



QUALITY REPORT FOR STATISTICAL SURVEY Annual Gross Domestic Product, 1995 – 2024

Organisational unit: Macroeconomic Statistics Directorate / National Accounts Aggregates Department
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0. Basic information

Purpose and subject matter

The calculation of gross domestic product (GDP) at current prices, constant prices of the previous year and constant prices of the reference year (2021 = 100). The calculation is performed according to the methodology of the European System of National Accounts (ESA 2010) and it is available according to the three following approaches:

According to the production approach at current and constant prices: gross value of production, intermediate consumption, value added, aggregates broken down by activities

According to the expenditure approach at current and constant prices: final consumption expenditure of households, government and non-profit institutions serving households (NPISH), gross fixed capital formation, change in inventories, export and import of goods and services

According to the income approach at current prices: compensation of employees, taxes and subsidies on production and import, gross operating surplus and mixed income.

Reference period

Calendar year

· Legal acts and other agreements

Regulation (EU) 2023/734 of the European Parliament and of the Council of 15 March 2023 amending Regulation (EU) No 549/2013 on the European system of national and regional accounts in the European Union and repealing 11 legal acts in the field of national accounts (OJ L 97, 5.4.2023)

Regulation (EU) 2019/516 of the European Parliament and of the Council of 19 March 2019 on the harmonisation of gross national income at market prices and repealing Council Directive 89/130/EEC, Euratom and Council Regulation (EC, Euratom) No 1287/2003 (GNI Regulation) (OJ L 91, 29.3.2019)

Commission Delegated Regulation (EU) 2015/1342 of 22 April 2015 amending the methodology for the classification of products by activity given in Annex A to Regulation (EU) No 549/2013 of the European Parliament and of the Council (OJ L 207, 4.8.2015)

Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on European system of national and regional accounts in the European Union (OJ L 174, 26.6.2013

Commission Decision of 30 November 1998 clarifying Annex a to Council Regulation (EC) No 2223/96 on the European system of national and regional accounts in the Community as concerns the principles for measuring prices and volumes (notified under document number C(1998) 3685) (OJ L 340, 16.12.1998)

Commission Decision of 17 December 2002 further clarifying Annex A to Council Regulation (EC) No 2223/96 as concerns the principles for measuring prices and volumes in national accounts (notified under document number C(2002) 5054) (OJ L 347, 20.12.2002)

Commission Implementing Decision of 26 June 2014 on granting derogations to Member States with respect to the transmission of statistics pursuant to Regulation (EU) No 549/2013 of the European Parliament and of the Council concerning the European system of national and regional accounts in the European Union (notified under document C(2014) 4164) (OJ L 195, 2.7.2014)

Commission Regulation (EU) No 715/2010 of 10 August 2010 amending Council Regulation (EC) No 2223/96 as regards adaptations following the revision of the statistical classification of economic activities NACE Revision 2 and the statistical classification of products by activity (CPA) in national accounts (OJ L 210, 11.8.2010)

Commission Delegated Regulation (EU) 2023/137 of 10 October 2022 amending Regulation (EC) No 1893/2006 of the European Parliament and of the Council establishing the statistical classification of economic activities NACE Revision 2 (OJ L 19, 20.1.2023)

Classification system

National Classification of Activities 2007

Classification of Products by Activities - KPD 2015

Classification of Spatial Units for Statistics 2012 - NKPJS 2012

Classification of Individual Consumption by Purpose - COICOP

Classification of the Functions of Government - COFOG

· Concepts and definitions

The Macroeconomic Statistics Directorate applies ESA 2010 methodological guidelines as well as working papers and manuals published by Eurostat and other statistical organisations. Certain deviations from the ESA 2010 methodology are still present. For the purpose of consistent application of methodologies, the Croatian Bureau of Statistics conducts data revisions. In recent years, special attention is also given to the problem of consistent recording of data through different national accounts domains.

The main data sources for the annual GDP calculation are the Register of Annual Financial Reports of Enterprises (enterprises, banks and savings banks, insurance companies and other financial institutions) kept by the Financial Agency (Fina), the annual financial report for budgets and budgetary users, statistical report for non-profit institutions, annual data of the Tax Administration for non-incorporated units and self-employed persons, statistical surveys, financial statistics and the balance of payments data of the Croatian National Bank, fiscal statistics of the Ministry of Finance and other available data sources.

