

# Quality report on National and Regional Accounts

2017 DATA

2018 edition





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National and  
Regional Accounts**  
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# Executive summary

This document presents Eurostat's assessment of the quality of the national and regional accounts data submitted by the EU Member States, Iceland, Norway and Switzerland in 2017, and quality information on Eurostat's own publications of European aggregates.

The quality assessment was carried out in accordance with Article 4 of Regulation (EU) No 549/2013, also called the ESA 2010 Regulation, which requires the quality of national and regional accounts data sent to Eurostat to be assessed against the quality criteria set out in Regulation (EC) No 223/2009 on European statistics. Commission Implementing Regulation (EU) 2016/2304 sets out the modalities, structure, periodicity and indicators of the assessment process.

This quality report presents the second assessment since the European System of Accounts 2010 (ESA 2010) was introduced in September 2014, and shows results for data transmissions during 2017. The assessment is based on national quality reports.

The report covers a number of quality indicators (completeness, revision policy, punctuality, coherence between sub-annual and annual statistics and within tables for selected variables and datasets, documentation on methodology). In 2019, the quality report will be extended to include additional indicators on revision rates of quarterly and annual data for selected variables, as well as coherence between non-financial and financial accounts. Finally, in 2021, when the existing ESA 2010 derogations fully expire, the quality reporting will be conducted to include all the quality indicators within the scope of Commission Implementing Regulation (EU) 2016/2304.

Chapters 1 and 2 of the document introduce the quality reporting and assessment framework of the European Statistical System (ESS) applied to national and regional accounts. Chapter 3 presents the body of legislation and guidance documents pertinent to ESA 2010. Chapters 4 to 9 provide an analysis of country data sent in 2017, as well as some European aggregates published by Eurostat, in line with the ESS quality criteria, namely relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability and coherence. Where appropriate, this analysis interprets the results of data delivery in the context of the compilation of EU policy indicators such as the Principal European Economic Indicators (PEEIs) and indicators in support of the Macroeconomic Imbalance Procedure (MIP). The overall assessment results and Eurostat's recommendations to countries are summarised in Chapter 10 of the report.

The data sent in 2017 were broadly in line with the ESS quality standards and the ESA 2010 Regulation. Member States have been able to comply with the new data requirements and methodology, while the process of adapting national data compilation systems will continue until 2020. The overall results for the different quality criteria are as follows:

## Relevance

In 2017, both quarterly and annual national accounts mandatory data had high completeness. The average completeness rates for tables for national accounts main aggregates (NAMA), government finance statistics (GFS), non-financial sector accounts (NFSA) and annual financial accounts (AFA) were between 91.8 % and 100 %; for supply, use and input-output tables (SUIOT) and regional accounts (RA) tables, they were between 92.7 % and 99.8 %.

Overall, data availability since the last quality report has increased for the EU-28 as a whole, as well as for the majority of individual EU Member States and EFTA countries. This trend seems stable.

<b>Accuracy</b>	In 2017, eight EU Member States performed either major routine or benchmark revisions of their national accounts data. These revisions aimed to improve the quality of data. Most EU Member States as well as the two EFTA countries make information on their national revision policies available online.
<b>Timeliness and punctuality</b>	Overall, the punctuality of transmission of quarterly national accounts was high in 2017 with over two-thirds of the countries submitting all mandatory quarterly accounts on time or with a short delay on only one table, while the punctuality of transmission of annual data was lower. Fourteen EU Member States submitted all mandatory quarterly accounts at or before the legal deadline. For the seventeen ESA 2010 tables transmitted annually, only seven Member States submitted all required annual national and regional accounts tables on time.
<b>Accessibility and clarity</b>	All EU Member States and EFTA countries publish online documentation on national accounts methodology and compilation methods. Progress was marked in 2017 compared to 2016 with two more Member States publishing EDP inventories and three more Member States, plus Norway publishing voluntary QNA inventories.
<b>Coherence</b>	Overall internal coherence within (Table 1) and between Tables (between 1 and 3, and between 1 and 22) was very high for nearly all countries in 2017. The small discrepancies noted for a few countries were mainly caused by vintage issues or rounding practices.

Based on the quality assessment, Eurostat makes the following general recommendations to countries, encouraging them to strive to:

- continue the adaptation of national statistical systems to achieve full implementation of ESA 2010;
- ensure full data completeness of mandatory data in line with Regulation (EC) No 549/2013;
- respect the transmission deadlines set out in Regulation (EC) No 549/2013 and address the overall delayed delivery of annual data;
- implement the improvement actions on the ESA 2010 methodology which have been identified in the context of GNI for own resource purposes (as of May 2018);
- make specific information on implemented major revisions by ESA 2010 table or domain publicly available on national websites;
- transmit reference metadata in accordance with the Single Integrated Metadata Structure (SIMS) v. 2.0, as well as explanatory metadata on major events, major revisions, and series breaks.

In addition, in 2018 Eurostat provided country-specific recommendations bilaterally, based on national quality reports and the analysis of submitted data.



# 1

## 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 the description and analysis of the economy of the EU, the euro area (EA), and individual Member States and EU regions. They are used for administrative purposes as well, e.g. for the calculation of Member State contributions to the EU budget. Therefore, it is of high importance that these European statistics are accurate, timely and complete and that information about their quality is communicated to users regularly and in a transparent way.

Publication of national accounts data aggregated at European level started in the 1970s. Since then, the methodological framework has been updated several times, in line with the developments of 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), for which requirements have been established by Regulation (EU) No 549/2013 (hereafter referred to as the ESA 2010 Regulation). ESA 2010 corresponds to the 2008 edition of the SNA and has been used in the EU since September 2014.

The ESA 2010 Regulation prescribes that the quality of national and regional accounts data sent to Eurostat are assessed according to the quality criteria set out by Regulation (EC) No 223/2009 on European statistics. The modalities, structure and assessment indicators of the quality assessment process are defined in Commission Implementing Regulation (EU) 2016/2304 (hereafter referred to as the Implementing Act). Each year, according to Article 4(2) of the ESA 2010 Regulation, Member States provide a report on the quality of national and regional accounts data sent to Eurostat. Based on these 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. 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 sector accounts, regional accounts, and supply, use and input-output tables.

This quality report presents the second assessment since ESA 2010 was introduced in September 2014, and shows results for transmissions of national and regional accounts data during 2017. It also includes information on the quality of key European aggregates published by Eurostat. It is addressed to users and is therefore structured to provide information which helps to understand the published data and, where applicable, the factors that improve or limit their quality. Although the report contains specific information and indicators for individual Member States, its focus is solely on data quality. The Commission (Eurostat) assesses Member States' adherence to the requirements of the ESA 2010 Regulation separately.

# 2

## Scope of the quality assessment

Eurostat's quality assessment of national and regional accounts covers data submitted by EU Member States, EFTA countries and Switzerland as well as its own publications of EU and euro area aggregates.

The quality reporting and assessment exercise starts every year on 15 February. Eurostat provides countries with pre-filled national quality reports containing quantitative indicators and qualitative information. The countries complement the national quality reports and send them back to Eurostat, no later than 31 May. Eurostat assesses the results, and then prepares and publishes an overall assessment based on the national quality reports and other available information. This exercise was carried out for the first time in 2017 and will be repeated on an annual basis.

Data transmissions based on the ESA 2010 methodology started from 1 September 2014. By 2020, after the expiry of derogations granted by the Commission to the Member States, they will all be made in line with all provisions set out in the ESA 2010 Transmission Programme. Consequently, the quality reporting is being introduced gradually in three steps. The first two quality exercises in 2017 and 2018 required that countries report to Eurostat on a limited number of quality indicators (completeness, published revision policy, punctuality, coherence between sub-annual and annual statistics and within tables for selected variables, documentation on methodology). With the third quality exercise in 2019, the quality reporting will be extended to additional indicators (revision rates of quarterly and annual data for selected variables as well as coherence between non-financial and financial accounts). In 2021, when the existing ESA 2010 derogations fully expire, quality reporting will be conducted fully within the scope of the Transmission Programme and will include the last envisaged indicators (e.g. revision rates of other quarterly variables as well as cross-table consistency).

This assessment report concerns the ESA 2010 mandatory data submitted by countries to Eurostat in 2017. Due to the derogations, countries did not all send the same data. Only the Czech Republic was due to submit all data since the start of ESA 2010 data submission. By the end of 2016, Greece and the Netherlands closed successfully their derogations and were due to submit a full set of data in 2017. Other countries continued to be exempt from certain data requirements in 2017. Furthermore, for the NFSA domain, data requirements differ depending on whether the country is a small or a big economy and whether it is a member of the euro area or not. These differences in mandatory data requirements are reflected in Eurostat's assessment.

National data submitted on a voluntary basis are not part of this quality assessment. The references to voluntary data made in this report are there to acknowledge the efforts of countries to make additional data available to users.

In addition to national quality reports, the following sources were also used to prepare this quality assessment: information collected during the data validation process; information contained in the provided mandatory and voluntary inventories of methods and data sources; information collected in surveys, during the verification processes for Excessive Deficit

Procedure (EDP) and Gross National Income (GNI) and from country visits. More specifically, for data used to compile the Macroeconomic Imbalance Procedure (MIP) indicators, available country self-assessment reports and European Central Bank (ECB) metadata for data compiled by national central banks were taken into account.

When national data, or aggregates for the EU or euro area (EA), are used to compile policy indicators such as the MIP indicators and the Principal European Economic Indicators (PEEIs), the assessment draws information from the quality requirements applied to these indicators. This report covers the headline MIP indicators based on national ESA 2010 data, namely the nominal unit labour cost (ULC) index, general government gross debt, private sector credit flow, private sector debt and total non-consolidated financial sector liabilities. The report also includes the quarterly EU/EA aggregates published in Eurostat's news releases as PEEIs: GDP growth rates, employment volume growth rates, investment rates and profit share of non-financial institutions, and investment rates and saving rates for household and non-profit institutions serving households.

# 3

## 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 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 transmission programme (called ESA 2010 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 as well as the legal deadlines by which EU Member States must submit data to the European Commission (Eurostat).

The complete list of tables is presented in the overview in Annex 1, Table 15. For the purpose of this report, these tables are organised into the following seven groups, covering the six ESA 2010 domains, plus pension entitlements:

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	29

The Commission has granted close to 900 derogations<sup>(1)</sup> from mandatory data transmission requirements on the request of EU Member States. These derogations are temporary and expire progressively by 2020, with 480 having expired by end-2017. They vary in substance and in the number of variables included, e.g. different years (quarters), different prices, seasonally or non-seasonally adjusted data, and breakdowns of the Statistical Classification of Economic Activities in the European Community (NACE Rev. 2). Derogations have also been agreed with Iceland and Norway and are being discussed with Switzerland. A review conducted in 2017–2018 of the justifications for the existing derogations of EU Member States showed that there are changes to the justifications and it is appropriate to amend Commission Implementing Decision 2014/403/EU.

### 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](#)
- [Council Regulation \(EC, Euratom\) No 1287/2003 of 15 July 2003 on the harmonisation of gross national income at market prices \(GNI Regulation\), OJ L 181, 19.7.2003, p. 1-3](#)
- [Regulation \(EU\) No 99/2013 of the European Parliament and of the Council of 15 January 2013 on the European statistical programme 2013-2017, OJ L 39, 9.2.2013, p. 12–29 and the related European Statistics Annual Work Programme 2017](#)

Regulation (EC) No 223/2009 (hereafter, the European Statistics Regulation) sets out the legal framework for the development, production and dissemination of European statistics, and defines the European Statistical System (ESS), which is the partnership between the Commission (Eurostat) and national statistical institutes (NSIs) and other national authorities

<sup>(1)</sup> 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.

responsible in each EU Member State for the development, production and dissemination of 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. National and regional accounts data submitted in 2017 and covered by this report are produced under the European statistical programme 2013-2017 and the European Statistics Annual Work Programme 2017.

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. EU 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 submitted data 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.

## 3.2. Classifications used in ESA 2010

- [Statistical Classification of Economic Activities in the European Community \(NACE\), Rev. 2 \(2008\)](#)
- [Statistical Classification of Products by Activity, Version 2.1 \(CPA\)](#)
- [Classification of Individual Consumption by Purpose \(COICOP\), 1999 version](#)
- [Classifications of functions of government, 1999 version,](#)
- [Classification of the Purposes of \(Private\) Non-Profit Institutions Serving Households, 1999 version \(COPNI\)](#)
- [Classification of institutional sectors](#)
- [NUTS 2013](#)

## 3.3. Manuals and guidelines

- [System of National Accounts 2008 \(SNA 2008\)](#)
- [ESS Manuals and Guidelines on national and regional accounts](#)

The ESA 2010 is aligned with the 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 EU Member States; however their application is not mandatory.

## 3.4. Other information

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

- [ESA 2010](#)
- [National accounts \(including GDP\)](#)
- [Government finance statistics](#)
- [European sector accounts](#)
- [Supply, use and input-output tables](#)
- [Regional economic accounts](#)

Data submitted under the ESA 2010 Transmission Programme is assessed in the context of what is needed at policy level for the PEEIs, the MIP indicators, the calculation of GNI for the purposes of EU budget own resources and the EDP indicators. 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 macro-economic statistics.

- [Economic globalisation](#)

## 3.5. ESA 2010 application

Article 12 of the ESA 2010 Regulation requires that, by 1 July 2018 and every five years thereafter, the Commission shall submit a report on the application of this regulation to the European Parliament and the Council. The report shall 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.

In 2017, technical work was carried out to prepare the first evaluation. On 29 June 2018, the Commission adopted and provided the first such report.

- [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 and on the application of the granted derogation \(COM\(2018\)506\).](#)

# 4 Relevance

**Relevance** is an attribute of statistics measuring the degree to which statistics meet current and potential needs of the 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 regarding data transmitted in 2017 and the evolution of data availability over time.

The uses of national accounts data and the results of user satisfaction surveys are not discussed in this report because no new information has been made available since the assessment of the 2016 data in the last edition of this report.

## 4.1. Actions to meet user needs

Many users of national accounts data request longer time series and more granular breakdowns in order to perform additional analysis of macro-economic developments, in particular, users from European and international organisations, and from the research community. To address these user demands, in 2016 Eurostat together with EU Member States analysed the potential for voluntary transmission of additional national accounts data that are available at the national level.

In 2017, technical work was conducted in the area of non-financial accounts to allow Member States to send voluntary data which can be disseminated by Eurostat, if available at a country level. The requests for additional voluntary variables that have been addressed by Eurostat are presented in Table 1, along with the domain and tables covered by the request. Further technical activities have continued in 2018 to extend the possibilities for both data transmission and dissemination.

The ESA 2010 Transmission Programme already contains many voluntary variables or series, and these latest variables are in addition to those previously collected. Eurostat strongly encourages EU Member States to submit voluntary data series where feasible.

In the area of financial accounts, there is less readiness for more data transmissions, and the provision of voluntary data needs further development. However, the ECB, Eurostat and the EU Member States are cooperating to make this possible in the near future.



