 + taxes less subsidies on production and imports (D.2 and D.3)

**Note:** GDP income components and other income measures are only available at current prices, because purely monetary flows cannot be decomposed into a price and a volume component. They may, however, be converted to "real terms" by applying an appropriate deflator.

**Population and employment.** While not strictly national accounts aggregates, these variables are widely used in a national accounts context. Employment and its components are important economic indicators in their own right, and they serve in the construction of derived indicators, turning monetary aggregates from absolute into relative indicators and thus allowing the comparison of economies of very different size.

**Population** consists of all persons, nationals or foreigners, who are permanently settled in the economic territory of the country, even if they are temporarily absent from it, on a given date. A person staying or intending to stay at least one year is considered to be settled on the territory. By convention, the total population excludes foreign students and members of foreign armed forces stationed in a country.

**Employment** covers all persons engaged in some productive activity (within the production boundary of the national accounts). Employed persons are either employees (working by agreement for another resident unit and receiving remuneration) or self-employed (owners of unincorporated enterprises).

**For information explaining the units of measure see section 4 (Unit of Measure) below.**

**3.5. Statistical unit**

National accounts aim to capture economic activity within the domestic territory. They combine data from a host of base statistics, and thus they have no common sampling reference frame. The elementary building blocks of ESA 2010 statistics are statistical units and their groupings. ESA 2010 defines two types of units, institutional units and local kind-of-activity units (ESA 2010, 1.54).

**3.6. Statistical population**

National accounts combine data from many source statistics. The concept of statistical population is not applicable in a national accounts context.

**3.7. Reference area**

Eurostat publishes national accounts data for European Union, euro area, [EU Member States](#), [EFTA countries](#), [candidate countries](#), the United States, Japan and possibly other countries on an ad-hoc basis.

Eurostat estimates the aggregates for the EU and the euro area. All other data are produced by the statistical offices of the respective countries. For further information on country data you may also refer to National Statistical Institutes and National Central Banks (links given on the Eurostat web site).

EU Member States and EFTA countries have legal obligations to submit their data to Eurostat as defined in the European System of Accounts ESA 2010 transmission programme of data. These data are the inputs for Eurostat's estimates of EU and the euro area. Since the United States and Japan have no such obligation to transmit data to Eurostat, coverage is usually limited to key aggregates, and delays between national publication and availability on Eurostat's website may be longer. Note that for some countries not covered in the national accounts domain, some central aggregates such as GDP may be available from the general statistics domain of Eurostat's online database.

**3.8. Coverage - Time**

Time coverage (i.e., length of the historical series) is different for European aggregates and for national data. Coverage for EU and euro area aggregates is from 1995, with some exceptions in the case of new Member States and derogations. The coverage for national data varies from country to country, partly due to derogations provided for in the transmission and back-projection programme, and can, in some cases, be substantially longer than for the European aggregates.

Forecasts (usually two years ahead) for national and European series based on forecasted growth produced by the Commission's General Directorate Economy and Finance (DG ECFIN) may be retrieved from DG ECFIN's website:

[http://ec.europa.eu/economy\\_finance/eu/forecasts/](http://ec.europa.eu/economy_finance/eu/forecasts/)

### 3.9. Base period

Not applicable. The Commission Decision 98/715/EC requires previous year prices and volume estimates to be presented in chain-linked series.

## 4. Unit of measure

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The national accounts main aggregates data are presented using a range of unit measures including current price, volume and implicit deflator series in one table, as well as specific units for the employment and labour productivity tables. **Please note that series are not available for all tables:** For instance, figures related to EU average can only be derived after the estimation of the respective aggregate and the presentation focuses on the most relevant units for typical users.

**Current price** figures are typically expressed in (millions of) national currency and euro. They can be directly observed but include inflation effects. Additional units and ratios for current prices are derived and presented to facilitate comparisons of economic structures across time or countries.