The calculation has been done on the basis of available statistical data according to the National Classification of Economic Activities, 2007 version, at the division level at current and constant prices. Business entities are grouped within activities as institutional units and not as kind-of-activity units.

Gross domestic product is calculated in euro and American dollars, in total and per capita, on the basis of the total calculated GDP at current prices, the average exchange rate for American dollar of the Croatian National Bank and the estimated total end-year population. The annual average of the total population was calculated according to the data of the Census of Population, Households and Dwellings in the Republic of Croatia in 2021 and population statistics in line with the national accounts' methodology.

Statistical unit

Following the ESA 2010 guidelines, two types of units and two corresponding ways of subdividing the economy are used in national accounts: (a) institutional unit; (b) local kind-of-activity unit (local KAU). The first type is used for describing income, expenditure and financial flows as well as balance sheets. The second type of units is used for the description of production processes, for input-output analysis and for regional analysis.

An institutional unit is an economic entity characterised by decision-making autonomy in the exercise of its principal function.

A resident unit is regarded as an institutional unit on the economic territory where it has its centre of predominant economic interest if it has decision-making autonomy and either keeps a complete set of accounts or is able to compile a complete set of accounts.

A local KAU groups all the parts of an institutional unit in its capacity as producer that are located in a single site or in closely located sites, which contribute to the performance of activities at the class level (four digits) of the NKD 2007.

An institutional unit comprises one or more local KAUs; a local KAU belongs to one and only one institutional unit.

The Croatian annual GDP is calculated at the institutional unit level, using mainly administrative data sources. Regional accounts are based on local KAU. Sector accounts are compiled at the institutional unit level.

Statistical population

The national accounts population of a country consists of all resident statistical units (institutional units or local KAUs). A unit is a resident unit of a country when it has a centre of predominant economic interest on the economic territory of that country, that is, when it engages for a longer period (one year or more) in economic activities on this territory.

National accounts are exhaustive, which means that all resident statistical units are covered.

1. Relevance

1.1. Data users

Primary users of the national accounts data in Croatia are the Ministry of Finance, the Ministry of Economy, financial institutions, the Croatian National Bank, the Croatian Chamber of Economy, scientific and academic institutions that conduct macroeconomic research as primary activity, newspapers specialised in the field of macroeconomics, international organisations such as the International Monetary Fund and OECD, the European Central Bank as well as scientific and academic institutions that conduct macroeconomic research.

1.1.1. User needs

National accounts data provide key information for economic policy monitoring and decision-making, for forecasting, for administrative purposes, for informing the general public about economic developments (directly or indirectly via news agencies) and as input for economic research.

1.1.2. User satisfaction

Views and opinions of users of national accounts statistics can be collected and analysed as one of the tools to "measure" the relevance of national accounts data. Users may send their inquiries and suggestions to the following e-mails: stat.info@dzs.hr (information and user requests) and press@dzs.hr (journalist requests).

The first user satisfaction survey of the Croatian Bureau of Statistics was conducted in 2013, then in 2015 and 2022, and the last one at the end of 2024. The results can be checked out on the website of the Croatian Bureau of Statistics https://dzs.gov.hr/highlighted-themes/quality/user-satisfaction-surveys/686.

1.2. Completeness

In most countries, national accounts cover the domains of the main aggregates of national accounts, government accounts, sector accounts, regional accounts, as well as supply and use tables. However, the content of the data on these domains as well as the details of various breakdowns (by regions, sector, activity, product, etc.) may deviate per country, depending on national needs and available sources. The ESA 2010 Transmission Programme, consisting of 22 tables across all national accounts' domains (see division 10.3), defines the minimum national accounts data set that must be available in all EU Member States. Here is a link to a list of derogations from the Transmission Programme based on ESA 2010 Commission Implementing Decision of 26 June 2014 on granting derogations to Member States with respect to the transmission of statistics pursuant to Regulation (EU) No 549/2013 of the European Parliament and of the Council concerning the European system of national and regional accounts in the European Union (notified under document C(2014) 4164) Text with EEA relevance

1.2.1. Data completeness rate

Data completeness rate is 100%.