**Table 1: Requests for additional voluntary variables in non-financial accounts addressed by Eurostat since 2017**

Domain	ESA 2010 table	Requests
NAMA	1	Final consumption expenditure by durability
		Further detail by asset on GFCF, in particular intellectual property products (i.e. R&D assets, software and databases) and ICT equipment
	3	Trade breakdown intra/extra EU
		Add contributions to GDP growth
		Addition of P1 and P2 in previous year's prices and chain-linked volumes
		Further asset detail for GFCF, in particular intellectual property products (i.e. R&D assets, software and databases) and ICT equipment
	20 and 22	A*88 NACE Rev. 2 breakdown
		Further industry detail (beyond the compulsory A*10) for GFCF
	20 only	Consumption of fixed capital in same industry breakdown as GFCF
		Increase details of industry breakdown to A*88 for those assets for which currently a less detailed breakdown is requested
22 only	Industry breakdown at A*38 (or A*21) level for those assets for which currently no asset breakdown is required	
	Further asset detail for intellectual property products	
26	Further industry detail (beyond the compulsory A*21)	
	Further industry detail (beyond the compulsory A*21) for GFCF	
NFSA	8	Further asset detail for intellectual property products
		Breakdown of households sector into S14 and S15
	801	Further asset detail, in particular intellectual property products and ICT equipment
		Addition of subsectors S121+122+123, S124+125+126+127, S128+129
SUIOT	15 and 16	Breakdown of P51 by asset type (dwellings, other buildings and structures, buildings other than dwellings, other structures, other structures of which transport-related), limited breakdown of investment by asset type and sector
		Asset breakdown for GFCF in current prices, limited breakdown of investment by asset type and sector
All domains	3, 20 and 22	Volumes for GFCF (in particular for general government), limited breakdown of investment by asset type and sector
		More seasonally adjusted data in current prices and in volumes (prices)
	1, 3, 20, 22, 26	Additional split of use table between domestic use and import use
All domains	1, 3, 20, 22, 26	Breakdown by industry of total employment in persons and of employees in persons and hours worked
		Increase of details for industry (from A*64 to A*88) and products
All domains	1, 3, 20, 22, 26	Industry detail below the legal requirements, e.g. at the A*64 breakdown, or, should it be available, at the A*88 breakdown
		GFCF by sector and by assets – volume data: partially fulfilled by the addition of a limited breakdown of investment by asset type and sector from domain: sector accounts, Table 8
All domains	1, 3, 20, 22, 26	Components for GFCF data by major assets for the total economy and the private sector (in particular "business" sector capital) in volume terms: partially fulfilled by the addition of a limited breakdown of investment by asset type and sector from domain: sector accounts, table 8

## 4.2. Completeness rate

The ESA 2010 Transmission Programme specifies the data requirements for EU Member States. However, due to the temporary derogations from the data transmission requirements until 2020, the scope of data to be submitted to Eurostat is not the same for all Member States. Derogations have also been established for Iceland and Norway, and are being negotiated with Switzerland.

This section provides an overview, by ESA 2010 domain, of the data that countries were expected to submit in 2017 and which were actually received and validated by Eurostat. To allow for comparable assessment, the percentages are defined based on the number of data cells included in the tables. The information covers all reference periods specified in the ESA 2010 Transmission Programme. The indicator is derived from the data received by Eurostat from 1 January to 31 December 2017.

### 4.2.1. Quarterly data

The ESA 2010 Transmission Programme requires EU Member States to submit quarterly tables for:

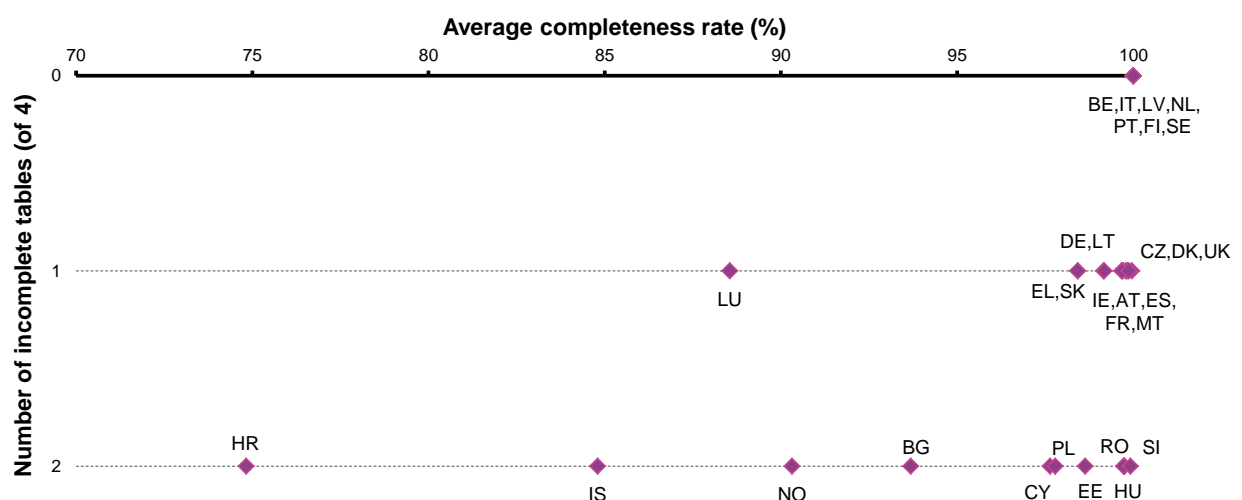
- national accounts main aggregates (Table 1);
- non-financial sector accounts (Table 801);
- government finance statistics (Tables 27 and 28).

The overall completeness rate measured at the data cell level was very high in 2017, with almost all of the EU Member States (25 out of 28) submitting all, or nearly all, of the required data (above 95 %, see Figure 1). Seven Member States achieved a full completeness rate for all quarterly tables: Belgium, Italy, Latvia, the Netherlands, Portugal, Finland and Sweden. This is the same number as for 2016, however the composition of the group changed, with two Member States dropping out, and two new Member States being added.

On average, across all four tables of quarterly data submissions, the lowest completeness rates among EU Member States in 2017 were observed for Croatia (74.8 %), Luxembourg (88.6 %) and Bulgaria (93.7 %). Data submitted by the two EFTA countries had completeness rates among the lowest of EU Member States: 84.8 % for Iceland and 90.3 % for Norway.

Visible improvements in the completeness of quarterly data in comparison with 2016 are noted for the Czech Republic, Cyprus and Luxembourg, even though gaps still remain. In particular, Latvia and Sweden rose to reach full data completeness in 2017.

Figure 1: Completeness rate of national accounts quarterly tables reported in 2017



The completeness rate for quarterly national accounts data provided by individual EU Member States, as well as Iceland and Norway, can be found in Annex 2. The completeness rate for each country is calculated on the basis of mandatory data submissions in 2017, which covered data submitted for reference quarters up to and including 2017Q3.

For **quarterly national accounts main aggregates**, data completeness was high, with the EU-28 average at 99.1 % and the EA-19 average at 99.4 %. Seventeen EU Member States achieved 100 %, and all Member States had a completeness rate above 90 %, an improvement from 2016, when four were below 90 %. Iceland had the lowest completeness of EFTA countries (59.4 %).

For **quarterly non-financial sector accounts**, the EU-28 average completeness rate was 93.3 %. For 25 Member States, the completeness rate was higher than the EU-28 average, and of those, 13 submitted all required data. In contrast, three EU Member States had completeness rates below 90 % (compared to five in 2016), as did Norway. The lowest completeness rate was observed for Luxembourg (54.2 %), for which an informal dialogue, in the context of Themis/EU pilot, is currently taking place between Eurostat and Luxembourg.

Croatia and Bulgaria submitted very few series that were fully complete. In addition, there were quality issues with the submitted data. Both countries are in communication with Eurostat in order to address the situation regarding data timeliness and relevance.

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-28 average reached 99.6 % in 2017 for Table 27 (quarterly financial accounts of general government). A 100 % completeness rate was achieved by 25 of the 28 EU Member States, as well as for Norway and Iceland<sup>(2)</sup>. There was 100 % completeness for Table 28 (quarterly government debt (Maastricht debt) for general government) for all of the 28 EU Member States, as well as for Norway and Iceland.

All submitted mandatory series were validated and published in the Eurostat database for all EU Member States, except for Table 27 submitted by Greece. The data could not be validated and published due to Greece's non-adherence to ESA 2010 rules. Significant concerns about the quality of supplied information have prevented the validation and publication of Greece's Table 27 since October 2015.

## 4.2.2. Annual data

In 2017, the 28 EU Member States as well as Norway and Iceland, reported a total of 19 mandatory annual national accounts tables across six domains, plus pensions:

- 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);
- Supplementary table on pensions in national accounts (Table 29).

The completeness rate of 2017 annual data was high for all domains, with the EU-28 average reaching 97.1 % over all tables (arithmetic average). For individual tables, the EU-28 average completeness rates ranged from a low of 91.8 % for balance sheets for non-financial assets (Table 26), to a high of 99.9 % for annual government finance statistics (Table 2). Only one EU Member State, the Netherlands, submitted all mandatory data. Twelve other Member States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Germany, Italy, Portugal, Romania, Slovakia, Slovenia and the United Kingdom, achieved above 99% for the average completeness rate across all tables. The lowest average rates were observed for Croatia and Luxembourg, both below 90%.

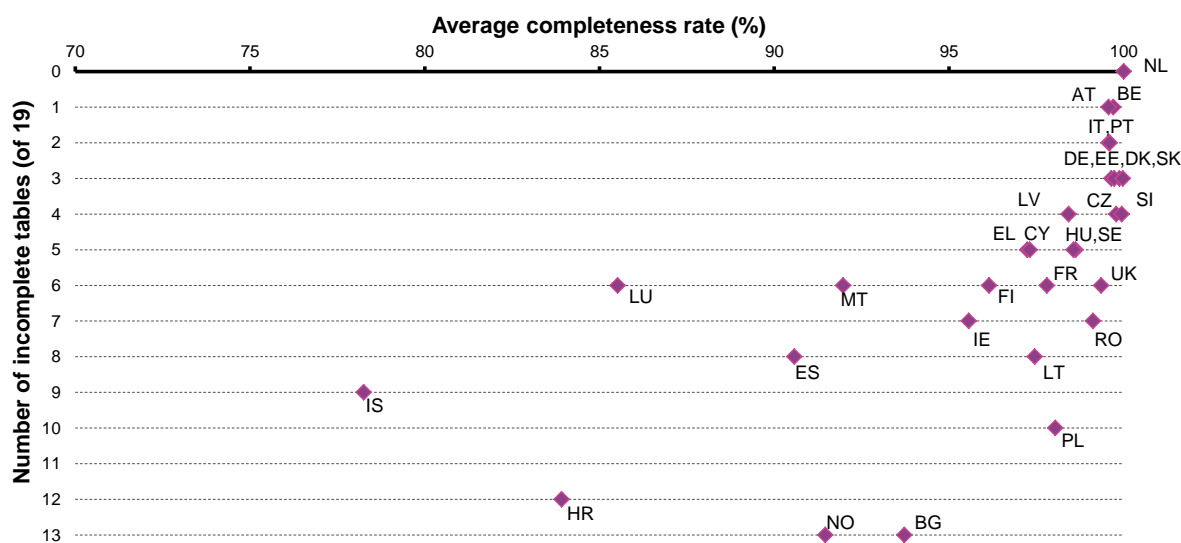
<sup>(2)</sup> Rates calculated taking into account extant derogations.

Iceland had an average completeness rate of at 78.3%, lower than all of the EU Member States, and the average completeness rate for Norway was 91.5 %.

Marked improvements in comparison with 2016 were noted for Cyprus and Luxembourg, even though gaps still remained. In contrast, marked deteriorations in the completeness rate of specific tables were observed for Croatia, Malta and Spain, which in turn lowered their average rates.

While the majority of EU Member States submitted incomplete data in five or less annual tables, Croatia had missing mandatory data in 12 annual tables, and Bulgaria in 13. Cyprus and Luxembourg substantially reduced the number of incomplete annual tables submitted.

**Figure 2: Completeness rate of national accounts annual tables reported in 2017**



The completeness rates for annual national accounts data provided by individual EU Member States, as well as Iceland and Norway, can be found in Annex 2. The completeness rate for each country is calculated on the basis of mandatory data submissions in 2017, which for majority of the annual tables, covers data submitted for reference years up to and including 2016.

For **annual national accounts main aggregates**, the overall completeness rate was very high in 2017. The EU-28 average rate exceeded 96 % for all tables except Table 26.

For main aggregates (Table 1), 25 countries submitted all, or nearly all, mandatory data (completeness rate above 99 %) up from 19 in 2016, while Cyprus and Iceland had a completeness rate below 90 %. The EU-28 average rate was 99.2 %.

The MIP scoreboard headline indicator of Unit Labour Cost (ULC) is derived from Table 1 of national accounts main aggregates, and combines GDP volumes, compensation of employees, employment and employee data. Therefore, the transmission of complete and consistent time series is important for the quality assessment of ULC figures.

The annual tables by industry (Table 3) had an EU-28 average completeness rate of 98.1 % with only two EU Member States (Bulgaria and Poland) submitting Table 3 with less than 90 % completeness. Twenty-two Member States submitted 99 % or more of the mandatory data for Table 3. Household final consumption expenditure by purpose (Table 5) had an EU-28 average completeness rate of 98.7 %, with all but three Member States submitting 100 % complete data (Cyprus, 69.8 %; Romania, 94.9 %; and the United Kingdom, 99.4 %).

Similarly, the completeness rates were high in 2017 for Tables 20 and 22, with EU-28 averages of 96.4 % and 96.9 % respectively. All countries except Spain submitted 99 % or more of mandatory data for Table 20. For Table 22, low completeness rates were observed for two EU Member States, Croatia (45.9 %) and Hungary (72.6 %). With an EU-28 average completeness rate of 91.8 %, the balance sheets for non-financial assets (Table 26) had the lowest completeness of all annual

national accounts tables. Especially low completeness rates were observed for three EU Member States, Spain (16.4 %), Bulgaria (38.8 %) and Croatia (65.6 %), as well as for Iceland (55.7 %).

Among all of the annual tables in the ESA 2010 domains, average completeness was highest for **annual government finance statistics**. The EU-28 average completeness rate of main aggregates of general government (Table 2) was 99.9 %, while for detailed tax and social contribution receipts (Table 9) it reached 99.6% and for general government expenditure by function (Table 11) it reached 99.8 %.

For main aggregates of general government (Table 2), all EU Member States, as well as Norway and Switzerland, submitted more than 98 % complete tables. Iceland reached a completeness rate of 87.5%. Taking into account extant derogations, a total of 22 out of 31 European Economic Area (EEA) countries (including Switzerland) fully reached 100 % completeness. Similarly, for Table 9, 24 EEA countries reached 100 %. And for Table 11, only three countries submitted data less than 100 % complete (Croatia, Poland and Iceland). It should also be noted that lower completeness rates in Tables 2, 9 and 11 for some countries are mainly related to missing observations in back-data.

The overall completeness rate of **annual non-financial sector accounts** (Table 8) was high with an EU-28 average of 97.1 %, an improvement compared to 2016 (up from 94.7 %). However, completeness was lower than in national accounts main aggregates and government finance statistics. Fourteen countries submitted all, or nearly all, mandatory data. Two EU Member States submitted less than 90 % of data required by the ESA 2010 Transmission Programme, Bulgaria (61.9 %) and Croatia (85.6 %). Compared to 2016, Cyprus and Luxembourg improved data completeness substantially, whereas completeness for Iceland fell (failure to transmit 2016 data on time).

