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Introduction

Data on national and regional accounts underpin the development, implementation and monitoring of a broad range of European policies. These data are indispensable for describing and analysing the economy of the EU, the euro area (EA-20) and individual Member States and EU regions. They are also used for administrative purposes as well as to calculate Member State contributions to the EU budget for example. It is therefore extremely important that these European statistics are accurate, timely and complete and that users are regularly informed about their quality in a transparent way.

Eurostat began publishing national accounts data aggregated at European level in the 1970s. Since then, the methodological framework has been updated several times, in line with the developments in the United Nations System of National Accounts (SNA). The current framework defining the European system of national and regional accounts is the European System of Accounts 2010 (ESA 2010) whose requirements are laid down in the ESA 2010 Regulation (Regulation (EU) No 549/2013). ESA 2010 corresponds to the 2008 edition of the SNA and has been used in the EU since September 2014.

The ESA 2010 Regulation stipulates that the quality of national and regional accounts data sent to Eurostat are to be assessed according to the quality criteria set out by the Regulation on European statistics (Regulation (EC) No 223/2009). The modalities, structure and assessment indicators of the quality assessment process are set out in a Commission implementing act (Regulation (EU) 2016/2304).

Each year, in accordance with Article 4(2) of the ESA 2010 Regulation, Member States report on the quality of national and regional accounts data sent to Eurostat. Based on their national quality reports, Eurostat prepares an overall assessment in accordance with Article 4(4). Additionally, under Article 12, every fifth year, starting from 2018, the Commission reports to the European Parliament and the Council about the quality of data on national and regional accounts. This latter provision was complied with in 2023 with the Commission's (Eurostat's) report to the European Parliament and the Council on the application of ESA 2010 COM(2023) 308 final adopted on 13 June 2023.

Both the national reports and the Eurostat assessment follow the recommendations of the European Statistical System (ESS) Handbook for Quality Reports. The information provided in these quality reports covers all ESA 2010 domains, namely the main aggregates, government finance statistics, non-financial and financial sector accounts, regional accounts, and supply, use and input-output tables.

This quality assessment presents the results of the transmissions of national and regional accounts data during 2023. It is the seventh such report since the European System of Accounts 2010 (ESA 2010) was introduced in September 2014. It also includes information on the quality of key European aggregates published by Eurostat. As the assessment is targeted at data users, the information is structured in a way to help them understand the published data and, where applicable, the factors that improve or limit their quality.

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Scope of the quality assessment

Eurostat's quality assessment of national and regional accounts covers data submitted by Member States and EFTA countries, and data from its own publications of EU and euro area aggregates. This publication refers to data transmissions during 2023. As Croatia joined the euro area in 2023, for the first time the analysis in the report refers to EA-20. The quality reporting and assessment exercise starts every year by mid-February. Eurostat provides countries with pre-filled national quality reports containing quantitative indicators and qualitative information. The countries review and complete the national quality reports and send them back to Eurostat, no later than end-May. Eurostat assesses the results, and then prepares and publishes an overall assessment based on the national quality reports and other available information. This is an annual procedure that was carried out for the first time in 2017 based on data submissions in 2016.

The obligation for data transmissions based on the ESA 2010 Regulation entered into force on 1 September 2014. However, temporary derogations were granted to some Member States.

This assessment report covers ESA 2010 mandatory data submitted by countries to Eurostat in 2023. All ESA 2010 derogations for Member States together with Iceland and Norway expired on 1 January 2020. The derogations for Switzerland were established on 2 December 2019 with a decision of the EU/Switzerland Statistical Committee. Eurostat is cooperating with those countries that still have outstanding data transmissions related to expired derogations for the ESA 2010 domains. It should be noted that, for the NFSA domain, data requirements differ depending on whether the country has a small or big economy and whether or not it is a member of the euro area. Eurostat's assessment reflects these differences in mandatory data requirements.

As in past quality reports, national data submitted on a voluntary basis are not part of this quality assessment. Any references to voluntary data made in this report acknowledge the efforts of countries to make additional data available to users, but do not comprise measured assessments.

In addition to national quality reports, the following sources were also used to prepare this quality assessment: information collected during the data validation process (including metadata); information contained in the provided mandatory and voluntary inventories of methods and data sources; information collected in surveys during the verification processes for gross national income (GNI) and from country visits. For some data used to compile the macroeconomic imbalance procedure (MIP) indicators, available country self-assessment reports were considered.

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Legislation, classifications, manuals

3.1 Legislation

3.1.1 Legal basis for ESA 2010

- Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013, on the European system of national and regional accounts in the European Union, OJ L 174, 26.6.2013, p. 1-727
- Commission Implementing Decision 2014/403/EU 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 175, 2.7.2014, p. 1-131
- Commission Implementing Decision (EU) 2018/1891 of 30 November 2018 amending Implementing Decision 2014/403/EU 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, OJ L 309, 5.12.2018, p. 5-39
- Commission Implementing Regulation (EU) No 724/2014 of 26 June 2014 on the interchange standard for the transmission of data required under Regulation (EU) No 549/2013 of the European Parliament and of the Council on the European system of national and regional accounts in the European Union, OJ L 192, 1.7.2014, p. 38
- Commission Delegated Regulation (EU) No 2015/1365 of 30 April 2015 on the transmission format for research and development expenditure data, OJ L 211, 8.8.2015, p. 1

- Commission Delegated Regulation (EU) No 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, p. 35-36
- Commission Implementing Regulation (EU) No 2016/2304 of 19 December 2016 on the modalities, structure, periodicity and assessment indicators of the quality reports on data transmitted under Regulation (EU) No 549/2013 of the European Parliament and the Council of 21 May 2013 on the European system of national and regional accounts in the European Union, OJ L 345, 20.12.2016, p. 27-36

The ESA 2010 Regulation defines the methodology (Annex A) and the data transmission programme (Annex B) for the compilation of national and regional accounts. Methodology comprises the common standards, definitions, classifications, and accounting rules. The transmission programme sets out the accounts and tables, and the legal deadlines by which Member States must submit data to the European Commission (Eurostat).

The complete list of tables is presented in the overview in Annex 1. For this report, these tables are organised into the following seven groups, covering the seven ESA 2010 domains.

ESA 2010 domain	Tables of the ESA 2010 transmission programme
National accounts main aggregates (NAMA)	1A, 1Q, 3, 5, 20, 22, 26
Government finance statistics (GFS)	2, 9, 11, 27, 28
Annual financial accounts (AFA)	6, 7
Non-financial sector accounts (NFSA)	8, 801
Regional accounts (RA)	10, 12, 13
Supply, use and input-output tables (SUIOT)	15, 16, 17
Supplementary table on pensions in national accounts ¹	29

The Commission granted 888 derogations² from mandatory data transmission requirements on request of Member States. These temporary derogations expired progressively by 2020, with two thirds of them (607 derogations) having already been closed by end-2018. In 2018, the Commission prepared a report, which included a review of the justification of derogations performed by Eurostat in close collaboration with the statistical offices in all Member States. Based on that review, on 30 November 2018, the Commission reduced the number of valid derogations from 365 to 267 and changed the description of 23 of those

(¹) The three-yearly supplementary table on pensions in national accounts was last mandatory in 2020.

(²) The Commission adopted Commission Implementing Decision 2014/403/EU granting 888 temporary derogations to 27 Member States. In addition, the EFTA Surveillance Authority granted 145 derogations to Norway and Iceland.

derogations³.

On 1 January 2020, all derogations for Member States, Iceland and Norway expired. Eurostat is in cooperation with the countries that still have outstanding data transmissions related to expired derogations for the ESA 2010 domains. The countries that still have open expired derogations should ensure complete data transmissions in line with ESA 2010 in order to close the respective non-compliance.

3.1.2 Other legal acts

- Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics, OJ L 087 31.3.2009, p. 164, as amended by Regulation (EU) 2015/759 of the European Parliament and of the Council of 29 April 2015, OJ L 123, 19.5.2015, p. 90–97
- 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, OJ L 91, 29.3.2019, p. 19–24

Regulation (EC) No 223/2009 (the European Statistics Regulation) sets out the legal framework for developing, producing and disseminating European statistics, and defines the European Statistical System (ESS), which is the partnership between the Commission (Eurostat) and national statistical institutes and other national authorities responsible in each Member State for developing, producing and disseminating European statistics. European statistics are determined in the European statistical programmes and are developed according to the statistical principles of professional independence, impartiality, objectivity, reliability, statistical confidentiality and cost-effectiveness.

Furthermore, the European Statistics Regulation (Article 12) sets out the requirements on the statistical quality of European statistics according to the following quality criteria: relevance, accuracy, timeliness, punctuality, accessibility and clarity, comparability and coherence. Member States provide the Commission (Eurostat) with reports on the quality of data submitted, including any concerns they have regarding data accuracy. The Commission (Eurostat) assesses the quality of the data submitted based on an appropriate analysis, and prepares and publishes reports and communications on the quality of European statistics. In the interest of transparency, the Commission (Eurostat), where appropriate, makes public its assessment of the quality of national contributions to European statistics. Specific quality requirements, such as target values and minimum standards for the production of statistics, may also be set out in sectoral legislation.

In 2019, the European Council and the European Parliament adopted Regulation (EU) 2019/516 on the harmonisation of gross national income (GNI) at market prices. GNI aggregates are compiled in line with ESA 2010 and are the basis for calculating the largest share of own resources in the EU's general budget. They are subject to closer verification of comparability, reliability and exhaustiveness. This process contributes positively to the overall quality of national accounts.

3.2 Classifications used in ESA 2010

- Classification of institutional sectors
- Statistical Classification of Economic Activities in the European Community (NACE), Rev. 2 (2008)

⁽³⁾ The Commission adopted the Implementing Decision (EU) 2018/1891 of 30 November 2018 amending Implementing Decision 2014/403/EU.

- Statistical Classification of Products by Activity, Version 2.1 (CPA)
- Classification of Individual Consumption by Purpose (COICOP), 1999 version
- Classifications of functions of government (COFOG), 1999 version
- Nomenclature of territorial units for statistics (NUTS), 2016 version

3.3 Manuals and guidelines

- System of National Accounts 2008 (SNA 2008)
- System of National Accounts 2008 (SNA 2008) ESS manuals and guidelines on national and regional accounts
- Practical guidelines for revising ESA 2010 data
- Guidance notes, clarifications, GFS interpretations and COFOG cases - Government finance statistics and EDP statistics
- Decisions – EDP statistics
- Manuals - Government finance statistics and EDP statistics
- Consistency of ESA 2010 based national accounts

ESA 2010 is broadly aligned with SNA 2008 to make comparable analysis with non-EU economies possible.

The ESS has put together several manuals and guidelines to facilitate the implementation of the ESA 2010 in Member States.

3.4 Other information

Additional information on national and regional accounts is available on the following sections of Eurostat's website:

- ESA 2010
- Manuals and Guidelines for ESA 2010
- National accounts (including GDP and regional accounts)
- Government finance statistics
- European sector accounts
- Supply, use and input-output tables
- Pensions in National Accounts

Data submitted under the ESA 2010 transmission programme is assessed in the context of policy requirements for the principal European economic indicators and the MIP indicators. Furthermore, the coherence of data submitted under the ESA 2010 transmission programme with data for GNI for the purposes of EU budget own resources and the EDP is assessed. Additional information is available in the following sections of Eurostat's website:

- Principal European economic indicators (PEEIs)
- Macroeconomic imbalance procedure (MIP)
- GNI for own resource purposes
- Excessive deficit procedure (EDP)

The activities of multinational enterprises are increasingly important for the compilation of national accounts. National compilers and international organisations are working together to further develop the concepts and methods that address the impacts of globalisation on macroeconomic statistics.

- Economic globalisation

3.5 ESA 2010 application

Article 12 of the ESA 2010 Regulation states that, by 1 July 2018 and every 5 years after that, the Commission must submit a report to the European Parliament and the Council on the application of this Regulation. The report has to evaluate the quality of data on national and regional accounts, the effectiveness of the Regulation and the monitoring process applied, and the progress on contingent liabilities data and on the availability of ESA 2010 data.

On 13 June 2023, the Commission adopted and provided to the European Parliament and the Council the second report on the application of the ESA 2010 Regulation

Report from the Commission to the European Parliament and the Council on the application of Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European System of national and regional accounts in the European Union.

4

Relevance

Relevance is an attribute of statistics measuring the degree to which statistics meet current and potential needs of users.

It examines whether all the statistics that are needed are produced and the extent to which the concepts used (definitions, classifications, etc.) reflect user needs.

This chapter gives an overview of work carried out on national and regional accounts to meet user needs. It presents assessment results on data completeness, namely the situation of data transmitted in 2023 and how data availability evolved over time.

4.1 Actions to meet user needs

Eurostat is contributing to the ongoing work to update the 2008 SNA and BPM6, with the new manuals expected to be endorsed in March 2025, and which will respond to user needs. Based on the recommendations formulated by thematic Task Teams, composed by experts from all relevant statistical domains and from all world regions and in which Eurostat is involved, updated versions of the SNA and BPM are at an advanced stage. A full draft SNA has undergone a global consultation. Feedback received is now being analysed and incorporated in the final draft. The draft 2025 SNA is available here: [System of National Accounts](#).

At the same time, three work streams are developing practical compilation guidance on the most significant innovations that will be introduced in the revised manuals, which should become available together with the updated SNA and BPM.

A mid-term review of the ESA 2010 transmission program was introduced with amended regulation: [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 \(Text with EEA relevance\)](#). The amended regulation entered into effect on 25 April 2023. The amended regulation is applicable from 1 September 2024 onwards and changes in transmission requirements should be implemented with the 2024 benchmark revision, unless temporary derogations under [Commission Implementing Decision \(EU\) 2024/1251 of 25 April 2024](#) were granted.

The amended transmission programme notably includes the update to COICOP 2018 classification, improved coverage of government finance statistics data (transactions of Member States with the EU, quarterly non-financial accounts of general government, an enhanced timeliness of COFOG data and a better coverage of structural information on government debt), introduced some additional breakdowns for main aggregates data and non-financial sector accounts data, improved timeliness of quarterly non-financial sector accounts for non-EU countries and seasonally adjusted data, improved and better assignment of regional accounts data across ESA tables, improved timeliness of annual financial accounts data. It also added requirements to transmit structural and validation related metadata and enhance cross-domain consistency.

Paragraph 9 of Regulation (EU) 2023/734 amending Regulation (EU) 549/2013 defines the reporting of data specific metadata and of structural metadata. The data specific metadata would accompany the country data transmissions and would explain the developments in the data, while structural metadata would describe statistical concepts and methodologies used for the collection and generation of data and provide information on data quality. The former became mandatory by 1 September 2024 and the latter will (mostly) become mandatory by 1 September 2025. Eurostat will take the necessary actions to ensure that the work to fill in the metadata by the countries is adequately prepared.

4.2 Completeness rate

The ESA 2010 transmission programme specifies the data requirements for Member States. Temporary derogations under the ESA 2010 Transmission programme expired on 1 January 2020. However, there are currently expired derogations for which data are missing or the timeliness had not been fully addressed. Currently only Switzerland has derogations in place.

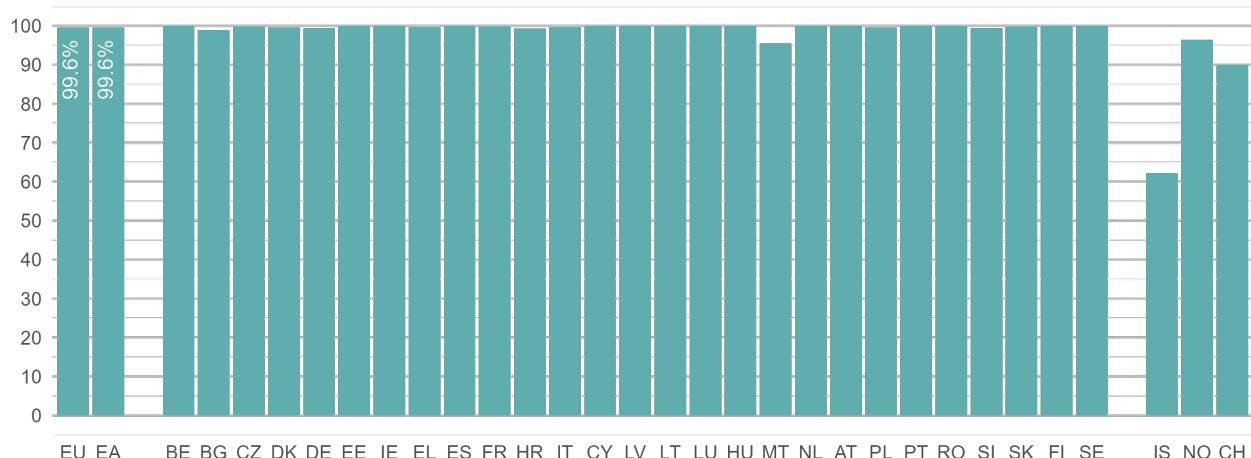
This section provides an overview, by ESA 2010 domain, of the data that countries were expected to submit in 2022. To allow for comparable assessment, the percentages are based on a completeness indicator calculated from the number of data cells included in the tables, covering all reference periods specified as mandatory in the ESA 2010 transmission programme.

4.2.1 Quarterly data

The ESA 2010 transmission programme requires Member States to submit quarterly tables for:

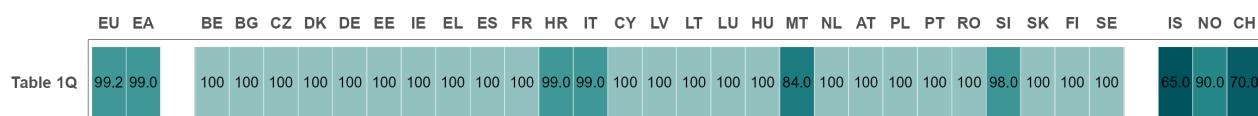
- national accounts main aggregates (Table 1);
- non-financial sector accounts (Table 801); and
- government finance statistics (Tables 27 and 28).

The overall average completeness rate of quarterly data continued to be very high in 2023, with both EU and EA-20 average at 99.6 %. Figure 1 gives an overview at a glance of the overall performance of the countries.

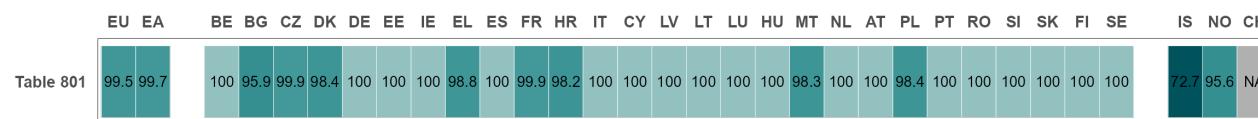
Figure 1**Completeness rate of national accounts quarterly tables reported in 2023**

The average completeness rate for quarterly national accounts data provided by individual Member States and by Iceland, Norway and Switzerland is shown in Figure 1. The completeness rate for each country is calculated on the basis of mandatory data submissions in 2023, which covered data submitted for reference quarters up to and including 2023Q3.

For **quarterly national accounts main aggregates**, data completeness was very high, with the EU average at 99.2 % and the EA-20 average at 99.0 %. Twenty-three Member States achieved 100 %, and all Member States had a completeness rate above 97.5 % in all transmitted tables, with the exception of Malta (84.0 %).

Figure 2**Completeness rate of main aggregates quarterly tables reported in 2023**

For **quarterly non-financial sector accounts** the EU average completeness rate was 99.5 % and the EA-20 average was 99.7 %. Nineteen Member States submitted all required data. The lowest completeness rate was observed for Bulgaria (95.9 %). Norway's completeness rate was 95.6 % and Iceland's 72.7 %. Switzerland has derogations for the full set of quarterly non-financial accounts and does not report these data.

Figure 3**Completeness rate of on-financial sector accounts quarterly table reported in 2023**

The completeness rate of **quarterly government finance statistics** was on average higher than that observed for tables submitted for the other quarterly national accounts domains. The EU average reached 99.9 % in 2023 for Table 27 (quarterly general government financial accounts and balance sheets). A 100 % completeness rate was observed for all but two countries (Germany and Slovakia). Iceland supplied Table 27 partially. There was 100 % completeness for Table 28 (quarterly general government gross debt) for all Member States and for Norway and Switzerland. Iceland submitted data with a 71.9 % completeness rate. It should be noted that data for Iceland and Switzerland could not be validated *inter alia* due to missing structural metadata.

Figure 4

Completeness rate of government finance statistics quarterly tables reported in 2023

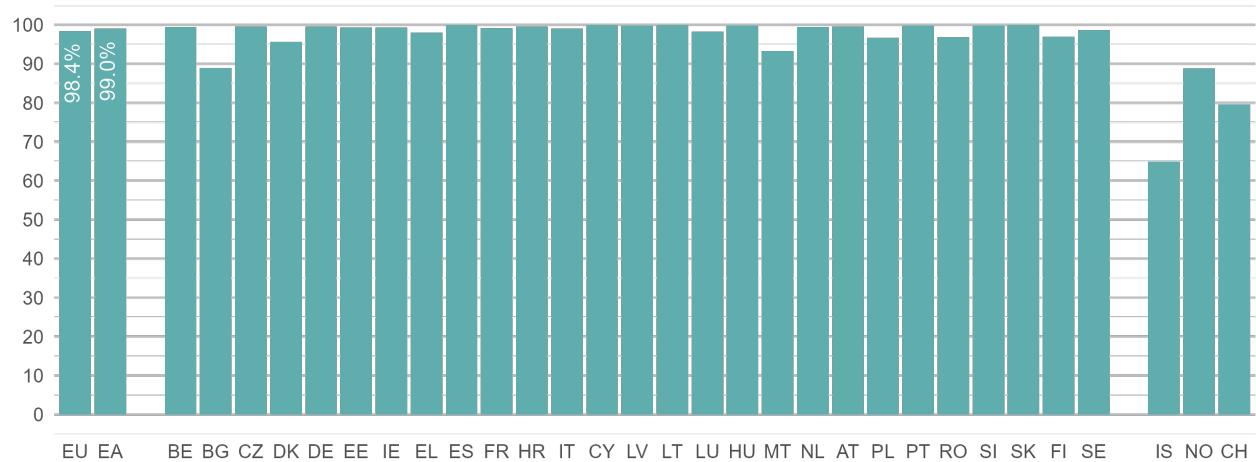
	EU	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Table 27	99.9	99.8			100	100	100	100	98.3	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99.3	100	100	39.4	100	100
Table 28	100	100			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	71.9	100	100	

4.2.2 Annual data

In 2023, Member States, and Iceland, Norway and Switzerland, reported a total of 19 mandatory annual national accounts tables across six domains:

- national accounts main aggregates (Tables 1, 3, 5, 20, 22 and 26);
- government finance statistics (Tables 2, 9, 11);
- non-financial sector accounts (Table 8);
- financial accounts (Tables 6 and 7);
- supply, use and input-output tables (Tables 15, 16, 17);
- regional accounts (Tables 10, 12, 13); and
- accrued-to-date pension entitlements in social insurance (Table 29).

In 2023, the average completeness rate of annual data was high for all domains. For individual tables, the average completeness rates of the EU countries ranged from a low of 94.5 % for supply table at basic prices (Table 16) to a high of 100 % for Household accounts by region (Table 13).

Figure 5**Completeness rate of national accounts annual tables reported in 2023**

The completeness rate for each country is calculated on the basis of mandatory data submissions in 2023, which for most of the annual tables covers data submitted for reference years up to and including 2023. Figure 5 gives an overview at a glance of the overall performance of the countries.

For **annual national accounts main aggregates** (ESA table 1A), the overall completeness rate continued to be very high in 2023. The EU and EA-20 average rate reached 99.7 %. Twenty-six Member States, as well as Norway and Switzerland, reached completeness rates of 100 %. Iceland submitted 99 % of mandatory data while Malta achieved 94 % of completeness rate for the annual main aggregates (ESA table 1A). In 2023, the data underlying the MIP indicators were sufficiently complete for their validation for MIP purposes.

Figure 6**Completeness rate of Main aggregates annual tables reported in 2023**

	EU	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Table 1A	99.7	99.7	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	94.0	100	100	100	100	100	100	100	100	100	100		
Table 3	99.0	98.9	100	99.0	100	100	99.0	100	100	100	100	88.0	100	100	100	100	100	100	100	96.0	99.0	100	100	100	100	99.0	100	100	98.0	98.0		
Table 5	99.3	99.1	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	88.0	100	100	100	100	100	100	100	100	100	94.0	100	
Table 20	98.8	99.4	100	100	98.3	96.2	100	100	100	100	100	100	100	100	100	100	100	100	100	96.2	100	100	99.8	100	92.3	100	97.2	100	100	96.2	92.3	
Table 22	97.9	98.3	100	92.2	100	96.1	96.0	100	100	100	100	100	100	100	100	100	100	100	100	89.5	92.2	100	92.2	100	100	100	100	100	93.8	92.2		
Table 26	97.7	98.1	100	98.7	100	99.1	100	94.0	100	96.0	100	100	97.0	100	100	97.1	100	100	85.1	100	93.0	100	100	100	100	81.1	100	100	100	99.3		

For **annual government finance statistics**, the EU average completeness rate of main aggregates of general government (ESA table 2, see Figure 7) was 99.9 %. For detailed tax and social contribution receipts (ESA table 9) it was 99.7 % and for general government expenditure by function (ESA table 11) it was 99.9 %.

Figure 7**Completeness rate of government finance statistics annual tables reported in 2023**

	EU	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Table 2	99.9	99.9	100	99.3	100	100	100	100	99.9	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99.8	99.9	100	100	100	92.1	98.6	100
Table 9	99.7	99.8	100	100	100	100	100	99.8	100	100	100	100	99.6	100	100	100	100	100	100	100	100	100	100	100	97.6	97.3	100	100	100	92.2	100	100
Table 11	99.9	100	100	97.8	100	99.9	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	93.1	100	100

The overall completeness rate of **annual non-financial sector accounts** (ESA table 8) was high with an EU average of 99.5 %. Twenty-four countries submitted all, or nearly all, mandatory data (above 99 % completeness). Six countries submitted less than 99 % of mandatory data, Denmark (95.4 %), Estonia (97.1 %), Iceland (81.9 %), Norway (91.6 %) and Switzerland (97.0 %). Bulgaria had not transmitted Table 8 for the reference period 2022 by the time of the data extraction (February 2024).

Figure 8**Completeness rate of non-financial sector accounts annual tables reported in 2023**

	EU	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH	
Table 8	99.5	99.7	100	NA	99.9	95.4	100	97.1	100	99.6	100	99.4	99.2	100	100	100	100	100	100	100	100	100	100	99.1	100	99.4	100	100	100	100	81.9	91.6	97.0

For **annual financial accounts**, the EU average completeness rate of the annual financial accounts by sector (ESA table 6) was 99.7 %, while the EU average completeness rate of the balance sheets for financial assets and liabilities (ESA table 7) was 99.6 %. Twenty-five Member States submitted all mandatory data. Ireland partially submitted data for both ESA table 6 and ESA table 7 while France partially submitted data only for the annual financial accounts by sector (ESA table 6). In 2023, the data underlying the MIP indicators were sufficiently complete for their validation for MIP purposes.

Figure 9**Completeness rate of financial sector accounts annual tables reported in 2023**

	EU	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Table 6	99.7	99.6					100	100	100	100	100	94.0	100	100	98.4	100	100	100	100	100	100	100	100	100	100	100	100	100	100	31.1	100	51.9
Table 7	99.7	99.7					100	100	100	100	100	94.0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	28.3	100	49.1

For **regional accounts**, in 2023, the EU average completeness rate for tables by industry (ESA tables 10 and 12), by household accounts (Figure 10), by NUTS level 2 region (ESA tables 10 and 13) and by NUTS level 3 region (Figure 10) was above 99.5 %. The average completeness rate of Household accounts by region (NUTS level 2) was 100 % for all Member States. Iceland, Norway and Switzerland did not provide data for any of regional accounts tables.

Figure 10**Completeness rate of regional accounts annual tables reported in 2023**

	EU	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
Table 10.01 (t+12)	99.5	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Table 10.02	99.9	99.9	100	100	100	100	100	100	100	100	100	99.3	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Table 12	99.9	99.9	98.2	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Table 13	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	

The average completeness rates for supply, use and input-output tables were slightly lower. The EU average completeness rates for annual supply and use tables (ESA tables 15 and 16) for reference year 2020 were 95.4 % and 94.5 %, respectively. This could be partly explained by the complexity to produce the supply, use and input-output tables and with the low completeness rates for, e.g., Bulgaria, Denmark and Malta, that did not yet deliver data for 2020.