- **National currency series in current prices** (CP\_MNAC) (including fixed euro series for euro area Member States) are transmitted by Member states and correspond to nationally published figures. They embed a volume and a price (inflation) component as well as an exchange rate when the national currency is not the Euro.
- **Euro series** (CP\_MEUR) are derived from transmitted national currency series using historic exchange rates. They are suitable for internal comparison and aggregation. When comparing them over time, account must be taken of exchange rate effects.
- For euro area Member States, the national currency series are converted into euros using the irrevocably fixed exchange rate. This "preserves the same growth rates than for the previous national currency series. Both series coincide for years after accession to the euro area but differ for earlier years due to market exchange rate movements.
- **Purchasing Power Standards (PPS)** (CP\_MPPS) are fictive 'currency' units that remove differences in purchasing power, i.e. different price levels between countries. These parities are obtained as a weighted average of relative price ratios in respect to a homogeneous basket of goods and services, both comparable and representative for each country. They are fixed in a way that makes the average purchasing power of one euro in the European Union equal to one PPS. PPS series should be used for cross-country comparisons in a specific year but do not for comparisons over time since they do not constitute time series.
- To facilitate the comparisons between countries, data are expressed in **percent of the EU aggregate**, e.g. using euro (PC\_EU\_MEUR\_CP) or euro (PC\_EU\_MEUR\_CP)
- Figures are also expressed in relation to **total GDP** (PC\_GDP) or **the total aggregate** (PC\_TOTAL) in case of breakdowns by industry or assets to facilitate comparisons of the relative importance of the aggregates over time or across countries:

**Volume figures** show the development of aggregates excluding inflation. They are typically derived as previous year prices but presented as chain linked volumes, indices or various growth rates.

- National accounts volumes for transactions concerning goods and services are estimated in **previous year prices** (PYP\_MNAC or PYP\_MEUR) to eliminate the influence of inflation. They are used to derive chain-linked volumes and included in the dissemination for advanced users to allow construction of custom aggregations and derived measures. Since the price base changes every year, the figures do not constitute a homogeneous time series.
- **Chain-linked level series** obtained by successively applying previous year's price's growth rates to the current price figure of a specific reference year e.g. 2010 (CLV10\_MNAC, CLV10\_MEUR). Chain-linked volumes with 2005 as reference year (CLV05\_MNAC, CLV05\_MEUR) are still presented to facilitate comparison with ESA 95 series.
- Chain-linking involves the loss of additivity for all years except the reference year and the directly following year, because these are the only periods expressed in prices of the reference year. For other years, chain-linked components of GDP will not sum to chain-linked GDP, and chain-linked Member States' GDP will not sum to chain-linked EU GDP.
- In addition, chain-linking cannot be performed directly on variables that can take both negative and positive values. Therefore, no chain-linked series are provided for changes in inventories (P.52), acquisition less disposal of valuables (P.53) and the external balance (B.11, B.111 for goods only, B.112 for services only). These components are available only at current prices and at previous year's prices.
- **Index series** (CLV\_I10) are derived by successively applying previous year's price's growth rates to an index value 100 in the reference year. The volume growth rates are equal with the growth rates in the level series mentioned above. Index series are given only for the reference year 2010 since they can easily be re-referenced (reference year = 100) to another year.
- **Growth rates** are derived from the level series mentioned above (they all give the same growth rates irrespectively of the currency denominated since the exchange rate is "fixed" to the one in the reference year). CLV\_PCH\_PRE represent the percentage change over previous period. In the case of annual data, this is the previous year.

**Contributions to growth** are derived for European aggregates since chain-linked volume series do not add up to GDP growth outside the reference year. They reflect the fact that a change in GDP can be attributed to changes in its components, hence showing which component contributed strongly to economic growth and which did not. A component's contribution depends on both its size and its growth. They are

calculated as percentage point change over previous period (CON\_PPCH\_PRE) or the same period in previous year (CON\_PPCH\_SM). Except for rounding effects, all contributions should sum up to the GDP growth rate. The method applied by Eurostat corresponds to the one described by INSEE. While most countries agreed that this method could be applied to derive contributions to growth for their countries also, some countries preferred to transmit data based on a slightly different methods to be fully consistent with national dissemination. For these countries: Germany, The Netherland, Poland, and, Portugal data dissemination may therefore not be fully complete. For those countries, the data are marked with a (d) flag (definition differs). The information for those countries is the same as published nationally. You could find below reference to national methodology. The component and adjustment for which calculation are made in those countries may differ from other (full coverage otherwise)