Bulgaria and Croatia failed to submit a large number of series, and some of the submitted series were incomplete. In addition, there were quality issues with the submitted data. Both countries are in communication with Eurostat in order to address the situation regarding data timeliness and relevance.

For **annual financial accounts**, 24 EU Member States submitted nearly all, or all, (99 % or more) mandatory data. The EU-28 average completeness rate of annual financial accounts by sector (Table 6) was 97.5 %, and for balance sheets for financial assets and liabilities (Table 7) it reached 97.7 %. Low completeness rates were observed for Ireland and Malta, as well as Iceland. Progress from 2016 was observed for France, for which the completeness rate improved to 100 % (up from just under 60 % in 2016).

Three MIP headline indicators are derived from annual financial accounts: private sector debt, private sector credit flow and total financial sector liabilities. In 2017, the data underlying the MIP indicators were sufficiently complete for their validation for MIP purposes.

For **regional accounts**, the EU-28 average completeness rate reached 97.2 % for tables by industry and by NUTS level 2 region (Table 10). In 2017, 24 EU Member States submitted nearly all, or all, mandatory regional accounts tables. The low completeness observed for Cyprus in 2016 improved in 2017, with completeness reaching 100 % in all tables. Similarly, the EU pilot project for non-financial sector accounts in Luxembourg had a positive impact also on the completeness of regional accounts data, with rates rising to a full 100 % for all tables. The lowest completeness was observed for Ireland which failed to provide Table 10 data for 2016. Below-average completeness rates were also observed for Spain, France and Portugal.

With all the EU Member States submitting above 99 % of the mandatory data cells, the EU-28 average completeness rate reached 99.8 % for both Table 12 (tables by industry and by NUTS level 3 region) and Table 13 (household accounts by NUTS level 2 region).

Relative to the other national accounts tables, the average completeness rate for **supply, use and input-output tables** was low. The EU-28 average completeness rates observed for annual supply and use tables (Tables 15 and 16) for reference year 2014 were 92.7 % and 93.6 %, respectively. Four EU Member States (Bulgaria, Croatia, Latvia and Malta) did not submit the mandatory data for 2014 in 2017 (or other mandatory years, as specified in the Derogations

Act<sup>(3)</sup>). Progress was observed for Cyprus, with an improvement to 100 % completeness in 2017. Seventeen Member States submitted fully-complete annual supply and use tables.

For the supply and use tables for the reference year 2010 which are submitted with lower frequency (every 5 years), the overall completeness was higher than for annual tables. The lowest completeness observed was for Luxembourg which did not submit two of the five tables in 2017.

The symmetric input-output tables for 2010 were submitted by all 28 EU Member States and Norway. For Table 17, the EU-28 average rate reached 99.4 %. Twenty-five EU Member States had completeness rates above 99 % or more of mandatory data cells) with almost all countries submitting complete tables, either by product or by industry. The lowest completeness rate was again observed for Luxembourg, which submitted only one mandatory table. Three Member States (the Czech Republic, Italy and Hungary) submitted both sets of tables.

### 4.3. Completeness rate of data underlying key indicators

#### MACROECONOMIC IMBALANCE PROCEDURE INDICATORS

The analysis in the Alert Mechanism Report builds on the economic reading of a scoreboard of 14 headline indicators covering the most relevant areas of macroeconomic imbalances, competitiveness, and adjustment issues. These 14 indicators are complemented by 28 auxiliary indicators providing additional information.

The national accounts are one of the major sources of data underlining the MIP indicators. Five out of 14 headline MIP scoreboard indicators, and 10 out of 25 auxiliary ones, are derived from national accounts data. Moreover, many of the MIP indicators are compiled relative to GDP.

The economic rationale defining the medium- to long-term horizon for MIP analysis requires the availability of 10-years' worth of time series for all MIP indicators. The 10-year indicators scoreboard is published in November each year in the Statistical Annex to the Alert Mechanism Report. This package forms one of the major components launching the European Semester in the autumn of each year. The latest report was the Alert Mechanism Report 2018, published in November 2017 (COM(2017)771).

The quality of data underlying the MIP has improved as a consequence of the entry into force of ESA 2010 in 2014. However, the process of implementing the new statistical standard led to revisions and, due to derogations, temporarily shortened the available series. Since 2014, the overall completeness of underlying data for MIP indicators has substantially improved, and in 2017 was very high for all EU Member States. Data coverage for the 10-year timespan needed for the 2018 Statistical Annex (2007-2016) was very high for all headline indicators. The overall completeness rate of auxiliary indicators was also nearly 100 %. However, for the nominal ULC (as 10-year % change) and residential construction (as % of GDP), a few countries still did not submit all required statistics. The underlying ULC time series for the MIP auxiliary indicator of Croatia, Malta and Poland begins only in 2010. For residential construction, Croatia did not submit data.

The key part of the MIP, however, covers in-depth reviews, which in line with [Regulation \(EU\) No 1176/2011 of the European Parliament and of the Council on the prevention and correction of macroeconomic imbalances](#) establish whether imbalances exist. For these in-depth reviews, the completeness of detailed ESA 2010 data is essential. In particular cross-country benchmarking and analytical assessment tools used in the in-depth reviews depend on the timeliness,

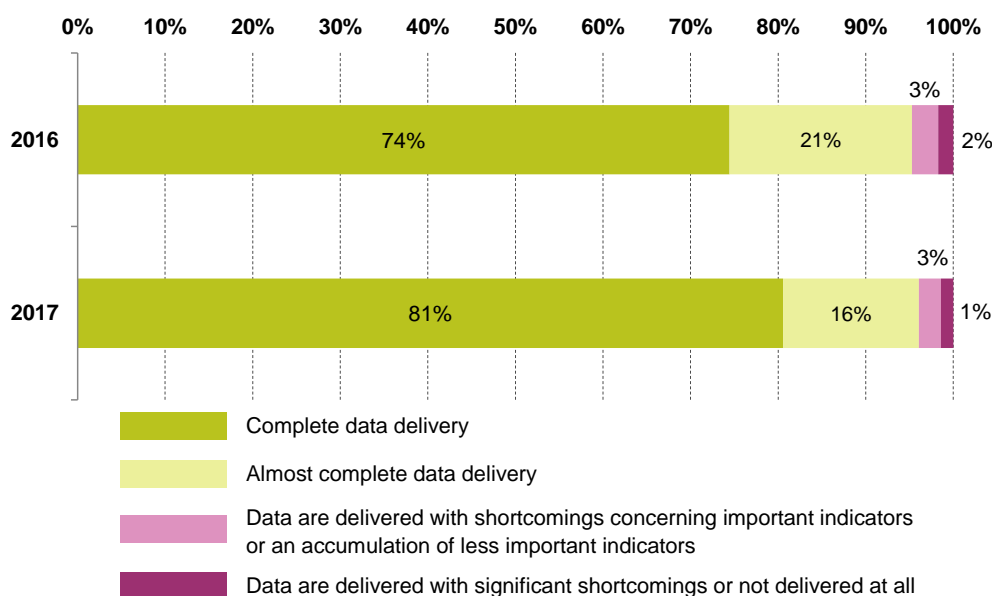
<sup>(3)</sup> Croatia has a derogation to transmit data for years 2010-2013 in 2017; however data was delivered only for 2010. Malta should have submitted data for reference year 2012 in 2017.

accuracy and completeness of national accounts, government finance statistics, and non-financial and financial sector accounts.

## 4.4. Evolution of data availability

Since the start of transmission of ESA 2010 data in September 2014, data availability has significantly improved for the EU-28 as a whole, as well as for the majority of individual EU 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 2. The charts in Figure 3 and Figure 4 provide a reliable picture of the trend in data availability, comparing the situation at the end of 2016 (extraction done February 2017) with the situation at the end of 2017 (extraction done January 2018). In this way, they illustrate progress in data submissions from one year to the next, as the percentages of tables in each of the four completeness categories (calculated as averages of all EU Member States and Norway).

**Figure 3: Evolution of overall data availability from 2016 to 2017**

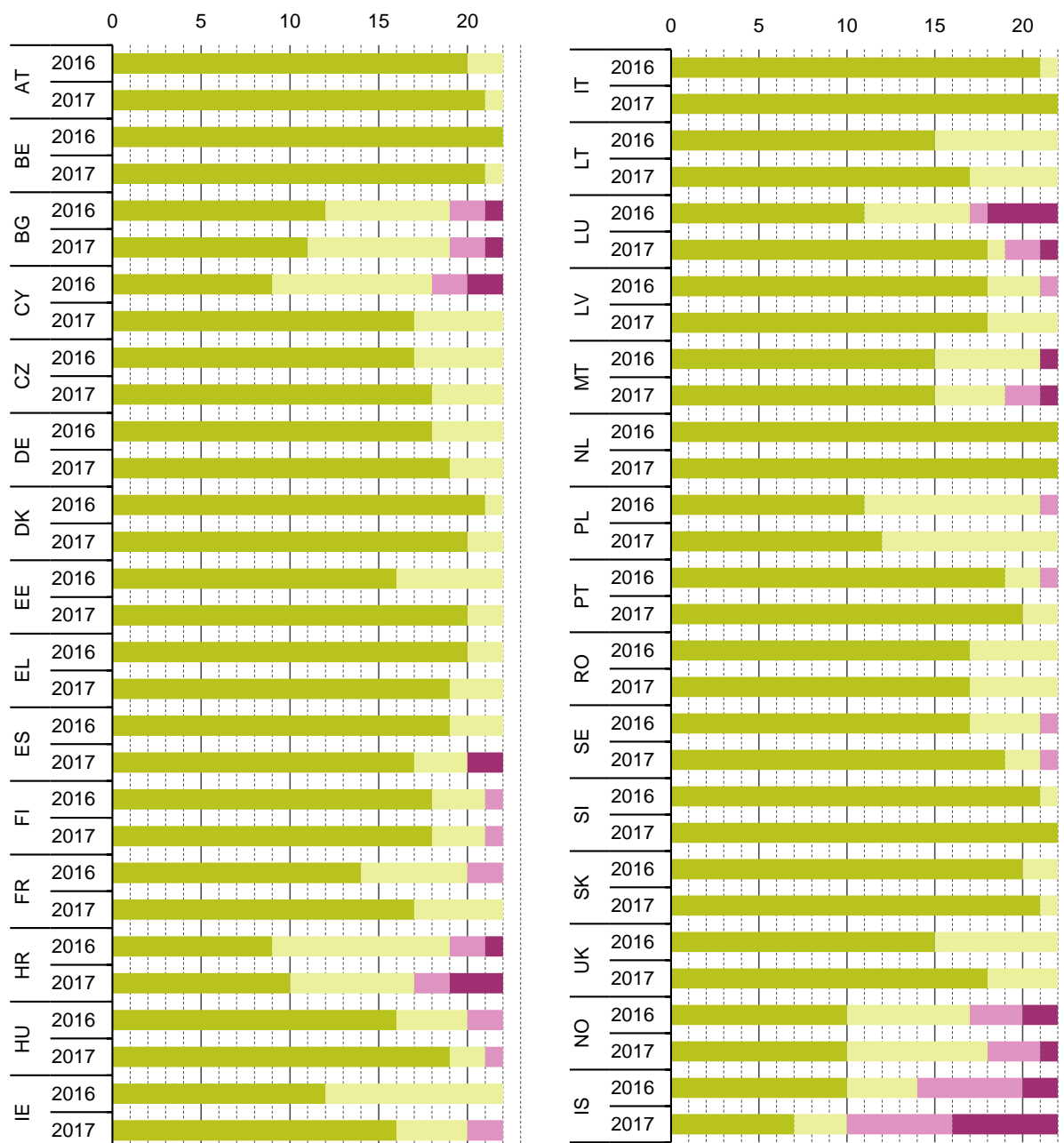


The availability of data has improved since the last Eurostat quality report, with the percentage of complete tables increasing from 74 % to 81 %, and the percentage of almost complete data falling from 21 % to 16 %. There was also a reduction in the share of data delivered with significant shortcomings, or not delivered at all, down from 2 % in 2016 to 1 % in 2017 (percentages are rounded). Overall, data availability has increased for the EU-28 as a whole, as well as for the majority of individual EU Member States and EFTA countries. This trend seems stable. New assessment results will be obtained in January 2019.

The data availability charts per country show in four assessment categories, how many of the 22 tables<sup>(4)</sup> under the ESA 2010 transmission programme were delivered complete, almost complete, with some shortcomings and with significant shortcomings. For a majority of countries, they show progress in the number of tables delivered fully-complete and, except for three countries (Croatia, Spain and Iceland), a fewer tables delivered with significant shortcomings or not delivered at all.

<sup>(4)</sup> Table 29 — accrued-to-date pension entitlements in social insurance - only became mandatory by end-2017. Therefore, this table is not considered in the assessments.

**Figure 4: Evolution of data availability per country from 2016 to 2017, expressed as the number of the 22 tables under the ESA 2010 transmission programme delivered each year, in each of the four availability categories**



- Complete data delivery
- Almost complete data delivery
- Data are delivered with shortcomings concerning important indicators or an accumulation of less important indicators
- Data are delivered with significant shortcomings or not delivered at all



# 5

## Accuracy

**Accuracy** of statistical outputs, in the general statistical sense, is the degree of closeness of computations or estimates to the exact or true values that the statistics were intended 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, revisions are inevitable whenever released statistics report promptly on economic developments despite the fact that some relevant information is still outstanding.

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 public sector transparency and accountability.

Revisions and their correct interpretation have two-sided effects on both users and producers of statistical data. From the users' perspective, revisions improve the information available and thus are welcome. However, they may also lead to an adjustment of measures used in economic analysis and, as a consequence, result in a different assessment of the state of the economy. From the producers' perspective, the new information brought by the revisions describes economic developments more accurately; yet, frequent and/or major revisions can damage data credibility. 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.

Next year's quality report will present an assessment of national data revisions for EU Member States based on an analysis of new quality indicators to be introduced in 2019 (revision rates of quarterly and annual data for selected variables).

### 5.1. Revision policy

The importance of developing a revision policy and performing revision analysis is being 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 and revised transmission programmes in 2014. In principle, the scope of the 2012 HERP extended across 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.

A stocktaking, reported to the CMFB in July 2015, conveyed implementation difficulties: nine EU Member States had implemented the policy by 2014, eight had not, and 12 had implemented it only partially. As a follow-up, the CMFB established the Task Force on Harmonised European Revision Policy (Task Force-HERP) in its July 2015 meeting to address issues related to routine revisions. The Directors of Macroeconomic Statistics of the European Statistical System (ESS) mandated a separate Task Force on Benchmark Revision Policy to investigate benchmark revisions. After two 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. It was recommended that EU Member States disseminate the results of the next benchmark revisions in 2019 and 2024 and that they follow a specific sequence of routine revisions for annual and quarterly data.

### 5.1.2. National revision policies

Most EU Member States and both EFTA countries provide information on national revision policies online. Belgium and Italy published information on their national revision policies in 2017. Ireland, Croatia and Luxembourg have not made their revision policies public. Switzerland only provides information on the revision policy of quarterly national accounts data. However, many available national revision policies often only cover the domain of non-financial accounts or parts of it. So far, few countries provide information to Eurostat on revisions in the domain of financial accounts. Generally, the alignment of national policies to the HERP still remains a challenge. To address these issues, Eurostat made possible for countries to obtain financial support through grants for work on the national revision policy and practice.