Figure 11**Completeness rate of supply, use and input-output annual tables reported in 2023**

	EU	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH		
Table 15	95.4	98.0					100	29.4	100	88.2	100	100	99.8	99.7	100	100	100	100	100	100	100	100	100	100	100	100	100	100	89.8	98.4	NA	59.5	NA	
Table 16	94.5	97.4					100	33.0	100	79.0	100	100	100	100	100	98.0	100	100	100	100	100	100	100	100	100	100	100	100	100	82.0	93.0	NA	57.0	NA
Table 17	94.8	98.1					100	33.1	100	66.7	100	100	97.9	100	100	100	100	100	100	100	100	100	100	100	100	100	100	97.3	100	NA	92.7	NA		

For the three-yearly supplementary table on accrued-to-date pension entitlements in social insurance

national accounts (ESA table 29), the EU average completeness rate is 93.5 %. Eighteen Member States, IS, NO and CH submitted all mandatory data.

Figure 12

Completeness rate of pension entitlements annual table reported in 2023

	EU	EA	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Table 29	93.5	95.5	92.3	100	100	89.0	100	100	100	100	66.7	100	100	100	83.8	100	100	100	86.2	100	100	92.3	66.7	100	59.7	100	100	89.5	100	100	100	

4.3 Evolution of data availability

Since the start of transmission of ESA 2010 data in September 2014, data availability has significantly improved for the EU as a whole, and for most individual Member States and EFTA countries. The assessment in this section is based on a more aggregate method than the completeness rate charts for individual tables found in Annex 1. The charts in Figure 13 and Figure 14 provide the trend in data availability from the end of 2019 up until the end of 2022. The data at the end of each year were taken into account, with extractions being made in February 2021, February 2022, February 2023 and February 2024, respectively. Figure 13 and Figure 14 illustrate the progress in data submissions from one year to the next for quarterly and annual tables.

Figure 13

Evolution of overall data availability from 2020 to 2023, quarterly tables



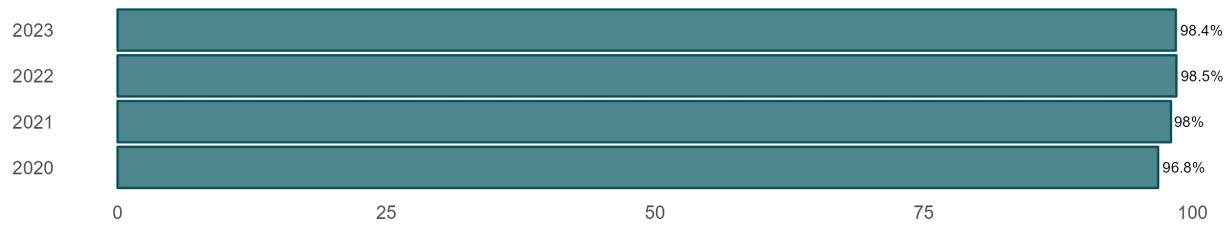
Figure 14**Evolution of overall data availability from 2020 to 2023, annual tables**

Figure 13 and Figure 14 show data availability calculated as the average data completeness of all Member States. It clearly shows a trend of improvement since the first Eurostat quality report, with the percentage of quarterly tables increasing from 99.1 % in 2020 to 99.7 % in 2023 while the annual tables from 96.8 % to 98.4 %.

5

Accuracy

Accuracy of statistical outputs, in the general statistical sense, is the degree of close-ness of computations or estimates to the exact or true values that the statistics were in-tended to measure.

In national accounts, a direct approach for measuring accuracy is difficult to apply, thus the main instrument used is the analysis of revisions.

Revisions are broadly defined as any change in a value of a statistic released to the public. Revisions are made when new data sources and better information become available and thus result in more accurate observations. Therefore, even if some relevant information is still not available, revisions are inevitable whenever released statistics report promptly on economic developments.

Revisions should be considered a normal phenomenon to progressively increase the quality and, in particular, the accuracy of data. Revision policy should be recognised as an important aspect of good governance in statistics. Good governance in statistics, in turn, is part of a broader policy of transparency and accountability in the public sector.

Revisions and their correct interpretation have two-side effects on both users and producers of statistical data. From the users' perspective, revisions improve the information available and thus are welcome. However, if they are large, they may also require a review of the assessment of the state of the economy. From the producers' perspective, the new information introduced by the revisions describes economic developments more accurately; however, frequent and/or major revisions can damage the credibility of data. Finally, a lack of revisions can also indicate that indicators for which more accurate source data are available are not being updated and that errors are not being corrected, i.e. that the statistics published are stable but potentially inaccurate.

It follows that a well-established and publicly communicated revision policy is a sign of strength of the statistical system in question.

5.1 Revision policy

The importance of developing a revision policy and performing revision analysis is increasingly recognised,

and considerable work has been done in this field over the past few years, both by national and international statistical organisations.

5.1.1 Harmonised European revision policy

The 2012 harmonised European revision policy (HERP) endorsed by the Committee on Monetary, Finance and Balance of Payments Statistics (CMFB) was adopted shortly before the introduction of the new statistical manuals (on national accounts and balance of payments) and associated transmission programmes at European level in 2014. In principle, the scope of the 2012 HERP extended across many of the national accounts and balance of payments domains, in major as well as routine revisions, and in both quarterly and annual frequencies. It was envisaged that countries would start implementing the 2012 HERP with the introduction of the new standards under the ESA 2010 and the sixth edition of the IMF's Balance of Payments and International Investment Position Manual in 2014.

The results of a stocktaking exercise in 2015 showed implementation difficulties.. As a follow-up, the CMFB created the task force on harmonised European revision policy (Task Force-HERP) at its July 2015 meeting to address issues related to routine revisions. The expert group of directors of macroeconomic statistics of the European Statistical System (ESS) mandated a separate task force on benchmark revision policy to investigate benchmark revisions. After 2 years of intensive work, adaptations were made where appropriate and the CMFB published a [Communication on Harmonised European Revision Policy for Macroeconomic Statistics](#) supported by Eurostat and the ECB, recommending that Member States follow a specific sequence of routine revisions for some annual and quarterly data. The expert group of directors of macroeconomic statistics recommended that Member States disseminate the results of the benchmark revisions in 2024.

5.1.2 National revision policies

Most Member States and EFTA countries provide information on national revision policies online. However, many publicly available national revision policies often only cover the domain of non-financial accounts or parts of it, and they lack information on revisions in the domain of financial accounts. Generally, aligning national policies to the HERP remains a challenge for some countries. To address these issues, Eurostat has made it possible for countries to obtain financial support through grants for work on the national revision policy and practice.

Most Member States performed benchmark revisions in 2024. As this report refers to data transmitted to Eurostat during 2023, no detailed reference is made to them here.

5.2 Revision practice

There are two important groups of revisions that represent the core of national accounts compilation: routine revisions and major revisions due to changes in methods, data sources and classifications.

Routine revisions are typically revisions that apply to an annual or intra-annual window, combined with a specified depth to backward revisions. For national and regional accounts, the depth is 4 years (including t-1). In other words, routine revisions are changes in published data, which are related to the regular data production process (e.g. estimated values for missing responses are replaced by reported figures). Normally, these routine revisions follow a revision policy, they are published according to a publicly available, pre-announced release/revision calendar.

Major revisions, which are the second group of revisions, can be further broken down into two types:

1. revisions originating from ad hoc methodological changes or special events; and

2. benchmark revisions occurring on a regular basis (every 5 years) in order to incorporate the results of changes in basic data sources and/ or new estimation methods as well as any changes in methodology.

5.2.1 Benchmark revisions of national data

Benchmark revisions are a coordinated major European revision carried out at least once every 5 years to incorporate new data sources and major changes in international statistical methodology. They ensure a maximum degree of consistency within national accounts, i.e. the longest possible time series and consistency across Member States and between domains. As data sources and statistical methods evolve, improvements must be introduced in national accounts in a coherent and systematic way. It also helps to ensure the stability of key macroeconomic indicators for policy and business analysis.

The introduction in 2014 of the European System of Accounts 2010 (ESA 2010)⁴ represented a coordinated benchmark revision due to changes in concepts, definitions and compilation methods.

In 2019, many countries performed coordinated benchmark revisions, while others followed in 2020. Preparations for the next coordinated benchmark revision of national accounts and balance of payments in 2024 started. A coordinated communication by the European Statistics System (ESS) is foreseen on the following aspects: a) Overview on requirements and main expected changes; b) Overview on main data release dates and expected overall impact; and c) Monitoring of national releases and associated metadata. More information on ESA 2010 data revisions are available here: [Data revision - ESA 2010 - Eurostat \(europa.eu\)](#).

5.2.2 Analysis of revisions of national data

Revisions are needed to progressively improve the accuracy and reliability of national accounts. According to [EU Regulation 2016/2304](#), the revision indicators may consider both the revisions between the latest and the first transmission (LMF) and the relative mean absolute revision (RMAR) in subsequent transmissions since the first transmission. The definitions of the revision indicators used for the analysis are provided in Annex 2a. This chapter presents an analysis of the revisions of the national accounts data as reported in the quality reporting exercise in 2024.

Complementary to the analysis in this section, Annex 2 (*Annex 2b: Quarterly revisions as shown by the relative mean absolute revisions and latest minus first revisions* and *Annex 2c: Annual revisions as shown by the ratio between the latest and the first revisions*) shows the evolution of the LMF and RMAR indicators over time.

REVISIONS OF QUARTERLY MAIN AGGREGATES GROWTH RATES AS SHOWN BY THE RELATIVE MEAN ABSOLUTE REVISIONS AND LATEST MINUS FIRST REVISIONS

Figure 15 shows the revisions of quarter-on-quarter growth rates of GDP in percentage points (pp), looking at two revision indicators for 2023Q2: (1) the relative mean absolute revisions; and (2) the difference between the latest minus first (LMF) growth rates.

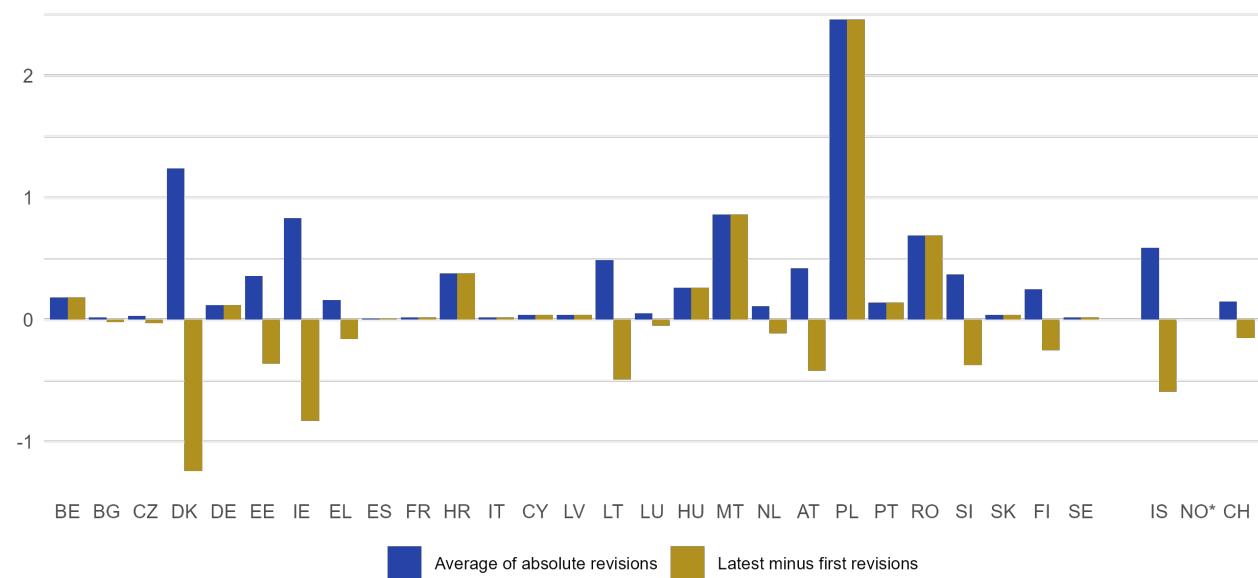
A total of 10 countries (BG, CZ, ES, FR, IT, CY, LV, LU, SK and SE) show almost no revision of their GDP growth rates. A further 8 countries (BE, DE, HR, HU, MT, PL, PT, and RO) have had positive LMF revisions

(⁴) [Regulation \(EU\) No 549/2013](#), OJ L 174, 26.6.2013, p. 1–727.

indicating that they revised their initial 2023Q2 estimates upwards. Negative LMF revisions are observed in 12 countries (DK, EE, IE, EL, LT, NL, AT, SI, FI, IS and CH), indicating a decline in the growth rate of GDP estimates between the first and latest transmissions. The data for Norway were not available. Finally, few countries experienced revisions above 1.0 pp in absolute terms (PL positive and DK negative) or 0.5 pp (MT, RO positive, IE, IS negative).

Figure 15

Seasonally and calendar adjusted GDP (B1GQ), volume, revisions of quarter-on-quarter growth rates, 2023Q2, pp

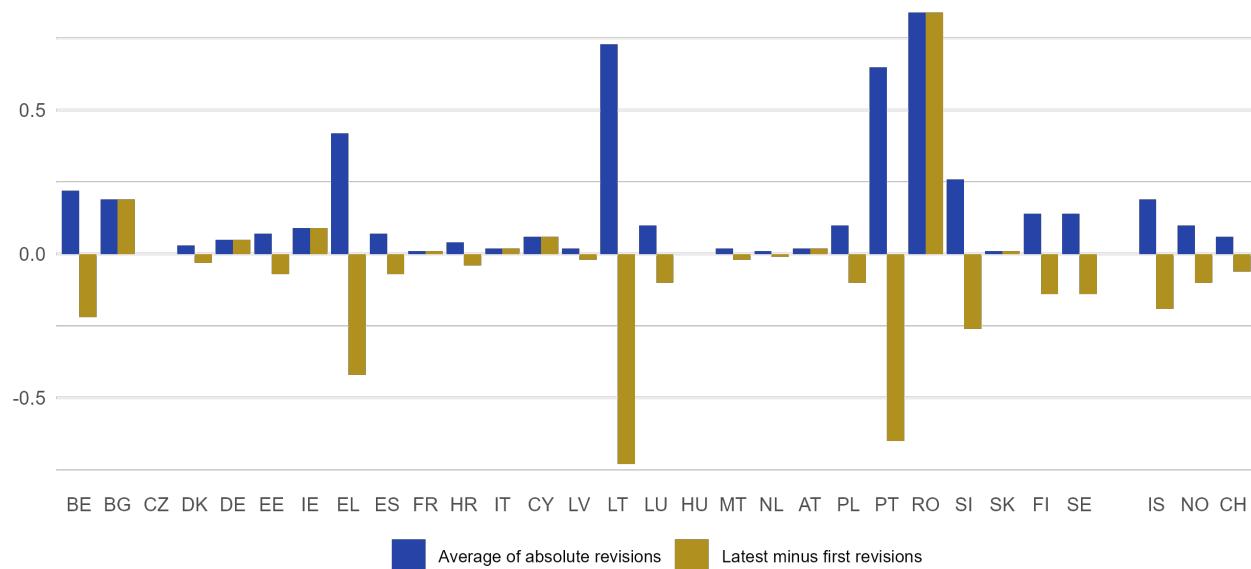


* Data is missing.

Figure 16 shows the revisions of quarter-on-quarter growth rates of total employment in percentage points. It looks at two revision indicators for 2023Q2: (1) the relative mean absolute revisions; and (2) the difference between the latest and the first growth rates (LMF). A total of 9 countries (CZ, FR, IT, LV, HU, MT, NL, AT and SK) have had either no or minimal revisions. Four countries (BG, DE, IE and CY) had moderate positive revisions, while 14 countries (BE, DK, EE, ES, HR, LU, PL, SI, SK, FI, SE, IS, NO and CH) had moderate negative revisions. Finally, one country (RO) had significant (positive) revision and two (LT and PT) had significant negative revisions. The order of magnitude of the RAMR and LMF revisions in absolute terms are identical.

Figure 16

**Seasonally adjusted total employment (EMP) revisions of quarter-on-quarter growth rates,
2023Q2, pp**



QUARTERLY NON-FINANCIAL SECTOR ACCOUNTS REVISIONS AS SHOWN BY THE MEAN ABSOLUTE REVISIONS AND LATEST MINUS FIRST REVISIONS

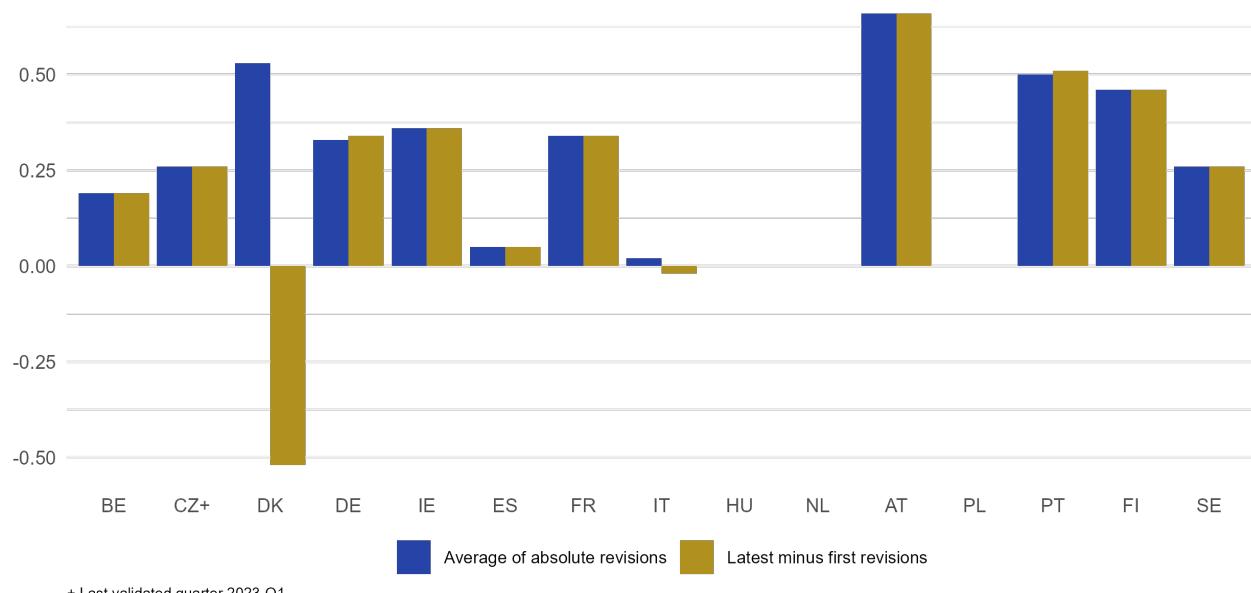
To analyse quarterly non-financial sector accounts, revisions of RMAR and LMF are presented in the same chart for 2023Q2 (reference quarter). For Member States whose GDP at current prices is less than 1 % of EU GDP, the sectoral breakdown is only requested for sectors S13 and S2. As revisions are evaluated on variables of sectors S11 and S1M, those countries do not appear in the charts presented in figures 17-20. If country data of that quarter or the previous one (i.e. 2023Q2 or 2023Q1) were not validated (EL, RO and NO) or transmitted due to derogation (CH), the results of those countries do not appear in the charts.

For quarterly non-financial sector accounts, the revisions for gross disposable income of households and NPISH for 2023Q2 are presented in Figure 17. Four countries have had either no or minimal RMAR revisions (IT, HU, NL and PL). Ten countries (BE, CZ, DK, DE, IE, ES, AT, PT, FI and SE) had RMAR revisions ranging

from 0.05 % to 0.66 %, while one country (DK) had negative LMF revisions.

Figure 17

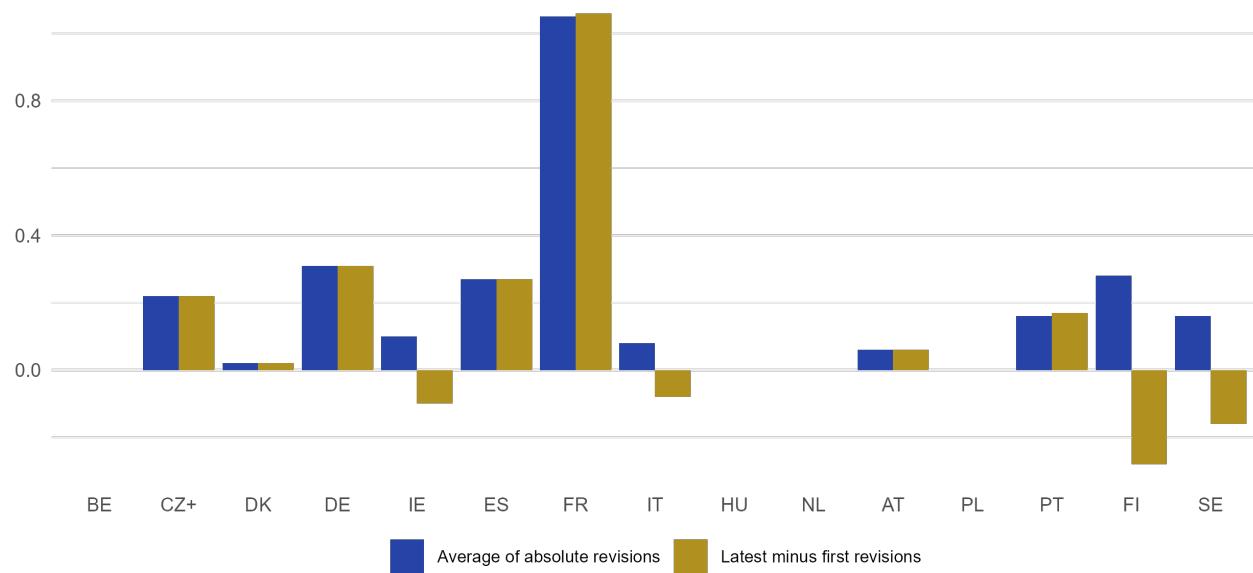
Non-seasonally adjusted gross disposable income of households and NPISH (B6G), current prices, S1M, 2023Q2, %



For final consumption expenditure by households (P31) for 2023Q2 (Figure 18), most of the countries have kept positive LMF revisions below 0.5 %. One country (FR) has indicated positive LMF revisions above 0.5 %, while four countries (IE, IT, FI and SE) have had negative LMF revisions.

Figure 18

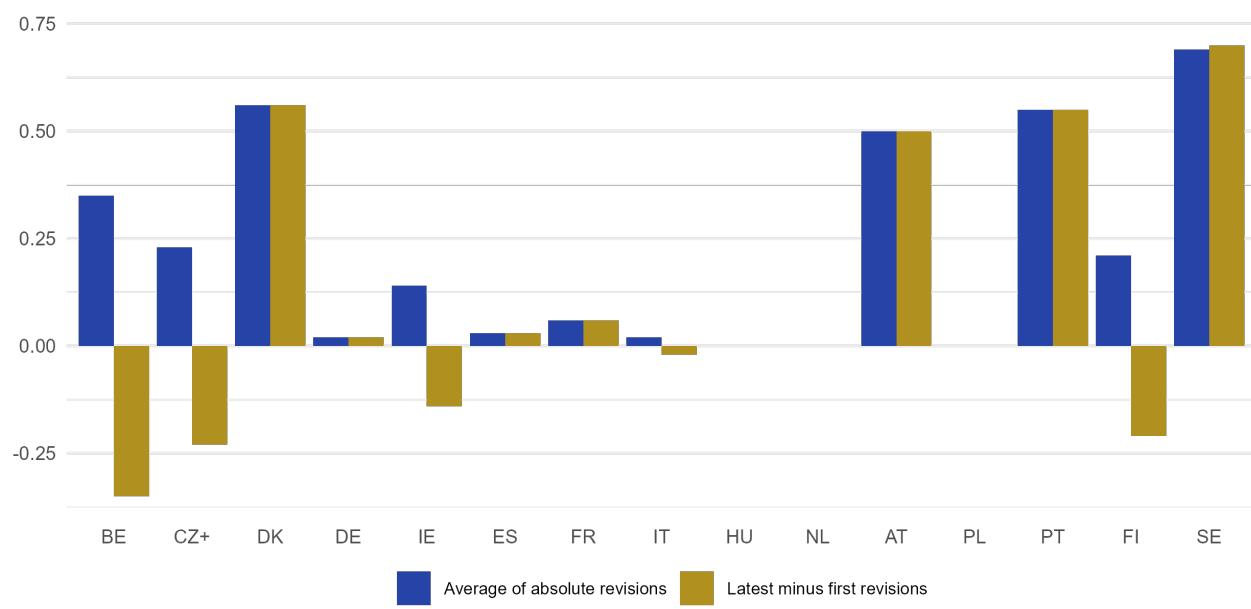
Non-seasonally adjusted final consumption expenditure by households (P31), current prices, S1M, 2023Q2, %



For gross value added of non-financial corporations (Figure 19), RMAR and LMF revisions stand at zero or less than 0.3 % for most countries. Exceptions are four countries (DK, AT, PT and SE) where LMF revisions are positive (ranging up to 0.7%) and Belgium with a negative LMF revision (-0.35 %).

Figure 19

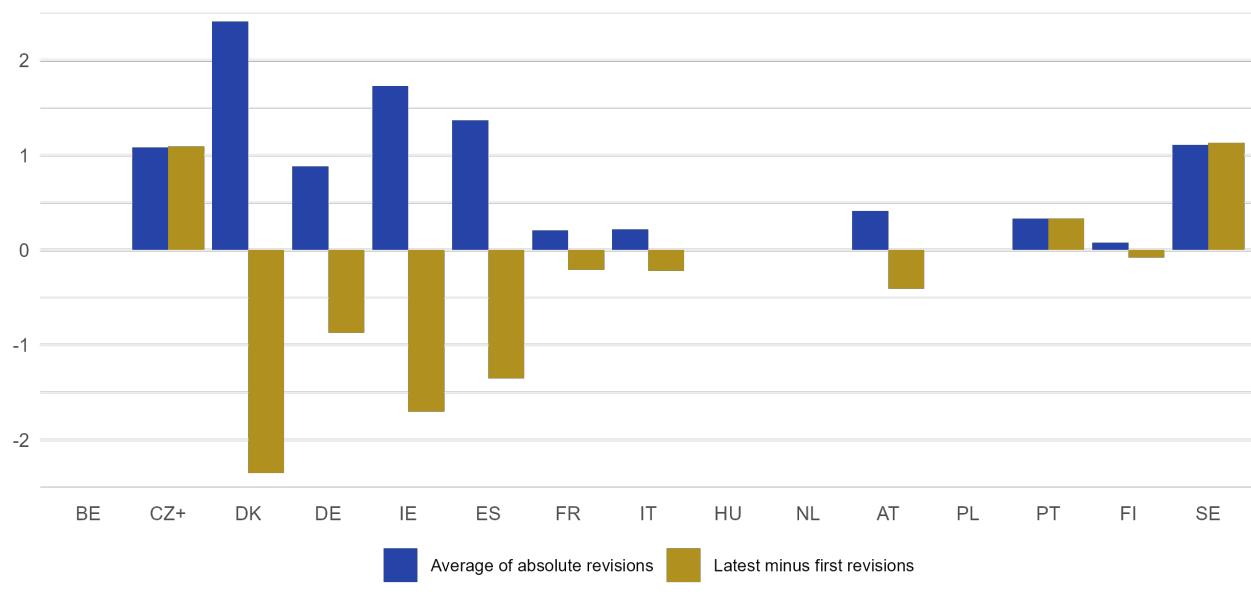
**Non-seasonally adjusted gross value added of non-financial corporations, current prices,
S11, 2023Q2, %**



For gross fixed capital formation of non-financial corporations (Figure 20), RMAR and LMF revisions stand at zero or close to zero for eight countries (BE, FR, IT, HU, NL, PL, PT and FI). Two countries (CZ and SE) showed positive LMF revisions over 1 %, while five countries (DK, DE, IE, ES and AT) had negative LMF revisions ranging from -0.41 % up to -2.35 %.

Figure 20

**Non-seasonally adjusted gross fixed capital formation of non-financial corporations,
current prices, S11, 2023Q2, %**



ANNUAL REVISIONS AS SHOWN BY AVERAGE RELATIVE MEAN ABSOLUTE REVISIONS

This section analyses the annual data transmissions, looking at the relative mean absolute revisions (RMAR) for all reference years reported.