- **DE:** <https://www.destatis.de/EN/Themes/Economy/National-Accounts-Domestic-Product/Publications/Downloads-National-Accounts-Domestic-Product/quarterly-national-accounts-inventory-esa2010-6489031179004.pdf;jsessionid=715FFD5F7C9A9BAE1CA7A6D0FA1FF13B.internet732?blob=publicationFile> Chapter 3 page 31.
- **NL:** NL method for year on year series uses additive time series (constant prices, in average prices of the previous year) instead of the chain linked series.
- **DK:** <https://www.dst.dk/Site/Dst/SingleFiles/GetArchiveFile.aspx?fi=8087168455&fo=0&ext=national> (In Danish) Please note that sign is inverted for “Final consumption expenditure of non-resident households on the economic territory”
- **PT:** The contribution of a component to GDP year-on-year rate of change is equal to the rate of change of the component weighted by its weight in GDP at the same quarter of the previous year. The contribution of a component to GDP quarter-on-quarter rate of change is equal to the rate of change of the component weighted by its weight in GDP at the previous quarter. The volume contributions are based on chain linked volume series.

**Implicit deflator series** are derived as a ratio of current price to chain-linked volumes series and give indication of underlying price changes.

- The series differ for **national currency or euro** series and can be expressed as an **index** (PD10\_NAC or PD10\_EUR) or **growth rates** (PD\_PCH\_PRE\_NAC, PD\_PCH\_SM\_NAC, PD\_EUR, PD\_PCH\_PRE\_EUR, PD\_PCH\_SM\_EUR).

#### Population, employment and derived indicators

- Estimates of population, employment and labour productivity data are presented in (thousands of **persons** (THS\_PER), **total hours worked** (THS\_HW) and **jobs** (THS\_JB). To facilitate the analysis of the indicator over time, series can also be expressed as index figures or growth rates.
- Labour productivity and unit labour costs can be expressed in **percent of EU total** (PC\_EU\_PPS, PC\_EU\_EUR), index (110) or **growth rates** (PCH\_PRE, PCH\_3Y, PCH\_5Y, PCH\_10Y).

Values of non-financial assets in the balance sheet data are presented in current replacement costs and previous year replacement costs, expressed in euros and units of national currency.

## 5. Reference Period [Top](#)

The accounting period is the calendar year, with temporal coverage varying across geographical units.

## 6. Institutional Mandate [Top](#)

### 6.1. Institutional Mandate - legal acts and other agreements

National accounts are compiled in accordance with the European System of Accounts ([ESA 2010](#)) which was published in the Official Journal as Annex A of Regulation (EU) No 549/2013, amended by Council Regulation (EU) 2023/734 of 15 March 2023.

The European System of Accounts (ESA 2010) transmission programme is covered in Annex B of the Council Regulation (EU) No 549/2013, amended by Council Regulation (EU) 2023/734 of 15 March 2023.

Commission Decision 98/715 of 30 November 1998 and Commission Decision 2002/990 of 17 December 2002 on measurement of price and volumes in national accounts.

### 6.2. Institutional Mandate - data sharing

Data received via the transmission programme are shared with other institutions in accordance with specific agreements, notably with the ECB and the OECD. A [protocol for co-operation between Eurostat and the OECD](#) in the area of National Accounts signed in June 2013 specifies agreed data exchange and data validation arrangements. These data are published in Eurobase in the `naid_10` collection.

## 7. Confidentiality [Top](#)

### 7.1. Confidentiality - policy

[Regulation \(EC\) No 223/2009 on European statistics](#) (recital 24 and Article 20(4)) of 11 March 2009 (OJ L 87, p. 164), stipulates the need to establish common principles and guidelines ensuring the confidentiality of data used for



the production of European statistics and the access to those confidential data with due account for technical developments and the requirements of users in a democratic society.

### 7.2. Confidentiality - data treatment

If Member States transmit data with a confidentiality flag or an embargo date, these data are not disseminated until the confidentiality flag is removed in a subsequent data transmission or the embargo expires.

## 8. Release policy [Top](#)

### 8.1. Release calendar

Eurostat releases of European annual accounts aggregates are not covered by a pre-announced release calendar, but annual accounts that are also covered by the quarterly accounts are usually updated on the occasion of new quarterly releases (which are released according to a pre-announced calendar that is published on Eurostat's website), and figures for a new year usually become available with the first release of quarterly accounts for the fourth quarter of the reference year.