## 5.2. Revision practice

According to the HERP, there are two important groups of revisions that represent the core of national accounts compilation, namely routine revisions, and major revisions which are due to changes in methods, data sources and classifications.

Routine revisions are typically revisions which apply to an annual or infra-annual window, combined with a specified depth to backward revisions. In the case of 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 and are published according to a publicly-available, pre-announced release/revision calendar.

The second group of major revisions can be further broken down into two types:

1. revisions which originate from ad-hoc methodological changes or special events; and
2. benchmark revisions that take place on a regular basis (5 to 10 years) to incorporate results of changes in basic data sources and/ or new estimation methods.

## 5.2.1. Revisions of national data

In 2017, eight EU Member States carried out major routine revisions or benchmark revisions of their national data (minor revision in Slovenia).

**Table 2: Major routine or benchmark revisions carried out in 2017**

Country	Revisions carried out
<b>Bulgaria</b>	Routine revisions in SUT which were revised for 2010, and released for 2011 and 2012, and additional units were reclassified in S13 institutional sector. A major revision in 2017 was based on the GNI reserve implemented PIM for CFC in non-market sector. BoP data were also revised (based on the BoP6 methodology implemented in BG National Bank).
<b>France</b>	Usual annual routine revision occurred on May 30th 2017, impacting all accounts (including GDP) for years 2014, 2015 and 2016, followed by corresponding revision of quarterly national accounts.
<b>Croatia</b>	During 2017 CBS made one revision of GDP for time period 2010-2016. Revised annual data were published on 8 November 2017, and revised quarterly data were published on 29 November 2017. The main reason for the revision of time series of data on annual gross domestic product (GDP) is the reservation for the Republic of Croatia resulting from the GNI verifications.
<b>Cyprus</b>	Routine revisions were made for the years 2012-2015. For the year 2015, information from the annual economic surveys (SBS) was incorporated. For the years 2012-2015 updated Government Finance Statistics were adopted.
<b>Hungary</b>	Revisions took place in the GDP/GNI figures for the years 2010-2015 because of changes due to the usual routine revision; small data corrections because of error or faulty data; as well as some methodological changes and work on action points.
<b>Austria</b>	Routine revisions were carried out for the years 2014 and 2015. For 2014 final results from Structural Business Statistics (SBS) and preliminary balanced Supply and Use Tables (SUT) were implemented. For 2015 preliminary results from SBS were available. A benchmark revision done in 2017 resulted from: <ul style="list-style-type: none"> <li>- Methodological clarifications in the Manual on Government Deficit and Debt (MGDD);</li> <li>- Implementation of recent Household Budget Survey (HBS 2014/2015);</li> <li>- Correction for recently detected systematic misreporting in SBS;</li> <li>- Expiring derogation from the ESA 2010 transmission programme (Splitting institutional sectors S.14 and S.15);</li> <li>- Including new information on issues related to globalisation and digital economy.</li> </ul>
<b>Slovenia</b>	Not a full benchmark revision of national accounts, but a new benchmark in dwelling activities of households.
<b>United Kingdom</b>	Benchmark revisions are carried out each year in the annual Blue Book, published either in July or October. The 2017 Blue Book can be found here: <a href="https://www.ons.gov.uk/economy/grossdomesticproductgdp/compendium/unitedkingdomnationalaccountsthebluebook/2017">https://www.ons.gov.uk/economy/grossdomesticproductgdp/compendium/unitedkingdomnationalaccountsthebluebook/2017</a>

A detailed quantitative analysis of the revision rates for data submitted by EU Member States will be performed from 2019, within the context of this quality reporting, as indicated in the Implementing Act. Starting in 2017, and up to March 2018, Eurostat in cooperation with volunteer Member States carried out a project to test and choose revision indicators.

## 5.2.2. Revisions of European aggregates

The revision rates for European aggregates presented are based on two commonly-used statistical measures to gauge the size of revisions of economic variables published on an intra-annual frequency: average revision rates and average absolute revision rates. The latter avoids the offsetting effects of combined negative and positive revisions on the average rate.

### REVISIONS OF GDP AND EMPLOYMENT GROWTH ESTIMATES FOR THE EU AND THE EA

Tables 3 to 6 present the subsequent revisions of EU and EA aggregates released between 2014Q3 and 2017Q3. The **quarter-on-quarter GDP growth rates** and the **year-on-year GDP growth rates** are given in the left part of the tables and the revisions of the growth rates appear on the right part. The last column in both parts contains cells with missing data prior to 2016Q2 because Eurostat did not estimate GDP at t+100 in the first seven quarters after the transmissions under ESA 2010 started. These estimates were reintroduced in the 2016Q2 and are now regularly done. In general, the four GDP estimates (at t+30, t+45, t+65 and t+100) were stable as both average revisions and average absolute revisions were small.

For the reference quarters presented in Tables 7 and 8 (2014Q3-2017Q3), Eurostat's **employment growth estimates** generally have low revision rates between the first estimate, at t+75 days, and the following at t+165 days. Notwithstanding the EU-28 estimates for quarter 2015Q4, which showed higher revisions than usual due to a transmission error by one of the larger Member States, and the quarters from 2016Q4 and 2017Q1, where later growth estimates were notably larger than the earlier ones.

There is a tendency to revise quarter-on-quarter growth rates upwards, even if very slightly. For the period from 2014Q3 to 2017Q3: for the EA-19 estimates upward revisions took place in 9 out of 13 quarters; and for the EU-28 estimates, upward revisions took place in 10 quarters.

**Table 3: Revisions of quarterly GDP for the EA-19 aggregates (quarter-on-quarter growth rates) based on data for reference quarters from 2014Q3 to 2017Q3**

Quarter-on-quarter, Eurostat growth estimates					Quarter-on-quarter revisions			
EA-19	t+30	t+45	t+65	t+100	45-30	65-30	65-45	100-30
2014Q3	0.13	0.16	0.16		0.03	0.03	0.00	
2014Q4	0.22	0.34	0.33		0.12	0.11	-0.01	
2015Q1	0.29	0.40	0.37		0.11	0.08	-0.03	
2015Q2	0.27	0.31	0.36		0.04	0.09	0.05	
2015Q3	0.26	0.30	0.29		0.04	0.03	-0.01	
2015Q4	0.24	0.27	0.31		0.03	0.07	0.05	
2016Q1	0.55	0.52	0.55		-0.03	0.00	0.03	
2016Q2	0.29	0.28	0.30	0.29	-0.01	0.01	0.02	0.01
2016Q3	0.34	0.35	0.35	0.44	0.01	0.01	0.00	0.09
2016Q4	0.50	0.40	0.41	0.48	-0.10	-0.09	0.01	-0.02
2017Q1	0.46	0.49	0.58	0.51	0.03	0.13	0.09	0.05
2017Q2	0.56	0.63	0.63	0.65	0.07	0.07	0.00	0.09
2017Q3	0.58	0.61	0.61	0.71	0.04	0.02	-0.01	0.13
Average revision					0.03	0.04	0.01	0.06
Average absolute revision					0.05	0.06	0.02	0.07

**Table 4: Revisions of quarterly GDP for the EA-19 aggregates (year-on-year growth rates) based on data for reference quarters from 2014Q3 to 2017Q3**

Year-on-year, Eurostat growth estimates					Year-on-year revisions			
EA-19	t+30	t+45	t+65	t+100	45-30	65-30	65-45	100-30
2014Q3	0.75	0.78	0.79		0.03	0.04	0.00	
2014Q4	0.76	0.88	0.86		0.12	0.10	-0.02	
2015Q1	0.88	0.99	1.01		0.11	0.14	0.03	
2015Q2	1.18	1.22	1.53		0.04	0.35	0.31	
2015Q3	1.53	1.57	1.59		0.04	0.06	0.02	
2015Q4	1.47	1.49	1.58		0.03	0.11	0.09	
2016Q1	1.56	1.53	1.67		-0.03	0.11	0.14	
2016Q2	1.58	1.57	1.62	1.61	-0.01	0.04	0.05	0.03
2016Q3	1.61	1.62	1.67	1.76	0.01	0.06	0.06	0.15
2016Q4	1.76	1.66	1.69	1.80	-0.11	-0.08	0.03	0.04
2017Q1	1.70	1.74	1.90	1.86	0.04	0.20	0.16	0.16
2017Q2	2.08	2.15	2.30	2.31	0.07	0.22	0.15	0.22
2017Q3	2.45	2.48	2.59	2.76	0.03	0.14	0.11	0.31
Average revision					0.03	0.12	0.09	0.15
Average absolute revision					0.05	0.13	0.09	0.15

**Table 5: Revisions of quarterly GDP for the EU-28 aggregates (quarter-on-quarter growth rates) based on data for reference quarters from 2014Q3 to 2017Q3**

Quarter-on-quarter, Eurostat growth estimates					Quarter-on-quarter revisions			
EU-28	t+30	t+45	t+65	t+100	45-30	65-30	65-45	100-30
2014Q3	0.27	0.30	0.30		0.03	0.02	0.00	
2014Q4	0.30	0.38	0.41		0.08	0.11	0.03	
2015Q1	0.34	0.42	0.44		0.08	0.10	0.02	
2015Q2	0.38	0.41	0.45		0.03	0.06	0.03	
2015Q3	0.31	0.37	0.37		0.06	0.06	0.00	
2015Q4	0.31	0.35	0.40		0.03	0.09	0.06	
2016Q1	0.50	0.48	0.50		-0.02	0.00	0.02	
2016Q2	0.38	0.38	0.40	0.41	0.00	0.02	0.02	0.04
2016Q3	0.37	0.38	0.38	0.45	0.01	0.01	0.00	0.09
2016Q4	0.56	0.49	0.53	0.57	-0.07	-0.04	0.03	0.01
2017Q1	0.45	0.50	0.56	0.51	0.05	0.11	0.06	0.06
2017Q2	0.59	0.65	0.66	0.66	0.06	0.07	0.01	0.07
2017Q3	0.59	0.60	0.60	0.68	0.01	0.01	0.00	0.09
Average revision					0.03	0.05	0.02	0.06
Average absolute revision					0.04	0.05	0.02	0.06

**Table 6: Revisions of quarterly GDP for the EU-28 aggregates (year-on-year growth rates) based on data for reference quarters from 2014Q3 to 2017Q3**

Year-on-year, Eurostat growth estimates					Year-on-year revisions			
EU-28	t+30	t+45	t+65	t+100	45-30	65-30	65-45	100-30
2014Q3	1.26	1.29	1.30		0.03	0.04	0.01	
2014Q4	1.23	1.32	1.30		0.08	0.07	-0.01	
2015Q1	1.28	1.36	1.45		0.08	0.17	0.09	
2015Q2	1.58	1.61	1.87		0.03	0.29	0.26	
2015Q3	1.80	1.86	1.89		0.06	0.09	0.03	
2015Q4	1.72	1.76	1.84		0.03	0.11	0.08	
2016Q1	1.73	1.72	1.85		-0.02	0.12	0.13	
2016Q2	1.78	1.78	1.85	1.83	0.00	0.07	0.07	0.06
2016Q3	1.81	1.82	1.85	1.92	0.01	0.04	0.03	0.10
2016Q4	1.91	1.83	1.85	1.93	-0.07	-0.06	0.02	0.02
2017Q1	1.91	1.96	2.06	2.06	0.05	0.15	0.10	0.15
2017Q2	2.20	2.26	2.40	2.35	0.06	0.20	0.14	0.15
2017Q3	2.50	2.50	2.59	2.76	0.01	0.10	0.09	0.26
Average revision					0.03	0.11	0.08	0.12
Average absolute revision					0.04	0.12	0.08	0.12

**Table 7: Revisions of quarterly employment growth estimates for the EA-19 aggregates based on data for reference quarters from 2014Q3 to 2017Q3**

Year-on-year growth estimates				Quarter-on-quarter growth estimates			
EA-19	t+75	t+165	165-75	EA-19	t+75	t+165	165-75
2014Q3	0.64	0.74	0.10	2014Q3	0.22	0.23	0.01
2014Q4	0.88	0.85	-0.03	2014Q4	0.13	0.12	-0.01
2015Q1	0.81	0.82	0.01	2015Q1	0.15	0.19	0.04
2015Q2	0.85	0.98	0.13	2015Q2	0.33	0.39	0.06
2015Q3	1.09	1.06	-0.03	2015Q3	0.28	0.31	0.03
2015Q4	1.18	1.24	0.06	2015Q4	0.31	0.32	0.01
2016Q1	1.41	1.45	0.04	2016Q1	0.34	0.35	0.01
2016Q2	1.41	1.34	-0.07	2016Q2	0.39	0.35	-0.04
2016Q3	1.18	1.22	0.04	2016Q3	0.21	0.20	-0.01
2016Q4	1.15	1.36	0.21	2016Q4	0.25	0.36	0.11
2017Q1	1.45	1.56	0.11	2017Q1	0.43	0.50	0.07
2017Q2	1.59	1.61	0.02	2017Q2	0.42	0.44	0.02
2017Q3	1.72	1.70	-0.02	2017Q3	0.39	0.38	-0.01
Average revision			0.044	Average revision			0.022
Average absolute revision			0.033	Average absolute revision			0.033

**Table 8: Revisions of quarterly employment growth estimates for the EU-28 aggregates based on data for reference quarters from 2014Q3 to 2017Q3**

Year-on-year growth estimates				Quarter-on-quarter growth estimates			
EU-28	t+75	t+165	165-75	EU-28	t+75	t+165	165-75
2014Q3	0.92	0.90	-0.02	2014Q3	0.29	0.30	0.01
2014Q4	0.98	1.12	0.14	2014Q4	0.16	0.19	0.03
2015Q1	1.11	1.01	-0.10	2015Q1	0.29	0.32	0.03
2015Q2	0.88	1.04	0.16	2015Q2	0.21	0.27	0.06
2015Q3	1.12	1.04	-0.08	2015Q3	0.36	0.35	-0.01
2015Q4	0.97	1.29	0.32	2015Q4	0.14	0.35	0.21
2016Q1	1.36	1.40	0.04	2016Q1	0.35	0.35	0.00
2016Q2	1.47	1.37	-0.10	2016Q2	0.33	0.34	0.01
2016Q3	1.12	1.07	-0.05	2016Q3	0.19	0.18	-0.01
2016Q4	0.99	1.14	0.15	2016Q4	0.23	0.39	0.16
2017Q1	1.41	1.52	0.11	2017Q1	0.41	0.47	0.06
2017Q2	1.48	1.67	0.19	2017Q2	0.42	0.51	0.09
2017Q3	1.76	1.64	-0.12	2017Q3	0.28	0.23	-0.05
Average revision			0.049	Average revision			0.045
Average absolute revision			0.061	Average absolute revision			0.056

## REVISIONS OF AGGREGATES FOR HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS FOR THE EU AND THE EA

The revisions for releases of EA-19 quarterly **saving rate and investment rate for households and NPISH**, and **investment rate and profit share for non-financial corporations**, are presented in Tables 9 and 10 on data for reference quarters from 2015Q1 to 2017Q3. The early release of data from seasonally-adjusted quarterly European sector accounts occurs at t+94 days, with the final release at t+120 days. The average revision and average absolute revisions are small for all four indicators.