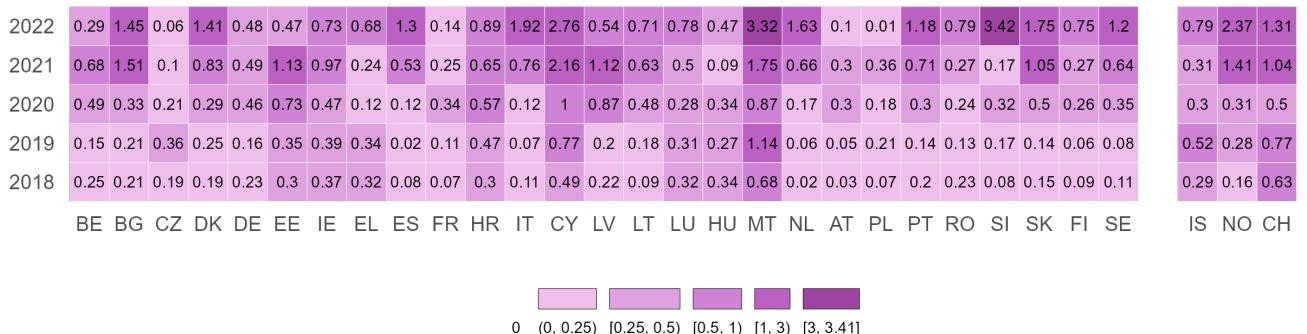
MAIN AGGREGATES

Revisions of annual GDP data vary considerably across countries both for current prices and volumes. Some countries have had very small revisions, while others have had larger revisions.

Concerning GDP in current prices, half of the countries (BE, CZ, DE, IE, EL, FR, HR, LT, LU, HU, AT, PL, RO, FI and IS) show RMAR between 0 % and 1 % for all years. The remaining countries (BG, DK, EE, ES, IT, CY, LV, NL, PT, SK, SE, NO and CH) have had average absolute revisions range of between 1 % and 3 %, while two countries (MT and SI) had a GDP revision over 3 % in 2022 (Figure 21).

Figure 21

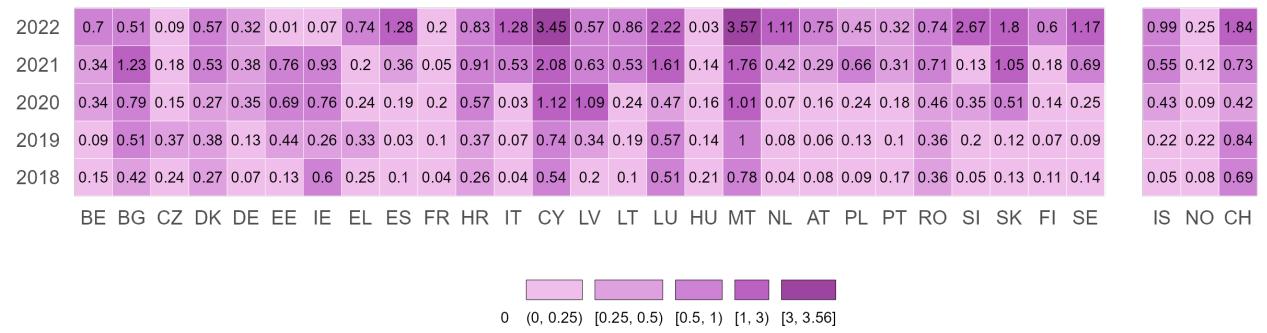
GDP (B1GQ, T0101A), current prices, 2018-2022, %



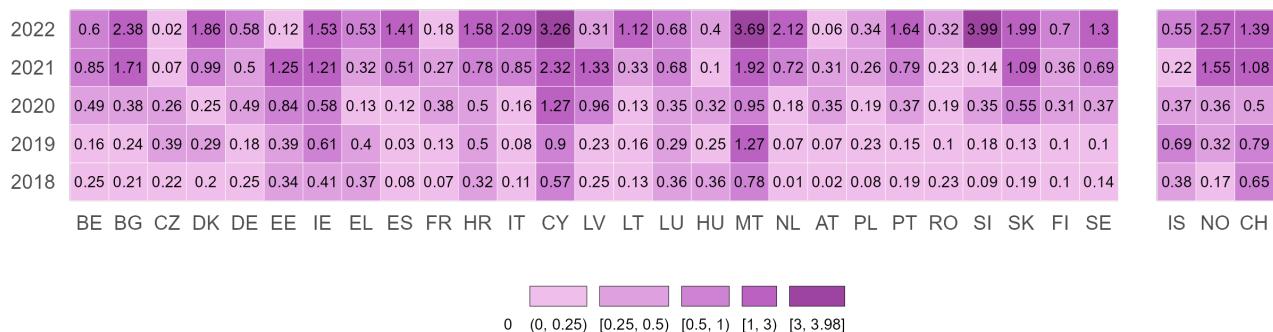
GDP revisions in terms of volume (Figure 22) did not exceed 2.5 % except for three countries (CY, MT and SI).

Figure 22

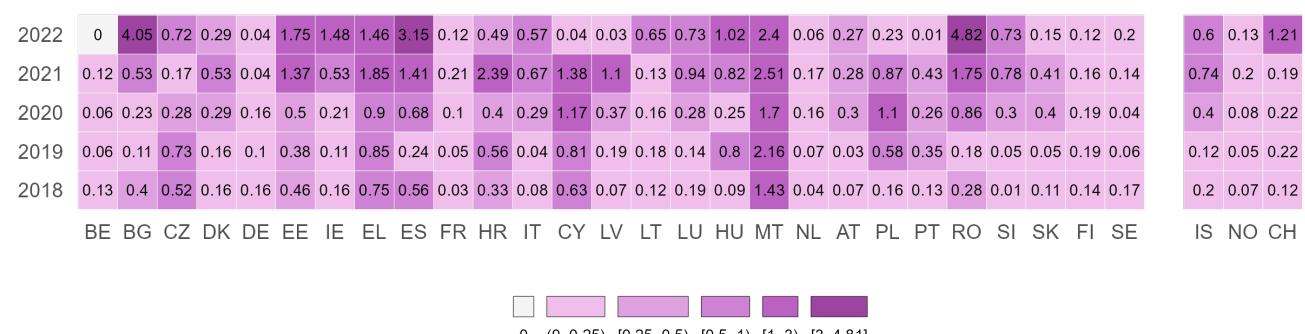
GDP (B1GQ, T0101A), volumes, 2018-2022, %



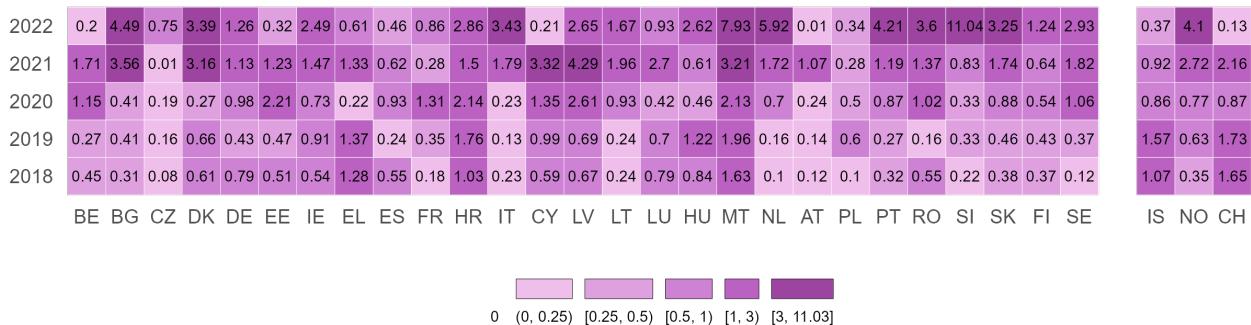
Like GDP, revisions of gross value added vary significantly across countries (Figure 23). Some countries have had substantial revisions, while others have had smaller ones for reference year 2022. A total of 14 countries (BE, CZ, DE, EE, EL, FR, LU, LV, HU, AT, PL, RO, FI and IS) have had revisions of less than 1 %. A further thirteen (BG, DK, IE, ES, HR, IT, LT, NL, PT, SK, SE, NO and CH) have had moderate revisions between 1 % and 3 %, while three countries (CY, MT and SI) have had moderate-high revisions between 3 % and 4 %.

Figure 23**Gross value added (B1G, T0101A), current prices, 2018-2022, %**

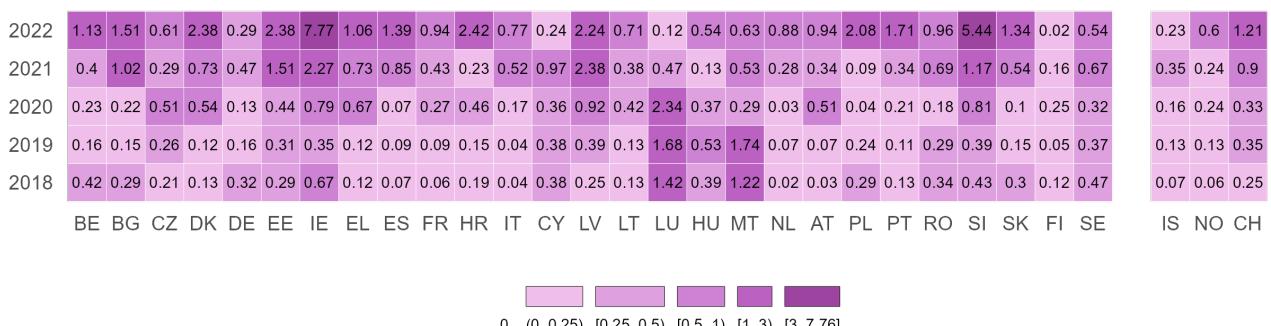
On compensation of employees (Figure 24), RMAR was below 1 % for 21 countries (BE, CZ, DK, DE, FR, HR, IT, CY, LV, LT, LU, NL, AT, PL, PT, SI, SK, FI, SE, IS and NO) and moderate (1 % to 3 %) for six countries (EE, IE, EL, HU, MT and NO). For three countries (BG, ES and RO), RMAR ranged from 3.15 % to 4.82 % in 2022.

Figure 24**Compensation of employees (D.1, T0103A), current prices, 2018-2022, %**

The RMAR of gross operating surplus and mixed income varies (Figure 25) significantly across countries, ranging from as low as 0.01 % (AT) to as high as 11.04 % (SI). A total of fourteen countries have had low revisions (up to 1.5 %). The overall intensity of the colouring is higher for this than for other national accounts variables, which suggests that this variable is more volatile than the others.

Figure 25**Gross operating surplus and mixed Income (B.2A3G, T0103A), current prices, 2018-2022, %**

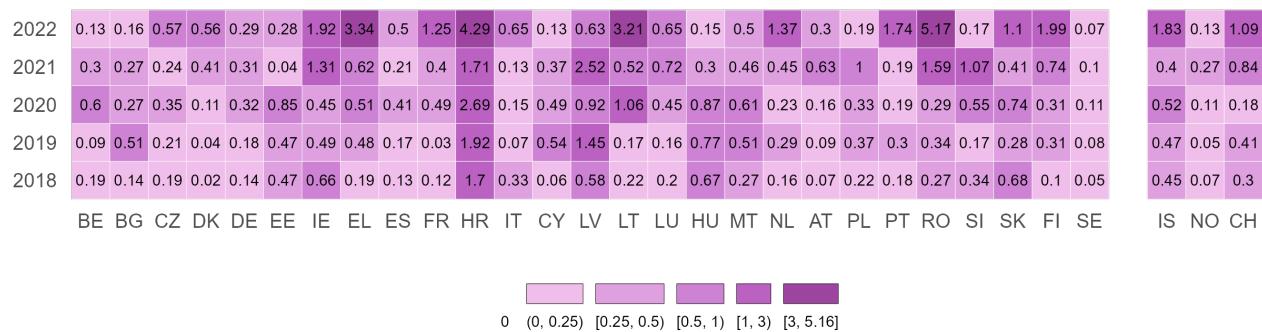
Regarding household & NPISH final consumption expenditure in 2022 (Figure 26), for 16 countries (CZ, DE, FR, IT, CY, LT, LU, HU, MT, NL, AT, RO, FI, SE, IS and NO) RMAR was below 1 %. RMAR was moderate (1 to 3 %) for twelve countries (BE, BG, DK, EE, EL, ES, HR, LV, PL, PT, SK and CH), while it exceeded 5 % for SI and 7 % for IE.

Figure 26**Household & NPISH final consumption expenditure (P31_S1M, T0102A), current prices, 2018-2022, %**

Regarding government final consumption expenditure in 2022 as reported in ESA table 1 (Figure 27), RMAR was below 1 % for 18 countries (BE, BG, CZ, DK, DE, EE, ES, IT, CY, LV, LU, HU, MT, AT, PL, SI, SE and NO), moderate (1 to 3 %) in 2022 for eight countries (IE, FR, NL, PT, SK, FI, IS and CH), while it was higher for four countries (EL, HR, LT and RO), between 3.21 % and 5.17 %

Figure 27

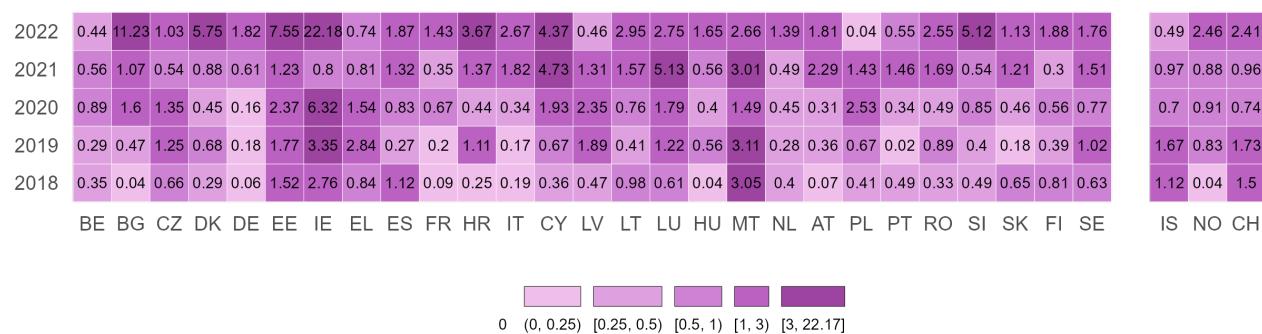
Government final consumption expenditure (P.3 S.13, T0102A), current prices, 2018-2022, %



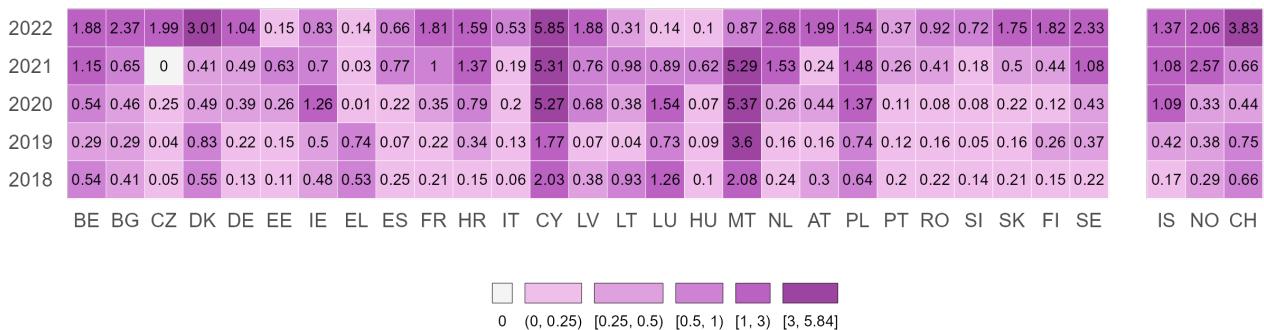
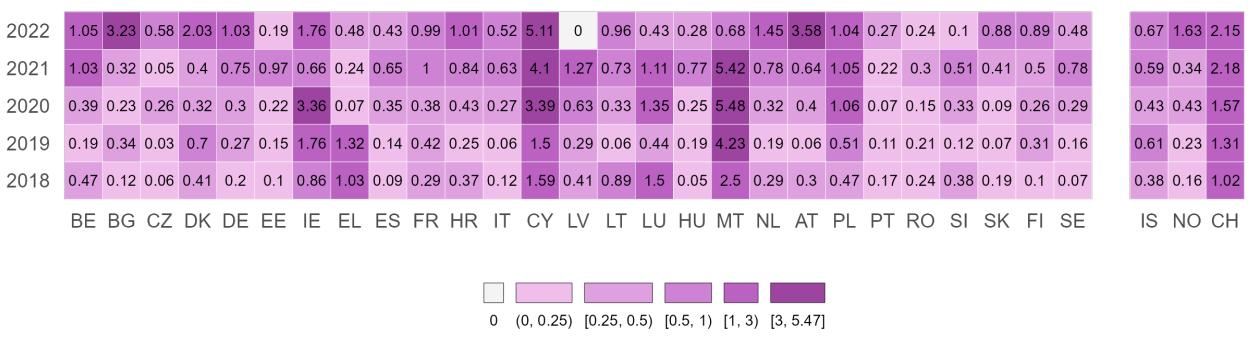
Regarding gross fixed capital formation in 2022 (Figure 28), RMAR was close to zero for five countries (BE, EL, PL and IS) and low (below 1.5 %) for another five countries (CZ, FR, NL, PT and SK). RMAR was moderate (1.5 to 3 %) for 13 countries (DE, ES, IT, LT, LU, HU, MT, AT, RO, FI, SE, NO and CH), and high (3 to 6 %) for four countries (DK, HR, CY and SI). RMAR exceeded 6 % for two countries (BG and EE), and IE has historically high revisions. The intensity of the colouring also suggests that this national accounts variable is subject to higher revisions than others.

Figure 28

Gross fixed capital formation (P.51G, T0102A), current prices, 2018-2022, %



RMAR for imports and exports and imports does not exceed 2.5 % for most countries in 2022. There are four exceptions (DK, CY, NL and CH) for exports (Figure 29), and three exceptions (BG, CY and AT) for imports (Figure 30).

Figure 29**Exports (P6, T0102A), current prices, 2018-2022, %****Figure 30****Imports (P7, T0102A), current prices, 2018-2022, %**

For total employment, RMAR is close to zero with the exception of four countries: three (BG, ES and CY) reported RMAR close to 2 % and one (EL) over 3 % (Figure 31). The situation was somehow similar for revisions in employees (Figure 32). RMAR was close to zero for the majority of the countries, and only EL and CY had RMAR above 2 in 2022.

Figure 31

Employment (EMP, T0111A), thousands of persons, 2018-2022, %

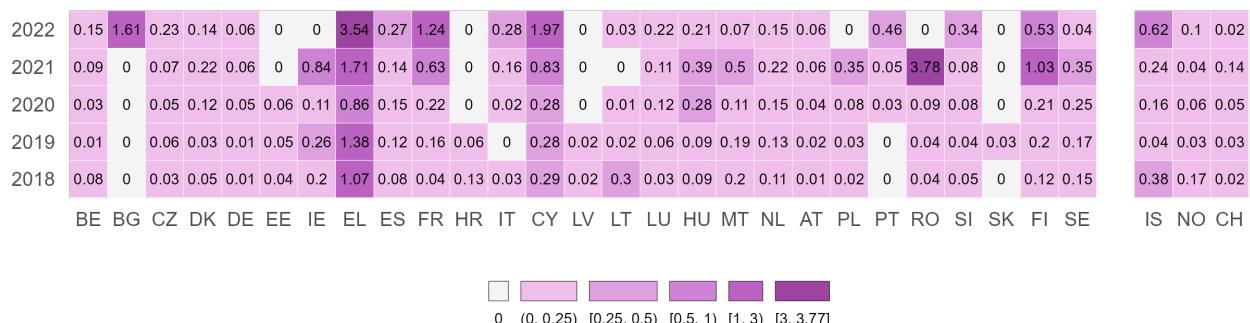
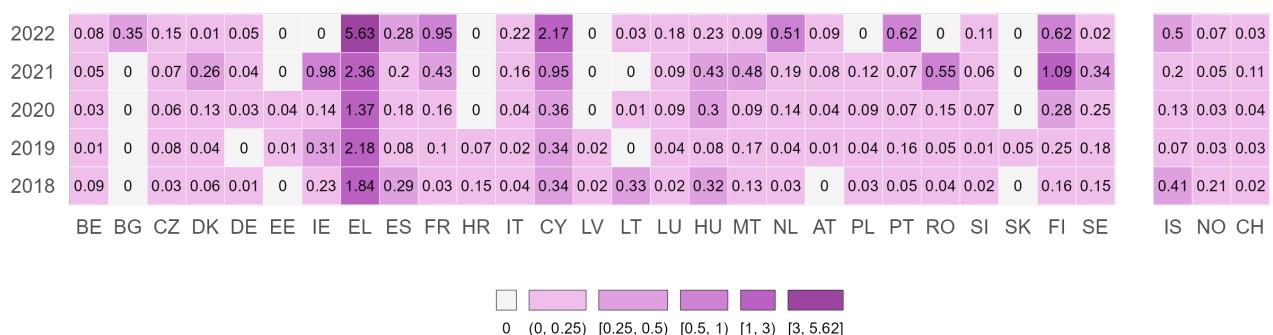


Figure 32

Employees (SAL, T0111A), thousands of persons, 2018-2022, %



GOVERNMENT FINANCE STATISTICS

The relative mean absolute revision (RMAR) for total general government expenditure for the reference year 2022 (Figure 33) is above 1 % for four countries (BG, HR, HU and IS). Revisions of the last reference year are usually the same or higher than those reported in the previous reference years. However, for two countries (BG, IT) the RMAR for the reference year 2021 was above 1 %.

The RMAR for general government revenue for 2022 (Figure 34) is above 1 % for four countries (BG, CY, HU and IS); for 2021 this was the case for two countries (BG, IT). For EU countries, these revisions are

largely referenced in the relevant EDP press releases.

Figure 33

Total general government expenditure (TE S.13, Table 2), current prices, 2018-2022, %

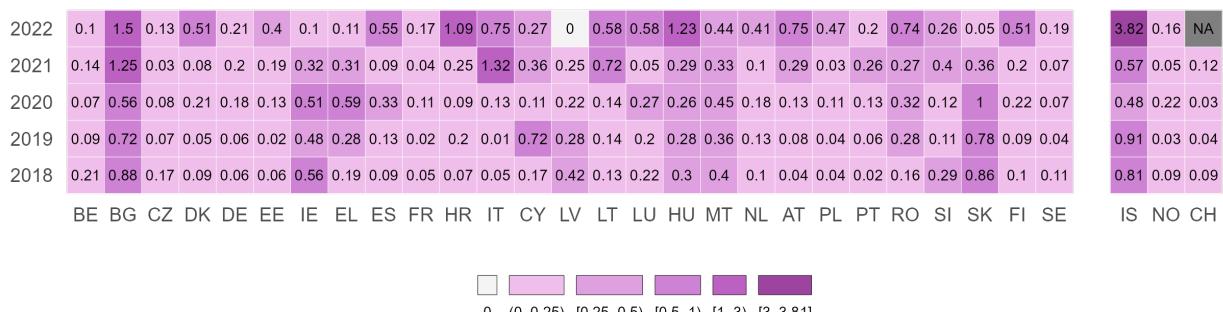
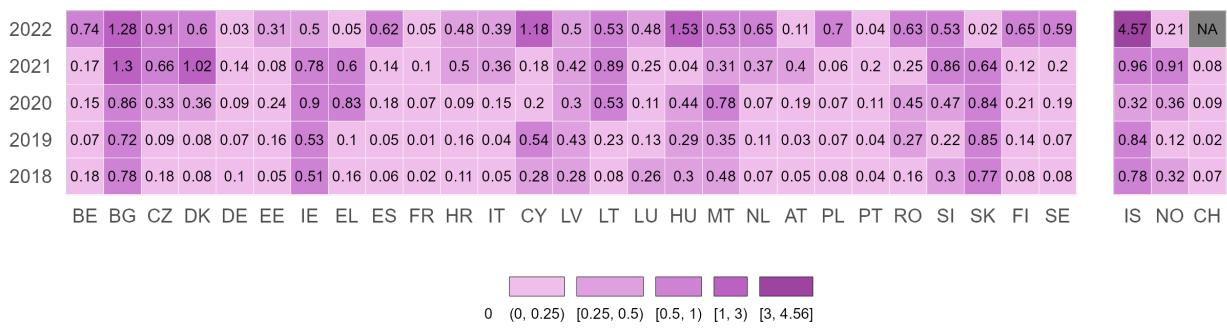


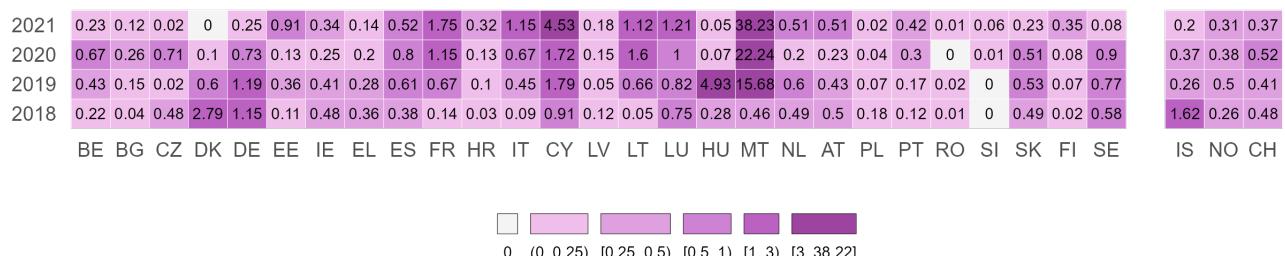
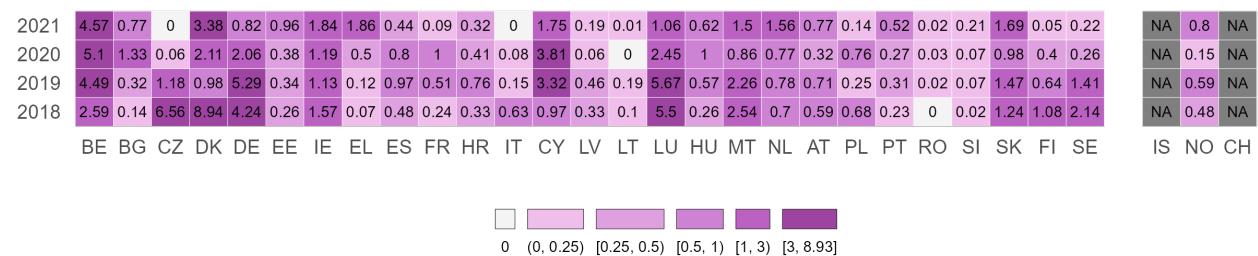
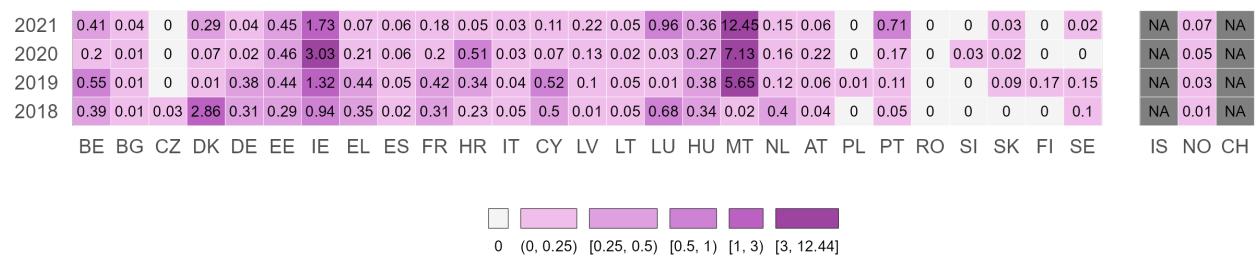
Figure 34

Total general government revenue (TR S.13, table 2), current prices, 2018-2022, %



ANNUAL FINANCIAL ACCOUNTS

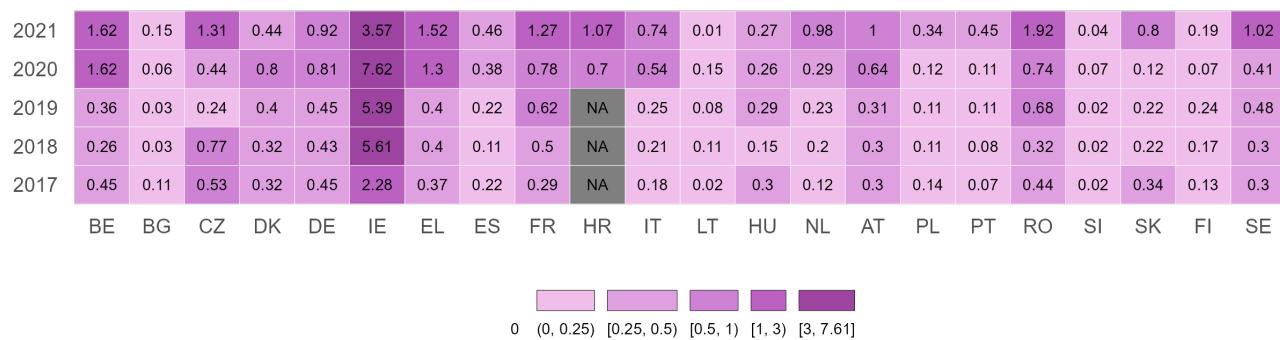
Figures 35, 36 and 37 report the revision indicators for annual financial accounts. For the total financial sector liabilities (excluding monetary gold and special drawing rights) the RMAR was below 3 % in 2021 except for CY and MT, with the latter revision was at around 38 %. Big revisions in 2021 were made in the debt of non-financial corporations (RMAR higher than 2.5 %) for BE and BG, and in the debt of household and non-profit institutions serving households (RMAR higher than 2%) for MT.