National data are published by the National Statistical Institutes (NSI) following national dissemination calendars. Please consult NSI's websites to obtain national dissemination calendars (links are given on the Eurostat website). National data become visible on Eurostat's online database usually one to two days after their reception (processing including quality monitoring).

### 8.2. Release calendar access

The release calendar for European quarterly national accounts is published on the website: <https://ec.europa.eu/eurostat/web/national-accounts/overview>; see "QNA release calendar" and is also presented in [Eurostat's release calendar](#).

### 8.3. Release policy - user access

In line with the Community legal framework and the [European Statistics Code of Practice](#) Eurostat disseminates European statistics on Eurostat's website (see item 10 - 'Accessibility and clarity') respecting professional independence and in an objective, professional and transparent manner in which all users are treated equitably. The detailed arrangements are governed by the [Eurostat protocol on impartial access to Eurostat data for users](#).

In line with this protocol and on a strictly regulated basis, European estimates of main national accounts aggregates including GDP and employment are sent for information to the European Central Bank (ECB), to the European Commission Directorate General for Economic and Financial Affairs (DG ECFIN) and the Directorate General for Employment, Social Affairs and Equal Opportunities (DG EMPL) (employment only) under embargo the evening before official release of data.

## 9. Frequency of dissemination [Top](#)

The transmission requirements for each dataset are defined in the European System of Accounts (ESA 2010) [transmission programme](#).

For annual data these are, in principle:

- Main GDP aggregates (nama\_10\_ma): t+2 months and t+9 months
- Auxiliary indicators (population, GDP per capita and productivity) (nama\_10\_aux): t+2 months and t+9 months
- Basic breakdowns of main GDP aggregates and employment (by industry and by assets) (nama\_10\_bbr): t+2 months and t+9 months
- Main GDP aggregates (nama\_10\_ma) including auxiliary indicators (nama\_10\_aux) and basic breakdowns: t+2 months and t+9 months
- Detailed breakdowns of main GDP aggregates (by industry and consumption purpose) (nama\_10\_dbr): t+9 months and t+21 months
- Breakdowns of non-financial assets by type, industry and sector (nama\_10\_nfa): t+24 months

## 10. Accessibility and clarity [Top](#)

### 10.1. Dissemination format - News release

There is no specific news release for annual main national accounts aggregates, but the first estimates of EU/EA annual growth are published with the quarterly national accounts flash release and second news releases for the fourth quarter, and annual data are estimated and updated with the subsequent quarterly releases announced on the [website](#) "National accounts (including GDP)" under "QNA release calendar".

### 10.2. Dissemination format - Publications

Statistics Explained; data are also used in various other publications.

### 10.3. Dissemination format - online database

Please consult the respective section of [Eurostat's public database](#). Estimations of annual main European national accounts aggregates are updated in line with the regular quarterly estimates (see 10.1). Member States' annual data are published shortly after their transmission, with first estimates generally due at t+2 months and t+9 months (for details see [ESA 2010 transmission programme](#)).

Please consult <a href="#">NSI's websites</a> to obtain national dissemination calendars.
<b>10.4. Dissemination format - microdata access</b>
Not applicable.
<b>10.5. Dissemination format - other</b>
Apart from the accompanying press release, there are no official comments from Eurostat at the time of the release of the European aggregates. Comments may or may not be made by the European Commission or European Union Member States.
For information on any comment possibly made by the Commission, please refer to <a href="http://europa.eu/rapid/latest-press-releases.htm">http://europa.eu/rapid/latest-press-releases.htm</a> . For further information on any comments possibly provided by National Statistical Institutes, National Central Banks or National Governments on their own data, please refer to their web sites (links are given on the Eurostat web site <a href="http://ec.europa.eu/eurostat">http://ec.europa.eu/eurostat</a> ).
<b>10.6. Documentation on methodology</b>
European legislation and guidelines are explained in ESA 2010 (see link above under "6.1 Legal acts and other agreements").
<b>10.7. Quality management - documentation</b>
Not available.