Similarly, Tables 11 and 12 present the revisions for releases of EU-28<sup>(5)</sup> quarterly saving rate and investment rate for households and NPISH, and investment rate and profit share for non-financial corporations. There are no early releases for these aggregate series, therefore the comparison is between the first transmission data (when the news release is produced) and the second transmission of data in the subsequent quarter. The largest revisions are for the profit share of non-financial corporations.

<sup>(5)</sup> Due to the conversion to euro, the European Union key indicators may be affected by movements in exchange rates

**Table 9: Revisions of quarterly saving and investment rates of households and NPISH, for the EA-19 aggregates (seasonally-adjusted) based on data for reference quarters from 2015Q1 to 2017Q3**

EA-19 Households and NPISH							
Saving rate (seas. adjusted data)				Investment Rate (seas. adjusted data)			
Quarter	Early release (t+94)	Final release (t+120)	Revision Final - Early	Quarter	Early release (t+94)	Final release (t+120)	Revision Final - Early
2015Q1	12.78	12.80	0.02	2015Q1	8.25	8.25	0.00
2015Q2	12.78	12.83	0.05	2015Q2	8.29	8.29	0.00
2015Q3	12.83	12.83	0.00	2015Q3	8.29	8.29	0.00
2015Q4	12.68	12.68	0.00	2015Q4	8.35	8.35	0.00
2016Q1	12.92	12.78	-0.14	2016Q1	8.49	8.46	-0.03
2016Q2	12.75	12.79	0.04	2016Q2	8.55	8.55	0.00
2016Q3	12.62	12.49	-0.13	2016Q3	8.50	8.53	0.03
2016Q4	11.98	11.93	-0.05	2016Q4	8.53	8.53	0.00
2017Q1	12.31	12.31	0.00	2017Q1	8.93	8.93	0.00
2017Q2	12.06	12.10	0.04	2017Q2	8.73	8.73	0.00
2017Q3	12.02	12.01	-0.01	2017Q3	8.79	8.79	0.00
Average revision			-0.016	Average revision			0.000
Average absolute revision			0.022	Average absolute revision			0.005

**Table 10: Revisions of quarterly investment rates and profit shares of non-financial corporations, for the EA-19 aggregates (seasonally-adjusted) based on data for reference quarters from 2015Q1 to 2017Q3**

EA-19 Non-financial corporations							
Investment rate (seas. adjusted data)				Profit Share (seas. adjusted data)			
Quarter	Early release (t+94)	Final release (t+120)	Revision Final - Early	Quarter	Early release (t+94)	Final release (t+120)	Revision Final - Early
2015Q1	21.81	21.80	-0.01	2015Q1	39.68	39.65	-0.03
2015Q2	22.30	22.30	0.00	2015Q2	40.03	39.98	-0.05
2015Q3	22.12	22.09	-0.03	2015Q3	39.75	39.71	-0.04
2015Q4	22.18	22.17	-0.01	2015Q4	40.01	39.95	-0.06
2016Q1	22.20	22.14	-0.06	2016Q1	40.11	40.14	0.03
2016Q2	22.17	22.16	-0.01	2016Q2	40.56	40.55	-0.01
2016Q3	21.91	21.88	-0.03	2016Q3	40.63	40.59	-0.04
2016Q4	23.51	23.53	0.02	2016Q4	40.95	40.86	-0.09
2017Q1	22.15	22.15	0.00	2017Q1	40.26	40.25	-0.01
2017Q2	23.24	23.27	0.03	2017Q2	40.81	40.83	0.02
2017Q3	22.44	22.44	0.00	2017Q3	41.36	41.35	-0.01
Average revision			-0.009	Average revision			-0.026
Average absolute revision			0.009	Average absolute revision			0.035



**Table 11: Revisions of quarterly saving and investment rates of households and NPISH, for the EU-28 aggregates (seasonally-adjusted) based on data for reference quarters from 2015Q1 to 2017Q3**

EU-28 Households and NPISH <sup>(1)</sup>							
Saving rate (seas. adjusted data)				Investment Rate (seas. adjusted data)			
Quarter	1st transmission	2nd transmission	Revision 2nd - 1st	Quarter	1st transmission	2nd transmission	Revision 2nd - 1st
2015Q1	10.63	10.76	0.13	2015Q1	7.84	7.91	0.07
2015Q2	10.58	10.16	-0.42	2015Q2	7.88	7.93	0.05
2015Q3	9.78	9.85	0.07	2015Q3	7.95	7.94	-0.01
2015Q4	10.47	10.26	-0.21	2015Q4	8.00	8.04	0.04
2016Q1	10.74	10.43	-0.31	2016Q1	8.06	8.00	-0.06
2016Q2	10.62	10.73	0.11	2016Q2	8.10	8.06	-0.04
2016Q3	10.15	9.99	-0.16	2016Q3	8.10	8.11	0.01
2016Q4	10.06	9.80	-0.26	2016Q4	8.05	8.15	0.10
2017Q1	10.20	9.94	-0.26	2017Q1	8.43	8.33	-0.10
2017Q2	10.63	10.23	-0.40	2017Q2	7.98	8.12	0.14
2017Q3	10.09	:	:	2017Q3	8.19	:	:
Average revision			-0.171	Average revision			0.020
Average absolute revision			0.078	Average absolute revision			0.062

(1) Due to the conversion to euro, the European Union key indicators may be affected by movements in exchange rates

**Table 12: Revisions of quarterly investment rates and profit shares of non-financial corporations, for the EU-28 aggregates (seasonally-adjusted) based on data for reference quarters from 2015Q1 to 2017Q3**

EU-28 Non-financial corporations <sup>(1)</sup>							
Investment rate (seas. adjusted data)				Profit Share (seas. adjusted data)			
Quarter	1st transmission	2nd transmission	Revision 2nd - 1st	Quarter	1st transmission	2nd transmission	Revision 2nd - 1st
2015Q1	22.06	22.02	-0.04	2015Q1	38.90	39.26	0.36
2015Q2	22.16	22.19	0.03	2015Q2	39.56	39.49	-0.07
2015Q3	22.09	22.11	0.02	2015Q3	39.35	39.50	0.15
2015Q4	22.26	21.97	-0.29	2015Q4	39.38	39.44	0.06
2016Q1	22.18	22.11	-0.07	2016Q1	38.97	39.77	0.80
2016Q2	22.22	22.19	-0.03	2016Q2	39.42	39.51	0.09
2016Q3	21.91	21.92	0.01	2016Q3	39.34	39.60	0.26
2016Q4	23.14	23.18	0.04	2016Q4	39.97	40.00	0.03
2017Q1	22.26	22.80	0.54	2017Q1	39.32	39.54	0.22
2017Q2	23.16	23.05	-0.11	2017Q2	39.95	40.05	0.10
2017Q3	22.60	:	:	2017Q3	40.11	:	:
Average revision			0.010	Average revision			0.200
Average absolute revision			0.039	Average absolute revision			0.214

(1) Due to the conversion to euro, the European Union key indicators may be affected by movements in exchange rates

# 6

## Timeliness and punctuality

**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 2016, two major improvements were achieved. Firstly, the GDP flash estimates were advanced by 15 days, from 45 days after the end of the quarter, to 30 days. The first publication of the preliminary t+30 flash estimate of GDP growth in the EU and the EA took place on 29 April 2016, and the flash has been published regularly with this timeliness since then. Secondly, the timeliness of EA area quarterly sector accounts substantially improved in 2016, from around t+120 days to around t+102 days after the reference quarter.

In 2017, the EA quarterly sector accounts further advanced from t+102 days to around t+94 days after the reference quarter. The new first 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.

After gaining experience with the GDP preliminary release, Eurostat and the EU Member States launched a project for compiling EU and the EA early estimates for employment at t+30 and t+45 after the reference quarter. It is planned to finalise the technical work in April 2019. Furthermore, Eurostat and the EU Member States discussed a mid-term strategy to streamline the early GDP and employment releases to bring the current practice closer to the recommended t+30-60-90 day timeliness of PEEIs. For the GDP flashes, the direction is to move progressively to t+30 days publication. Eurostat encouraged Member States providing t+30 national estimates for internal use in the EU estimates to consider their national publication because no systematic difference between the size of revisions for countries publishing after t+30 or t+45 days had been observed. This would bring the EU and the EA GDP publication to t+30-65-100 days schedule. For the employment release, it is considered to put in place a flash estimate if the ongoing feasibility study concludes positively and to advance the current release at t+75 days to t+60 days after the reference quarter. Decisions on the employment release will be taken in the course of 2018–2019.

## 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 how many calendar days the first data transmission was after the legal deadline. Figures 34 to 36 in Annex 3 present in detail the information on punctuality for each national accounts domain for EU Member States as well as for Iceland, Norway and Switzerland.

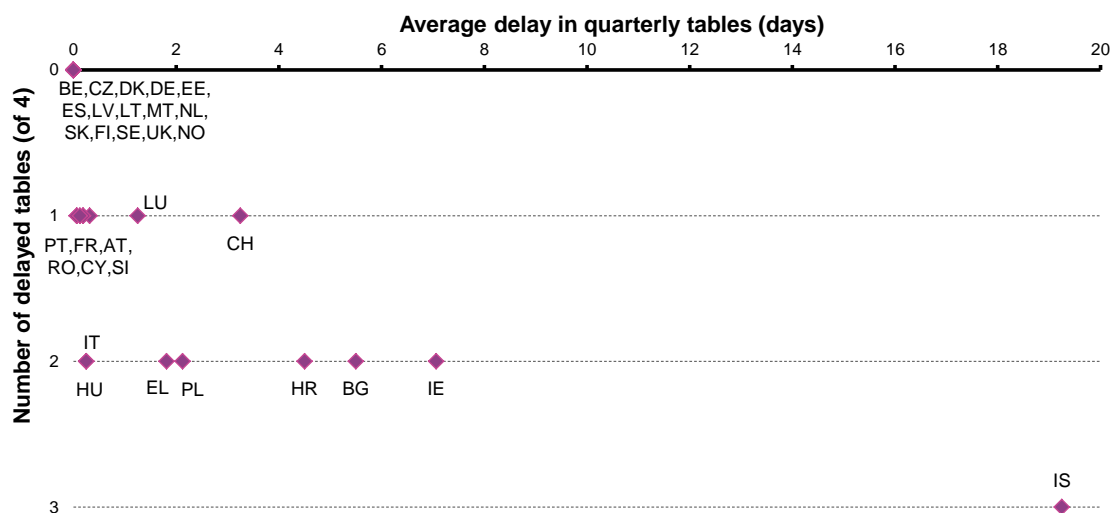
The ESA 2010 Transmission Programme specifies the deadlines for Member States' data deliveries. However, due to derogations, the transmission dates vary across countries. The analyses of punctuality in this section take into account country-specific legal deadlines. The information covers data deliveries made in 2017.

### 6.2.1. Quarterly data

As defined in the ESA 2010 Transmission Programme, Member States must submit to Eurostat quarterly tables within the legal deadlines shown in Annex 1, Table 15.

The overall punctuality of quarterly national accounts was high in 2017 with fourteen EU Member States (Belgium, the Czech Republic, Denmark, Germany, Estonia, Finland, Latvia, Lithuania, Malta, the Netherlands, Slovakia, Spain, Sweden and the United Kingdom) submitting of their mandatory quarterly data by the legal deadline. Six other EU Member States (Austria, Cyprus, France, Portugal, Romania and Slovenia) submitted all but one of their quarterly tables on time, with a delay on the late table of less than one week past the legal deadline.

Figure 5: Punctuality of national accounts quarterly tables reported in 2017



The punctuality indicators for quarterly national accounts data provided by individual EU Member States, as well as Iceland, Norway and Switzerland, can be found in Annex 3. The punctuality for each country is calculated for each of the four reference quarters 2016Q4–2017Q3 which covered the quarterly submissions of all mandatory quarterly tables for each domain in 2017.

The **quarterly main aggregates** of national accounts must be submitted to Eurostat no later than two months after the reference quarter. For eight sub-tables of the mandatory Table 1, on main aggregates, eighteen EU Member States submitted of their quarterly data by the legal deadline. Five other EU Member States submitted one of their quarterly tables with a slight delay of between one to three days past the legal deadline. The lowest punctuality was

observed for Bulgaria, with delays in each quarter, ranging from one day to more than one week. Punctuality issues were also observed (at least one delay of more than one week) for Ireland, Croatia and Luxembourg as well as for Iceland and Switzerland. Shorter delays in some quarters were recorded for Greece, Hungary and Portugal.

Twenty countries submitted **quarterly non-financial sector accounts** on time for all quarters. Substantial delays were observed for Bulgaria and Croatia. Both countries are in contact with Eurostat in order to address the situation regarding data timeliness. Delays of more than one week in some quarters were observed for Ireland, Greece, Poland and Iceland

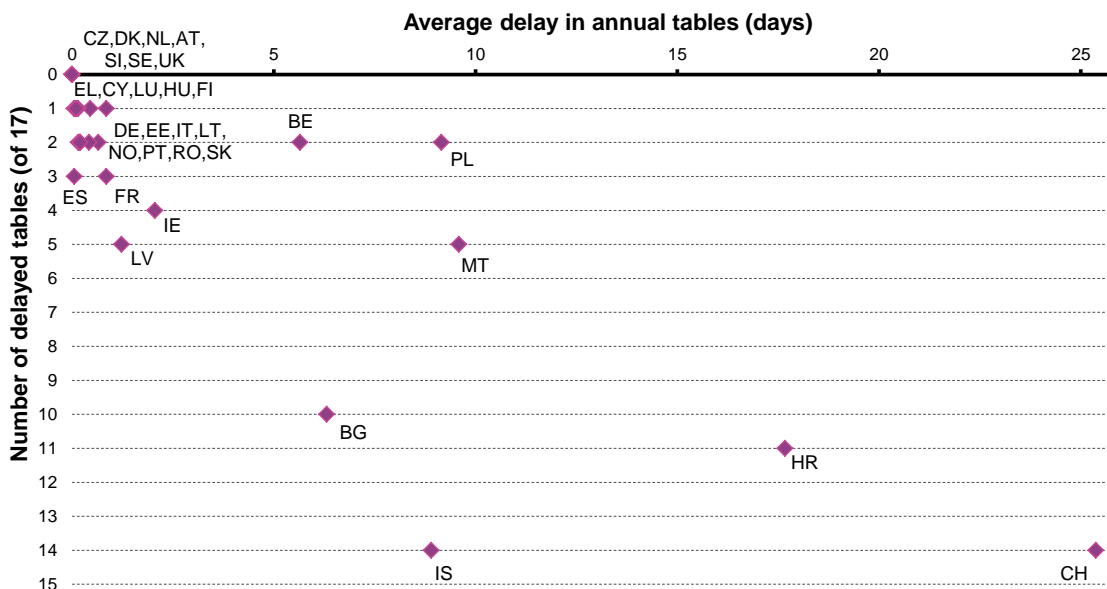
The punctuality of **quarterly government finance statistics** was very high in 2017 and much higher than the punctuality of quarterly main aggregates and non-financial sector accounts. Almost all countries submitted all data before the legal deadline, with short, isolated delays only being observed for France and Iceland (for each, in only a single quarter).