Figure 35**Total financial sector liabilities, non-consolidated (T720), current prices, 2018-2021, %****Figure 36****Debt of NFCs, consolidated (T710A), current prices, 2018-2021, %****Figure 37****Debt of households and NPISH, consolidated (T710A), current prices, 2018-2021, %****REGIONAL ACCOUNTS**

Revisions of gross value added vary significantly across countries at NUTS 2 level (Figure 38). The highest absolute average revisions for 2021 were reported by IE (3.57%), followed by BE, CZ, EL, FR, HR, RO and SE (1 to 3 %). The lowest absolute mean revisions were reported by BG, DK, DE, ES, IT, LT, HU, NL, AT, PL, PT, SI, SK and SI (less than 1.0 %). Most countries saw their highest revision in 2021 compared to previous years (2017-2020), with the exceptions being DK, IE, LT, HU, SI and FI.

Figure 38

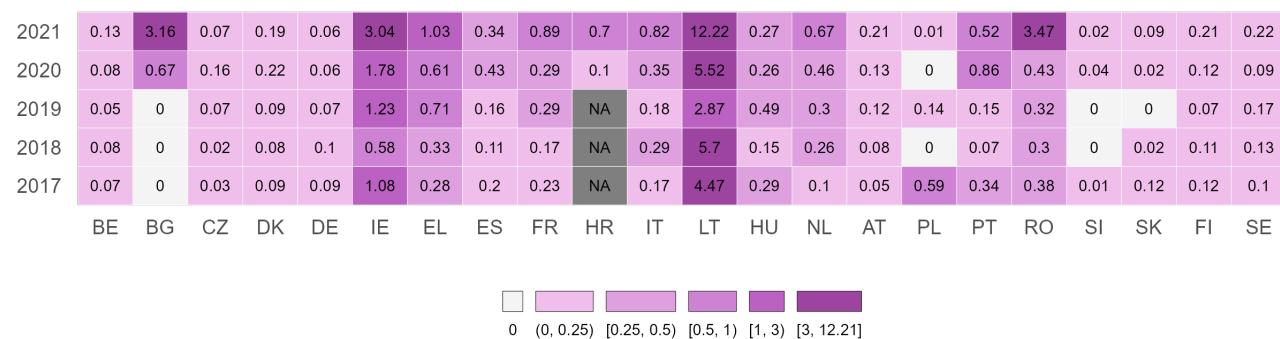
Gross value added (B1G) (NUTS2), current prices, 2017-2021, %



Four countries (BG, IE, LT and RO) had revisions above 3 % for employment at NUTS 2 level (Figure 39). A total of 18 countries (BE, CZ, DK, DE, EL, ES, FR, HR, IT, HU, NL, AT, PL, PT, SI, SK, FI and SE) had near-stable revisions around and less than 1 %.

Figure 39

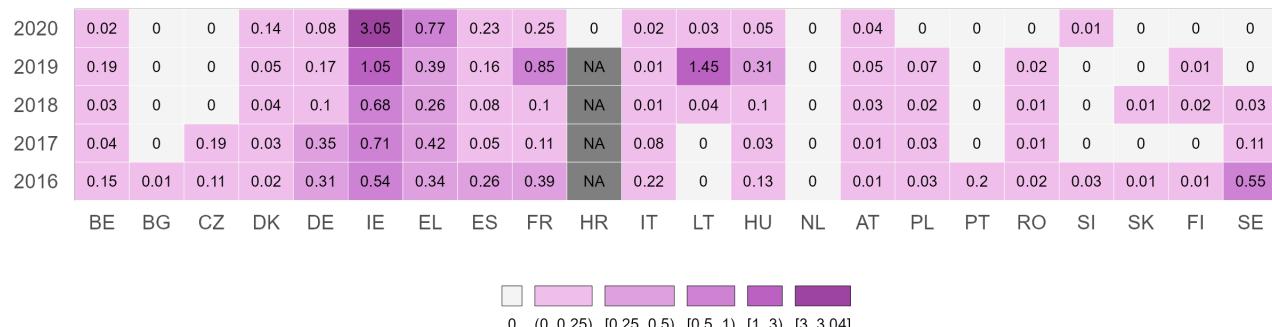
Regional accounts employment (EMP), persons, 2017-2021, %



One country had substantial average absolute revisions for compensation of employees in 2020 at NUTS 2 level (Figure 40): LT (greater than 3%). A further 11 countries (BE, DK, DE, EL, ES, FR, IT, LT, HU, AT, and SI) had near-stable average absolute revisions of less than 1 %. BG, CZ, HR, NL, PL, PT, RO, SK, FI and SE reported no average absolute revisions.

Figure 40

Regional accounts compensation of employees (D1), current prices, 2016-2020, %

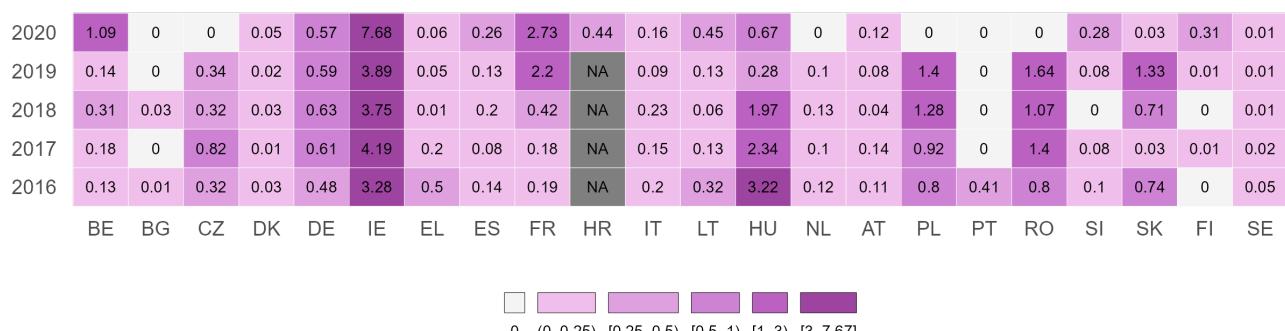


In 2020, two countries (FR and IE) had substantial revisions of net disposable income of households at NUTS 2 level (Figure 41), with values greater than 2 %. A total of 14 countries (BE, DK, DE, EL, ES, HR, IT, LT, HU, AT, SI, SK, FI and SE) had near-stable average absolute revisions around and less than 1 %. BG, CZ, NL, PL, PT and PT reported no revisions in 2020.

Figure 41

Regional accounts net disposable income of households (B6N), current prices, 2016-2020, %

%



5.2.3 Revisions of European aggregates

The revision rates for European aggregates presented in this section are based on average revision rates and average absolute revision rates. The latter avoids the offsetting effects of combined negative and positive revisions on the average rate.

For the European aggregates of national accounts data for the euro area and the EU, Eurostat publishes information on revision of:

- quarterly estimates of GDP and employment from the quarterly **main aggregates** data; and
- the saving rate and investment rate for households and non-profit institutions serving households (NPISH) and the investment rate and profit share for non-financial corporations from the quarterly **non-financial sector accounts** data.

Eurostat also publishes data on government debt and deficits for the euro area and EU from the data provided for the **excessive deficit procedure** in the first and second notifications, also including information on government total revenue and total expenditure. While information on revisions in government finance statistics is not provided here, it can be found in the [news releases on the Eurostat website](#).

REVISIONS OF GDP AND EMPLOYMENT GROWTH ESTIMATES FOR THE EU AND THE EURO AREA

Tables 1 to 4 present the subsequent revisions of EU and euro area (EA) aggregates released between 2020Q3 and 2023Q3. The **quarter-on-quarter GDP growth rates** and the **year-on-year GDP growth rates** are given on the left-hand side of the tables and the revisions of the growth rates appear on the right-hand side.

In general, the four GDP estimates (at t+30, t+45, t+65 and t+110) were stable as both average revisions, and average absolute revisions were small. For the EA GDP estimates, the average absolute revision between the t+110 estimates and the t+30 estimate was 0.12 percentage points (pp) for the quarter-on-quarter and 0.22 pp for the year-on-year growth rates. Upward revisions were most common, occurring in 8 of the 13 quarters, while downward revisions were observed in 5 of the 13 quarters. For the EU GDP estimates, the average absolute revision between the t+110 estimates and the t+30 estimate was 0.14 pp for the quarter-on-quarter growth rates, and 0.24 pp for the year-on-year growth rates. Once again, upward revisions were most common, occurring in 9 of the 13 quarters. The largest revisions in GDP growth estimate for both the EA and EU aggregates occurred in quarters 2021Q1 and 2022Q1. Data revisions have remained limited although the quality of estimates became more uncertain with the prevalence of high energy prices and inflation.

Tables 5 and 6 present the subsequent revisions of Eurostat's **employment growth estimates** for the EU and EA aggregates released between 2020Q3 and 2023Q3.

Generally, the revisions between the first estimate and the following estimations were low. The EA quarter-on-quarter estimates showed an average revision of 0.04 pp between the flash estimate at t+45 days and the estimation at t+110 days. The EU quarter-on-quarter estimates had an average revision of 0.02 pp for

the same period. The absolute average revision was 0.08 and 0.05 pp for both the EA and the EU, respectively.

Table 1: Revisions of quarterly GDP for the EA* aggregate (quarter-on-quarter growth rates) based on data for reference quarters from 2020Q3 to 2023Q3

Quarter-on-quarter, Eurostat growth estimates					Quarter-on-quarter revisions			
EA	t+30	t+45	t+65	t+110	45-30	65-30	65-45	110-30
2020Q3	12.7	12.6	12.5	12.4	-0.11	-0.20	-0.08	-0.22
2020Q4	-0.7	-0.6	-0.7	-0.7	0.09	0.04	-0.04	0.01
2021Q1	-0.6	-0.6	-0.3	-0.3	0.00	0.29	0.29	0.31
2021Q2	2.0	2.0	2.2	2.1	-0.02	0.20	0.23	0.08
2021Q3	2.2	2.2	2.2	2.3	0.03	-0.02	-0.04	0.05
2021Q4	0.3	0.3	0.3	0.3	0.00	-0.04	-0.03	0.00
2022Q1	0.2	0.3	0.6	0.5	0.08	0.44	0.36	0.31
2022Q2	0.7	0.6	0.8	0.8	-0.06	0.08	0.14	0.13
2022Q3	0.2	0.2	0.3	0.3	0.00	0.13	0.13	0.12
2022Q4	0.1	0.1	0.0	-0.1	-0.01	-0.15	-0.14	-0.17
2023Q1	0.1	0.1	-0.1	0.0	-0.02	-0.18	-0.16	-0.07
2023Q2	0.3	0.3	0.1	0.2	-0.01	-0.14	-0.13	-0.11
2023Q3	-0.1	-0.1	-0.1	-0.1	0.03	-0.02	-0.05	-0.03
Average revision					0.00	0.03	0.04	0.03
Average absolute revision					0.04	0.15	0.14	0.12

- EA-19 up to 2022Q4, EA-20 from 2023Q1 onwards

**Table 2: Revisions of quarterly GDP for the EA* aggregate (year-on-year growth rates)
based on data for reference quarters from 2020Q3 to 2023Q3**

Year-on-year, Eurostat growth estimates					Year-on-year revisions			
EA	t+30	t+45	t+65	t+110	45-30	65-30	65-45	110-30
2020Q3	-4.3	-4.4	-4.3	-4.3	-0.10	0.03	0.12	-0.01
2020Q4	-5.1	-5.0	-4.9	-4.9	0.08	0.17	0.09	0.20
2021Q1	-1.8	-1.8	-1.3	-1.3	0.00	0.51	0.51	0.45
2021Q2	13.7	13.6	14.3	14.2	-0.03	0.67	0.70	0.53
2021Q3	3.7	3.7	3.9	3.9	0.03	0.19	0.17	0.28
2021Q4	4.6	4.6	4.6	4.7	0.00	0.03	0.04	0.10
2022Q1	5.0	5.1	5.4	5.4	0.08	0.44	0.36	0.38
2022Q2	4.0	3.9	4.1	4.3	-0.06	0.18	0.24	0.28
2022Q3	2.1	2.1	2.3	2.3	0.00	0.14	0.14	0.20
2022Q4	1.9	1.9	1.8	1.8	-0.01	-0.08	-0.07	-0.09
2023Q1	1.3	1.3	1.0	1.1	-0.02	-0.32	-0.31	-0.20
2023Q2	0.6	0.6	0.5	0.5	-0.01	-0.13	-0.12	-0.08
2023Q3	0.1	0.1	0.0	0.0	0.03	-0.06	-0.09	-0.07
Average revision					0.00	0.14	0.14	0.15
Average absolute revision					0.04	0.23	0.23	0.22

- EA-19 up to 2022Q4, EA-20 from 2023Q1 onwards

Table 3: Revisions of quarterly GDP for the EU aggregate (quarter-on-quarter growth rates) based on data for reference quarters from 2020Q3 to 2023Q3

Quarter-on-quarter, Eurostat growth estimates					Quarter-on-quarter revisions			
EU	t+30	t+45	t+65	t+110	45-30	65-30	65-45	110-30
2020Q3	12.1	11.6	11.5	11.5	-0.47	-0.53	-0.07	-0.54
2020Q4	-0.5	-0.4	-0.5	-0.5	0.10	0.04	-0.06	0.01
2021Q1	-0.4	-0.4	-0.1	-0.1	-0.02	0.24	0.26	0.26
2021Q2	1.9	1.9	2.1	2.0	-0.01	0.19	0.21	0.10
2021Q3	2.1	2.1	2.1	2.2	0.05	0.00	-0.04	0.07
2021Q4	0.4	0.4	0.4	0.5	0.00	-0.04	-0.04	0.03
2022Q1	0.4	0.4	0.7	0.6	0.05	0.34	0.29	0.22
2022Q2	0.6	0.6	0.7	0.7	-0.03	0.09	0.12	0.13
2022Q3	0.2	0.2	0.4	0.3	0.06	0.17	0.11	0.15
2022Q4	0.0	0.0	-0.1	-0.1	0.01	-0.11	-0.12	-0.13
2023Q1	0.3	0.2	0.1	0.2	-0.02	-0.16	-0.13	-0.06
2023Q2	0.0	0.0	0.0	0.0	0.02	0.00	-0.02	0.02
2023Q3	0.1	0.0	0.0	-0.1	-0.05	-0.10	-0.04	-0.12
Average revision					-0.03	0.01	0.04	0.01
Average absolute revision					0.07	0.16	0.12	0.14

Table 4: Revisions of quarterly GDP for the EU aggregate (year-on-year growth rates) based on data for reference quarters from 2020Q3 to 2023Q3

Year-on-year, Eurostat growth estimates					Year-on-year revisions			
EU	t+30	t+45	t+65	t+110	45-30	65-30	65-45	110-30
2020Q3	-3.9	-4.3	-4.2	-4.2	-0.40	-0.28	0.12	-0.29
2020Q4	-4.8	-4.8	-4.6	-4.6	0.10	0.21	0.12	0.26
2021Q1	-1.7	-1.7	-1.2	-1.3	-0.02	0.46	0.48	0.41
2021Q2	13.2	13.2	13.8	13.7	-0.01	0.59	0.60	0.50
2021Q3	3.9	3.9	4.1	4.1	0.05	0.20	0.16	0.28
2021Q4	4.8	4.8	4.8	4.9	0.00	0.05	0.04	0.13
2022Q1	5.2	5.2	5.6	5.5	0.05	0.38	0.33	0.32
2022Q2	4.0	4.0	4.2	4.3	-0.03	0.18	0.21	0.28
2022Q3	2.4	2.4	2.5	2.5	0.06	0.10	0.04	0.15
2022Q4	1.8	1.8	1.7	1.7	0.01	-0.10	-0.11	-0.10
2023Q1	1.3	1.2	1.0	1.1	-0.03	-0.30	-0.27	-0.20
2023Q2	0.5	0.5	0.4	0.4	0.02	-0.09	-0.11	-0.06
2023Q3	0.1	0.1	0.0	0.0	-0.06	-0.06	-0.01	-0.09
Average revision					-0.02	0.10	0.12	0.12
Average absolute revision					0.06	0.23	0.20	0.24

Table 5: Revisions of quarterly employment growth estimates for the EA* aggregate based on data for reference quarters from 2020Q3 to 2023Q3

Quarter-on-quarter growth estimates					Year-on-year growth estimates			
EA	t+45	t+65	t+110	Revision 110-45	t+45	t+65	t+110	Revision 110-45
2020Q3	0.93	1.01	1.01	0.08	-2.02	-2.26	-2.26	-0.24
2020Q4	0.34	0.34	0.36	0.02	-2.03	-1.87	-1.85	0.18
2021Q1	-0.34	-0.28	-0.23	0.11	-2.12	-1.84	-1.79	0.33
2021Q2	0.48	0.68	0.68	0.20	1.76	1.81	1.86	0.10
2021Q3	0.93	0.94	0.95	0.02	2.01	2.11	2.11	0.10
2021Q4	0.49	0.47	0.44	-0.05	2.07	2.18	2.14	0.07
2022Q1	0.46	0.64	0.64	0.18	2.57	2.91	2.92	0.35
2022Q2	0.27	0.37	0.36	0.09	2.36	2.67	2.67	0.31
2022Q3	0.23	0.29	0.29	0.06	1.71	1.76	1.75	0.04
2022Q4	0.36	0.28	0.28	-0.07	1.47	1.46	1.48	0.01
2023Q1	0.60	0.55	0.55	-0.06	1.71	1.63	1.62	-0.09
2023Q2	0.20	0.17	0.13	-0.06	1.49	1.34	1.32	-0.17
2023Q3	0.28	0.24	0.24	-0.04	1.41	1.32	1.31	-0.10
Average revision				0.04	Average revision			0.07
Average absolute revision				0.08	Average absolute revision			0.16

- EA-19 up to 2022Q4, EA-20 from 2023Q1 onwards

Table 6: Revisions of quarterly employment growth estimates for the EU aggregate based on data for reference quarters from 2020Q3 to 2023Q3

Quarter-on-quarter growth estimates					Year-on-year growth estimates			
EU	t+45	t+65	t+110	Revision 110-45	t+45	t+65	t+110	Revision 110- 45
2020Q3	0.92	0.93	0.87	-0.05	-1.79	-2.03	-2.10	-0.31
2020Q4	0.25	0.38	0.40	0.15	-1.70	-1.62	-1.60	0.10
2021Q1	-0.30	-0.24	-0.21	0.09	-1.82	-1.61	-1.57	0.25
2021Q2	0.58	0.74	0.76	0.18	1.83	1.86	1.90	0.07
2021Q3	0.89	0.89	0.88	-0.01	2.05	2.12	2.10	0.05
2021Q4	0.47	0.46	0.43	-0.04	2.08	2.14	2.12	0.04
2022Q1	0.38	0.52	0.52	0.14	2.53	2.83	2.84	0.31
2022Q2	0.33	0.38	0.38	0.05	2.27	2.67	2.41	0.14
2022Q3	0.17	0.20	0.19	0.02	1.51	1.50	1.49	-0.02
2022Q4	0.36	0.31	0.31	-0.05	1.34	1.27	1.29	-0.05
2023Q1	0.59	0.48	0.46	-0.13	1.64	1.56	1.55	-0.09
2023Q2	0.18	0.13	0.13	-0.05	1.34	1.11	1.12	-0.23
2023Q3	0.25	0.22	0.22	-0.03	1.33	1.17	1.16	-0.17
Average revision				0.02	Average revision			0.01
Average absolute revision				0.05	Average absolute revision			0.14

REVISIONS OF AGGREGATES FOR HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS FOR THE EU AND THE EURO AREA

The revisions for releases of the EA-20 quarterly saving rate and investment rate for households and NPISH, and the investment rate and profit share for non-financial corporations, are presented in Tables 7 and 8 on data for reference quarters from 2020Q3 to 2023Q3. The early release of selected quarterly EA non-financial sector accounts data (including seasonally adjusted data) occurs at around t+94 days, while the final release takes place at around t+120 days. The average revision and average absolute revisions are small for all four indicators.

Similarly, Tables 9 and 10 present the revisions for releases of the EU quarterly saving rate and investment rate for households and NPISH, and the investment rate and profit share for non-financial corporations. EU aggregate data are not available at the early release; therefore, the comparison is established between the first time EU data is published (for a given reference quarter and the revised EU aggregate data for the same reference quarter in the subsequent data production round. The largest revisions are observed for the profit share of non-financial corporations.

Table 7: Revisions of quarterly saving and investment rates of households and NPISH, for the EA-20 aggregates (seasonally adjusted) based on data for reference quarters from 2020Q3 to 2023Q3

EA-20 Households and NPISH							
Saving rate (seasonally adjusted data)			Investment rate (seasonally adjusted data)				
Quarter	Early re-lease (t+94)	Final re-lease (t+120)	Revision Final - Early	Quarter	Early re-lease (t+94)	Final re-lease (t+120)	Revision Final - Early
2020Q3	17.32	17.38	0.06	2020Q3	9.14	9.15	0.01
2020Q4	19.75	19.83	0.08	2020Q4	9.14	9.13	-0.01
2021Q1	21.54	21.48	-0.06	2021Q1	8.70	8.67	-0.03
2021Q2	19.04	18.90	-0.14	2021Q2	7.92	7.94	0.02
2021Q3	15.01	14.95	-0.06	2021Q3	8.78	8.78	0.00
2021Q4	13.34	13.74	0.40	2021Q4	9.08	9.09	0.01
2022Q1	14.98	15.01	0.03	2022Q1	9.19	9.18	-0.01
2022Q2	13.66	13.23	-0.43	2022Q2	9.37	9.38	0.01
2022Q3	13.24	13.25	0.01	2022Q3	9.56	9.57	0.01
2022Q4	14.13	14.16	0.03	2022Q4	9.71	9.79	0.08
2023Q1	14.15	13.97	-0.18	2023Q1	10.29	10.21	-0.08
2023Q2	14.82	14.89	0.07	2023Q2	9.77	9.80	0.03
2023Q3	14.02	13.98	-0.04	2023Q3	9.67	9.67	0.00
Average revision			-0.018	Average revision			0.003
Average absolute revision			0.122	Average absolute revision			0.023

Table 8: Revisions of quarterly investment rates and profit shares of non-financial corporations, for the EA-20 aggregates (seasonally adjusted) based on data for reference quarters from 2020Q3 to 2023Q3

EA-20 Non-financial corporations							
Investment rate (seasonally adjusted data)				Profit share (seasonally adjusted data)			
Quarter	Early re-lease (t+94)	Final re-lease (t+120)	Revision Final - Early	Quarter	Early re-lease (t+94)	Final re-lease (t+120)	Revision Final – Early
2020Q3	23.67	23.66	-0.01	2020Q3	39.19	39.22	0.03
2020Q4	25.80	25.81	0.01	2020Q4	39.50	39.45	-0.05
2021Q1	25.51	25.48	-0.03	2021Q1	37.92	38.07	0.15
2021Q2	23.18	23.19	0.01	2021Q2	39.80	39.88	0.08
2021Q3	23.28	23.20	-0.08	2021Q3	39.60	39.04	-0.56
2021Q4	23.41	23.38	-0.03	2021Q4	40.37	40.40	0.03
2022Q1	23.90	23.93	0.03	2022Q1	41.18	41.10	-0.08
2022Q2	23.56	23.54	-0.02	2022Q2	41.23	41.24	0.01
2022Q3	23.00	22.97	-0.03	2022Q3	40.39	40.43	0.04
2022Q4	23.50	23.39	-0.11	2022Q4	42.02	42.02	0.00
2023Q1	24.08	24.02	-0.06	2023Q1	40.30	40.34	0.04
2023Q2	23.40	23.26	-0.14	2023Q2	40.80	40.94	0.14
2023Q3	22.88	22.87	-0.01	2023Q3	40.25	40.20	-0.05
Average revision			-0.036	Average revision			-0.017
Average absolute revision			0.044	Average absolute revision			0.097

Table 9: Revisions of quarterly saving and investment rates of households and NPISH, for the EU aggregates (seasonally adjusted) based on data for reference quarters from 2020Q3 to 2023Q3

EU Households and NPISH (1)							
Saving rate (seasonally adjusted data)				Investment rate (seasonally adjusted data)			
Quarter	1st transmission	2nd transmission	Revision 2nd - 1st	Quarter	1st transmission	2nd transmission	Revision 2nd - 1st
2020Q3	10.46	12.11	1.65	2020Q3	8.43	8.82	0.39
2020Q4	12.14	11.47	-0.67	2020Q4	8.87	8.71	-0.16
2021Q1	15.85	15.56	-0.29	2021Q1	8.46	8.59	0.13
2021Q2	23.90	23.37	-0.53	2021Q2	7.85	7.82	-0.03
2021Q3	16.11	16.21	0.10	2021Q3	8.78	8.66	-0.12
2021Q4	18.89	18.45	-0.44	2021Q4	8.80	8.90	0.10
2022Q1	21.04	20.92	-0.12	2022Q1	8.90	8.94	0.04
2022Q2	18.13	17.87	-0.26	2022Q2	9.09	9.17	0.08
2022Q3	14.64	14.71	0.07	2022Q3	9.25	9.22	-0.03
2022Q4	12.61	12.65	0.04	2022Q4	9.53	9.71	0.18
2023Q1	13.34	13.68	0.34	2023Q1	9.79	9.78	-0.01
2023Q2	14.20	13.37	-0.83	2023Q2	9.45	9.48	0.03
2023Q3	13.05	13.17	0.12	2023Q3	9.39	9.41	0.02
Average revision			-0.063	Average revision			
Average absolute revision			0.420	Average absolute revision			

(1) Due to the conversion to euro, movements in exchange rates may affect the European Union key indicators.

Table 10: Revisions of quarterly investment rates and profit shares of non-financial corporations, for the EU aggregates (seasonally adjusted) based on data for reference quarters from 2020Q3 to 2023Q3

EU Non-financial corporations (1)							
Investment rate (seasonally adjusted data)				Profit share (seasonally adjusted data)			
Quarter	1st transmission	2nd transmission	Revision 2nd - 1st	Quarter	1st transmission	2nd transmission	Revision 2nd - 1st
2020Q3	23.53	24.70	1.17	2020Q3	38.36	39.91	1.55
2020Q4	25.79	25.32	-0.47	2020Q4	40.02	40.16	0.14
2021Q1	25.94	25.92	-0.02	2021Q1	38.71	38.69	-0.02
2021Q2	22.93	23.15	0.22	2021Q2	40.69	39.80	-0.89
2021Q3	24.03	23.91	-0.12	2021Q3	39.52	39.90	0.38
2021Q4	23.83	24.01	0.18	2021Q4	40.68	41.09	0.41
2022Q1	24.52	24.43	-0.09	2022Q1	41.29	41.82	0.53
2022Q2	23.66	23.69	0.03	2022Q2	41.66	41.75	0.09
2022Q3	24.00	23.94	-0.06	2022Q3	41.11	40.91	-0.20
2022Q4	23.58	23.79	0.21	2022Q4	42.84	42.69	-0.15
2023Q1	24.12	23.97	-0.15	2023Q1	41.42	42.01	0.59
2023Q2	23.67	23.54	-0.13	2023Q2	41.59	41.42	-0.17
2023Q3	23.59	23.28	-0.31	2023Q3	40.57	41.22	0.65
Average revision			0.035	Average revision			
Average absolute revision			0.243	Average absolute revision			

6

Timeliness

Timeliness refers to the length of time between data availability and the event or phenomenon they describe.

Punctuality is the time lag between the actual delivery of data and the target date on which they were scheduled for release, as announced in an official release calendar, set out by regulations, or previously agreed among partners.

6.1 Timeliness

With the introduction of the ESA 2010 transmission programme in September 2014, new deadlines for countries' submission of data to Eurostat were introduced and allowed for more timely delivery of information to users. Most notably, data for regional accounts became available 12 months after the reference year.