<b>11. Quality management</b> <a href="#">Top</a>
<b>11.1. Quality assurance</b>
Quality is assured by strict application of ESA 2010 concepts and by thorough validation of the data delivered by countries.
Please read about the <a href="#">COVID-19 impacts on national accounts</a> and consult the <a href="#">note to users</a> and our <a href="#">news releases</a> .
<b>11.2. Quality management - assessment</b>
ESA 2010 data transmissions are subject to regular quality assessment reviews. Article 4 of Regulation (EU) No 549/2013 (ESA 2010 Regulation) specifies that the data covered by that Regulation is subject to the quality criteria, namely relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability and coherence, as set out <a href="#">in Article 12(1) of Regulation (EC) No 223/2009 of the European Parliament and of the Council</a> .
Member States are to provide the Commission with a report on the quality of the transmitted data on national and regional accounts. The modalities, structure, periodicity and assessment indicators of the quality reports on data transmitted have been specified in a <a href="#">Commission Implementing Regulation 2016/2304 of 19 December 2016</a> . The implementation of the quality reporting and assessment exercise started in 2017 and is carried out annually. As part of the annual exercise, Eurostat assesses the results, prepares and <a href="#">publishes an overall assessment</a> based on the national quality reports and other available information.
The Commission also, on a 5 year basis, reports to the European Parliament and the Council on the application of the ESA 2010 Regulation, including the quality of data on national and regional accounts. The first of such reports was published in 2018: <a href="#">REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL on the application of Regulation (EU) No 549/2013</a> . The <a href="#">latest report</a> was published in 2023.

<b>12. Relevance</b> <a href="#">Top</a>
<b>12.1. Relevance - User Needs</b>
Users of annual national accounts data are typically interested in analysing structural changes in the economy from a medium-term perspective.
<b>12.2. Relevance - User Satisfaction</b>
Annual national accounts data are a key instrument for economic analysis.
<b>12.3. Completeness</b>
Annual national accounts data provide detailed breakdowns on production, consumption, investment, and income.

<b>13. Accuracy</b> <a href="#">Top</a>
<b>13.1. Accuracy - overall</b>
Eurostat <a href="#">publishes</a> information on revisions of seasonally and working day adjusted volume GDP series – vintages of quarter-on-quarter growth rates and year-on-year growth rates – demonstrating the reliability of European GDP estimates. The revision triangles are available starting with Q1 2017 for the EU and Q1 2012 for the euro area. The files are regularly updated when newer reference periods become available.
Quality reports on national accounts, including revision analysis are also published by some Member States. Eurostat publishes a revision analysis of selected macro-economic indicators in the <a href="#">annual quality reports</a> .



<b>13.2. Sampling error</b>
Not applicable.
<b>13.3. Non-sampling error</b>
Not applicable.

<b>14. Timeliness and punctuality</b> <a href="#">Top</a>
<b>14.1. Timeliness</b>
Member States are required to transmit their data to Eurostat in compliance with the European System of Accounts ESA 2010 transmission programme, subject to derogations.
<b>14.2. Punctuality</b>
Eurostat releases its estimates of European aggregates in line with the pre-announced release schedule (see release calendar in <a href="#">dedicated section</a> ). Member states' data are revised according to national schedules, and revisions are applied to Eurostat's online database as soon as they become available to Eurostat.

<b>15. Coherence and comparability</b> <a href="#">Top</a>
<b>15.1. Comparability - geographical</b>
The comparability is insured by the application of common definitions (European System of Accounts <a href="#">ESA 2010</a> ).
<b>15.2. Comparability - over time</b>
By using a common framework, the European System of Accounts (ESA 2010), data can be comparable over time. Where series cannot be comparable over time, for example those expressed as a percentage of the total EU, then an explanatory note is presented with the series.
<b>15.3. Coherence - cross domain</b>
Additional time series are available from the other domains on National Accounts, in particular the domain on quarterly national accounts, and from Eurostat publications.
Most of the national data used in the calculation of the euro area and European Union aggregates have originally been published by the National Statistical Institutes (NSI). These data may also be used for cross-checking. Most are disseminated via the NSI's websites.
In certain cases, data from other domains of economic statistics, i.e. balance of payments statistics, business statistics, household budget statistics or external trade statistics can be used for cross-checking purposes. These economic statistics are also available from the appropriate domains on Eurostat's website.
<b>15.4. Coherence - internal</b>
In between Eurostat releases, Member States may revise their figures; Eurostat publishes the new Member States' accounts shortly after reception but does not recalculate the EU accounts until the next scheduled EU release. Geographical coherence may thus be lost for a brief period. In turn, a certain stability of annual aggregates is assured, and annual and quarterly EU aggregates will by default be coherent.