## 6.2.2. Annual data

EU Member States must submit to Eurostat the annual national and regional accounts tables at the transmission deadlines shown in Annex 1, Table 15.

The overall punctuality of ESA 2010 annual tables was relatively low in 2017 as only seven EU Member States (the Czech Republic, Denmark, the Netherlands, Austria, Slovenia, Sweden and the United Kingdom) submitted all required annual national and regional accounts tables<sup>(6)</sup> on time (one less than in 2016). Five EU Member States (Bulgaria, Croatia, Ireland, Latvia and Malta) submitted more than three tables after the legal deadline, and both Iceland and Switzerland had 14 missing or delayed tables out of the 17 ESA 2010 annual tables.

**Figure 6: Punctuality of national accounts annual tables reported in 2017 (excl. 3- and 5-yearly tables)**



The punctuality indicators for annual national accounts data provided by individual EU Member States, as well as Iceland, Norway and Switzerland, can be found in Annex 3. The punctuality for each country is calculated on the basis of mandatory data submissions in 2017. For the annual tables, this comprises the data submitted for the reference years 2014, 2015 and 2016,

<sup>(6)</sup> Not including the five-yearly use and input-output tables, or the three-yearly pension tables. For BG, HR, LV, MT as well as CH and IS, the chart does not include Tables 15 and 16 in the calculation of average delay in annual tables.

depending on the deadlines specified in Annex 1. For the five-yearly use tables (Table 16) and input-output tables (Table 17), this covered data submitted in 2017, or before, for reference year 2010.

Seventeen countries submitted annual Table 1<sup>(7)</sup> of **national accounts main aggregates** on time. For main aggregates data (Table 1A), Croatia and Poland submitted some of their data with a substantial delay (between two and three months after the deadline), for both the t+2 month and t+9 month submissions, as did Switzerland for the t+2 submission. Three other EU Member States had shorter delays for the first submission (t+2 months), with delays ranging from about one week (Luxembourg) to one month (Bulgaria and Finland).

The MIP headline indicator of ULC is derived from Table 1 data. The cut-off date for data extraction for the MIP scoreboard and the 2018 Alert Report Mechanism's Statistical Annex was on 24 October 2017. The late submissions of Table 1, in particular, submissions more than one month past the deadline, make it impossible to fully validate the data for the ULC calculation. Poland in particular has had significant delays in providing data on the compensation of employees, which are needed for the calculation of ULC.

The overall punctuality of tables by industry (Table 3) and household final consumption expenditure by purpose (Table 5) was very high. Only Estonia and Italy submitted Table 3 with a slight delay (less than 1 week). For Table 5, both Estonia and Switzerland had delays of less than one week, while Croatia had a more substantial delay, providing data almost three months past the deadline.

Several countries failed to submit on time their tables due at t+24 months, despite having derogations that expired: Spain for cross-classification of fixed assets by industry and by asset (Table 20); Croatia for cross-classification of gross fixed capital formation by industry and by asset (Table 22); Bulgaria, Spain, Croatia and Iceland for balance sheets for non-financial assets (Table 26). Romania and Norway submitted data for Table 26 with a delay of less than one month.

The punctuality of **annual government finance statistics** tables was very high: for main aggregates of general government (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 to national classification (Table 9<sup>(8)</sup>); and for general government expenditure by function (Table 11). Twenty-nine countries transmitted all data on time, with only Bulgaria transmitting slightly late for both transmissions (Table 2), while Iceland transmitted Table 2 (only second transmission) and Table 9 and 11 with a small delay. None of the countries having submitted data late in 2017 disrupted Eurostat's publication schedule.

Eighteen countries transmitted all data on time in 2017 for tables of annual financial and non-financial sector accounts (Table 6, 7 and 8), due in September 2017. Six other countries submitted tables with only a slight delay of less than one week (see Annex 3).

The transmission of the **annual financial accounts** by sector (Table 6) and balance sheets for financial assets and liabilities (Table 7) was mostly punctual for all 28 EU Member States and Norway. Five Member States (Croatia, Germany, France, Lithuania and Slovakia) submitted these tables with less than one week delay, and two others, Ireland and Latvia, submitted with a delay of between one week and a month, as did Iceland. Of the 22 countries that submitted their annual financial accounts on time, 16 had especially good punctuality, submitting the tables between three and seven months prior to the legal deadline.

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 2017, all EU Member States

<sup>(7)</sup> 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.

<sup>(8)</sup> The transmission of National Tax Lists is not separately reported. National Tax Lists were generally sent (as required) at the same time as the ESA 2010 Table 9. Switzerland did not provide a National Tax List.

submitted the MIP-underlying data on time.

The data on **annual non-financial sector accounts** (Table 8) were submitted on time by 22 countries. Malta submitted with the longest delay, about four months, and delays of three to four weeks were observed for Bulgaria, Poland and Switzerland. Cyprus and Latvia sent data with slight delays (less than one week). Iceland did not provide annual non-financial sector accounts data in 2017.

In 2017, 25 countries submitted on time their annual **supply and use tables** for reference year 2014: the supply table at basic prices including transformation into purchasers' prices (Table 15) and the use table at purchasers' prices (Table 16). Latvia submitted the annual supply and use tables for 2014 after the legal deadline. Bulgaria and Malta did not submit data for 2014, and Croatia did submit data, but which cannot be validated. Tables were also missing for Iceland and Switzerland.

The ESA 2010 Transmission Programme defines the obligation for EU Member States to deliver five-yearly submissions for use tables (Tables 16XX) and for input-output tables (Table 17). These tables are compulsory, to be compiled at basic process for the reference years ending with 0 and 5. The quality reporting exercise for 2016 was the first to look at the initial delivery of these tables following the ESA 2010 implementation. Eight EU Member States delivered on time the five-yearly tables for the reference year 2010 with a deadline of end-2014 (within t+36 months) and four others subsequently delivered on time according to deadlines in individual derogations. This year's quality reporting exercise monitored the subsequent delivery of the data in 2017 of both use tables and the symmetric input-output tables, for the reference year 2010.

The five additional **use tables** (Tables 16XX) are required every five years. They provide data with a higher granularity than annual tables. Seven EU Member States (Belgium, Bulgaria, Cyprus, Latvia, Poland, Portugal and Spain) submitted their tables with several months' or more delay. Greece and Norway submitted or corrected data in their remaining tables in 2017. At the end of 2017, Croatia had not delivered all tables, and while Luxembourg did deliver some of the five-yearly use tables in 2017, it had not delivered all tables.

Sixteen EU Member States, plus Norway, submitted the **input-output tables** (Table 17) for 2010 on time. All EU Member States except Portugal<sup>(9)</sup> have submitted input-output tables for 2010 either by product, or by industry, while the Czech Republic, Hungary and Italy submitted both types of table. As with the five-yearly use tables, a substantial delay, of more than half a year, was also observed for Belgium, Bulgaria, Poland and Spain. Luxembourg only submitted partial data in 2017, and with an almost three year delay. Iceland and Switzerland had not provided input-output tables.

The overall punctuality of **regional accounts** in 2017 was very high. Twenty-three EU Member States, plus Norway, submitted all regional accounts tables on time for data by industry and by region at NUTS level 2 (Table 10) and household accounts by region at NUTS level 2 (Table 13). Belgium, Bulgaria and Croatia submitted data with a less than one months' delay. Only two Member States submitted data with a longer delay after the legal deadline, Ireland (Table 10.1; 52 days) and Malta (Table 13; 39 days).

For regional accounts tables by industry and by region at NUTS level 3 (Table 12), 24 Member States, plus Norway, submitted on time. Bulgaria, France, Croatia and Portugal submitted data with delays ranging from one week to one month. Iceland and Switzerland had not provided any regional accounts tables. Compared to 2016 data submissions, progress was marked with the punctual submission by Luxembourg of Table 13 for household accounts by region, following improvements made as a result of the EU pilot project on non-financial sector accounts.

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<sup>(9)</sup> Portugal submitted input-output tables for the year 2013.

## 6.3. Punctuality of data underlying key indicators

### 6.3.1. MIP indicators

In November of each year, at the beginning of the European Semester process, the Commission publishes the Alert Mechanism Report accompanied by a Statistical Annex on MIP indicators.

The cut-off date for extracting data from the Eurostat database to prepare the Alert Mechanism Report analysis and include in the Statistical Annex is fixed each year, usually at the end of October or the beginning of November. This makes it possible to analyse the most recent national accounts data submitted by EU Member States and validated by Eurostat in the autumn transmission cycle.

In 2017, the cut-off date for submission of data to be used in the preparation of the Statistical Annex to the 2018 Alert Mechanism Report was 24 October 2017. The Annex covered the reference years from 2007 to 2016. Data for 2016 had been submitted by EU Member States at t+9 months and successfully passed Eurostat's validation process. The timely submission of all relevant national accounts data underlying the main aggregates, financial and non-financial sector accounts as well as government finance statistics (as discussed in Section 6.2.2) made possible the smooth validation and timely use of this data for MIP purposes.

One consequence of the fixed cut-off dates is that for the timely submission of the latest year's data, some Member States resort to the provision of preliminary estimates, coupled with the extensive use of flags indicating their provisional or estimated nature. For reference year 2016, nine EU Member States flagged at least one data cell used for an MIP headline indicator either as "P" (provisional) or as "E" (estimated). The Netherlands flagged as provisional the ULC data, three financial accounts indicators, and eleven auxiliary indicators. Eight other Member States similarly flagged their ULC data. Greece, Cyprus, Portugal and Romania flagged eleven auxiliary indicators as provisional, Spain and France flagged ten; Bulgaria flagged five, and Poland flagged three.

### 6.3.2. Principal European Economic Indicators (PEEIs)

PEEIs are the reference point for all users of official statistics dealing with short-term data. They comprise a set of statistical indicators giving an accurate and as timely as possible overview of the economic evolution of the EU, the EA, and individual EU Member States.

In order to supply business-cycle analysts, policy-makers 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:

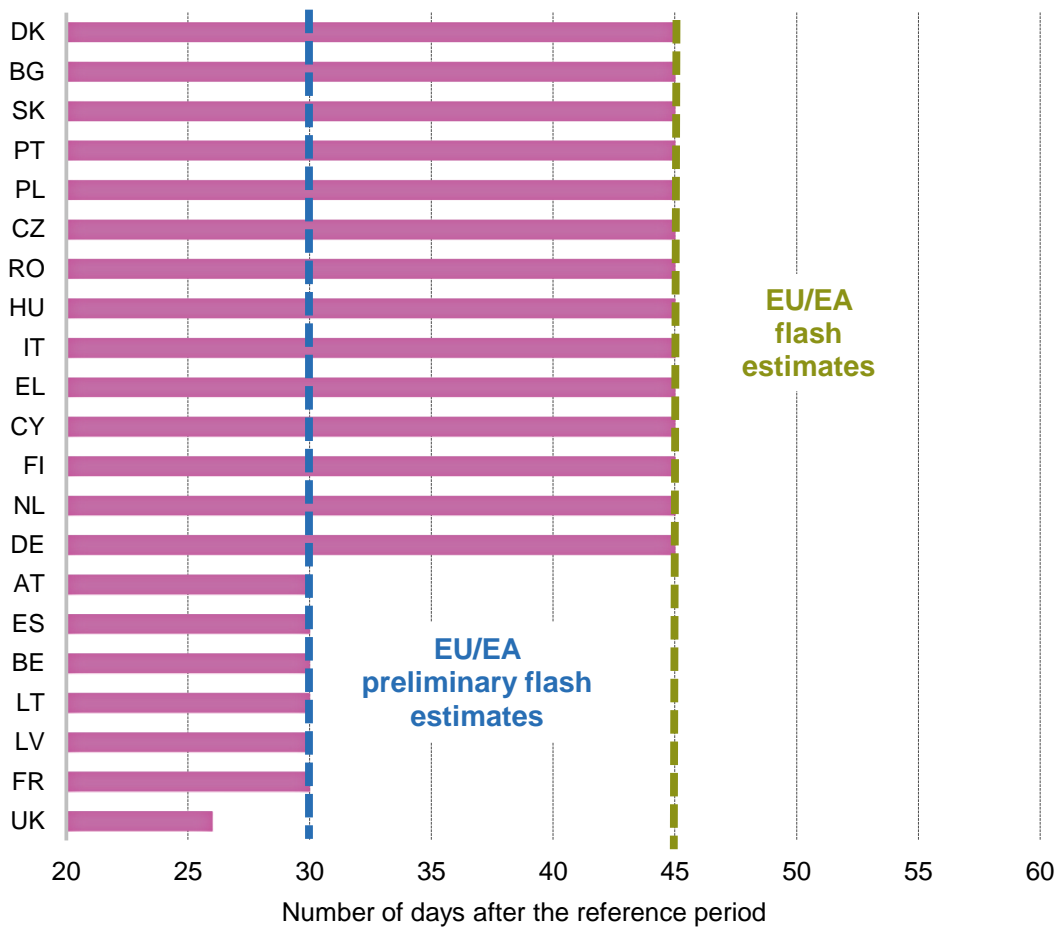
- GDP flash estimates;
- GDP estimates, including GDP components and contributions to growth;
- quarterly sector accounts;
- quarterly government finance statistics.

The transmission dates indicated in Figures 7 and 8 are for data submissions due in the first quarter of 2018, relating to reference fourth quarter of 2017. The transmission dates in Figure 9 are for submissions due in the last quarter of 2017, relating to reference third quarter of 2017.