In 2023, the preliminary flash estimates of GDP growth in the EU and the EA continue to be published at 30 days after the end of the quarter. The updated flash estimates of GDP growth for the EU/EA are subsequently published at t+45. Regular estimates of quarterly and annual main aggregates including employment are published after about 65 and 110 days.

The early release of EA quarterly sector accounts continues to be published at around t+94 days after the reference quarter. The early aggregation release of non-financial sector accounts is based on the preliminary data transmitted by EA Member States by t+85 days after the reference period. Complete sector accounts data for the both the EA and the EU are released at around t+120 days.

Eurostat has streamlined its news releases of GDP and employment at t+45 and t+65 days. The first flash estimate of European aggregates after 45 days combining GDP and employment data was published in February 2020. The regular estimates of European main GDP aggregates published after about 65 days were extended to include European employment and labour productivity estimates in December 2020. The employment flash estimates at t+30 days continue to be collected and regularly tested with a view of potential publication in the future.

The assessment of timeliness is based on a punctuality indicator calculated by subtracting the due delivery date from the first delivery date of data, taking into account derogations. This means that data received in

accordance with the official deadline are reported with a timeliness of 0 days, indicating that data were delivered on time. A positive number of days indicates a delayed delivery, whereas a negative number of days indicates an advanced delivery.

6.2 Punctuality of ESA 2010 tables

Punctuality is calculated as the actual date of data delivery minus the scheduled date of transmission to Eurostat. It shows the delay between the first data transmission and the legal deadline in terms of calendar days. Figures 42-51 present in detail the information on punctuality for each national accounts domain for Member States as well as for Iceland, Norway and Switzerland.

The ESA 2010 transmission programme specifies the deadlines for Member States' data deliveries. The analyses of punctuality in this section consider country-specific legal deadlines. The information covers data deliveries made in 2023. The assessment of data transmissions according to this indicator showed high punctuality for most domains and tables (Annex 2).

6.2.1 Quarterly data

As defined in the ESA 2010 transmission programme, Member States must submit quarterly tables to Eurostat within the legal deadlines shown in Annex 1.

The punctuality indicators for quarterly national accounts data provided by individual Member States, as well as Iceland, Norway and Switzerland, can be found at Figures 42-44. The punctuality for each country is calculated for each of the four reference quarters 2022Q4–2023Q3 which covered the quarterly submissions of all mandatory quarterly tables for each domain – quarterly main aggregates, sector accounts and government finance statistics – in 2023.

The **quarterly main aggregates** (Figure 42) of national accounts must be submitted to Eurostat no later than 2 months after the reference quarter. For the eight sub-tables per quarter of the mandatory

Table 1 on main aggregates, twenty-three Member States, Norway and Switzerland submitted their quarterly data at or before the official transmission deadline, while Germany and Sweden provided one dataset with 1 day delay. A further two countries had slight delays (BG and IS), while Luxembourg had several days of delay in two quarters.

Figure 42**Punctuality of quarterly main aggregates tables reported in 2023**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH	
T0101Q - 2022Q4	0	1	0	0	-5	0	-4	0	-32	-29	0	0	0	0	0	17	0	0	-14	0	0	0	0	-15	0	0	0	NA	-13	0	
T0101Q - 2023Q1	0	0	-2	0	-7	0	-5	0	-34	-34	-5	-1	0	0	-1	0	0	-1	-15	0	0	0	-1	-16	0	0	-1	NA	-19	-1	
T0101Q - 2023Q2	0	0	-3	0	-7	0	-6	0	-35	-35	-3	0	0	0	-1	11	0	0	-15	0	0	0	-1	-17	0	0	-2	NA	-9	0	
T0101Q - 2023Q3	0	0	-1	0	-7	0	-6	0	-35	-31	-3	0	0	0	-2	-1	0	0	-16	0	0	0	-1	-14	0	0	-1	NA	-7	-1	
T0102Q - 2022Q4	0	1	0	0	-5	0	-4	0	-32	-28	0	0	0	0	0	17	0	0	-14	0	0	0	0	-15	0	0	0	0	0	-13	0
T0102Q - 2023Q1	0	0	-2	0	-7	0	-5	0	-34	-33	-6	-1	0	0	-1	0	0	-1	-15	0	0	0	-1	-16	0	0	-1	1	-19	-1	
T0102Q - 2023Q2	0	0	-3	0	-7	0	-6	0	-35	-34	-3	0	0	0	-1	11	0	0	-15	0	0	0	-1	-17	0	0	-2	0	-9	0	
T0102Q - 2023Q3	0	1	-1	0	-7	0	-6	0	-35	-30	-3	0	0	0	-2	-1	0	-2	-16	0	0	0	-1	-14	0	0	-1	0	-7	-1	
T0103Q - 2022Q4	0	1	0	0	-5	0	-1	0	-32	0	0	0	0	0	0	17	0	0	-14	0	0	0	0	0	0	0	0	NA	-13	0	
T0103Q - 2023Q1	0	0	-2	0	-7	0	-2	0	-34	0	-6	-1	0	0	-1	0	0	-1	-15	0	0	0	0	-1	0	0	-1	NA	-19	-1	
T0103Q - 2023Q2	0	0	-3	0	-7	0	-6	0	-35	0	-3	0	0	0	-1	11	0	0	-15	0	0	0	0	0	0	0	-2	NA	-9	0	
T0103Q - 2023Q3	0	0	-1	0	-7	0	-2	0	-35	0	-3	0	0	0	-2	-1	0	-2	-16	0	0	0	-1	0	0	0	NA	-7	-1		
T0110Q - 2022Q4	0	0	0	0	1	0	-1	0	-32	0	-1	0	0	0	0	17	0	0	-14	0	-1	0	0	-15	0	0	0	0	0	-13	-5
T0110Q - 2023Q1	0	0	-1	0	-28	0	-2	0	-34	0	-5	-1	0	0	-1	0	0	-1	-15	0	-2	0	0	-16	0	0	-1	0	-19	-5	
T0110Q - 2023Q2	0	0	-3	0	-29	0	-6	0	-35	0	-7	0	0	0	-1	11	0	0	-15	0	-6	0	0	-17	0	0	-2	0	-8	-7	
T0110Q - 2023Q3	0	0	-1	0	-28	0	-2	0	-35	0	-3	0	0	0	-2	-1	0	-2	-16	0	-2	0	-1	-14	0	0	-1	0	-7	-6	
T0111Q - 2022Q4	0	0	0	0	-12	0	-1	0	-32	0	-1	0	0	0	0	17	0	0	-14	0	0	0	0	-15	0	0	0	0	-13	-5	
T0111Q - 2023Q1	0	0	-2	0	-7	0	-2	0	-34	0	-5	-1	0	0	-1	0	0	-1	-15	0	-2	0	0	-16	0	0	-1	0	-19	-5	
T0111Q - 2023Q2	0	0	-3	0	-14	0	-6	0	-35	0	-7	0	0	0	-1	11	0	0	-34	0	-6	0	0	-17	0	0	-2	0	-9	-7	
T0111Q - 2023Q3	0	0	-1	0	-14	0	-2	0	-35	0	0	0	0	0	-2	-1	0	-2	-16	0	-1	0	-1	-14	0	0	-1	6	-7	-6	
T0117Q - 2022Q4	0	1	0	0	-5	0	-4	0	-32	-28	0	0	0	0	0	17	0	0	-14	0	0	0	0	-15	0	0	1	0	-13	0	
T0117Q - 2023Q1	0	0	-2	0	-7	0	-5	0	-34	-33	-6	-1	0	0	-1	0	0	-1	-15	0	0	0	-1	-16	0	0	-1	0	-19	-1	
T0117Q - 2023Q2	0	0	-3	0	-7	0	-6	0	-35	-34	-3	0	0	0	-1	11	0	0	-15	0	0	0	0	-17	0	0	-2	0	-9	0	
T0117Q - 2023Q3	0	0	-1	0	-7	0	-6	0	-35	-30	-3	0	0	0	-2	-1	0	-2	-16	0	0	0	-1	-14	0	0	-1	0	-7	-1	
T0120Q - 2022Q4	0	1	0	0	-5	0	-4	0	-1	0	0	0	0	0	0	17	0	0	-14	0	0	0	0	0	0	0	0	NA	NA	NA	
T0120Q - 2023Q1	0	0	-2	0	-7	0	-5	0	0	0	-5	-1	0	0	-1	0	0	-1	-15	0	0	0	0	0	0	0	-1	NA	NA	NA	
T0120Q - 2023Q2	0	0	-3	0	-7	0	-6	0	-1	0	-3	0	0	0	-1	11	0	0	-15	0	0	0	0	0	0	0	-2	NA	NA	NA	
T0120Q - 2023Q3	0	0	-1	0	-7	0	-6	0	-3	0	-3	0	0	0	-2	-1	0	-2	-16	0	0	0	-1	0	0	0	-1	NA	NA	NA	
T0121Q - 2022Q4	0	1	0	0	-5	0	-4	0	-1	0	0	0	0	0	0	17	0	0	-14	0	0	0	0	0	0	0	0	NA	NA	NA	
T0121Q - 2023Q1	0	0	-2	0	-7	0	-5	0	0	0	-5	-1	0	0	-1	0	0	-1	-15	0	0	0	0	0	0	0	-1	NA	NA	NA	
T0121Q - 2023Q2	0	0	-3	0	-7	0	-6	0	-1	0	-3	0	0	0	-1	11	0	0	-15	0	0	0	0	0	0	0	-2	NA	NA	NA	
T0121Q - 2023Q3	0	0	-1	0	-7	0	-6	0	-3	0	-3	0	0	0	-2	-1	0	-2	-16	0	0	0	-1	0	0	0	-1	NA	NA	NA	

■ Data delivery by the legal deadline (0 days delay) ■ Data delivery in advance of the legal deadline ■ Delay in data delivery

For **quarterly non-financial sector accounts** (Figure 43), twenty countries transmitted data on time for all quarters, six countries delivered data with a delay up to ten days (IE, HR, IT, MT, RO and IS). Delays of more than ten days were observed for two Member States (BG and EL) and Norway. Switzerland is the only country that has a derogation for non-financial sector accounts.

Figure 43**Punctuality of quarterly non-financial sector accounts tables reported in 2023**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
T0801Q - 2022Q4	-2	15	-1	0	-3	-5	-2	12	-2	-26	-7	-2	-2	-2	-2	-3	0	-2	-2	-2	0	-2	1	-1	-2	-12	-31	-3	42	NA
T0801Q - 2023Q1	-1	0	-1	0	-1	-3	2	-1	-1	-24	-7	-1	-1	-2	-1	0	0	-1	-1	-1	0	-1	0	-1	-2	-3	-31	4	5	NA
T0801Q - 2023Q2	-1	15	-3	-2	-1	-1	-1	-1	-1	-23	-8	2	-1	-1	-1	-2	-1	2	-1	-1	-1	-1	-1	-1	-2	-8	-31	10	-4	NA
T0801Q - 2023Q3	-2	-1	-4	-9	-5	-2	-3	-3	-2	-24	-9	-2	-2	-2	-2	-3	-9	-2	-2	-2	-2	-2	-2	-2	-6	-9	-32	-2	NA	NA
T0801QSA - 2022Q4	-5	12	-6	-5	-13	-12	-9	2	-5	-36	-1	-1	-8	-12	0	-13	0	-1	-12	-5	0	-12	-1	-5	-7	-22	-36	NA	20	NA
T0801QSA - 2023Q1	-12	1	-6	-5	-12	-8	-8	-6	-6	-35	2	-7	-8	-13	0	-13	0	-5	-12	-5	0	-12	0	-5	-12	-14	-36	NA	-1	NA
T0801QSA - 2023Q2	-5	11	-7	-6	-12	-8	-12	-5	-5	-34	1	0	-9	-12	0	0	-2	-12	-1	0	-5	-1	-5	-13	-19	-35	NA	-8	NA	
T0801QSA - 2023Q3	-14	-3	-9	-14	-17	-8	-15	0	-8	-36	-1	-1	-2	-14	-1	-15	-1	-14	-14	-7	-1	-14	-2	-14	-17	-21	-37	NA	NA	NA

■ Data delivery by the legal deadline (0 days delay) ■ Data delivery in advance of the legal deadline ■ Delay in data delivery

The punctuality of **quarterly government finance statistics** (Figure 44) was very high in 2023. All countries transmitted data on time or in advance of the transmission deadlines, with the exception of Iceland, Switzerland and Poland for some quarters. Poland submitted ESA table 27 only with long delays of more than 10 days in two quarters. Additionally, one minor delay was observed for Romania.

Figure 44**Punctuality of quarterly government finance statistics tables reported in 2023**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH	
T2700Q - 2022Q4	-7	0	0	-2	-7	-7	-8	-7	-7	-7	-7	-7	-7	-7	-7	0	-7	-7	-7	14	-7	1	-7	-7	-6	0	5	-8	-2		
T2700Q - 2023Q1	-7	-3	0	-2	-7	-8	-8	-7	-7	-7	-7	-7	-9	-8	-8	-9	-1	-9	-7	-8	-1	-7	0	-7	-7	-8	-15	-1	-16	3	
T2700Q - 2023Q2	-8	-1	-1	-2	-8	-8	-8	-8	-8	-8	-8	-8	-9	-8	-9	-8	-1	-8	-8	-9	13	-8	-1	-8	-8	-8	-8	-8	-1	-4	-1
T2700Q - 2023Q3	-9	-12	-2	-10	-9	-9	-11	-9	-9	-11	-9	-9	-10	-10	-11	-13	-11	-9	-9	-10	3	-9	-2	-9	-9	-16	-9	-19	-2		
T2800Q - 2022Q4	0	0	0	-2	0	-7	-1	0	0	-2	-7	0	-7	0	-8	-7	-7	-7	0	0	0	0	-1	0	3	-8	-2				
T2800Q - 2023Q1	0	-1	0	-2	-1	-8	-2	-3	0	0	-7	-15	-7	-2	-10	-9	-1	-9	-7	-2	-1	-7	0	0	0	-10	-15	-3	-16	3	
T2800Q - 2023Q2	-1	0	-1	-2	-1	-8	-3	-1	-1	-8	-1	-3	-1	-16	-8	-1	-8	-8	-3	-1	-8	-1	-1	-2	-8	-1	-4	-1			
T2800Q - 2023Q3	-9	-20	-2	-10	-9	-9	-11	-9	-2	-4	-9	-13	-10	-9	-13	-13	-11	-9	-9	-11	-2	-9	-2	-9	-9	-17	-9	-19	-2		

■ Data delivery by the legal deadline (0 days delay) ■ Data delivery in advance of the legal deadline ■ Delay in data delivery

6.2.2 Annual data

Member States must submit the annual national and regional accounts tables to Eurostat in line with the transmission deadlines shown in Annex 1.

Twenty-two countries submitted the annual ESA Table 1⁵ of **national accounts main aggregates** (Figure 45) on time (BE, CZ, DK, DE, EE, IE, EL, ES, FR, CY, LV, LT, HU, MT, NL, AT, PL, PT, SI, SK, FI and SE). Four Member States (BG, HR, IT and RO), Iceland and Switzerland provided data with a small delay. One Member State (LU) and Norway transmitted data with more than two-weeks delay. In some cases, no data were provided by HR, IS, NO and CH. The MIP headline indicator of unit labour cost is derived from ESA Table 1 data. Late submissions of ESA Table 1, in particular submissions more than 1 month past the deadline, would prevent full validation of the data for calculating unit labour cost.

Figure 45

Punctuality of annual main aggregates tables reported in 2023

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
T0101A - 2022 1st	0	1	0	0	-46	0	-4	0	-29	-5	2	0	0	0	0	17	0	0	-14	0	0	0	-12	0	-1	0	8	-13	2	
T0101A - 2022 2nd	-1	0	-93	-92	-37	-30	-89	-1	-12	-122	-3	-5	-1	-1	-1	-19	-1	-30	-99	-2	-1	-8	-2	-30	-1	-12	-32	-25	54	-23
T0102A - 2022 1st	0	1	0	0	-46	0	-4	0	-29	-5	2	0	0	0	0	17	0	0	-14	0	0	0	1	-12	0	-1	0	0	-13	0
T0102A - 2022 2nd	-1	0	-93	-92	-37	-30	-89	-1	-12	-1	-3	-5	-1	-1	-1	-19	-1	-30	-96	-2	-1	-8	-2	-30	-1	-12	-32	-25	54	-25
T0103A - 2022 1st	0	1	0	0	-46	0	-1	0	-29	-5	2	0	0	0	0	17	0	0	-14	0	0	0	0	0	-1	0	8	-13	0	
T0103A - 2022 2nd	-1	0	-93	-92	-37	-30	-89	-1	-5	-116	-3	-5	-1	-1	-1	-19	-1	-30	-99	-2	-1	-8	-1	-30	-1	-12	-32	-25	54	-25
T0110A - 2022 1st	0	0	0	0	-46	0	-1	0	-29	-5	-1	0	0	0	0	17	0	0	-14	0	0	0	-12	0	-1	0	0	-13	-5	
T0110A - 2022 2nd	-1	0	-93	-92	-59	-30	-85	-1	-1	-122	48	-4	-2	-1	-1	-19	-1	-30	-99	-2	-1	-8	-1	-30	-1	-12	-32	-22	54	NA
T0111A - 2022 1st	0	0	0	0	-46	0	-1	0	-29	-5	-1	0	0	0	0	17	0	0	-14	0	0	0	-12	0	-1	0	0	-13	-5	
T0111A - 2022 2nd	-1	0	-93	-92	-44	-30	-85	-1	-12	-116	NA	-5	-2	-1	-1	-17	-1	-30	-99	-2	-17	-8	-1	-30	-1	-12	-32	-22	54	-37
T0117A - 2022 1st	0	1	0	0	-46	0	-4	0	-29	-5	0	0	0	0	0	17	0	0	-14	0	0	0	-12	0	-1	0	0	-13	0	
T0117A - 2022 2nd	-1	1	-93	-92	-37	-30	-89	-1	-5	-4	-3	-5	-1	-1	-1	-17	-1	-30	-99	-2	-1	-8	-1	-30	-1	-12	-32	-25	54	-25
T0120A - 2022 1st	0	1	0	0	-5	0	-4	0	-1	-5	2	1	0	0	0	17	0	0	-14	0	0	0	0	0	0	-1	0	NA	NA	NA
T0120A - 2022 2nd	-1	0	-93	-86	-37	-30	-89	-1	-3	-4	-3	-5	-1	-1	-1	-19	-1	-30	-99	-2	-1	-8	-1	-30	-1	-12	-32	NA	NA	NA
T0121A - 2022 1st	0	1	0	0	-5	0	-4	0	-1	-5	2	1	0	0	0	17	0	0	-14	0	0	0	0	0	0	-1	0	NA	NA	NA
T0121A - 2022 2nd	-1	0	-93	-86	-37	-30	-89	-1	-3	-4	-2	-5	-1	-1	-1	-19	-1	-30	-99	-2	-1	-8	-1	-30	-1	-12	-32	NA	NA	NA
T0301A - 2022	-1	1	-93	-92	-1	-22	-2	-1	-1	-4	-3	-162	-1	-1	0	-19	-1	-214	-99	-2	0	-8	-1	-30	-162	-107	-16	-206	227	-15
T0302A - 2022	-1	0	-93	-92	-1	-15	-3	-1	-1	-4	-2	-162	-1	-1	-1	-19	-1	-214	-15	-2	-1	-8	-3	-30	-162	-107	-16	-214	227	-25
T0303A - 2022	-1	0	-93	-92	-1	-22	-5	-1	-1	-116	-215	-162	-2	-1	-1	-19	-1	-214	-99	-2	-17	-8	-214	-30	-162	-107	-16	-214	227	-219
T0501A - 2022	-1	1	-93	-92	-1	-22	-89	-1	-12	-4	-3	-162	-1	-1	-1	-19	-1	-214	-99	-2	-1	-8	-214	-30	-162	-107	-16	-214	227	-24
T0502A - 2022	-1	1	-93	-92	-1	-22	-89	-1	-12	-122	-3	-162	-1	-1	-1	-19	-1	-214	-99	-2	-1	-8	-214	-30	-162	-107	-16	-214	227	-25
T2000A - 2021	-440	-12	-550	-549	-382	-3	-19	-9	-93	-528	-347	-457	-34	-89	-33	-17	-74	-397	-375	-94	-2	-62	9	-373	-376	-558	-18	-377	-38	NA
T2200A - 2021	-457	-456	-550	-549	-382	-3	-19	-9	-93	-528	-360	-457	-34	-2	-93	-17	-439	-670	-492	-460	-2	-100	-376	-373	-419	-558	-18	-717	-38	-291
T2600A - 2021	-440	-12	-550	-549	-382	-3	-375	-9	-94	-528	-348	-375	-34	-2	-10	-366	-74	-397	-375	-381	-2	-55	8	-373	-376	-454	-353	NA	NA	NA

 Data delivery by the legal deadline (0 days delay)  Data delivery in advance of the legal deadline  Delay in data delivery

The punctuality of **annual government finance statistics** (Figure 46) tables was very high: for main aggregates of general government (ESA Table 2); for detailed tax and social contribution receipts by type of tax and social contribution and receiving subsector, including the list of taxes and social contributions according

⁽⁵⁾ Including both the t+2 and t+9 submissions of tables T0101A, T0102A, T0103A, T0110A, T0111A, T0117A, T0120A, T0121A, and the submissions of T0301A, T0302A, T0303A, T0501A, T0502A, T2000A, T2200A, T2600A.

to national classification (ESA Table 9)⁶, and for general government expenditure by function (ESA Table 11), 29 countries transmitted all data on time. Bulgaria and Romania provided one submission of ESA table 2 with a minor delay, while Bulgaria provided the first transmission of ESA Table 2 with a longer delay of 4 days.

Figure 46

Punctuality of annual government finance statistics tables reported in 2023

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
T0200A - 2022 1st	0	4	0	-7	-8	-7	0	0	0	0	0	0	0	0	-1	-1	0	-2	-7	0	0	-2	1	0	0	-11	-31	-1	-9	NA
T0200A - 2022 2nd	-1	1	-1	-8	-8	-8	-1	-1	-1	-1	-1	-1	-1	-1	-2	-1	-1	-1	-8	-1	-1	-2	0	-3	-1	-12	-32	-1	-108	-29
T0900A - 2022	-1	0	-1	-8	-1	-8	-2	-1	-1	-1	-1	-1	-1	-1	-4	-1	-1	-1	-8	-1	-1	-2	-1	-3	-1	-1	-32	-1	-108	-29
T1100A - 2022	-38	-11	-2	-100	-12	-4	-31	-9	-92	-31	-2	-10	-2	-2	-10	-93	-2	-9	-55	-93	-2	-19	-2	-37	-9	-9	-32	-9	-19	-30

■ Data delivery by the legal deadline (0 days delay) ■ Data delivery in advance of the legal deadline ■ Delay in data delivery

Twenty-eight countries transmitted data on time in 2023 for **annual non-financial sector accounts** (ESA Table 8), due in September 2023 (Figure 47). Iceland recorded delays in transmission (at least 10 days), while one Member State (BG) did not provide 2022 data at the cut-off date of the 2023 national quality reporting exercise (February 2024).

Figure 47

Punctuality of annual non-financial sector accounts table reported in 2023

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
T0800A - 2022	-1	NA	-93	-183	-191	-1	-1	-2	-1	-1	-8	-183	-1	-1	-1	-2	-1	-1	-99	-1	0	-190	-180	-1	-162	-200	-214	11	-158	-2

■ Data delivery by the legal deadline (0 days delay) ■ Data delivery in advance of the legal deadline ■ Delay in data delivery

Annual financial accounts by sector (ESA Table 6) and balance sheets for financial assets and liabilities (ESA Table 7) were transmitted on time or in advance by all countries. Three MIP headline indicators (private sector debt, private sector credit flow and total financial sector liabilities) are derived from financial accounts tables. Hence, punctuality in submitting these tables is of utmost importance for MIP purposes. In 2023, all Member States submitted the underlying MIP data on time.

⁽⁶⁾ The transmission of national tax lists is not reported separately. National tax lists were generally sent (as required) at the same time as the ESA 2010 Table 9.

Figure 48**Punctuality of annual financial accounts tables reported in 2023**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
T06xxA - 2022	-159	-3	-92	-185	-15	-3	-2	-157	-170	-156	-155	-89	-18	-2	-3	-3	-184	-1	-190	-2	-162	-177	-155	-93	-162	-171	-106	-8	-207	-155
T07xxA - 2022	-159	-3	-99	-183	-15	-3	-5	-157	-170	-156	-155	-89	-18	-2	-3	-3	-183	-1	-190	-3	-162	-177	-155	-93	-162	-171	-106	-8	-207	-155

■ Data delivery in advance of the legal deadline

By the end of 2023, 23 countries had transmitted on time their mandatory annual and 5-yearly **supply, use and input-output tables** for reference year 2020. Four countries (BG, DK, MT and IS) did not transmit data. Luxembourg did not provide a breakdown of domestic and import use (T1611-12 and T1800-1900). Two countries (HR and NL) transmitted their data with relevant delay. Norway sent T1610-12, T1620 and T1630 with delay, while Romania sent T1620 with a small delay. Switzerland has a derogation.

Figure 49**Punctuality of supply, use and input-output tables reported in 2023**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH	
T1500A - 2020	-12	NA	-916	NA	-18	0	-39	-9	-97	-39	12	-55	-18	-2	-12	-751	-387	NA	36	-19	-19	-464	-46	-275	-13	-381	-482	NA	-384	NA	
T1600A - 2020	-12	NA	-916	NA	-18	0	-39	-9	-97	-39	12	-55	-18	-2	-12	-751	-387	NA	36	-19	-19	-464	-46	-275	-13	-381	-482	NA	-384	NA	
T1610A - 2020	-12	NA	-916	NA	-18	0	-25	-9	-97	-39	12	-39	-18	-2	-12	-710	-387	NA	36	-19	-19	-464	-39	-275	-13	-381	-482	NA	32	NA	
T1611A - 2020	-12	NA	-916	NA	-18	0	-25	-9	-26	-39	12	-39	-18	-2	-12	NA	-387	NA	36	-19	-19	-464	-39	-275	-13	-381	-482	NA	32	NA	
T1612A - 2020	-12	NA	-916	NA	-18	0	-25	-9	-26	-39	12	-39	-18	-2	-12	NA	-387	NA	36	-19	-19	-464	-39	-275	-13	-374	-482	NA	32	NA	
T1620A - 2020	-12	NA	-916	NA	-18	0	-25	-9	-97	-39	12	-39	-18	-2	-12	-746	-384	NA	36	-19	-19	-464	4	-275	-13	-381	-482	NA	32	NA	
T1630A - 2020	-12	NA	-916	NA	-18	0	-25	-9	-97	-39	12	-39	-18	-2	-12	-746	-384	NA	36	-19	-19	-464	-37	-275	-13	-381	-482	NA	32	NA	
T1700A - 2020	NA	NA	-352	NA	-18	0	-25	-9	-26	-39	12	-39	-18	-2	-12	-725	-387	NA	NA	-19	-19	-79	NA	-262	-13	NA	-481	NA	NA	NA	
T1750A - 2020	-12	NA	-352	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36	NA	NA	NA	-16	NA	NA	-381	NA	NA	-384	NA
T1800A - 2020	NA	NA	-352	NA	-18	0	-25	-9	-26	-39	12	-39	-18	-2	-12	NA	-387	NA	NA	-19	-19	-79	NA	-262	-13	NA	-481	NA	NA	NA	
T1850A - 2020	-12	NA	-352	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36	NA	NA	NA	-16	NA	NA	-381	NA	NA	-384	NA
T1900A - 2020	NA	NA	-352	NA	-18	0	-25	-9	-26	-39	12	-39	-18	-2	-12	NA	-387	NA	NA	-19	-19	-79	NA	-262	-13	NA	-481	NA	NA	NA	
T1950A - 2020	-12	NA	-352	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36	NA	NA	NA	-16	NA	NA	-381	NA	NA	-384	NA

■ Data delivery by the legal deadline (0 days delay) ■ Data delivery in advance of the legal deadline ■ Delay in data delivery

The overall punctuality of **regional accounts** in 2023 was high. Regional accounts data were generally transmitted shortly before the transmission deadline. Two countries, namely Bulgaria and Sweden, had small delay in data delivery. EFTA countries (IS, NO and CH) have derogations to transmit regional accounts data.