<b>16. Cost and Burden</b> <a href="#">Top</a>
Not available.

<b>17. Data revision</b> <a href="#">Top</a>
<b>17.1. Data revision - policy</b>
Annual national accounts are produced from a large variety of data sources with varying degrees of timeliness, taking up to three years or more in the case of structural sources. As users need national and international data as fast as possible, particularly on certain key aggregates, data are produced using data sources that are more readily available. As more complete source data are obtained, the statistics are updated to incorporate the new information.
Revisions of macroeconomic statistics are necessary to improve data quality. To minimise the inconvenience for data users, the European Statistical System (ESS) and the European System of Central Banks (ESCB) try to strike the right balance between incorporating the necessary statistical revisions and maintaining an acceptable degree of consistency across domains and countries. To this end, the two systems have worked together to draw up a <a href="#">Harmonised European Revision Policy (HERP) for Macroeconomic Statistics</a> issued by the <a href="#">CMFB</a> in October 2017. HERP is aligned with the <a href="#">general Eurostat revision policy</a> .
According to HERP, a distinction should be made between 'routine' revisions and 'major' or 'benchmark' revisions.
<b>Routine revisions</b>
Routine revisions refer to the changes made to the economic data published initially and to its subsequent releases for a particular reference year.
According to the guidelines laid down in HERP, annual estimates are usually revised retrospectively for up to four years to incorporate annual data sources as well as changes following Excessive Deficit Procedure and Own

Resources notifications, although the policy allows unlimited revisions for transmissions at t+9 months. Some countries are obliged to publish the initial annual data for reference year t-1 in the second calendar quarter of the year instead of the third quarter.

The sequence of publications/revisions regarding annual data, in calendar year t, is as follows:

- Quarter 1: First estimate of annual data for year t-1, usually corresponding to the sum of the quarterly figures released;
- Quarter 2: First possible revision of annual data for year t-1 to include revisions of quarters of t-1;
- Quarter 3: First estimate of annual data for year t-1 based on both annual and first available sources;
- Quarter 4: Exceptional revisions of annual data for year t-1 may be carried out to take into account changes following Excessive Deficit Procedure and Own Resources notifications (GNI Committee).

According to the [principles of HERP](#), the maximum depth of revisions in each quarter is 4 years, as the majority of NSIs work on a cycle of 3-4 years after which the data can be considered final. However, all years may be open to revisions during the third quarter of the year and during benchmark revisions.

HERP requires that national revision practices are aligned across statistical domains. This implies that annual routine revisions are carried out with identical timing and depth of revision across all statistical domains, to eliminate vintage differences as a source of inconsistencies. This part of the policy is also important in the context of ensuring consistency between national accounts and BOP/IIP. HERP requires at least one point in time where cross-domain consistency must be achieved; namely, in the 3rd quarter when annual revisions are also carried out.

In addition, HERP covers domains with annual and quarterly data reporting frequencies and requires alignment between quarterly and annual tables. HERP requires that all countries align their quarterly and annual frequencies across all domains, at least, in the third quarter.

### **Benchmark revisions**

Benchmark revision is carried out at much longer time intervals. Its purpose is to incorporate the main new data sources and major changes in international statistical methodology (such as ESA 2010 or BPM6). In benchmark revision, many years are open for revision in order to create the longest possible consistent time series.

Disseminating the results of a benchmark revision always involves revising all, or at least a large part of the time series. HERP requires that benchmark revisions result in break-free series at least for the timespan required on a mandatory basis by the ESA 2010 Transmission Programme. Breaks in the series should be temporary and appropriately flagged with the 'B' flag.

The coordination and communication of benchmark revisions are prepared well in advance. Benchmark revisions are publicly announced in advance of the release date, at least a quarter in advance for annual and quarterly statistics. The actual release of the results of a benchmark revision are accompanied by sufficient documentation that allows users to appropriately assess the new presentation of the macroeconomic and/or social situation.

Eurostat plays a central role in the communication of European harmonised benchmark revisions. Information is published on the Eurostat website. The impact of benchmark revisions is analysed in [statistical publications](#) and presented to various technical fora, including key users and policy makers.