2. Accuracy and reliability

2.1. Sampling error

Not applicable.

2.1.1. Sampling error indicators

The indicator is not applicable.

2.2. Non-sampling error

Not applicable.

2.2.1. Coverage error

There is no accurate information about the units out of coverage, but the assumption is that their number is very low. The Statistical Business Register continuously checks all relevant administrative sources

2.2.2. Overcoverage rate

The indicator is not applicable.

2.2.3. Measurement error

Controls are conducted on all relevant data sources and calculations.

2.2.4. Nonresponse error

Not applicable.

2.2.5. Unit non-response rate

The indicator is not applicable.

2.2.6. Item nonresponse rate

The indicator is not applicable.

2.2.7. Processing errors

Not applicable.

2.2.8. Imputation rate

The indicator is not applicable.

2.2.9. Model assumption error

Not applicable.

2.3. Data revision

2.3.1. Data revision - policy

National accounts data are subject to continuous revisions as new input data become available. They are called routine revisions and entail regular revisions of country data and of the European aggregates.

More rarely, exceptional revisions (called benchmark revisions) will result from major changes in data sources, classifications or methodology. For example, when changing from ESA 95 to ESA 2010, a benchmark revision was carried out at the country level and at the euro area / EU data level.

Two working groups developed proposals for a more harmonised approach to benchmark and routine revisions. The one under the auspices of Directors of Macroeconomic Statistics (DMES) dealt with the benchmark revision policy, while the other one under the auspices of the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) on the European Harmonised Revision Policy dealt with routine revisions.

Regarding the revision policy for national accounts, the Croatian Bureau of Statistics published in English in April 2020 a national revision policy for the domain of national accounts named Revision Policy for the Domain of National Accounts and Government Finance Statistics / Excessive Deficit Procedure Statistics. The Croatian Bureau of Statistics and Eurostat reached an agreement during the preparation of the draft revision policy. The document is available on the website of the Croatian Bureau of Statistics.

2.3.2. Data revision - practice

While revisions should be seen as a process for a progressive improvement of the quality of national accounts as, for example, better sources and/or methods become available, the availability of metadata on revisions is a key element for understanding the national accounts data and revisions between subsequent First Releases. Therefore, information on the main reasons for revisions and their nature (new source data available, new methods, etc.), as well as possible quantitative and qualitative assessment of the average size of revisions, is required.

In 2025, the Croatian Bureau of Statistics carried out a data revision that encompasses the period from 2006 to 2022. The changes relate to the resectorisation, calculation of consumption of fixed capital in sector S.13 General government, other production taxes, the calculation of financial intermediation services indirectly measured (FISIM); gross fixed capital formation, government final consumption expenditure and the revision of export and import of goods and services. The revision was issued in the First Release NR-2025-2-2 Annual Gross Domestic Product, 1995 – 2024. Each revision of annual data was followed by revisions of the quarterly GDP, regional GDP, sector accounts and input-output tables.

2.3.3. Data revision – average size

The indicator is not computed.

2.4. Seasonal adjustment

The objectives of seasonal adjustment are to identify and remove seasonal fluctuations and calendar effects, which can mask short-term and long-term movements in a time series and impede a clear understanding of underlying phenomena. Seasonal adjustment is therefore a fundamental process in the interpretation of time series (ESS guidelines on seasonal adjustment, 2015 Edition, Annex, point 1). For the selected sub-annual national accounts data, such as the quarterly main aggregates, time series are usually not only published in their unadjusted form, but also with various types of adjustment (e.g. seasonal, working-day, trend-cycle). According to the ESA Transmission Programme, quarterly data are to be provided in seasonally non-adjusted form, as well as in seasonally adjusted form (including working-day adjustments, where relevant) except for previous year's prices. The provision of quarterly data that only include working-day adjustments is voluntary. For sector accounts, seasonal adjustment (including working-day adjustments, where relevant) is compulsory for a limited set of series. For Croatian quarterly national accounts, the estimation of seasonally adjusted series generally includes working-day adjustments, but seasonally adjusted series are not comparable to annual data. The adjustment of quarterly GDP figures according to the revised annual data was carried out by using the ECOTRIM programme, which was developed by Eurostat performing a set of mathematical and statistical techniques that are used for temporal disaggregation of data. Since February 2015, for QNA, the applied seasonal adjustment model has been X-13 ARIMA using JDemetra+ version 2.1.0, in which three common outliers (i.e. regressors) were detected in seasonal adjustment procedure - additive

outlier (AO), level shift (LS) and temporary change (TC). There is also an additional variable defined in the form of a ramp reflecting the impact of the global economic crisis. The original data are comparable to the annual data, while the seasonally adjusted data are not comparable to the annual data.