Figure 50**Punctuality of regional accounts tables reported in 2023**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
T1001A - 2022	-10	-3	-4	-65	-10	-23	-16	-2	-13	-9	-9	-13	-52	-3	-17	-17	-11	-24	-11	-19	-2	-12	-3	-16	-9	-12	3
T1002A - 2021	-10	-3	-4	-65	-10	-23	-16	-2	-13	-9	-9	-13	-52	-3	-17	-17	-11	-24	-11	-19	-2	-12	-3	-16	-10	-12	3
T1200A - 2021	-10	-3	-4	-65	-10	-23	-16	-2	-13	-9	-9	-13	-52	-3	-17	-17	-11	-12	-11	-19	-2	-12	-3	-16	-9	-12	3
T1300A - 2021	-10	3	-4	-65	-10	-23	-16	-2	-13	-9	-12	-13	-52	-3	-17	-17	-20	-81	-11	-19	-2	-12	-3	-72	-10	-12	4

 Data delivery in advance of the legal deadline  Delay in data delivery

The overall punctuality of **pensions entitlements** in 2023 was very high: twenty-four countries transmitted data in line or shortly before the transmission deadline, with the exception of Portugal, Romania and Switzerland, who delivered data with delay. Poland did not transmit data till the time of data extraction (February 2024).

Figure 51**Punctuality of pension entitlements table reported in 2023**

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
T2900A - 2021	-11	-130	-65	-9	-11	-3	2	-2	-10	-10	-10	-10	-18	-12	-37	-18	-3	-20	-11	-13	NA	31	44	-9	-12	-20	-14	-12	-16	23

 Data delivery in advance of the legal deadline  Delay in data delivery

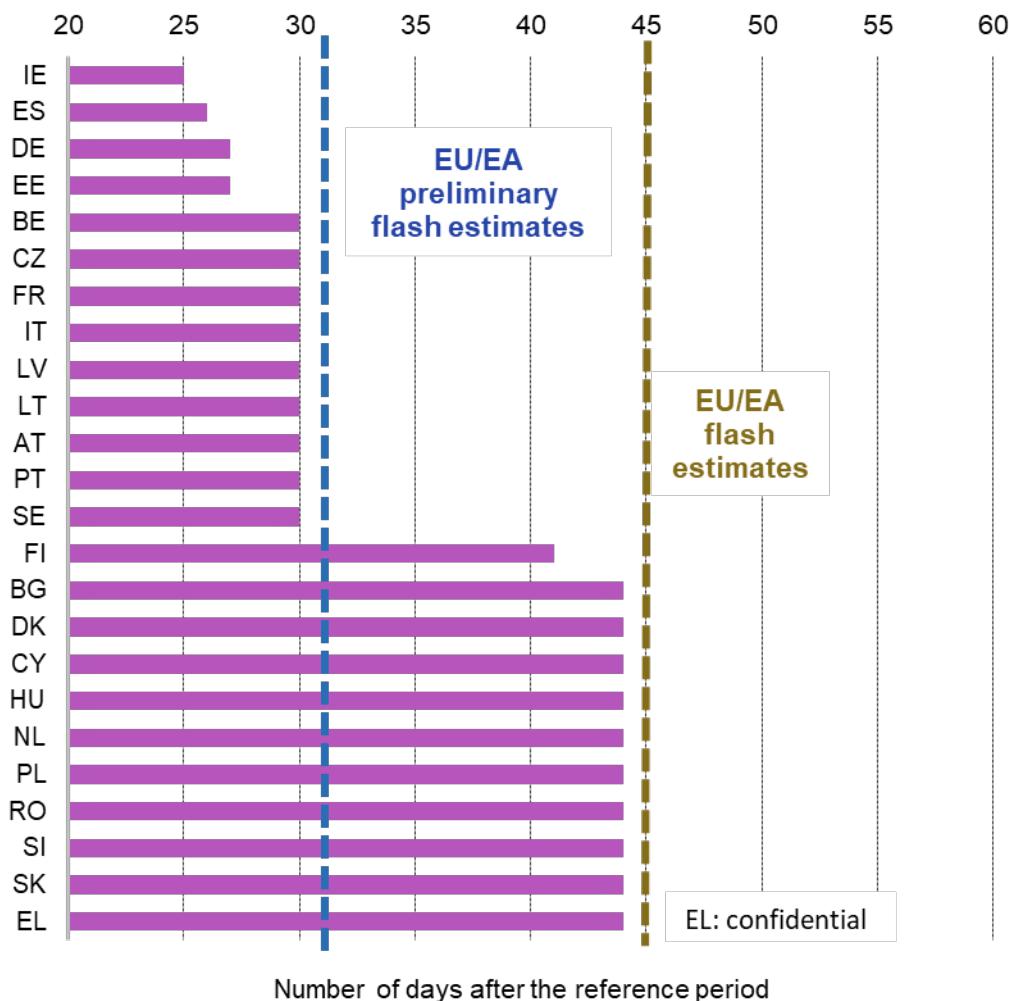
6.3 Punctuality of data underlying key indicators

In order to supply business-cycle analysts, policymakers and other users with a comprehensive and high-quality set of information, Eurostat and the national statistical institutes publish quarterly national accounts news releases on:

- GDP flash estimates;
- GDP estimates, including GDP components and contributions to growth;
- quarterly sector accounts; and
- quarterly government finance statistics – quarterly government deficit and quarterly government debt.

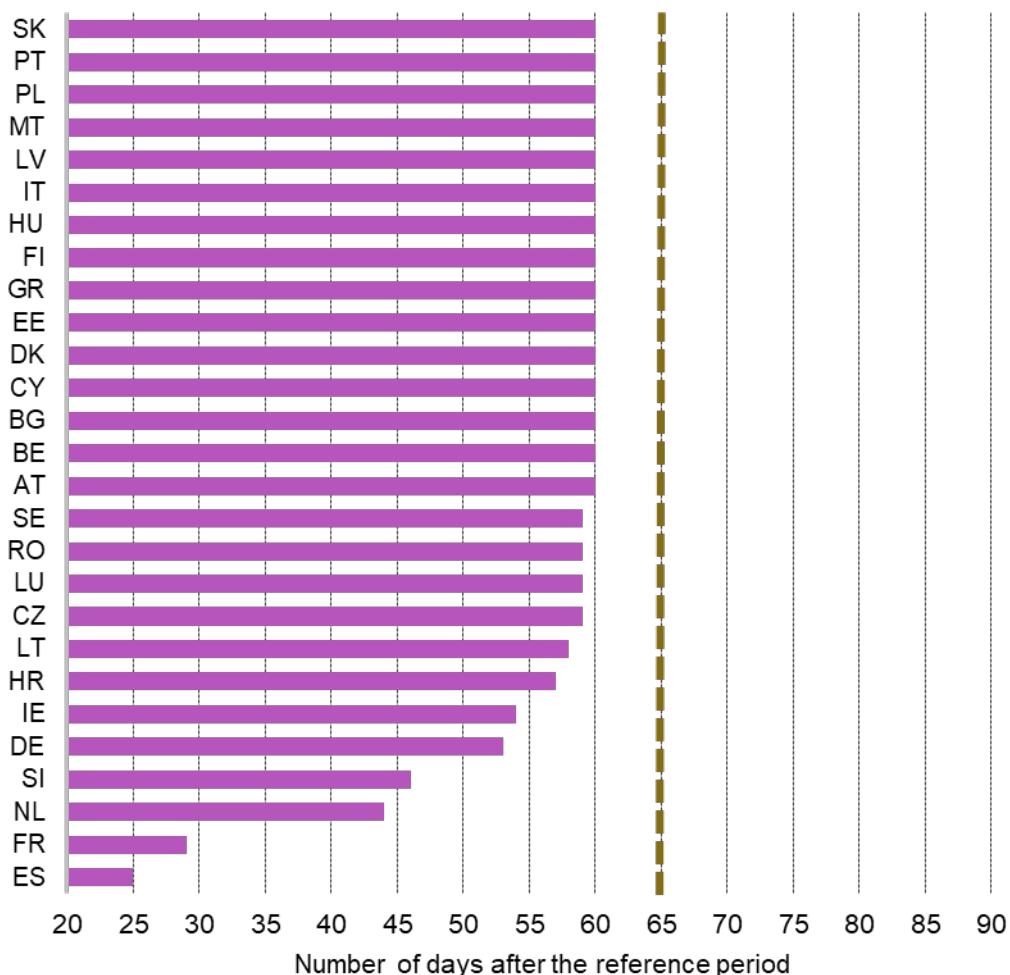
6.3.1 First GDP (flash) estimates

Eurostat currently publishes two news releases containing GDP flash estimates for the EU/EA: t+30 preliminary GDP flash estimates and updated t+45 GDP flash estimates, both containing published country estimates (Figure 52). Countries submit estimates to Eurostat on a voluntary basis. The news releases on GDP flash estimates are among Eurostat's most downloaded news releases.

Figure 52**Punctuality of first GDP flash estimate data transmissions for 2023Q3****6.3.2 GDP estimates and breakdowns**

GDP estimates with breakdowns for the EU/EA are released at around t+65 days each quarter. The exact release dates vary slightly each quarter, depending on calendar constraints.

The numbers in Figure 53 refer to the submission of data for the reference fourth quarter of 2023, which are usually published the next day. Validation problems and/or embargoes can, however, cause some additional delays.

Figure 53**Release containing components of GDP, transmission of data for 2023Q3**

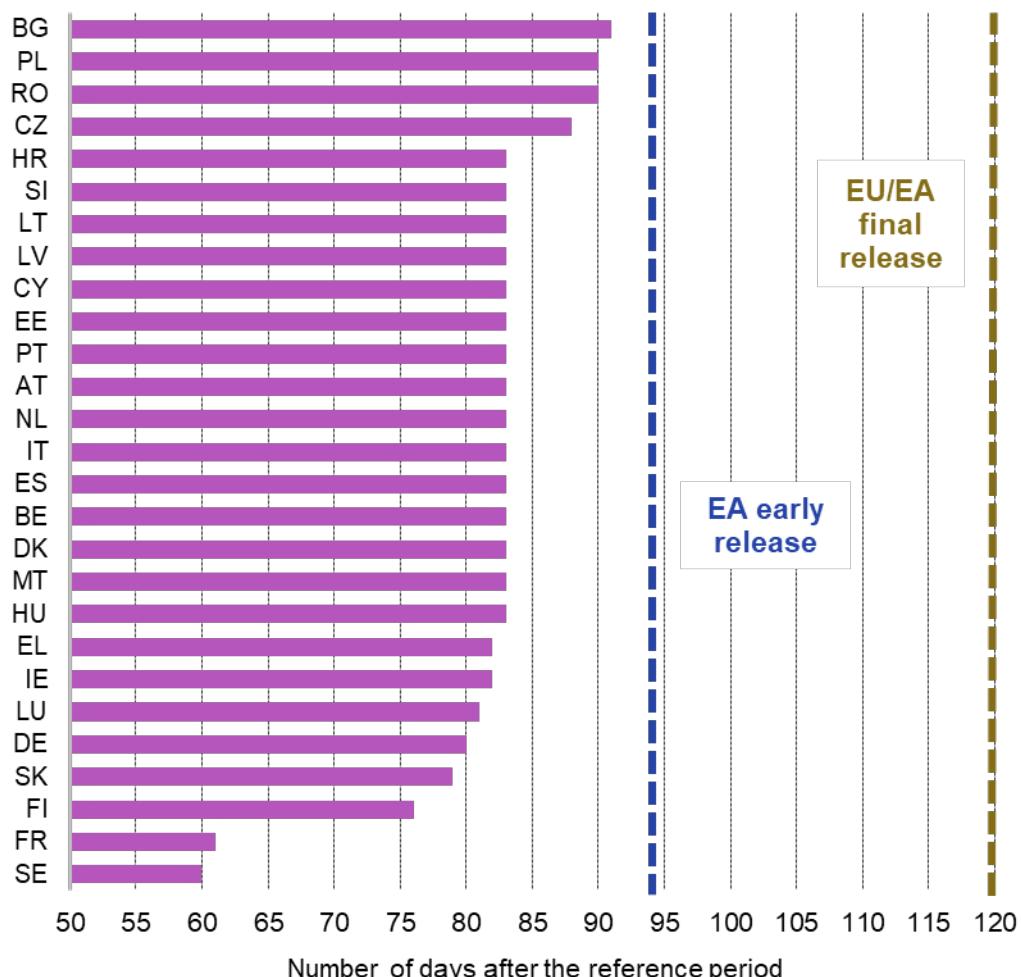
Note: The numbers in the table refer to the transmission of 2023Q3 data to Eurostat. Data are usually published after validation taking up to 3 working days. Validation problems and/or embargos can cause some additional delays until dissemination.

GDP estimates with breakdowns for the EU/EA are released at about T+65 days. The exact release dates vary slightly each quarter depending on calendar constraints as some 5 working days are needed for the aggregation of national data, i.e. in 2023Q3 the publication was increased to T+68 after weekend.

6.3.3 Quarterly sector accounts (QSA)

Quarterly sector accounts for the reference third quarter of 2023 were due by 24 December 2023 (t+85 days) for EA Member States and by 31 December 2023 (t+3 months) for non-EA Member States (Figure 54). For Member States whose GDP at current prices is less than 1% of the corresponding EU total GDP, only data for selected items are compulsory.

Key indicators and selected transactions for the euro area aggregates are published at around t+94 days. Complete sector accounts data for both the EA and the EU are released at around t+120 days.

Figure 54**Household and company accounts, transmission of 2023Q3****6.3.4 Quarterly government finance statistics**

Actual timeliness depends on the reference quarter, with data due on 31 March usually coming in later than in other quarters due to the incorporation of annual data. Submissions are due at t+3 months, except for quarterly financial accounts for general government, where provisional data are due at t+85 days for EA Member States. Releases are coordinated for the set of tables comprising quarterly government finance statistics and with EDP data. For this reason, no further improvement in timeliness is feasible in the medium-term. A use of provisional financial accounts data for release is also not feasible due to the high level of revisions in the transmission period.

7

Accessibility and clarity

Accessibility and clarity pertain to the conditions and terms under which users can obtain, use and interpret data.

They reflect the data's information environment, including whether data are accompanied by appropriate metadata and illustrations such as graphs and maps, and whether information on their quality is also available.

7.1 Dissemination by Eurostat

Eurostat disseminates ESA 2010 data via electronic publications. The data are accessible via predefined tables, extractions from Eurostat's database and through Statistics Explained articles. Key variables are also communicated through the Eurostat news releases on GDP, employment, the household saving rate, the business investment rate, and on seasonally adjusted quarterly government deficit, quarterly government debt, the structure of government debt, taxes and social contributions and general government expenditure by function (COFOG). Information from national and regional accounts and from government finance statistics is also included in Eurostat's yearbook and regional yearbook. In 2023, all information was published on time.

Eurostat implements a policy of free dissemination to allow users the widest possible access.

Since December 2020, Eurostat publishes the [European Statistical Monitor](#). It currently contains 27 monthly and quarterly indicators from a number of statistical areas, which are relevant for tracking the recovery across countries and time. The Monitor was developed in cooperation with the statistical authorities in the Member States.⁷ It is updated every month with the latest available data and includes a Eurostat commentary for an

(⁷) <https://ec.europa.eu/eurostat/documents/2995521/11601997/1-17122020-BP-EN.pdf>

analysis of the indicators.

The recovery dashboard comprises the following indicators sourced from national accounts: quarterly GDP, the quarterly general government surplus/deficit and the quarterly general government gross debt expressed as a percentage of GDP. These are of particular relevance to assess the macroeconomic dimension of the recovery.

It also includes a number of innovative indicators such as excess mortality, number of commercial flights by reporting country, the labour market slack together with flows showing the movements of individuals between employment, unemployment and economic inactivity, and an air quality indicator.

Eurostat continues to keep the ESS recovery dashboard at very high standards by enlarging the set of indicators if needed and by monitoring the multi-faceted impact of the pandemic on economic, social, and environmental fields. The recovery dashboard is published as a visualisation tool with user-friendly functionalities, including easy data navigation, access to source data, short indicator descriptions, etc.

7.2 ESA 2010 Metadata – general level

Article 3 of Regulation (EU) No 549/2013 requires Member States to transmit to the Commission national and regional accounts data and metadata. Such country specific metadata are at a very high level of generality, covering the entire set of transmissions required under the ESA 2010 transmission programme.

The ESA 2010 metadata files at general level follow a harmonised structure and include the following information:

1. Contact, 2. Metadata update, 3. Statistical presentation, 4. Unit of measure, 5. Reference Period, 6. Institutional mandate, 7. Confidentiality, 8. Release policy, 9. Frequency of dissemination, 10. Accessibility and clarity, 11. Quality management, 12. Relevance, 13. Accuracy, 14. Timeliness and punctuality, 15. Coherence and comparability, 16. Cost and burden, 17. Data revision, 18. Statistical processing and 19. Comment.

The ESA 2010 metadata files at general level are published on the [Eurostat website](#).

7.3 Inventories

In addition to regular metadata, EU countries also describe their compilation work in dedicated technical documentation. Some of it is produced for the needs of GNI for own resources or EDP verification processes. This documentation is fully or partially accessible through the Eurostat's website.

7.3.1 Mandatory inventories

GROSS NATIONAL INCOME (GNI)

GNI Regulation 2019/516 (the GNI Regulation)⁸ requires Member States to provide Eurostat with an up-to-date inventory of the sources and methods used to calculate GNI and its components according to ESA 2010 (the GNI inventories). These inventories are one of the main instruments enabling Eurostat to assess the

⁽⁸⁾ Replacing GNI Regulation 1287/2003

comparability, reliability and exhaustiveness of Member States' GNI data. The inventories also include process tables showing all stages of the national accounts compilation process, from the statistical sources to the published national accounts data. Eurostat verifies the sources and methods used to compile GNI that are described in the GNI inventories and process tables using a GNI inventory assessment questionnaire approved by the GNI Expert Group⁹. The purpose of the questionnaire is to ensure a systematic, consistent and fair approach in assessing the quality of GNI data. All EU Member States, the United Kingdom, Norway, Iceland and Switzerland submitted their GNI inventories to Eurostat. It is the countries' prerogative to make the GNI inventories publicly available. The GNI Inventories of nineteen countries (see Table 11 below) are available on [GNI OR - Library \(europa.eu\)](#)

EXCESSIVE DEFICIT PROCEDURE (EDP)

Eurostat receives and verifies EDP statistics under the legal provisions of Article 126 of the Treaty on the Functioning of the European Union and Protocol 12 and [Council Regulation \(EC\) No479/2009](#), as amended by [Commission Regulation \(EU\) No220/2014](#). In this legal context, Eurostat regularly and systematically reports to the Council (Economic and Financial Committee) and the European Parliament.

The availability of detailed and comprehensive EDP inventories is of vital importance for the quality assessment of EDP and government finance statistics data. Under Article_9 of Council Regulation (EC) No 479/2009, as amended, the new ESA 2010-based EDP inventory of the methods, procedures and sources used to compile actual deficit and debt data and the underlying government accounts was adopted in 2014. All Member States are required to complete this EDP inventory. The inventories are publicly available on the [Eurostat website](#).

QUARTERLY FINANCIAL ACCOUNTS FOR GENERAL GOVERNMENT (QFAGG) AND NATIONAL TAX LISTS

Under Annex B to the ESA 2010 Regulation, all European Economic Area countries (subject to derogations) must regularly submit to Eurostat metadata on major events and revisions for QFAGG to Eurostat. Data sources and compilation methods are described in the updated QFAGG manual. For taxes and social contributions, the transmission programme provides for the transmission of 'national tax lists'.

7.3.2 Voluntary inventories

To provide comprehensive information on sources and methods used for the compilation of national accounts data, Eurostat helps countries to compile quarterly national accounts inventories as well as annual and quarterly sector account inventories. The compilation and publication of these inventories are voluntary.

QUARTERLY NATIONAL ACCOUNTS (QNA)

Quarterly national accounts inventories are a useful source of information for assessing the quality of QNA data. The methodology descriptions provided by reporting countries include references to relevant manuals, handbooks or guidelines such as the updated Eurostat QNA handbook, the handbook on price and volume measures or the seasonal adjustment guidelines. National statistical institutes indicate if they are in line with

(⁹) Replacing by the GNI Committee

these handbooks/guidelines and/or provide explanations for the use of different approaches. QNA inventories follow a predefined structure and provide the following information:

- overview of the system of quarterly national accounts, including methods used for estimating volumes and seasonally adjusted figures;
- publication timetable, revisions policy and dissemination of QNA;
- overall QNA compilation approach;
- GDP components: the production approach;
- GDP components: the expenditure approach;
- GDP components: the income approach;
- population and employment;
- flash estimates; and
- main data sources used.

Eighteen Member States plus Norway, submitted QNA inventories to Eurostat (see Table 11); these are publicly available on the Eurostat website.

ANNUAL AND QUARTERLY NON-FINANCIAL SECTOR ACCOUNTS (ASA / QSA)

Annual sector account inventories aim to provide a comprehensive overview of the national compilation procedures used for annual non-financial accounts by institutional sector, pursuant to ESA 2010. ASA inventories follow a standard structure and include the following information:

- organisation of annual sector account production;
- consistency with related data sets;
- data sources;
- compilation methods;
- detailed view by transaction and sector.

This information is also important for understanding the production of quarterly sector accounts, since most comprehensive data sources are collected annually; hence, the compilation of quarterly accounts relies on annual benchmarks whenever quarterly data are not available.

Fifteen Member States plus Iceland and Norway, submitted their ASA inventories for publication on the Eurostat website. Five EU Member State (CZ, IT, LV, FI and SE) have submitted both ASA and QSA inventories (see Table 11).

REGIONAL ACCOUNTS (RA)

Regional accounts' inventories aim to provide a comprehensive overview of the national compilation procedures used for compiling regional gross value added (GVA). RA inventories follow a harmonised structure and include the following information:

- overview of organisation, methodology and sources;
- compilation table and metadata table;
- release and publication timetable, revision policy, access for the public;
- methodology for the calculation of regional GVA and transition from GVA to GDP;
- quality assessment and improvement.

For ten Member States (Belgium, Czechia, Estonia, Latvia, Lithuania, Netherlands, Austria, Poland, Slovenia

and Sweden), the regional accounts inventories are available on the Eurostat website.

CLASSIFICATION OF THE FUNCTIONS OF GOVERNMENT (COFOG) AND QUARTERLY NON-FINANCIAL ACCOUNTS FOR GENERAL GOVERNMENT

Following the developments of the Classifications of the Functions of Government task force (COFOG TF) in 2019, Eurostat published an updated version of the [COFOG manual](#). In comparison with previous editions, the manual was completely updated, most importantly to reflect the ESA 2010 (European System of Accounts) framework. Further guidance is given by the additional general guidance on the recording of consumption of fixed capital on own-account research and development (R&D) and correspondences among the COFOG classification and economic transactions used in the ESA 2010 framework and in 16 new case studies.

The manual for quarterly non-financial accounts for general government will be updated following the implementation of the next benchmark revision.

Table 11: Availability of mandatory and voluntary inventories on the Eurostat website and/or CIRCABC public website, as of 31 December 2023

	Mandatory inventories				Voluntary inventories			
	GNI*	EDP	QFAGG	National Tax Lists	QNA	ASA	QSA	RA
Belgium	✓	✓	✓	✓			✓	✓
Bulgaria		✓	✓	✓	✓			
Czechia	✓	✓	✓	✓	✓	✓	✓	✓
Denmark	✓	✓	✓	✓	✓	✓		
Germany	✓	✓	✓	✓	✓			
Estonia	✓	✓	✓	✓	✓			✓
Ireland		✓	✓	✓				
Greece		✓	✓	✓	✓	✓	✓	
Spain		✓	✓	✓	✓			
France	✓	✓	✓	✓				
Croatia	✓	✓	✓	✓	✓	✓		
Italy	✓	✓	✓	✓		✓	✓	
Cyprus	✓	✓	✓	✓	✓			
Latvia		✓	✓	✓	✓	✓	✓	✓
Lithuania		✓	✓	✓	✓	✓		✓
Luxembourg		✓	✓	✓				
Hungary	✓	✓	✓	✓	✓	✓		
Malta		✓	✓	✓				
Netherlands	✓	✓	✓	✓	✓	✓		✓
Austria	✓	✓	✓	✓	✓		✓	✓
Poland		✓	✓	✓	✓	✓		✓
Portugal	✓	✓	✓	✓		✓		
Romania	✓	✓	✓	✓				
Slovenia	✓	✓	✓	✓		✓		✓
Slovakia	✓	✓	✓	✓	✓	✓		
Finland	✓	✓	✓	✓	✓	✓	✓	
Sweden	✓	✓	✓	✓	✓	✓	✓	✓
Iceland				✓		✓		
Norway	✓		✓	✓	✓	✓		
Switzerland				✓				

(*) Availability of the GNI Inventories for 2020-2024 verification cycle, as of 1 June 2024.

8

Comparability

Comparability is the measurement of the impact of differences in the applied statistical concepts, measurement tools and procedures where statistics are compared between geographical areas, sectoral domains, or over time.

8.1 Methodological soundness

ESA 2010 provides a harmonised methodological framework for compiling national and regional accounts throughout the EU, just as SNA 2008 does across the world.

Through its validation process, Eurostat ensures the methodological soundness of national accounts data submitted by Member States. It monitors the application of accounting rules defined in the ESA 2010 Regulation.

In addition, methodological soundness is monitored through two verification cycles:

- gross national income (GNI) for the EU's own resources;
- excessive deficit procedure (EDP).

These two verification procedures have their own legal basis (see [GNI](#), [EDP](#)). The latter includes a verification of the consistency with government finance statistics.

When methodological improvements resulting from the GNI own resources and EDP processes are introduced, Eurostat assesses whether they are applied to all sets of concerned accounts; it does so during the ESA 2010 data validation process.

8.1.1 Validation process for national accounts

The validation process for national accounts data follows the rules defined by the Task Force on

Data Validation in its main deliverable — the ESA 2010 Handbook on data validation¹⁰. It is an ongoing project to automate validation in accordance with ESS guidelines implementing the pre-validation services: structural validation (STRUVAL) and content validation (CONVAL). Some of the validation checks included in the handbook have already been added to the regular pre-validation process for data submitted to Eurostat, while others are in the design and implementation phases. Chapter 4 of the handbook – *Pre-validation rulesets* – provides an overview of all the checks carried out by the Task Force on Data Validation across the ESA 2010 transmission programme areas and the status of these checks and progress in implementing them. The validation rules are updated if necessary, as the pre-validation services structural validation and content validation are implemented.

The Task Force on Data Validation was created in 2014 to address frequent errors in the transmission process, review validation checks performed by Eurostat when receiving data, clarify methodological or practical aspects underlying specific issues, propose validation rules for internal or external pre-validation tools and investigate possibilities for collecting and disseminating associated metadata. It followed guidance issued by the ESS Vision Infrastructure Project on Validation when reviewing and developing data validation rules for pre-validation tools. Main deliverables and detailed structural and methodological discussions of the Task Force are described in the ESA 2010 Validation Handbook. The Task Force created the handbook as a living document that is updated as each domain conducts regular reviews in their expert specific task forces and working groups.

The handbook provides a detailed description of the validation rules discussed and agreed in the Task Force for the national accounts domains, as a blueprint for the validation service, and it is updated whenever the data validation process is updated. Based on the ESS Vision Infrastructure Project's suggested structure for an efficient validation process, checks are split into five main groups:

1. Structural checks focusing on compliance with the statistical data and metadata exchange standard (SDMX), which identifies valid file format, coding according to the DSD, mandatory fields present, correct usage of data types and dataflow definition;
2. Basic logic checks, which cover consistency between the sender ID and reference area country, ensuring that a table identification is present, correct use of flags for the observation status to accompany missing values, embargo dates, correct coding of the confidentiality status and a valid reference year price for the chain-linked volume series;
3. Basic content checks, which identify missing or unexpected series in the transmission along with holes in the series. This group also includes checks for zero and negative values;
4. General plausibility and consistency checks focusing on content within the file. These include checking for additivity of breakdowns, outliers, consistency between prices and comparison between unadjusted and adjusted series;
5. Advanced plausibility and consistency checks focusing on content within the file with information stored outside the file. Examples of these checks include revisions compared with a previous transmission, the sum of quarterly series compared with the annual transmission, and consistency in the value of the series submitted across different tables in the ESA 2010 transmission programme.

These checks are partially performed using automatic pre-validation services, and a subsequent

⁽¹⁰⁾ <https://webgate.ec.europa.eu/fpfis/wikis/display/ESRNA/ESA+2010+-+Handbook+on+Data+Validation> (ECAS account required to access the document)

stage of data validation is performed using the internal Eurostat production and validation system, in order to run additional checks. Domain experts then make further analysis in order to decide whether the file can be validated, or if corrections, additional explanations and/or metadata are needed.