### **Non-scheduled revisions**

Non-scheduled revisions take place on an ad-hoc basis, outside the European harmonised approach. While there is no comprehensive set of recommendations agreed at EU level for when non-scheduled revisions, good practices regarding metadata and communication on non-scheduled revisions are discussed in the "[Practical guidelines for revising ESA 2010 data](#)".

Since they could confuse users and thus damage user confidence in official statistics, non-scheduled revisions should always be an exception and should be avoided where possible. If the benefits of carrying out a non-scheduled revision are assessed as clearly outweighing the disadvantages of waiting to integrate the results into a forthcoming benchmark revision, there should be a clear communication strategy.

Non-scheduled revisions may be often related to errors. Reported errors are assessed for seriousness to determine whether they should trigger a correction of already disseminated data.

Reported errors in national data that are deemed to be significant are corrected in the disseminated data as soon as the correct data have been validated. Corrections for other errors in national data are most often carried out in connection with the regular scheduled data dissemination/ regular revision. The EU aggregates are revised according to the pre-announced release calendar. Errors in national data have rarely a substantial impact on aggregates.

National Statistical Offices and National Central Banks agreed to gradually implement the HERP. The level of adherence to the guidelines of Member States' revision policies is regularly monitored through the ESA 2010 quality reporting.

Information on adherence to HERP and the national revision policies is available at:

<https://ec.europa.eu/eurostat/web/esa-2010/data-revision>

## 17.2. Data revision - practice

**The revision practice effectively corresponds to the revision practice of the domain listed under sub-concept 17.1 (data revision – policy).**

### Routine revisions for annual data

National accounts data at country level are subject to continuous routine revisions as new input data becomes available. Countries' data are revised according to country schedules, and revisions become visible in Eurostat's online database as soon as new data is transmitted to and validated by Eurostat.

Countries' revisions will typically result in revisions of the European aggregates, which are derived from these data, but updated estimations of the European aggregates are only released on specific dates. Annual data may be revised twice every quarter with the release of quarterly figures (65 days and approximately 110 days after the end of the reference quarter). The dates are pre-announced in the release calendar on Eurostat's website (see 8.2). On these occasions, previously published figures are subject to revision for all variables and all years. The depth of revisions observed for the aggregates depend on the depth of revisions of national data.

Data may be published even if they are missing for certain variables and/or countries or flagged as provisional or of low reliability. They are replaced with final data once transmitted and validated. European aggregates are updated according to the pre-announced release calendar. The vast majority of NSIs have aligned their national release dates with the calendar of Eurostat so that European aggregates are consistent with revised country data on the release day.

Routine revisions are documented and communicated through press releases and dedicated statistical analyses. A thorough analysis based on pre-selected revision indicators is also included in the annual national quality report.

### Major or benchmark revisions

In 2014, all Member States disseminated revised data according to ESA 2010. The agreed guidelines specify that Member States should disseminate the results of the next benchmark revisions in 2019 and 2024 respectively. The majority of EU countries were able to meet the 2019 target and all EU countries are expected to carry out the subsequent benchmark revision in 2024.

More information on the ongoing benchmark revisions is available on this page:

<https://ec.europa.eu/eurostat/web/esa-2010/data-revision>

<https://ec.europa.eu/eurostat/web/esa-2010/implementation-data-quality>

Information on benchmark revisions carried out in 2019 is available in this document:

[https://ec.europa.eu/eurostat/documents/737960/9861115/Benchmark\\_revisions\\_2019.pdf](https://ec.europa.eu/eurostat/documents/737960/9861115/Benchmark_revisions_2019.pdf)

## 18. Statistical processing

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### 18.1. Source data

Eurostat publishes national accounts data for the European Union, euro area and country data (for EU Member States, EFTA countries, candidate countries, the United States, Japan and some other countries on an ad hoc basis). Eurostat estimates the figures for EU and euro area (see section below '18.5. Data Compilation' for details); all the other data are produced by the statistical offices of the respective countries.

Countries use many sources to compile their national accounts, among them administrative data from government, population censuses, business surveys and household surveys. No single survey can hence be referred to. Sources vary from country to country and may cover a large set of economic, social, financial and environmental items, which need not always be strictly related to national accounts. In any case, there is no single survey source for national accounts.