3. Timeliness and punctuality

3.1. Timeliness

National accounts data should be available to users in a timely manner, bearing in mind the frequency of data release (annual or quarterly), type of data (information on economy structure or development of economic trends) as well as a corresponding balance between accuracy and timeliness. The ESA 2010 Transmission Programme defines necessary timeliness for all national accounts' tables. Quarterly tables should be available two and three months after the end of the quarter. Annual tables should be submitted in the period between two months (main aggregates) and 36 months after the end of the reference year. More information on timeliness is available on the following link: Commission Implementing Decision of 26 June 2014 on granting derogations to Member States with respect to the transmission of statistics pursuant to Regulation (EU) No 549/2013 of the European Parliament and of the Council concerning the European system of national and regional accounts in the European Union (notified under document C(2014) 4164) Text with EEA relevance.

3.1.1. Timeliness - first results

Timeliness of first results is T + 2.

3.1.2. Timeliness - final results

Timeliness of final results is T + 3.

3.2. Punctuality

Release dates of national accounts data are announced in advance in the Calendar of Statistical Data Issues. In the ESA 2010 programme, national accounts data should also be submitted in a timely manner to Eurostat in line with the release programme defined in advance (or earlier). Delays in data transmission can occur due to limited data sources.

3.2.1. Punctuality - delivery and publication

Delivery and publication is 1.

4. Accessibility and clarity

The Croatian Bureau of Statistics publishes First Releases immediately after the new calculation is done. First Releases are available on the website of the Croatian Bureau of Statistics. In addition to First Release, national accounts data are also disseminated in Statistical Information, Croatia in Figures and Statistics in Line. The regularly updated data versions can be found in the MS Excel on the link NR-2025-2-2 Annual Gross Domestic Product, 1995 – 2024. | Croatian Bureau of Statistics.

4.1. News release

NR-2025-2-2 Annual Gross Domestic Product, 1995 – 2024, of 17 October 2025.

4.2. Online database

Statistics in Line: 12.1 Gross Domestic Product

4.3. Microdata access

Conditions under which certain users can have access to microdata are regulated by the <u>Ordinance on the Conditions and Terms of Access and Use of Confidential Statistical Data of the Croatian Bureau of Statistics for Scientific Purposes (NN, No. 5/23).</u>

4.4. Documentation on methodology

The general methodological framework for the compilation of national accounts in the EU is ESA 2010. In addition, several handbooks have been developed to help compilers to produce national accounts data. Some of the most important methodological manuals are the Handbook on Quarterly National Accounts, the Manual on Regional Accounts Methods and the Manual on Government Deficit and Debt.

Furthermore, guidance manuals on specific topics are available, e.g. Compilation Guide on Land Estimation, Compilation Guide on Inventories, Manual on Measuring Research and Development in ESA 2010. The manuals above specifically apply to EU national accounts statistics. However, international equivalents are also available: SNA 2008, Quarterly National Accounts Manual, Handbook on Input-Output Table Compilation and Analysis and Government Finance Statistics Manual.

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

Mirror statistics between countries is the subject of Eurostat examinations. Over time, this issue has become increasingly important.

5.2. Comparability over time

Since data for all reference periods are compiled in line with ESA 2010 requirements, national accounts data have become fully comparable over time. Moreover, in case of basic changes in methods or classifications there are revisions of long time series, which reach far back in time.

5.2.1. Length of comparable time series

Length of comparable time series is 27.

5.2.2. Reasons for break in time series

Not applicable.

5.3. Coherence - short-term and structural data

The indicator is not applicable.

5.4. Coherence - national accounts

The indicator is not computed.

5.5. Coherence - administrative sources

The indicator is not computed.

6. Cost and burden

6.1. Cost

Not available.

6.2. Burden

Not available.