Eurostat is currently implementing additional validation checks on various aspects for some tables, like missing series, consistency checks and correct use of flagging for missing series. The details of the developments vary across domains. Further implementations will be deployed progressively in the coming years.

8.1.2 Statistical cooperation and harmonisation

Cooperation and harmonisation of national and regional accounts in the ESS are coordinated through the National Accounts Working Group and the EDPS Working Group under the guidance of meetings of directors of macroeconomic statistics meetings. These groups prepared many manuals and guidance papers on a broad range of subjects before ESA 2010 was introduced, including in cooperation with international partners. This work is ongoing.

Eurostat continued to follow up on and address quality and compliance issues together with the Member States. The sixth quality exercise for national and regional accounts for data transmitted in 2021 was implemented and concluded with the publication of the [Eurostat assessment report](#). Eurostat cooperated with Member States and EFTA countries bilaterally, including in the context of the Eurostat-ECB Memorandum of Understanding in the area of MIP. In 2023, enlargement countries were included for the first time in the quality reporting exercise for the national accounts of main aggregates and SUIOT data for the limited set of indicators as defined in the instrument for pre-accession assistance for the period 2014-2020 (IPA2019 project).

Eurostat and the ECB drafted a joint report with recommendations for vertical reconciliation of financial and non-financial accounts. The recommendations were published on Eurostat's (and ECB's) website in July 2022 and can be found [here](#). Additionally, in October 2023 Eurostat and the ECB published a summary table where the vertical reconciliation approaches in EU countries and for the euro area aggregate are summarized. This summary table is published on the Eurostat website (under Further reading) [Vertical reconciliation - Summary table of statistical practice](#).

Eurostat also completed an analysis of employment estimates based on the results of a 2023 questionnaire, with associated improvement recommendations. These complement recommendations to national accounts compilers to further harmonise asset estimates and recommendations to improve volume estimates based on analysis in 2023 with the 2024 benchmark revision. Improvements of employment data and metadata project was initiated in June 2022. The aim of the project is to make recommendations for specific improvements that will be shared with the Member States. A seminar on employment-related issues was held in March 2023 to present first analysis results and share information on current issues (for example the impact of LFS related changes, and best practices to address them). The overall objective of the recommendations is to already consider the analysis and general recommendations on possible improvements of employment estimates presented in May 2023.

In the summer of 2023, new experimental estimates for Household Distributional Accounts (HDA) were published. Eurostat also carried out an update of its centralised exercise. Additionally, a joint initiative to improve the efficiency of data sharing took shape through the update of Excel templates, which were subsequently shared with TF HDA participants for feedback. Collaboration with the EG DNA continues to prevent work overlap and reduce the burden on participating countries. During the May 2023 TF HDA meeting, members were encouraged to adopt a step-by-step approach developed in collaboration with the OECD-Eurostat EG DNA. TF HDA concluded that different approaches in the countries and variations in project governance significantly impact the project's success. Close, dedicated cooperation between national accounts and social statistics is essential. Effective communication and involvement of both national account experts and micro statistics experts were underscored.

8.1.3 Gross national income (GNI)

GNI at market prices is the indicator used to determine the Member States' contributions to the EU budget under the biggest own resource financing the Union's expenditure. The GNI concept used for this purpose is consistent with the ESA definitions. Under the GNI Regulation, GNI equals the gross domestic product (GDP) minus primary income payable by resident units to non-resident units plus primary income receivable by resident units from the rest of the world. The specific rules for GNI quality assurance put the focus on the comparability, reliability, and exhaustiveness of GNI data, including on the use of harmonised definitions and accounting rules, as well as appropriate sources and compilation methods. The Commission (Eurostat) verifies the sources and methods used by Member States¹¹ to calculate GNI and, to improve their quality, takes appropriate measures with the assistance of a dedicated group composed of representatives of Member States (GNI Expert Group).

Based on the GNI inventories presented by Member States at the beginning of 2016, Eurostat examined, during the verification cycle 2016-2019 and individually by Member State, the implementation of the ESA 2010 methodology relevant to the GNI calculation. Core elements of the verification included a risk assessment, desk checks, cross-country comparisons of some areas of national accounts, information visits and direct verifications of selected components, action points for improvement and, when needed, formal reservations on the quality of GNI data. During the verification cycle 2016-2019, which was the first one after the implementation of ESA 2010 in the national accounts of the Member States, these verification activities resulted in a significant number of action points: by the end of 2019, 1 204 action points had been issued.

The verification process resulted in a number of reservations that have to be addressed by Member States. The following reservations were issued:

- 160 transaction-specific reservations
- 140 (5 for each country) transversal reservations.

The breakdown of transaction-specific reservations (TSRs) and transversal reservations (TRs) by country is presented in Table 12.

The deadline set for the countries to finalise the work was September 2021 in most cases.

(¹¹) Art 7(1) of the Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community ('Withdrawal Agreement') states:

"For the purposes of this Agreement, all references to Member States and competent authorities of Member States in provisions of Union law made applicable by this Agreement shall be understood as including the United Kingdom and its competent authorities".

Art. 136(1) of the Withdrawal Agreement states:

"The applicable Union law concerning the Union's own resources relating to financial years until 2020 shall continue to apply to the United Kingdom after 31 December 2020, including where the own resources concerned are to be made available, corrected or subject to adjustments after that date".

Table 12: Number of transaction-specific reservations (TSR) and transversal reservations (TR) for 2016-2019 cycle by country.

Country	TSR		TR	
	placed	lifted ¹²	placed	lifted ¹³
BE	0	-	5	5
BG	9	8	5	5
CZ	3	3	5	5
DK	1	1	5	5
DE	0	-	5	5
EE	2	2	5	5
IE	6	6	5	5
EL	21	17	5	4
ES	4	4	5	5
FR	1	1	5	5
HR	16	11	5	4
IT	1	1	5	5
CY	1	1	5	5
LV	7	7	5	5
LT	4	3	5	5
LU	9	6	5	3
HU	2	2	5	5
MT	12	9	5	5
NL	1	1	5	5
AT	1	1	5	4
PL	18	16	5	5
PT	0	-	5	5
RO	11	10	5	5
SI	0	-	5	5
SK	6	6	5	5
FI	3	3	5	4
SE	3	3	5	5
UK	18	17	5	5
Total	160	139	140	134

Based on the results of the GNI verification, Eurostat also issued transversal reservations (TRs) for all Member States for the following issues:

- Globalisation;
- Margins on trading financial assets;

(¹²) As of 31 August 2024.

(¹³) As of 31 August 2024.

- Missing traders VAT fraud;
- Reinvested earnings on foreign direct investment; and
- Recording of daily allowances.

For these five issues, the deadline set for the countries to finalise the work was September 2021 for TR III - Missing traders VAT fraud and TR IV - Reinvested earnings on foreign direct investment and September 2022 for the three remaining transversal reservations.

The 2020-2024 verification cycle builds to a large extent on the improved framework developed for the 2016-2019 cycle. As required by Article 5 of the GNI Regulation, the GNI verification model for the cycle based on the principles of peer review and cost-effectiveness, has been drawn up by the Commission in close cooperation with the GNI Expert Group. Through the peer review, the Member States are actively involved and play an important role in the GNI verification, both in the GNI Expert Group forum and through participation in the GNI information visits. The cost-effectiveness materializes in the GNI verification model in a two-fold way, namely through the use of risk assessment and application of materiality threshold. The framework documents structuring the 2020-2024 GNI verification cycle are available on CIRCABC site: Monitoring GNI for own resources purposes.

The verification of sources and methods for GNI in the 2020-2024 cycle is well advanced. By March 2024 Eurostat completed all stages of the verification process (risk assessment, desk checks, cross-country comparisons, information visits) and placed all the action points, as planned. In total 34 GNI visits to the Member States and the United Kingdom were carried out and 492 action points were placed during the cycle. GNI reservations will be placed, where appropriate, by December 2024.

Each year, the GNI Expert Group examines data supplied in reply to the GNI questionnaire and accompanying information provided in the GNI reports on quality. This examination takes into account the following:

- the results of work to improve GNI data (including GDP) carried out in previous years;
- the reliability of the sources and methods used to calculate GNI;
- the comparability of GNI data through the use of the same definitions and accounting rules; and
- the exhaustiveness of GNI estimates.

Based on this examination, the GNI Expert Group considers that improvements have been made in the harmonisation and quality of the 27 EU Member States' and the United Kingdom's GNI estimates. It considers that, taking due account of the GNI reservations in place, these data are appropriate for use for own resource purposes with respect to reliability, comparability and exhaustiveness in accordance with Article 5(2) of the GNI Regulation. The GNI Expert Group underlines that the improvement of the GNI calculations, and of national accounts in general, is a continuous process. It stresses that research and studies should be extended, and efforts pursued with an appropriate level of resources.

8.1.4 Excessive deficit procedure (EDP) and government finance statistics

Government finance statistics play a key role in the EU's economic monitoring. They include, in particular, data on government debt and deficit reported under the excessive deficit procedure

(EDP). On behalf of the Commission, Eurostat is responsible for assessing the quality of the EDP statistics submitted by Member States and for providing the statistics to be used for the EDP (see also other legal basis) It is solely responsible for interpreting the methodology underlying these statistics. This methodology is based on ESA 2010 and on Eurostat's [Manual of Government Deficit and Debt](#), as well as Eurostat's EDP decisions and [guidance notes](#), clarifications, GFS interpretations and COFOG cases. The methodology was developed based on a broad consensus of the EU statistical community. In 2022, work focussed on the update of the Manual on Government Deficit and Debt (MGDD, including incorporation of guidance on the recording of measures governments took to mitigate the impact of the COVID-19 pandemic) as well as on the development of guidance on the recording of government measures taken in the context of high energy prices. The updated MGDD was published in February 2023, with new guidance with significant impact being implemented by EU Member States in the course of 2023. Separately, 3 guidance notes on government measures taken in response to increasing energy prices were published in March 2023.

For the EDP and government finance statistics (GFS), Eurostat's mission is to be the guardian of the implementation by Member States of ESA 2010 and to develop, when necessary, sound interpretations of the ESA 2010 rules based on advice from the EU statistical community. In carrying out this responsibility, Eurostat abides by the principles of equal treatment of Member States and of the European statistics Code of Practice, in particular professional independence, objectivity and impartiality. It maintains a continuous dialogue with all relevant institutions in the Member States, and provides in particular bilateral advice for specific past and future transactions.

In its assessment of the quality of EDP statistics submitted by Member States, Eurostat is committed to verifying:

- national reporting authorities' compliance with ESA accounting rules;
- the exhaustiveness of the coverage of the general government sector, in particular by means of a register of government-controlled entities;
- the quality of Member States' 'EDP Inventories of Methods, Procedures and Sources';
- the reliability, timeliness and consistency of statistical data;
- the consistency, sustainability, transparency, documentation and control of the EDP compilation processes within national statistical authorities;
- the conformity of these processes with the European Statistics Code of Practice; and
- the degree of assurance provided by internal controls and external audits by supreme audit institutions or other external audit bodies of the quality of public accounts used as inputs to the EDP compilation processes.

Eurostat reports on EDP data in the context of its regular and exhaustive reports to the Council (Economic and Financial Committee) and European Parliament.

For GFS data reported in the ESA 2010 transmission programme, Eurostat, in close cooperation with Member States, ensures the consistency of data within the data set, consistency with other GFS data, and consistency with EDP data. In the context of regular transmission reports¹⁴, Member States and Eurostat ensure data coherence and accuracy.

Results, including on data comparability (methodological interpretation), are reported in the GFS and COFOG task forces in the context of progress reports and in ad hoc studies and discussions. These task forces routinely report their findings to the EDP statistics working group for validation.

⁽¹⁴⁾ Covering completeness, coherence, basis and advance plausibility checks, revisions, growth rates, unexpected amounts, etc. and providing for Member States' explanations.

A revision analysis of deficit and debt is [published](#) alongside the EDP press releases.

In 2019, a new addition of the COFOG manual was published. In comparison with previous editions, the manual was completely updated, most importantly to reflect the ESA 2010 (European System of Accounts) framework. Further guidance is given by the additional general guidance on the recording of consumption of fixed capital on own-account research and development (R&D) and correspondences among the COFOG classification and economic transactions used in the ESA 2010 framework and in 16 new case studies.

8.2 Comparability over time

The availability of consistent historical data on national and regional accounts is essential for the needs of economic analysis. Depending on the ESA 2010 data set, countries provide time series back to reference years 2000 and even 1995.

In Table 13, some cases are presented where disruptions in the series occur.¹⁵

Table 13: Countries with non-fully comparable time series

Country	Domain	Comment
BG	RA	Break in population in 2022.
DE	RA	Break in Household Accounts in 2012.
IE	NAMA	Compensation of employees' series have a break in series in 2011. For compensation of employees (CoE) data of Ireland, before 2011, survey data was used to calculate CoE totals and from 2011 onwards administrative data forms part of the processing of calculating CoE.
	NAMA	This partial implementation of the 2020 benchmark revision leads to a break in time series in 2010 and a misalignment between seasonally adjusted series and unadjusted series before 2010Q1 for CLV. Thus, the quality of time series remains reduced.
EL	NFSA	The partial implementation of the 2020 benchmark revision leads to break in time series in 2010 as well as some missing data. The different quarterly pattern in some variables before and after 2010Q1 affects also the quality and comparability of the seasonally adjusted series. Thus, the quality of time series remains reduced.
	NAMA	Population data of Croatia show a break in series in 2001/2001Q1 as due to population census data are comparable from 2001 onwards and therefore have been flagged with B flag for break in 2001/2001Q1.

(¹⁵) For GFS tables, noticeable series breaks are comments in the metadata files accompanying the data in Eurostat's public database.

Country	Domain	Comment
HU	NAMA	Quarterly population data of Hungary have a break in series in 2023/2023Q1, as due to population census Hungarian population data are comparable from 2023 onwards.
	RA	Break in population in 2012.
LV	RA	Regional employment break in 2014.
AT	RA	Break in Household Accounts in 2012.
PL	NAMA	Population data have a break in 2022. Employment data have a break in 2003, 2010 and 2019.
	RA	Break in population in 2010 and 2022 and regional employment break in 2003 and 2010.
RO	NAMA	The definition of compensation of employees differs from 1995 to 2006. Due to the lack of data sources, before 2007, the estimates for mixed income of self-employed were included in compensation for employees.
	NAMA	Due to the results of population census in 2011 Romanian LFS data are comparable from 2004 onwards and therefore have been flagged with B flag for break in series in 2004/2004Q1.
SK	NAMA	As a result of the census, Slovakian population data show a break in series in 2001/2001Q1, 2011/2011Q1 and 2021/2021Q1.
	RA	Break in population in 2021.
SI	NAMA	Population data of Slovenia show a break in series in 2008/2008Q1. Due to a difference in definition of population, Slovenia population data are not comparable prior to 2008 and therefore have been flagged with B flag for break in 2008/2008Q1.
	RA	Break in population in 2008.
IS	NFSA	No annual data for 1995-1999
NO	NFSA	Back data completely or partially missing for some annual/quarterly series affecting the consistency of the full time series.

9

Coherence

Coherence is the measurement of the adequacy of the data to be reliably combined in different ways and for various uses.

The sufficiency of statistics that are produced for different primary purposes to be used jointly is assessed through checking for cases where there is lack of coherence between these statistics.

Coherence is a key quality criterion to assess the national and regional accounts data.

The evaluation of consistency within this quality report is based on the following coherence indicators:

- coherence between totals and sum of components;
- coherence between quarterly and annual data;
- cross-domain coherence, between quarterly national accounts main aggregates and quarterly non-financial sector accounts;
- cross-domain coherence, between annual national accounts main aggregates and annual non-financial sector accounts;
- cross-domain coherence, between annual national accounts main aggregates and regional accounts;
- cross-domain coherence, between annual national accounts main aggregates and annual government finance statistics;
- cross-domain coherence, between annual non-financial sector accounts and annual government finance statistics;
- cross-domain coherence, between annual national accounts main aggregates and supply, use and input-output tables;
- cross-domain coherence, between non-financial sector accounts and financial accounts: net lending / net borrowing;
- coherence of identical variables across national accounts main aggregates tables.

Based on the data available in February 2024 at the cut-off date of the 2024 national quality reports' exercise, the results by domain are set out in the following sub-chapters.

9.1 Cross-domain coherence

This chapter examines the extent to which statistics are consistent within a given data set, i.e. all the appropriate arithmetic and accounting identities are observed, without unexplained changes and in consistency with integrity rules.

The reference period assessed is the last 5 years for annual data and quarterly data; i.e. reference years 2018-2022 for annual data and 2019Q1-2023Q3 for quarterly data

9.1.1 Coherence between national accounts main aggregates and non-financial sector accounts

QUARTERLY DATA

When comparing quarterly national accounts main aggregates with quarterly non-financial sector accounts, the gross domestic product (B.1g) is assessed as reported in ESA T1 (T101Q) and ESA T8 (T801Q), along with the final consumption expenditure (P.3) reported in ESA T1 (T102Q) and ESA T8 (T801Q). The non-seasonally adjusted current prices are used for both variables. Figure 55 shows that 26 countries achieved full alignment for quarterly main aggregates and non-financial sector accounts as a percentage of GDP, whereas four countries (EL, RO, NO and CH) had discrepancies or the comparison could not be performed due to unavailable data or derogation.

The level of consistency is very high for most countries as they showed 0.0% of GDP difference for both variables examined. The exception is Greece only in one quarter and not higher than 0.1% of GDP. As the Romanian non-financial sector accounts data have not been published since 2020Q1 and the Lithuanian data for P.3 are not available in QSA, a comparison could not be made; Switzerland has a derogation from transmitting quarterly non-financial sector accounts (NFSA) data and Norway data was not available for 2023Q3. Therefore, no comparison could be made for those four countries in the appropriate quarters.

Figure 55

**Coherence between national accounts main aggregates and non-financial sector accounts,
quarterly data, difference in % of GDP, 2019Q1 to 2023Q3**

B1GQ Gross domestic product, current prices, non-seasonally adjusted, S1

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
2023-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	NA
2023-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2023-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2022-Q4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2022-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2022-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2022-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2021-Q4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2021-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2021-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2021-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2020-Q4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2020-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2020-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2020-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2019-Q4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2019-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2019-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2019-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA

P3 Final consumption expenditure, current prices, non-seasonally adjusted, S14+S15

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
2023-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2023-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2023-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2022-Q4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2022-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2022-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2022-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2021-Q4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2021-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2021-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2021-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2020-Q4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2020-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2020-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2020-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2019-Q4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2019-Q3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2019-Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA
2019-Q1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA

* Due to unavailability of publishable non-financial sector accounts data, the comparison could not be performed for Romania (data not validated) in 2020Q1 to 2022Q3, for Switzerland (under derogation) in 2018Q1 to 2023Q3 and for Lithuania for P3 Final consumption expenditure 2018Q1 to 2023Q3.

- GDP between T101A and T8; compensation of employees (D.1);
- between ESA T1 (T103A) and ESA T8; and P.3 final consumption expenditure;
- and P.51G gross fixed capital formation (P.51G) between ESA T1 (T102A) and ESA T8.

As shown at Figure 56, the consistency in these ESA tables is very high, since 25 countries achieve full consistency throughout the whole period under examination. Three countries (MT, RO and NO) show inconsistencies while Bulgaria and Iceland data was not available. In the last year (2022) only two countries (MT and NO) show inconsistencies, at around 2 % of GDP.

Figure 56

**Coherence between national accounts main aggregates and non-financial sector accounts,
Annual data, difference in % of GDP, 2018-2022**

		B1GQ Gross domestic product, current prices, S1,																													
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
2022		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	2.3	0.0
2021		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	2.6	0.0
2020		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	0.0	0.0
2019		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	NA	0.0	0.0
2018		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	NA	0.0	0.0

D1 Compensation of employees

		D1 Compensation of employees																													
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
2022		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	0.0	0.0
2021		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	0.0	0.0
2020		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	NA	0.0	0.0
2019		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
2018		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0

P3 Final consumption expenditure, current prices, S14+S15

		P3 Final consumption expenditure, current prices, S14+S15																													
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
2022		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	0.2	0.0
2021		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	0.2	0.0
2020		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	NA	0.0	0.0
2019		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	NA	0.0	0.0
2018		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0

P51G Gross fixed capital formation

		P51G Gross fixed capital formation																													
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
2022		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	0.5	0.0
2021		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.3	0.0	0.0	NA	0.0	0.0
2020		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	NA	0.0	0.0
2019		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	NA	0.0	0.0
2018		0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	NA	0.0	0.0

* Due to unavailability of publishable non-financial sector accounts data, the comparison could not be performed for Bulgaria in 2018-2022, for Romania in 2021-2022 and for Iceland in 2017-2021.

9.1.2 Coherence between annual national accounts main aggregates and regional accounts

When assessing coherence between annual national accounts main aggregates and regional accounts, the gross value added, current prices is assessed comparing the total of ESA T1 (T101A) with the sum of NUTS2 regions in ESA T1200 (for 2018-2021) or ESA T1001 (for 2022).

Additionally, EMP Employment (in thousands of persons) is assessed comparing the total of ESA T1 (T111A) with the sum of NUTS2 regions in T1200 (for 2018-2020) or T1001 (for 2021).

The comparison showed almost full consistency between annual national accounts main aggregates and regional accounts except for minor sporadic discrepancies in one year for countries (FI) of a maximum of 0.1 % of GDP. Sweden had discrepancies of 1.2 % of GDP for 2 years. As Iceland and Switzerland have a derogation from transmitting the regional accounts table, no or partial comparison could be made for them (Figure 57) while Norway had no data availability.

Figure 57

Coherence between annual national accounts main aggregates and regional accounts, difference in % of GDP, 2018-2022

		B1G Gross value added, current prices																										
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
2022		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	
2021		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	
2020		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2019		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2018		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		EMP Employment, in thousands of persons																										
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
2022		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2021		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2020		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

9.1.3 Coherence between annual national accounts main aggregates and annual government finance statistics

To assess the cross-domain coherence between annual national accounts main aggregates and government finance statistics consumption expenditure, the individual consumption expenditure (P.31) and the collective consumption expenditure (P.32) of general government transmitted in ESA T1 (T102A) and ESA T2 are compared. Taxes on products (D.21) transmitted in ESA T1 (T101A) and ESA T9 are also compared. For these selected indicators, Figure 58, shows a high degree of coherence for reference period 2018-2022 when evaluated as a ratio of GDP. Only five countries (EL, LU, RO, FI and SE) showed discrepancies above 0.01% of GDP. All countries obtained complete consistency for D.21 taxes in products transmitted over the whole examination period except Greece.

Figure 58
Coherence between annual national accounts main aggregates and annual government finance statistics, selected indicators, difference in % of GDP, 2018-2022

		D21 Taxes on products																															
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH		
2022		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2021		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2020		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2019		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2018		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		P31 Individual consumption expenditure, S13																															
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH		
2022		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2021		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2020		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2019		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2018		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		P32 Collective consumption expenditure, S13																															
		BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH		
2022		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
2021		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2020		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2019		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	
2018		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

9.1.4 Coherence between annual non-financial sector accounts and annual government finance statistics

For non-financial sector accounts, cross domain coherence with government finance statistics is a significant factor in the validation process. If discrepancies exceed 0.3 % of GDP, non-financial sector accounts data are not validated or published. As shown at Figure 59, when comparing net lending (+) / net borrowing (-) (B.9) of the general government (S.13) sector between T800A and T2 for the period 2018-2022, 21 countries had had no noticeable differences when expressed as a ratio to GDP. The exceptions (IE, EL, LU, MT, RO, FI and SE) had discrepancies no higher than 0.3 % of GDP, mainly due to a different vintage. No comparison could be made for Bulgaria as NFSA data was not available. NFSA data for Romania in 2021-2022 was transmitted but not validated and thus comparison based on validated data could not be done. Also for Iceland in 2018-2022 comparison could not be made.

Figure 59

Coherence between annual non-financial sector accounts and annual government finance statistics, B.9 net lending (+) / net borrowing (-), S.13, difference in % of GDP, 2018-2022

	B9 Net lending (+) / net borrowing (-), S13																													
	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
2022	0.0	NA	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.3	0.2	NA	0.0	0.0
2021	0.0	NA	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	0.0	0.0
2020	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0
2019	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	NA	0.0	0.0
2018	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	NA	0.0	0.0

* Due to unavailability of publishable non-financial sector accounts data, no comparison could be made for Bulgaria in 2018-2022, for Romania in 2021-2022 or for Iceland in 2018-2022.

9.1.5 Coherence between annual national accounts main aggregates and supply, use and input-output tables

Cross domain coherence between annual national accounts main aggregates and supply, use and input-output tables is verified for several variables of Table 1A, Table 15 and Table 16 for reference years 2019 and 2020. As shown in Figure 60, full coherence was achieved by 15 countries for 2019 and 17 countries for 2020. Small inconsistencies were observed for seven countries (IE, EL, ES, HR, LT, PL and SI) in 2019 and four countries (EE, IE, EL and SI) in 2020. Most inconsistencies are due to vintage effects, as there is no obligation to update supply, use and input-output tables following the revision of main aggregates. For 10 countries (BG, DK, IE, FR, HR, MT, FI, IS and NO) not all variables could be compared due to unavailability of data in the supply, use and input-output tables while Switzerland has derogations.

Figure 60

Coherence between annual national accounts main aggregates and supply, use and input-output tables, difference in % of GDP, 2019 and 2020

	2019 Variable / year																			IS NO CH								
	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS NO CH
B1g Gross value added	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	NA	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0
D21X31 Taxes less subsidies on products	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.3	0.0	0.0	0.0	NA
P3 Final consumption expenditure	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
P31_S14 Final consumption expenditure of households	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0
P3_S13 Final consumption expenditure of general government	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P3_S15 Final consumption expenditure of NPISH	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P5g Gross capital formation	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	NA	0.0	0.0	0.7	0.0	0.0	0.1	0.0	0.0
P51g Gross fixed capital formation	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.6	0.0	0.0	0.0	0.0	NA
P52 Changes in inventories	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.1	0.0	0.0	0.0	NA	0.0
P53 Acquisitions less disposals of valuables	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P6 Exports of goods and services	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	2.3	0.0	0.0	0.0	0.0	NA
P7 Imports of goods and services	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	1.3	0.0	0.0	0.0	0.0	NA
D1 Compensation of employees	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.8	0.0	0.0	0.0	0.0	NA
D11 Wages and salaries	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.1	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.7	0.0	0.0	0.0	0.0	NA
B2A3g Operating surplus and mixed income, gross	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	NA	0.0	0.0	1.0	0.0	0.0	0.1	0.0	NA
	2020 Variable / year																			IS NO CH								
	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS NO CH
B1g Gross value added	0.0	NA	0.0	NA	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
D21X31 Taxes less subsidies on products	0.0	NA	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.1	0.0	0.0	0.0	NA
P3 Final consumption expenditure	0.0	NA	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.4	0.0	0.0	0.0	NA
P31_S14 Final consumption expenditure of households	0.0	NA	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.4	0.0	0.0	0.0	NA
P3_S13 Final consumption expenditure of general government	0.0	NA	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P3_S15 Final consumption expenditure of NPISH	0.0	NA	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P5g Gross capital formation	0.0	NA	0.0	NA	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P51g Gross fixed capital formation	0.0	NA	0.0	NA	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P52 Changes in inventories	0.0	NA	0.0	NA	0.0	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P53 Acquisitions less disposals of valuables	0.0	NA	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
P6 Exports of goods and services	0.0	NA	0.0	NA	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.1	0.0	0.0	0.0	0.0	NA
P7 Imports of goods and services	0.0	NA	0.0	NA	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.4	0.0	0.0	0.0	0.0	NA
D1 Compensation of employees	0.0	NA	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
D11 Wages and salaries	0.0	NA	0.0	NA	0.0	0.0	NA	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA
B2A3g Operating surplus and mixed income, gross	0.0	NA	0.0	NA	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA

9.1.6 Coherence between annual non-financial sector accounts and annual financial sector accounts – net lending / net borrowing

ESA 2010, paragraph 5.18, states that: 'The balancing item of the financial account is conceptually identical to the balancing item of the capital account. In practice, a discrepancy is usually found between them because they are calculated on the basis of different statistical data'. In other words, ESA 2010 acknowledges that non-financial and financial accounts require different source data, so discrepancies (known as 'vertical' discrepancies because of the sequence of accounts) are likely. Furthermore, ESA 2010 paragraph 5.244 instructs not to locate the discrepancy in other accounts receivable/payable.