### FIRST GDP (FLASH) ESTIMATES

Eurostat currently publishes two news releases containing GDP flash estimates for the EU/EA: t+30 preliminary flash estimates and updated t+45 GDP flash estimates. The latter news release contains published country estimates. 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 7: Punctuality of first GDP flash estimate data transmissions for 2017Q4**



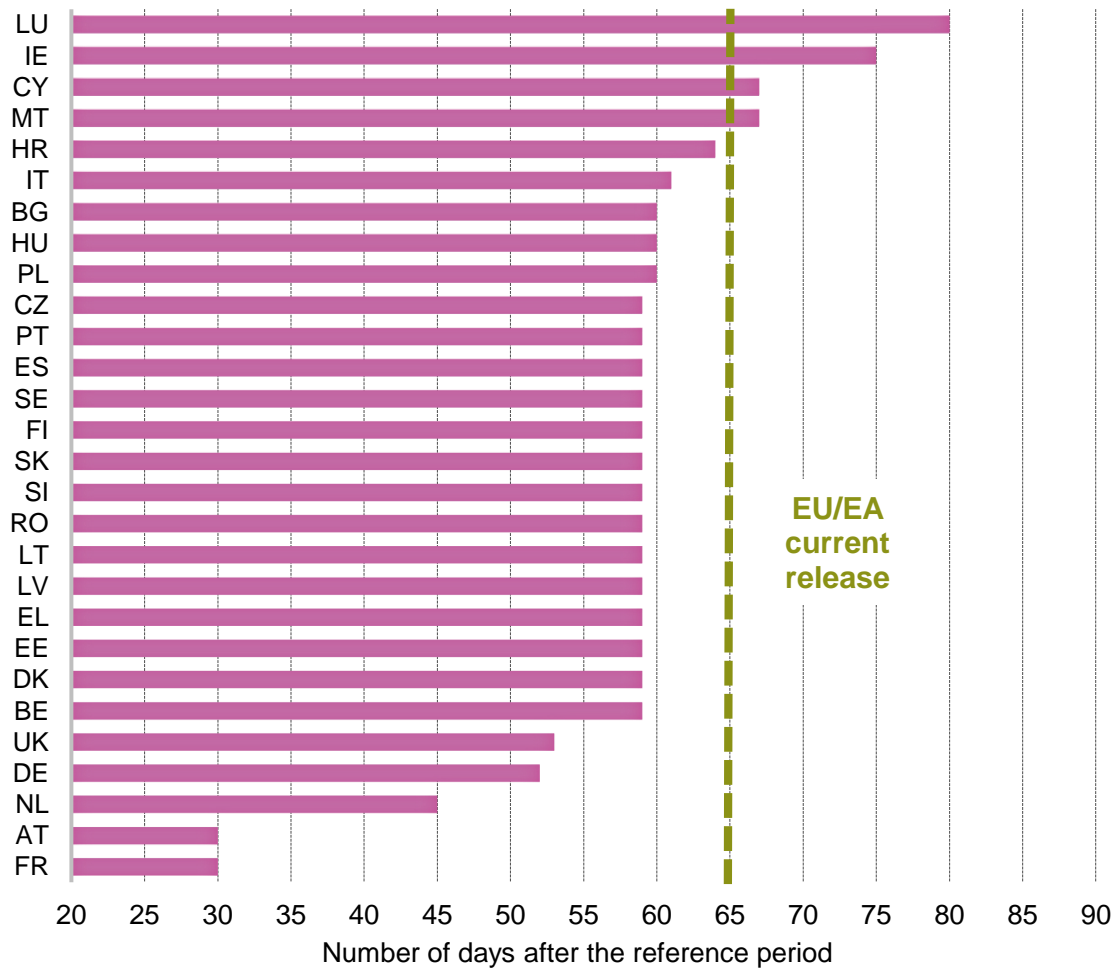


## GDP ESTIMATES AND BREAKDOWNS

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 8 refer to the submission of data for the reference fourth quarter of 2017 which are usually published the next day. Validation problems and/or embargos can, however, cause some additional delays.

**Figure 8: GDP release containing components of GDP, transmission of data for 2017Q4**

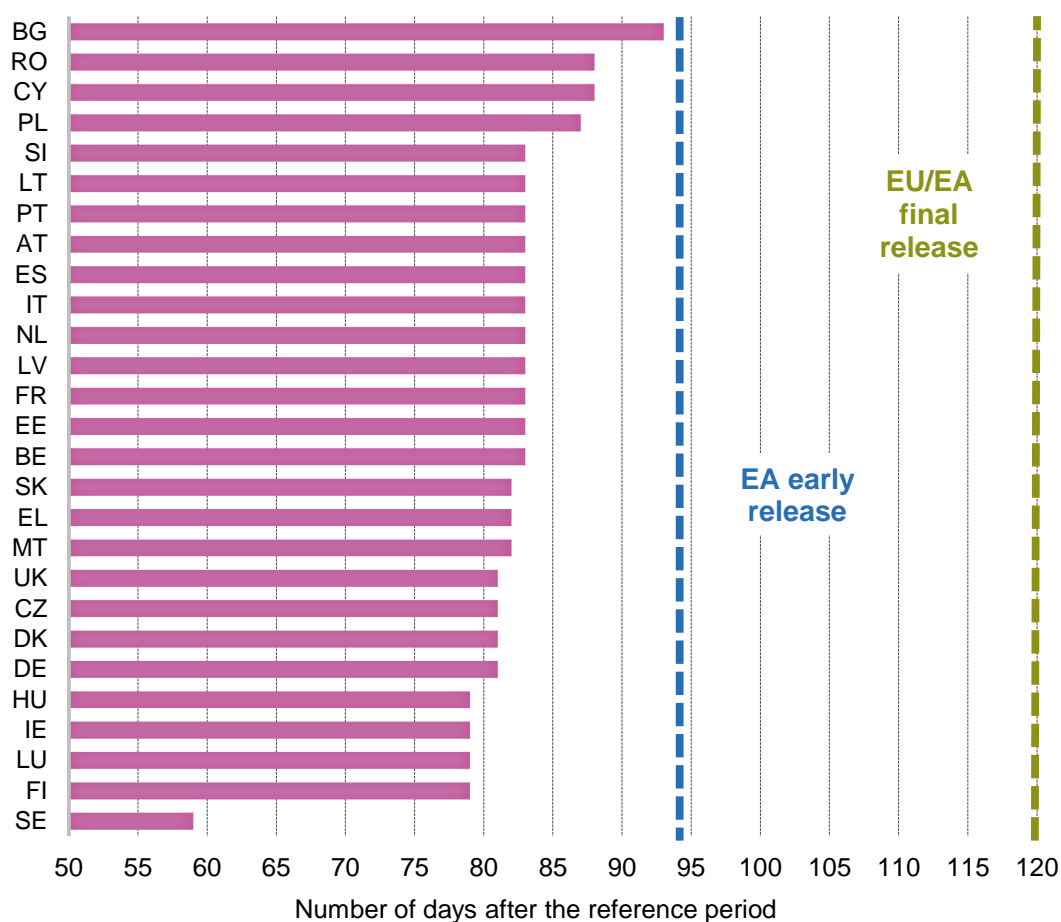


## QUARTERLY SECTOR ACCOUNTS (QSA)

Quarterly sector accounts for the reference third quarter of 2017 were due by 24 December 2017 (t+85 days) for EA Member States and by 31 December 2017 (t+3 months) for non-EA Member States. 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 the both the EA and the EU are released at around t+120 days.

**Figure 9: Household and company accounts, transmission of 2017Q3**



## 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 is 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 modalities by 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, household saving rate, the business investment rate as well as seasonally adjusted government deficit, taxes and social contributions and general government expenditure by function (COFOG). Information from national and regional accounts as well as government finance statistics is also included in Eurostat's yearbook and regional yearbook. In 2017, all information was published on time.

Eurostat implements a policy of free dissemination thus allowing the widest possible user access.

### 7.2. ESA 2010 metadata

To make data easily interpretable, Eurostat maintains a rich depository of generic metadata called [RAMON](#), as well as metadata by ESA 2010 domain:

- Main aggregates ([annual](#) and [quarterly](#));
- Government finance statistics -
  - [Government revenue, expenditure and main aggregates](#);
  - [General government expenditure by function \(COFOG\)](#);
  - [Main national accounts tax aggregates](#);
  - [Quarterly non-financial accounts for general government](#);

- Annual and quarterly financial accounts for general government;
- Quarterly government debt;
- Non-financial sector accounts;
- Annual financial sector accounts;
- Supply, use and input-output tables;
- Regional accounts.

### 7.3. Use of data flags to promote accessibility and clarity

In 2017, Eurostat initiated a study on the use of data flags in the ESA 2010 data production process by EU Member States, as well as countries in the European Economic Area, and EU enlargement countries. The aim of ensuring a more harmonised and transparent practices. The analysis was performed on data submitted up to and including the September 2017 data transmission.

Out of a total of over 27 million observations across the NAMA, NFSA, and AFA domains, the majority (about 95 %) are without flags relating to confidential status, in other words they are transmitted as 'normal' values that are free for publication. Still, the most used confidentiality flags are "N" (not for publication, 2.9 %) and "C" (confidential, 0.9 %), followed by "D" (secondary confidentiality, 0.7 %). These three flags together constitute 4.7 % of all data submissions in these three domains, and as a result, users of ESA 2010 data are deprived of information from a total of about 1.3 million data cells.

One of the main conclusions was that, in the national accounts data transmissions, confidentiality flags have not always been used as intended by the meaning of the flag code lists of the Data Structure Definition (DSD), in particular for the confidential status flags "C" and "N". In the case of flag "C", there is a statutory definition which is restrictive<sup>10</sup> and should be adhered to. In some cases, the "N" flag is used only because the data are not published nationally, but this should not, *de facto*, preclude their publication by Eurostat. In the case of both "C" and "N" flags, a sufficient explanation should be provided by submitting countries to Eurostat, in order to assess the appropriateness of the non-publication of the data or non-forwarding to other international institutions.

Eurostat also found that there is both confusion and lack of coherence in the use of observation flags, especially "M" (missing data), particularly regarding its distinction from related flag "L" (existing, but not collected data), the flag "J" (data are not transmitted due to a temporary derogation), as well as with zero values. The "M" flag should in principle be used only when the transmission is not applicable (e.g. due to methodological or legal reasons.), however, the relatively high share of "M" flags compared to "L" and "J" flags suggests that the former has been misused to some extent.

Moreover, Eurostat recommended that countries should adopt a wider and more frequent use of special observation status flags as data quality attributes, such as "P" (provisional), "E" (estimate), "U" (low reliability), "D" (definition differs), or "B" (break in series). When using the flags, countries should provide relevant explanations. While better use of data flags by countries should be pursued, it is possible that the low use of certain flags is a result of limitations in the national production systems, and further development efforts may be needed in this area.

In conclusion, Eurostat recommended that countries examine their national policies and

<sup>(10)</sup> Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics defines confidential data as "data which allow statistical units to be identified either directly or indirectly thereby disclosing information".

procedures on the use of these flags, and benchmark their practice against other countries, with an objective of improving the accessibility and clarity of national and regional accounts data for users at European level.

## 7.4. Inventories

In addition to regular metadata, EU Member States 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)

Article 3 of [Council Regulation \(EC, Euratom\) No 1287/2003](#) (hereafter referred to as the GNI Regulation) requires EU 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 (the GNI Inventories). These inventories are one of the main instruments enabling Eurostat to assess the 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 checks the GNI inventories and process tables using a GNI Inventory Assessment Questionnaire approved by the GNI Committee. The purpose of the questionnaire is to ensure a systematic, consistent and fair approach to the assessment of the quality of GNI data.

All EU Member States submitted their GNI inventories to Eurostat. The GNI inventories of 10 Member States are entirely available, while 18 other Member States allowed for the publication of only Chapter 1 of their inventories (see Table 13). These are available on [the CIRCABC website "Monitoring GNI for own resource purposes"](#).

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

Under Annex B of 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. 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'.

#### EXCESSIVE DEFICIT PROCEDURE (EDP)

EDP statistics are reported to and verified by Eurostat under the legal provisions of Article 126 of the Treaty on the Functioning of the European Union and Protocol 12 and [Council Regulation \(EC\) No 479/2009](#), as amended by [Commission Regulation \(EU\) No 220/2014](#). 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 EU Member States are required to complete this EDP inventory, while only 23 Member States have provided these inventories under ESA 2010. The inventories are publicly available on the [Eurostat website](#).

**Table 13: Availability of mandatory and voluntary inventories on the Eurostat website and/or CIRCABC public website, as of 31 December 2017**

	Mandatory inventories					Voluntary inventories		
	GNI Entire document <sup>(1)</sup>	Chapter 1	EDP	QFAGG	National Tax Lists	QNA	ASA	QSA
Belgium	✓		✓	✓	✓			✓
Bulgaria		✓	✓	✓	✓			
Czech Republic		✓	✓	✓	✓	✓		
Denmark	✓		✓	✓	✓	✓		
Germany	✓		✓	✓	✓	✓		
Estonia	✓		✓	✓	✓			
Ireland		✓		✓	✓			
Greece		✓	✓	✓	✓	✓		
Spain		✓	✓	✓	✓			
France	✓			✓	✓			
Croatia		✓	✓	✓	✓	✓		
Italy		✓	✓	✓	✓			
Cyprus		✓		✓	✓			
Latvia		✓	✓	✓	✓			
Lithuania		✓	✓	✓	✓	✓	✓	
Luxembourg		✓		✓	✓			
Hungary		✓	✓	✓	✓			
Malta	✓		✓	✓	✓			
Netherlands	✓			✓	✓	✓	✓	
Austria	✓		✓	✓	✓	✓		
Poland		✓	✓	✓	✓	✓		
Portugal		✓	✓	✓	✓		✓	
Romania	✓		✓	✓	✓			
Slovenia		✓	✓	✓	✓		✓	
Slovakia		✓	✓	✓	✓			
Finland	✓		✓	✓	✓	✓	✓	✓
Sweden	✓		✓	✓	✓			✓
United Kingdom		✓	✓	✓	✓			
Iceland								
Norway	✓					✓	✓	

(1) Only the publication of Chapter 1 of the GNI inventory is mandatory.

### 7.3.2. Voluntary inventories

To provide comprehensive information on sources and methods used in the compilation of national accounts data, Eurostat helps countries compile quarterly national accounts inventories as well as annual and quarterly sector account inventories. The compilation and publication of these inventories is 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 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;
- main data sources used.

Ten EU Member States, plus Norway, submitted QNA inventories to Eurostat (see Table 13); these are publicly available on the [Eurostat website](#).

### ANNUAL AND QUARTERLY SECTOR ACCOUNTS (ASA / QSA)

Annual sector account inventories aim to provide a comprehensive overview of national compilation procedures used for annual non-financial accounts by institutional sector, according to the 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 quarterly sector accounts production since most comprehensive data sources are collected annually; hence the compilation of quarterly accounts relies on annual benchmarks whenever quarterly data are not available.

Five EU Member States, plus Norway, submitted their ASA inventories for publication on the [Eurostat website](#) and three submitted their QSA inventories (see Table 13). Only one EU Member State (Finland) submitted both inventories.

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

Eurostat is in the process of collecting updates on the methods and sources used for the compilation of COFOG and quarterly non-financial accounts for general government data. Once information for all countries is available, the current manuals based on the ESA95 will be replaced.

# 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

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

Eurostat ensures the methodological soundness of national accounts data submitted by EU Member States through its validation process. 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 own resources;
- Excessive Deficit Procedure (EDP).

These two verification procedures have their own legal basis (see [GNI](#), [EDP](#)).

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 Validation Handbook. Some of the validation checks included in the Handbook have already been added to the regular validation process for data submitted to Eurostat, while others are in the design and implementation phases. It is an ongoing project to automate validation in accordance with ESS guidelines implementing pre-validation service STRUVAL (structural validation) and CONVAL (content validation). Chapter 4 of the Handbook – *Detailed description of ESA 2010 validation rules* – provides an overview of all the checks carried out by the validation task force across the ESA 2010 Transmission Programme areas and the status of these checks in terms of implementation progress. The validation rules will be updated if necessary as the implementation of the pre-validation services STRUVAL and CONVAL progresses.



The Task Force on Data Validation was created in 2014 in order to address frequent errors in the transmission process, review validation checks performed in Eurostat upon data reception, clarify methodological or practical aspects underlying specific issues, propose validation rules for internal or external pre-validation tools and to investigate possibilities for the collection and dissemination of associated metadata. It followed guidance issued by the ESS Vision Infrastructure Project on Validation when reviewing and developing data validation rules for a pre-validation tool. Its main deliverables and detailed structural and methodological discussions are described in the ESA 2010 Validation Handbook. The Task Force created the Handbook as a living document that will be 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. Based on the ESS Vision Infrastructure Project's suggested structure for an efficient validation process, checks were 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 ID was present, correct use of flags in the observation status to accompany missing values, embargo dates and 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 and consistency between prices;
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 to a previous transmission, the sum of quarterly series compared to the annual transmission, and consistency in the value of the series submitted across different tables in the ESA 2010 Transmission Programme.