In particular, different sources are used for calculating the different approaches of GDP mentioned above under '3.4 Concepts and definitions'. If more than one of these approaches is used, their results are usually balanced, i.e. forced to be coherent, so that a single value for GDP is obtained.

For further information about sources and collection methods in National Statistical Institutes (NSIs), please refer to National Statistical Institutes and National Central Banks (see Eurostat's web site, and after having chosen the language to be used, select menu: All Services - Links and Contacts).

### 18.2. Frequency of data collection

Member States should transmit national accounts data to Eurostat upon national publication and/or in line with the deadlines specified in the European System of Accounts (ESA 2012) transmission programme. Member State's annual main aggregates are generally transmitted at  $t+2$  and  $t+9$  months. For further details see section 10.3 Dissemination format.

Data are collected from national sources. As the breadth of the sources varies, so does the frequency of collection, from monthly to annually, and in the case of population censuses they are mostly collected every decade.

<p><b>18.3. Data collection</b></p> <p>Data in ESA 2010 are transmitted via <a href="#">SDMX</a> which introduced standardised codes.</p> <p>National Accounts combine data from many source statistics. Techniques of data collection vary widely, depending on the compilation approach, the source statistics available, the particular account in the system of accounts, the timeliness of data release and other factors.</p>
<p><b>18.4. Data validation</b></p> <p>Source data undergo a sequence of checks within NSIs. Eurostat checks national data for completeness (coverage of reference periods and variables), consistency (accounting consistency, frequency consistency between quarterly and annual accounts, consistency over time and consistency of prices), revisions, outliers and flagging practices and follows up with NSIs on any lack of quality in this respect.</p> <p>The same checks are applied to data for the European aggregates. Validation against data from other domains and validation of the statistical tools used are done on an ad-hoc basis.</p>
<p><b>18.5. Data compilation</b></p> <p>Eurostat compiles aggregate estimates for the euro area and the EU. The annual current price data for the euro area and the EU are derived using Member States' data as input, usually by adding up the aggregates for all Member States after expressing them in a common currency (euros).</p> <p>EU chain-linked volumes are compiled from chain-linking EU data at previous year's prices, and not from summing Member States' chained series.</p> <p>Figures expressed in Purchasing Power Standards are derived from figures expressed in national currency by using Purchasing Power Parities (PPP) as conversion factors.</p> <p>Where single Member States' figures are not available, Eurostat may use unpublished estimates to impute country data and hence calculate the European aggregates.</p> <p>More information can be found in the <a href="#">dedicated section</a> of Eurostat's website.</p>
<p><b>18.6. Adjustment</b></p> <p>If Member States' accounts show discrepancies (explicit or implicit) between GDP and the sum of components, European annual accounts derived from summing these up would show a discrepancy equal to the sum of Member States' discrepancies. To avoid this, European annual accounts use some variables to adjust for any possible lack of additivity between the total and the sum of its components, i.e. these variables are effectively used as balancing items. This is only possible at current and at previous year's prices, because of the lack of additivity induced by the chain-linking technique.</p> <p>For the expenditure approach of GDP, the balancing variables are changes in inventories plus net acquisition of valuables (P.52+P.53).</p> <p>For the income approach of GDP the balancing variables are gross operating surplus and mixed income (B.2g + B.3g).</p> <p>For the output approach of GDP, all elements are subject to a proportional adjustment.</p> <p>Similarly, when calculating European aggregates, Eurostat corrects country data for lack of additivity if a variable does not equal the sum of its (industry, product or COICOP) breakdowns.</p> <p>NSIs may provide explicit balancing adjustments for their national accounts. These are recorded as "discrepancy items" in the appropriate tables.</p>

<p><b>19. Comment</b> <a href="#">Top</a></p> <p>National Accounts figures, in contrast to foreign trade statistics, are not consolidated for intra-EU trade.</p> <p>Due to different revision policy for the European aggregates and the Member States' data, there may be a difference between the European aggregate and the appropriate sum of national data between updates. Moreover, the European aggregates are not suitable for implicit derivation of values for missing national series.</p> <p>Further, country specific information may be found in the respective <a href="#">dedicated section</a> of Eurostat's website.</p>
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**Footnotes**

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