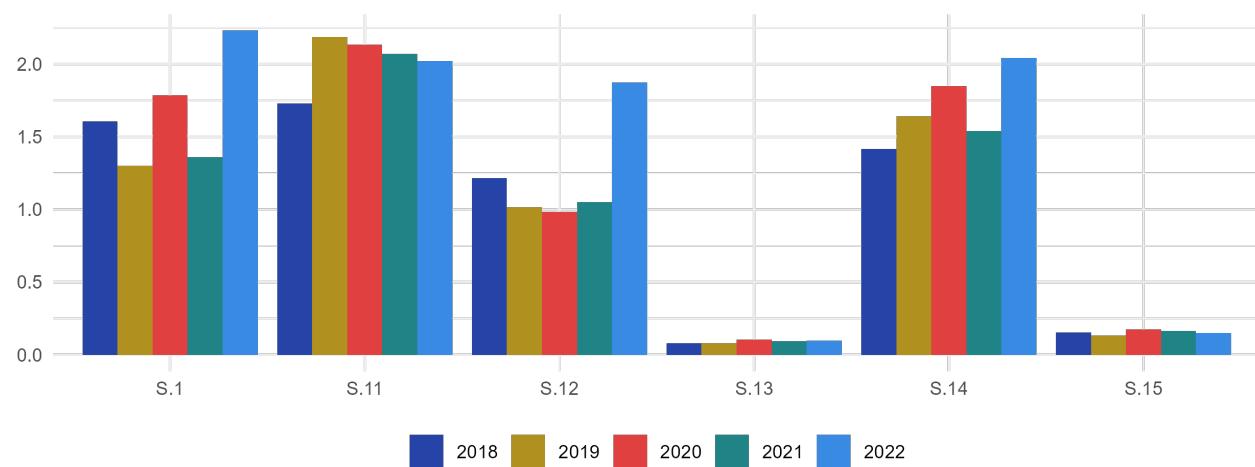
When considering discrepancies between net lending / net borrowing of the non-financial accounts (B.9) and the financial accounts (B.9F), it might be assumed that, in general, the larger the discrepancy, the more questionable the data quality of the non-financial and/or financial accounts. However, the interpretation of

this inconsistency should be more nuanced.

The differences between net lending / net borrowing in the non-financial and financial accounts can be broken down by institutional sector: S.1 total economy; S.11 non-financial corporations; S.12 financial corporations; S.13 general government; S.14 households; and S.15 non-profit institutions serving households. The absolute differences as a percentage of GDP are shown in Figure 61 for the average of the 27 Member States. These are based on the data extractions for annual financial sector accounts and annual non-financial sector accounts.

Figure 61

Average of EU countries - absolute differences in net lending / net borrowing of non-financial account (B9) and financial account (B9f) as a percentage of GDP



Note: Bulgaria for period 2018-2022 and Romania for period 2020-2022 missing.

As shown in the chart above, the differences are substantial. The absolute discrepancies range from around 2 % of GDP in the non-financial corporation sector (S.11) and 1.5 % of GDP in the household sector (S.14), sectors where data sources tend to be less complete or reliable, to about 0.1 % of GDP in the general government sector (S.13).

There are also major variations in the size of vertical discrepancies between countries, depending on the institutional sector, as shown at Figure 63. For sectors other than S.13, some Member States have eliminated the discrepancies, either in some or in all sectors. This involves adjusting one or more transactions, in either domain, to ensure that net lending / net borrowing matches in the financial and non-financial accounts. The differences are due to data considered of lesser quality, typically accounts receivable/payable, or unlisted shares, but could also be due to other transactions. However, such adjustments may have little statistical justification, so there is a risk of reducing the quality of the affected data. Moreover, the adjustments make it more difficult to reconcile the accounts with data sources. Eurostat and the ECB issued Recommendations¹⁶ on the treatment of vertical discrepancies¹⁷, which state that such adjustments should remain below 2 % of

(¹⁶) <https://ec.europa.eu/eurostat/documents/499359/499434/Recommendations+on+Vertical+consistency.pdf>

(¹⁷) Excluding the government sector

GDP. Nonetheless it is clearly good practice to reduce vertical discrepancies as much as possible without resorting to arbitrary decisions or techniques.

The check of coherence between non-financial sector accounts and financial accounts in the national quality reports, conducted by comparing net borrowing/net lending, showed wide variation between countries and institutional sectors. The national practices of vertical balancing to zero can also be clearly seen for the countries presented at Figure 63.

In 2018-2022 absolute vertical discrepancies were on average less than 0.5 % of GDP in all sectors for Czechia, Denmark, France, Italy, Luxembourg, the Netherlands, Portugal and Slovakia. Some countries had high absolute discrepancies as a percentage of GDP (LT, MT, RO and CH). Changes in vertical discrepancies by country in the last five reference years for each sector are shown in Figure 62.

Comments by Member States in their national quality reporting tended to underline that vertical discrepancies were being monitored, and in some cases, there was specific mention of work to reduce them.

Figure 62

Differences in net lending/net borrowing of non-financial accounts (B.9) and financial accounts (B.9F) as a percentage of GDP

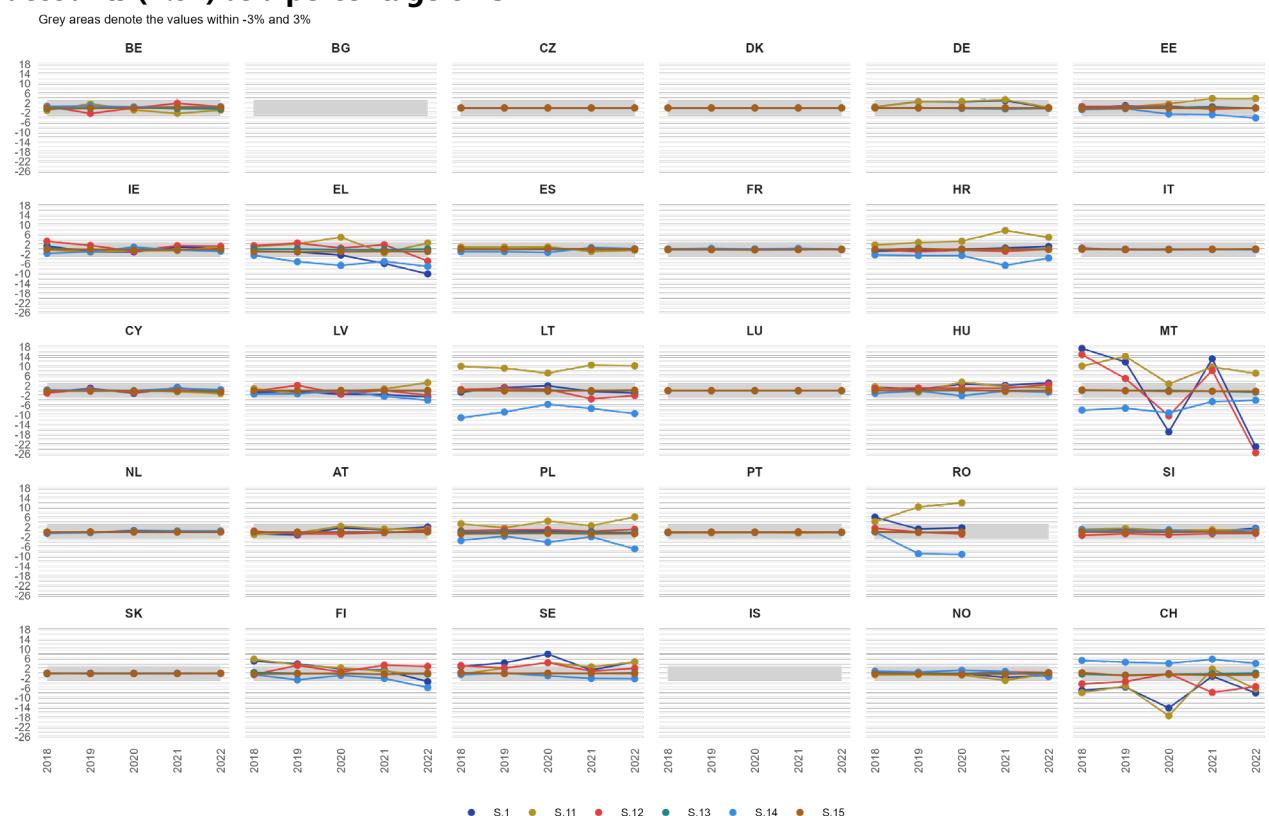


Figure 63**Average absolute vertical discrepancy over 2018-2022, by sector (as % of GDP)**

	S.1	S.11	S.12	S.13	S.14	S.15
BE	0.00	1.34	1.08	0.30	0.54	0.12
BG	NA	NA	NA	NA	NA	NA
CZ	0.00	0.00	0.00	0.00	0.00	0.00
DK	0.00	0.00	0.00	0.00	0.00	0.00
DE	1.70	1.84	0.00	0.18	0.04	0.04
EE	0.34	2.08	0.50	0.12	2.08	0.14
IE	0.98	0.68	1.70	0.18	0.94	0.12
EL	4.04	2.46	2.26	0.14	5.24	0.96
ES	0.00	0.82	0.00	0.02	0.86	0.18
FR	0.18	0.08	0.12	0.06	0.24	0.16
HR	0.58	4.10	0.42	0.22	3.54	0.06
IT	0.22	0.00	0.18	0.06	0.10	0.08
CY	1.04	0.42	0.72	0.12	0.34	0.18
LV	1.34	1.26	1.14	0.06	1.82	0.04
LT	1.04	9.42	1.50	0.06	8.44	0.10
LU	0.00	0.00	0.00	0.00	0.00	0.00
HU	2.02	1.70	1.30	0.00	0.80	0.20
MT	16.42	8.76	12.78	0.18	6.54	0.20
NL	0.42	0.08	0.00	0.00	0.34	0.04
AT	1.32	1.22	0.62	0.08	0.00	0.00
PL	0.38	3.68	0.76	0.06	3.66	0.72
PT	0.26	0.22	0.08	0.00	0.00	0.00
RO	3.03	8.87	0.80	0.07	6.03	0.13
SI	0.88	1.02	0.90	0.04	0.66	0.10
SK	0.04	0.06	0.10	0.10	0.08	0.08
FI	3.10	2.54	2.14	0.22	2.38	0.22
SE	4.24	2.84	2.56	0.08	1.18	0.12
IS	NA	NA	NA	NA	NA	NA
NO	0.56	0.96	0.28	0.12	0.98	0.20
CH	7.18	7.72	4.20	0.32	4.78	0.58

* Bulgaria and Iceland missing for 2018-2022, Romania is missing for 2021-2022.

9.2 Coherence between quarterly and annual data

When both quarterly and annual data are submitted to Eurostat, it is important to ensure that they are consistent with one another. Small differences may be tolerated, but not major ones, especially when data are transmitted at close or coinciding deadlines.

Consistency between annual data and the sum of the data for the four individual quarters was analysed for certain key EU aggregates for this quality reporting exercise. The analysis covered the differences between annual data and the sum of the four respective quarters of data over 2018-2022, for GDP (current prices, non-seasonally adjusted), total employment (in thousands of persons, non-seasonally adjusted), gross operating surplus, gross mixed income, and gross disposable income.

9.3 Coherence between totals and sum of components

When data submitted to Eurostat can be broken down by activity (i.e. NACE Rev. 2 divisions), it is important to ensure that the figures add up and are consistent in terms of expected additivity rules (except in cases where additivity does not apply, like the case of chain-linked volumes).

The consistency checks performed in the 2024 quality reporting exercise covered:

- gross domestic product in current prices, non-seasonally adjusted, total and sum of expenditure components (quarterly and annual data), Table 1;
- gross value added, current prices, total and NACE Rev. 2, level A*10 breakdowns (quarterly and annual data), Table 1;
- total employment in thousands of persons, non-seasonally adjusted, total and sum of employees and self-employed (quarterly and annual data), Table 1; and
- total employment, in thousands of persons, total and sum of NACE Rev. 2, level A*10 breakdowns (annual data), Table 1.

In the analysed period of 2018-2022, for national accounts main aggregates and for the most recent four quarters, the overall results of consistency checks between totals and sums of components were good, with only very minor differences due to rounding.

9.4 Coherence of identical variables across national accounts main aggregates tables

National accounts main aggregates data for some key variables are sent in various tables required under the ESA 2010 transmission programme. This is the case, for example, for: GVA, compensation of employees, and employment which are sent in Tables 1 and 3; GDP, which is sent in Tables 1 and 8; and gross fixed capital formation data, which are included in Tables 1, 3 and 22.

Theoretically, these data should be the same across tables. However, for practical reasons, they may differ for some tables and in some countries. While differences due to different vintages are usually limited, there are also cases where significant revisions are introduced, notably in the EDP or GNI verification process. Until these revisions can be incorporated into the full set of national accounts, more substantial differences can be observed across tables.

For this quality reporting exercise, the average and absolute maximum difference for the following variables were analysed:

- GDP in current prices for quarterly and annual data within Table 1 (GDP according to production, expenditure and income approach);
- gross value added in current prices for annual data between Tables 1 and 3;
- compensation of employees in current prices for annual data between Tables 1 and 3;
- gross fixed capital formation in current prices for annual data between Tables 1 and 3 and Tables 1 and 22;
- exports of goods and services in current prices for quarterly and annual data within Table 1 (taken from expenditure components of gross domestic product and from the detailed exports breakdown);
- imports of goods and services in current prices for quarterly and annual data within Table 1 (taken from expenditure components of gross domestic product and from the detailed imports breakdown); and
- total employment, employees and self-employed for annual data in thousands of persons between Tables 1 and 3.

In the analysed data for reference years 2018-2022, the internal coherence across national accounts main aggregates tables for both annual and quarterly frequencies was very good.

10

Overall quality assessment and recommendation

This chapter summarises the results of the quality assessment of the national and regional accounts data submitted by EU Member States, as well as Iceland, Norway, and Switzerland in 2023. It also summarises the assessment of Eurostat's publications of European aggregates. It is the seventh such assessment since the introduction of ESA 2010 in September 2014.

The data sent in 2023 were broadly in line with the quality standards of the ESS and the ESA 2010 Regulation. Many Member States have been able to comply with the data requirements and methodology, while the process of adapting national data compilation systems continued in 2023. There have been improvements in both data completeness and punctuality since the first quality report on data submissions in 2016. Based on the quality criteria used in the assessment, the overall results are presented below.

Conclusions

RELEVANCE

In 2023, both quarterly and annual national accounts mandatory data were reported with high completeness. Eurostat always aims to compile a harmonised overview of the evaluation results across all the tables of the ESA 2010 transmission programme. The results for certain countries and domains, though, might still not be entirely appropriate or comparable, notably with respect to the counting of missing data (flagged as 'M - not applicable'). Further efforts have been made to harmonise data flagging practices across countries. Eurostat acknowledges the efforts made by all countries to submit additional data on a voluntary basis for the benefit of users. As in past quality reports, national data submitted on a voluntary basis are not part of this quality assessment.

ACCURACY

An analysis on the revisions of national data has been added this year, looking at the revision indicators of both annual and quarterly transmissions. The analysis of revision rates for GDP and employment flash estimates for European aggregates suggested that the accuracy of estimates in the analysed period was high, as was the accuracy of releases of aggregate data from quarterly sector accounts.

The content of publicly available information on national revisions varies substantially among the countries for which the information is publicly available. Nearly all countries publish information on the national revision policy for quarterly national accounts, while more countries include information on revisions for financial accounts, regional accounts and supply, use and input-output tables.

TIMELINESS AND PUNCTUALITY

With most countries submitting all mandatory quarterly accounts on time or with a short delay for only one quarter, the punctuality of transmission of quarterly national accounts was overall very high in 2023. Similarly, most countries transmitted all mandatory annual accounts within the deadlines.

Data transmissions assessed according to this indicator showed high punctuality for most domains and tables (Chapter 6).

As a result of the high punctuality of data submitted by Member States, Eurostat's flash estimates and news releases of the European aggregates underlying the principal European economic indicators (PEEs) remained timely.

ACCESSIBILITY AND CLARITY

All Member States and EFTA countries publish online documentation on national accounts methodology and compilation methods. However, the content of the available information can vary across countries and could be enriched where appropriate. A comprehensive set of documentation is accessible [online](#).

Accessibility and clarity of national and regional accounts data could be further improved for users at European level with the use of the correct flagging practices.

COHERENCE

The analysis of cross domain coherence covers the comparisons between the various relevant statistics domains. The optimal scenario would have been zero differences, but in any case, most countries kept cross-domain differences at an acceptable low level as percentage of GDP. The observed differences were mainly attributed to vintages. Vertical discrepancies in net lending/net borrowing (B.9) in Table 8 with Table 6 are being monitored by the compilers and Eurostat and work is under way to reduce them. Eurostat and the ECB drafted a joint report with recommendations for vertical reconciliation of financial and non-financial accounts.¹⁸ The recommendations were published on Eurostat's (and ECB's) website in July 2022 and can be found [here](#). Additionally, in October 2023 Eurostat and the ECB published a summary table where the vertical reconciliation approaches in EU countries and for the euro area aggregate are summarised. This summary table is published on the Eurostat website (under Further reading) [Vertical reconciliation - Summary table of statistical practice](#).

Overall internal coherence within tables (Table 1) and between tables (Tables 1, 3 and 22) was very high for nearly all countries in 2023. Very minor discrepancies were noted for a small number of countries, which were mainly caused by vintage issues or rounding practices.

The internal coherence indicators cover: (i) consistency checks between selected annual and quarterly data series transmitted in main aggregates tables and sector accounts; (ii) consistency checks of GDP series transmitted in different sub-tables; and (iii) consistency of the sums against the components for main

⁽¹⁸⁾ Excluding the general government sector, for which specific guidance for quarterly and annual (EDP) data exists.

aggregates. Based on these checks, discrepancies were generally 0.0% of GDP for most countries.

GENERAL RECOMMENDATIONS

Based on the quality assessment, Eurostat makes the following **general recommendations** to countries, encouraging them to continue efforts to keep quality aspects at high levels and improve them when possible.

In addition, based on national quality reports and an analysis of submitted data, Eurostat provides country-specific recommendations that are summarised in Table 14.

Countries were expected to ensure timely preparatory activities for the coordinated benchmark revision in 2024. To that end, attention was drawn to Eurostat's reports on: (i) vertical reconciliation of financial and non-financial accounts (joint report with the ECB); (ii) volume estimates; (iii) fixed capital asset estimates; (iv) employment estimates; and (v) updated manual on government deficit and debt.

Table 14: Country-specific recommendations

Recommendations	Minor gap / lower priority	Countries	Significant gap / medium priority	Major gap / high priority
Improve compliance in terms of the completeness of certain tables (deviations from full completeness are small but there is still room for improvement)				
NAMA	BG, CZ, DK, DE, EE, EL, HR, IT, LV, NL, PL, SI, FI, SE	FR, LU, RO		MT IS, NO, CH
GFS				
NFSA	DK, EE, EL, HR, MT, PL	RO, NO, CH		BG IS
AFA		FR, IE		IS, CH
RA		FR, BE		PL
SUIOT	EL, HR, SE	LU, FI		BG, DK, MT IS, NO
PENS				PT
Improve compliance in terms of the punctuality of certain tables				
NAMA	BG CH	RO IS		HR, LU NO
GFS		BG IS, CH		PL
NFSA				BG, EL IS, NO
AFA				
RA	SE, BG			

Recommendations	Countries		
	Minor gap / lower priority	Significant gap / medium priority	Major gap / high priority
SUIOT	RO		BG, DK, LU, NL, HR IS, NO
PENS			EL, PT
Improve compliance in terms of the methodological adherence to ESA 2010 in marginal cases where it deviates creating break in the series			
	DK, HR, IE, MT, RO, SI, FI NO		EL, FR, PL
Improve quality aspects regarding accuracy of statistics			
Develop and publish or update information on the national revision policy for national accounts	DK, FR, SE, MT, HU, LT	IE, EL, IS	
Ensure the integration of annual financial accounts into the national revision policy for national accounts	NO	HR IS	
Foster efforts towards alignment of the national revision policy, to the harmonized European revision policy endorsed by the CMFB	DK, CZ, HR	FR, EL, RO IS	
Improve quality aspects regarding accessibility and clarity of statistics			
Pursue the development/update of the voluntary inventories (ASA, QNA etc.)	BE, BG, CZ, CY, DK, DE, EE, EL, ES, HU, IT, IE, FR, LU, MT, NL, RO, SI, AT, PT, FI, SK IS, CH		
Implement accurately the recommendations of the ESA 2010 Validation Handbook regarding data flags	DE, EL, LV, LT, IT, NL, MT, SI, PT, SK	BE, BG, DK, HU RO, NO	CY, HR, IE, PL, FI, LU, EE, ES,
Ensure additional effort to prepare and publish the country metadata for ESA 2010 at general level on Eurostat's website	EL, ES, FR, PT IS		
Improve quality aspects regarding coherence of statistics			
Continue to improve the consistency among NFSA, GFS and NAMA	EL, LU, MT, FI, SE NO		BG, RO IS
Monitor and reduce the discrepancies between financial and non-financial sector accounts	HU, EE	EL, HR, PL, FI, SE	MT, LT, RO CH

As a result of the high punctuality of data submitted by Member States, Eurostat's flash estimates and news releases of the European aggregates underlying the principal European economic indicators (PEEIs) remained timely.

Annex 1: ESA 2010 transmission programme

Table 15: Transmission programme of data – Overview of the tables

Table No	Subject of the tables	Frequency	Deadline t + months (days where specified)	Period covered
T1Q	Main aggregates	quarterly	2	1995Q1 onwards
T1A	Main aggregates	annual	2/9	1995 onwards
T2	Main aggregates of general government	annual	3/9	1995 onwards
T3	Tables by industry	annual	9/21	1995 onwards
T5	Household final consumption expenditure by purpose	annual	9	1995 onwards
T6	Financial accounts by sector (transactions)	annual	9	1995 onwards
T7	Balance sheets for financial assets and liabilities	annual	9	1995 onwards
T8	Non-financial accounts by sector	annual	9	1995 onwards
T801	Non-financial accounts by sector	quarterly	85 days ^{19,20}	1999Q1 onwards
T9	Detailed tax and social contribution receipts by type of tax and social contribution and receiving subsector including the list of taxes and social contributions according to national classification	annual	9	1995 onwards
T10	Tables by industry and by region, NUTS level 2	annual	12/24	2000 onwards
T11	General government expenditure by function	annual	12	1995 onwards
T12	Tables by industry and by region, NUTS level 3	annual	24	2000 onwards
T13	Household accounts by region, NUTS level 2	annual	24	2000 onwards
T15	Supply table at basic prices incl. transformation into purchasers' prices	annual	36	2010 onwards
T16	Use table at purchasers' prices	annual	36	2010 onwards
T17	Symmetric input-output table at basic prices	five-yearly	36	2010 onwards
T20	Cross classification of fixed assets by industry and by asset	annual	24	2000 onwards
T22	Cross classification of gross fixed capital formation by industry and by asset	annual	24	1995 onwards
T26	Balance sheets for non-financial assets	annual	24	1995 onwards
T27	Financial accounts of general government	quarterly	85 days ^{19/3}	1999Q1 onwards
T28	Government debt (Maastricht debt) for general government	quarterly	3	2000Q1 onwards
T29	Accrued-to-date pension entitlements in social insurance	three-yearly	24	2012 onwards

(¹⁹) The deadline of 85 days is applicable to Member States whose currency is the euro. For Member States whose currency is not the euro, the data transmission deadline is 3 months. If a Member State transmits the complete data set within 85 days, data does not need to be transmitted at 3 months. Provisional data.

(²⁰) For Member States whose gross domestic product at current prices is less than 1 % of the corresponding Union total GDP, only data for selected items is compulsory.

Annex 2a: Overview of the revision indicators

For the revision indicators presented below, we consider that:

- R_0 represents the initial value;
- the Member State sends N revisions, with value R_0 being revised to R_k , where $1 \leq k \leq N$, during a specific period (e.g. production round or calendar year).

Revision Indicator 1 (RI_1), compares the latest revision R_N with the initial value R_0 . It provides an indication of how much the first estimate has changed over the entire reference period.

- **Revision Indicator 1 — Ratio of last revised value to initial value**

$$RI_1 = \left(\frac{R_N}{R_0} - 1 \right) \cdot 100$$

Where,

$$\frac{R_N}{R_0} = \frac{R_1}{R_0} \times \dots \times \frac{R_k}{R_{k-1}} \times \dots \times \frac{R_N}{R_{N-1}} = \prod_{1}^N \frac{R_k}{R_{k-1}}$$

The label should clarify that the indicator is expressed as a percentage (%).

Revision Indicator 5 (RI_5), is the later estimate Relative Mean Absolute Revision (RMAR late) which is calculated as the mean absolute revision scaled in terms of the size of the later estimates rather than earlier estimates.

- **Revision Indicator 5 — Relative Mean Absolute Revision (RMAR_late) in terms of later estimates**

$$RI_5 = \frac{\sum_{k=1}^N |R_k - R_{k-1}|}{\sum_{k=1}^N |R_k|} \cdot 100$$

The label should clarify that the indicator is expressed in percent (%).

For main aggregates quarterly data, the analytical focus is on growth rates. The changes in growth rates are analysed in percentage points for the GDP and employment growth estimates. This practice for growth rates has been established and agreed with NSIs.

The revision indicator for quarterly growth rates in main aggregates is presented in percentage points.

The indicators are defined as follows:

RI1(MA**) the revision indicator for Main Aggregates is defined on the basis of the chain-linked volumes (price L) as follows:

1. Define the growth rate for quarter q:

$$GR_{t,q} = \left(\frac{L_{t,q}}{L_{t,q-1}} - 1 \right) * 100$$

Where:

- t corresponds to the Reference Period, which is the latest period for which data are available in the time-series
 - q corresponds to the quarter. It runs for all transmissions retained in the revisions exercise, starting from the first quarter which is taken into account in the exercise until reference quarter t
2. Calculate the revisions of the growth rates for quarter q as calculated from different transmissions as follows:

$$Rev_{t,q} = GR_{t,q} - GR_{t-1,q}$$

Where

- t corresponds to the Reference Period, which is the latest period for which data are available in the time-series
 - q corresponds to the quarter. It runs for all transmissions retained in the revisions exercise, starting from the first quarter which is taken into account in the exercise until reference quarter t.
3. Calculate indicators RI1 and RI5 for each quarter (q) as:

RI1(MA**) the revision indicator for Main Aggregates is defined on the basis of the chain-linked volumes (price L).

The indicator is defined as follows:

$$RI1 = GR_{q,T} - GR_{q,1}$$

Where:

GR_{q,1} is the growth rate in the first transmission retained (for quarter q)

GR_{q,T} is the growth rate in the last transmission (for quarter q).

The label should clarify that revisions are expressed in percentage points (pp) since the indicators considered are the growth rate of GDP and EMP expressed as percentage.

RI5(MA***) the revision indicator for Main Aggregates is defined on the basis of the chain-linked volumes (price L) as follows:

1. Calculate steps 1 and 2 as above,
 2. Calculate the average of the absolute revisions for each quarter:
2. $RI5_q = \frac{1}{n} \sum_t |Rev_{t,q}|$

Where:

- t corresponds to the Reference Period, which is the latest period for which data are available in the time-series
- q corresponds to the quarter. It runs for all transmissions retained in the revisions exercise, starting from the first quarter which is taken into account in the exercise until reference quarter t
- n corresponds to the number of transmissions for the quarter q

The label should clarify that revisions are expressed in percentage points (pp), since the indicators considered are the growth rate of GDP and EMP expressed as percentage.

Annex 2b: Quarterly revisions as shown by the mean absolute revisions and latest minus first revisions

Quarterly revisions as shown by averages of mean absolute revisions and latest minus first revisions show the evolution in the latest minus first revisions (LMF) indicator and in relative mean absolute revisions (RMAR) over time for each country. The information is presented in heatmaps, with darker colours denoting higher values, white indicating no revisions (indicator value of zero), and grey marks unavailable data.

Bins (or categories) were defined in a variety of ways. For the RMAR indicator, starting from the lowest, which is zero, fixed bins were fixed to be equal for all variables: 0, (0-0.25), [0.25, 0.5), [0.5, 1), [1,3). The final group is designed to capture everything from 3 up to the highest average revision observed for each specific variable. If this highest average is below 3, or the highest average is not too far from a value of 3 (less than a 1.5 difference), the final bin comprises all the values from 1 to the highest revision.

For the LMF indicator, bins were defined following a mirrored approach. The values for this indicator can be both positive and negative. To avoid too many bins and to provide a more accurate and insightful representation in our heatmap, the cut-off point at 1 was removed.

The bracketing system in our bin definitions uses '[' to include a value and ']' to exclude it.

Figure 64

Seasonally and calendar adjusted gross domestic product (B.1GQ) growth rates, relative mean absolute revisions, pp