### 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 EDP Working Group under the guidance of Directors of Macroeconomic Statistics meetings. These groups prepared many manuals and guidance papers on a broad range of subjects before the ESA 2010 was introduced, including in cooperation with international partners. This work is ongoing.

In 2017, Eurostat, supported by EU Member States, EFTA countries and Switzerland conducted a comprehensive analysis of ESA 2010 data availability and application and justification of derogations and implemented the first quality exercise for data transmitted in line with the ESA 2010 Transmission Programme. Outputs of this work constituted the basis for the report from the Commission to the European Parliament and the Council on the application of Regulation (EU) No 547/2013 and the granted derogations, which was adopted in June 2018.

In the area of national accounts methodology, the challenging subjects of globalisation and digitalisation were discussed. The Early Warning System (EWS) was established in collaboration with business statistics as a practical, non-legal form of exchange of information. The Directors of Macroeconomic Statistics meeting agreed on an approach for dealing with the globalisation issue within the context of GNI for own resource purpose and the launch of GNI

pilot exercise on multinational enterprises. The project on global production and integrated global accounts provided an additional venue to share experiences on the statistical recording of activities of multinationals. A working group led by Eurostat and the OECD started to discuss statistical aspects of intellectual property products. Furthermore, work on the Handbook on Price and Volume Measures continued and Eurostat and the OECD co-published a compilation guide on the balance sheet item 'inventories'.

Eurostat continued to follow up and address quality and compliance issues. Eurostat and ECB signed a Memorandum of Understanding in the area of MIP and conducted their first joint visit to a Member State.

To further address user needs, data requests of key institutional users were thoroughly analysed. The Directors of Macroeconomic Statistics supported the transmission of additional voluntary data to Eurostat, particularly in cases when these data were available at a national level. Eurostat and the Commission's Joint Research Centre presented the progress towards publication of EU inter-country input-output tables, a five-yearly production of EU inter-country supply, use and input-output tables and quality adjusted labour productivity input index. Two projects for new statistical products were launched – a feasibility study of early employment estimates as a joint collaboration of Member States and Eurostat, and a Eurostat study of a full-time adjusted gross average annual salary indicator for all Member States based on a common methodology. Eurostat and the OECD agreed to work closer on the compilation of data on distribution of income, consumption and wealth through micro-macro data linking and to establish a joint working group.

The Task Force on Data Validation concluded successfully its work. This led to the preparation of the ESA 2010 Validation Handbook harmonising the approach to data validation for ESA 2010 and the start of deployment of the updated validation rules in pre-validation services for structural and content validation for Member States. ESA 2010 cross-domain consistency emerged as a subject to be followed up with the Member States. Work on harmonisation of ESA 2010 metadata advanced by reaching consensus on the overall approach. When the CMFB agreed on the update of the harmonised European revision policy for national accounts and balance of payments and published its communication to users, the National Accounts Working Group undertook discussions on recommendations for revisions of ESA 2010 data remaining outside the scope of the harmonised policy. Namely, these data were from the detailed tables transmitted at the end of each year, including regional accounts and supply, input and output tables.

Finally, a new expert-level group on regional accounts conducted its first meeting under a mandate agreed by the Directors of Macroeconomic Statistics.

### 8.1.3. Gross national income (GNI)

GNI at market prices is the main indicator on the basis of which the EU determines Member States' financing of its expenditure, and the GNI concept stems from the ESA definitions. According to 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 EU Member States to calculate GNI and takes measures aimed to improve their quality, with the assistance of a dedicated committee composed of representatives of Member States (GNI Committee). The verification process for GNI is a stricter procedure compared to the one for national accounts.

Based on the GNI inventories presented by EU Member States at the beginning of 2016, Eurostat examines the implementation of the ESA 2010 methodology relevant to the GNI

calculation individually by Member State. Core elements of the verification include information-gathering visits, action points for improvements and, when needed, formal reservations on the quality of GNI data. This process continued in the period covered by this report and has resulted in a number of action points to be addressed by the Member States by September 2019.

Under the GNI verification process, some areas of national accounts are verified through detailed cross-country comparisons (CCCs). In the current GNI verification cycle (2016-2019) the following CCCs have been performed:

- exhaustiveness (absence and misreporting, statistical deficiencies, VAT fraud, use of tax audit information, illegal activities);
- balancing of GDP;
- dwelling services;
- financial services, including financial intermediation services indirectly measured;
- global production, balance of payments (exports and imports of goods and services, cross-border flows of income of labour, cross-border flows of property income, taxes and subsidies to/from the EU, special purpose entities, global production and relocation of multinational enterprises);
- changes between the ESA 95 and ESA 2010;
- research and development;
- weapon systems.

Progress reports on all CCCs have been presented to the GNI Committee. For the CCCs on balancing of GDP and on financial services, the analyses have been concluded and final reports were presented at the April 2018 GNI Committee meeting. CCCs have led to the identification of a significant number of issues that should be addressed by the Member States - through the agreed action points – to further enhance the quality of the GNI data.

Concerning the CCCs that have been finalised, in the field of financial services most of the identified deficiencies concern the treatment of services in acquiring and disposing of financial assets and liabilities in financial markets and – to a lesser extent – FISIM and services provided for direct payment. As to balancing of GDP, for a handful of countries action points have been placed to ensure availability of the SUT- balanced GDP and GNI data in good time for GNI own resource purposes; furthermore some cases of deficiencies with regard to the technicalities and product breakdown of SUT balancing were identified.

Each year, the GNI Committee examines data supplied in reply to the GNI questionnaire, GNI quality reports and other reports and analyses. 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, at its meeting in November 2017 the GNI Committee observed that considerable improvements have been made in the harmonisation and quality of the GNI estimates of the EU27 Member States. It considered that, taking due account of the GNI reservations set for the EU27 between January 2012 and October 2017, these data are appropriate for use for own resource purposes with respect to reliability, comparability and exhaustiveness in accordance with Article 5(2)b of the GNI Regulation. However, the GNI Committee also underlined that the improvement of GNI calculations and of national accounts, in general, is a continuous process. It stressed that research and studies should be taken further and that work should be pursued with an appropriate level of resources. The GNI Committee's opinion on Croatia's GNI data is an integral part of this general opinion.

All compilers of ESA 2010 data closely follow methodological improvements aimed at GNI for own resources. Such improvements are then applied to relevant ESA 2010 tables.

#### 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 EU Member States and for providing the statistics to be used for the EDP ([see also other legal basis](#)). It is solely responsible for the interpretation of the methodology underlying these statistics. This methodology is based on the ESA 2010 and on Eurostat's Manual of Government Deficit and Debt, as well as Eurostat's decisions and guidance notes. It has been developed based on a broad consensus of the EU statistical community.

In the fields of EDP and government finance statistics (GFS), Eurostat's mission is to be the guardian of the EU Member States' implementation of the 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 respects 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.

In the field of GFS data reported in the ESA 2010 Transmission Programme, Eurostat, in close cooperation with Member States, ensures the consistency of data within the dataset, consistency with other GFS data, and consistency with EDP data. In the context of regular transmission reports<sup>11</sup>, 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 as well as ad-hoc studies and discussions. These task forces routinely report their findings to the working group on EDP statistics for validation.

<sup>11</sup> Covering completeness, coherence, basis and advance plausibility checks, revisions, growth rates, unexpected amounts, etc. and providing for Member States' explanations.

## 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 dataset, countries provide time series back to reference years 2000 and even 1995. Quality reporting on breaks in time series of submitted data will be introduced in 2021. This report comments only on the availability of data for the last 10 years in the context of the MIP.

# 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. This year's edition of quality reporting assesses it with the help of three quality indicators, as presented below. The full scope of nine coherence indicators will be employed in the assessments carried out in 2019 and 2021. Next year's quality report will introduce an assessment of the coherence between non-financial and financial accounts data from EU Member States based on an analysis of new quality indicators to be introduced in 2019.

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

- coherence between quarterly and annual data;
- coherence between totals and sum of components;
- coherence of identical variables across national accounts main aggregates tables.

### 9.1. Coherence between quarterly and annual data

When quarterly and annual data are submitted to Eurostat, it is important to ensure that these figures are consistent with annual data. Small differences may be tolerated, but not major ones.

Consistency between annual data and the sum of the data for the four individual quarters was analysed for certain key EU aggregates in the context of this quality reporting exercise. The analysis covered the differences between annual data and the sum of the four respective quarters of data over the period 2012 to 2016, 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.

In the analysed period from 2012 to 2016, for **national accounts main aggregates**, only very few EU Member States showed small inconsistencies between annual and quarterly data for some years (less than 0.2% of GDP), possibly due to the different vintages of data.

For **non-financial sector accounts**, the exercise is valid only for the 19 EU Member States (plus Norway) that have complete reporting obligations at quarterly level or which send these data on a voluntary basis, such as Croatia, Estonia and Slovenia. Consistency between quarterly and annual data in 2012-2016 was very good for 19 countries, with very minor discrepancies observed for Greece (up to 0.7% GDP), Croatia (0.1% GDP) and Finland (up to 0.2% GDP). For the United Kingdom, annual and quarterly data are consistent by the way of compilation. However, the unsuccessful validation due to the major inconsistencies with the government data resulted in significant differences in the data disseminated by Eurostat (up to 5.7% GDP).

## 9.2. 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 context of the 2017 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;
- 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 from 2012 to 2016, for national accounts main aggregates and for the latest four quarters, the overall results of consistency checks between totals and sums of components were good.

## 9.3. Coherence of identical variables across national accounts main aggregates tables

National accounts main aggregates data for some key variables are sent in various tables of 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 is sent in Tables 1 and 8; gross fixed capital formation data is 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 context of 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.

In the context of 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);
- total employment, employees and self-employed for annual data in thousands of persons between Tables 1 and 3.

In the analysed period from 2012 to 2016, for national accounts main aggregates, data were in general internally coherent for both annual and quarterly frequencies. Several more substantial differences were observed in annual data between Tables T102A-T2200A, T102A-T302A for Germany, the Netherlands and the United Kingdom; and for quarterly data in Tables T101QA-T102AQ and T102Q-T103QA for Ireland.



# 10 Overall quality assessment and recommendations

This chapter summarises the results of the quality assessment of the national and regional accounts data submitted by the EU Member States, Iceland, Norway and Switzerland in 2017, as well as Eurostat's own publications of European aggregates. It is the second such assessment since the introduction of the ESA 2010 in September 2014. The scope is limited due to ongoing adjustments in the process of adapting national statistical systems to the new requirements of the ESA 2010 by 2020.

The data sent in 2017 were broadly in line with quality standards of the ESS and the ESA 2010 Regulation. Many EU Member States have been able to comply with the new data requirements and methodology, while the process of adapting national data compilation systems will continue until 2020. Based on the quality criteria used in the assessment, the overall results are presented below.

## RELEVANCE

National and regional accounts data are highly relevant to users as demonstrated by the latest user satisfaction survey of Eurostat.

In 2017, both quarterly and annual national accounts mandatory data had high completeness.

The EU-28 average completeness rates for tables for national account main aggregates (NAMA), government finance statistics (GFS), non-financial sector accounts (NFSA) and annual financial accounts (AFA) were between 91.8 % and 100 %; for supply, use and input-output tables (SUIOT) and regional accounts (RA) tables, they were between 92.7 % and 99.8 %.

The EU-28 average completeness rates for quarterly data ranged from a low of 93.3 % for NFSA to a high of 100 % for GFS. For annual data, the EU-28 average completeness rate over all domains reached 97.1 % (arithmetic average over all tables). The rate ranged from a low of 91.8 % for balance sheets for non-financial assets (Table 26) to a high of 99.9 % in the annual main aggregates table of GFS (Table 2).

For quarterly tables, almost all of the EU Member States (25 out of 28) submitted all, or nearly all, of the required data (completeness rate above 95 %). Seven Member States achieved a full completeness rate for all quarterly tables. For annual tables, 23 Member States submitted all, or nearly all, mandatory data (completeness rate above 95 %). The majority of EU Member States submitted incomplete data in five or less annual tables in 2017.

Eurostat finds it important to acknowledge the effort made by all countries to submit additional data on a voluntary basis for the benefit of users.

The availability of data has improved since the last Eurostat quality report, with the percentage of complete tables increasing from 74 % to 81 %, and the percentage of almost complete data falling from 21 % to 16 %. There was also a reduction in the share of data delivered with significant shortcomings, or not delivered at all, down from 2 % in 2016 to 1 % in 2017 (percentages are rounded). Overall, data availability has increased for the EU-28 as a whole,

as well as for the majority of individual EU Member States and EFTA countries. This trend seems stable.

## ACCURACY

The analysis of revision rates for GDP and employment flash estimates for European aggregates showed that the accuracy of estimates in the analysed period was high, as was the accuracy of releases of aggregate data from quarterly sector accounts.

Under the Implementing Act, the detailed analysis of revision rates for data submitted by Member States will be incorporated into the quality reporting as from 2019. In this second quality report, the assessment of accuracy is based solely on the qualitative information on revisions provided by the NSIs themselves.

In 2017, eight EU Member States performed either major routine or benchmark revisions of their national accounts data. These revisions aimed to improve the quality of data and were mainly related to the further implementation of statistical standards, GNI Reservations or resulting from revisions of related statistics e.g. balance of payments or structural business statistics.

Most EU Member States as well as the two EFTA countries make information on their national revision policies available online.

The content of 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. On the contrary, information on revisions for financial accounts, regional accounts and supply use input output tables is missing on most national websites.

## TIMELINESS AND PUNCTUALITY

Overall, the punctuality of transmission of quarterly national accounts was high in 2017 with over two-thirds of countries submitting all mandatory quarterly accounts on time or with a short delay on only one table, while the punctuality of transmission of annual data was lower.

Fourteen EU Member States, plus Norway, submitted all mandatory quarterly accounts at or before the legal deadline. Six other EU Member States submitted all but one of their quarterly tables on time, with a delay on the late table of less than one week past the legal deadline. For the seventeen ESA 2010 tables transmitted annually, only seven Member States submitted all required annual national and regional accounts tables on time (one less than in 2016). Five Member States submitted more than three tables after the legal deadline, and both Iceland and Switzerland had 14 missing or delayed tables.

Thanks to the punctuality of data submitted by EU Member States, the Eurostat's flash estimates and news releases of the European aggregates underlying the PEEIs remained timely.

## ACCESSIBILITY AND CLARITY

All EU Member States and EFTA countries publish online documentation on national accounts methodology and compilation methods. However, the content of the available information varies substantially across countries and could be enriched where appropriate. A comprehensive set of documentation is accessible online for around half of EU Member States. Progress was marked in 2017 with two more Member States publishing EDP inventories and three more Member States, plus Norway publishing voluntary QNA inventories.

## COHERENCE

The analysis of coherence in the context of this quality report is limited as only the internal coherence of certain main aggregates tables was subject to detailed analysis. The full scope of nine coherence indicators will be employed in the assessments carried out in 2019 and 2021.

Overall internal coherence within (Table 1) and between Tables (1 and 3, 1 and 22) was very high for nearly all countries in 2017. Small discrepancies noted for a few countries were mainly caused by vintage issues or rounding practices.

Based on the quality assessment, Eurostat makes the following **general recommendations** to countries, encouraging them to strive to:

- continue to adapt national statistical systems to achieve full implementation of ESA 2010;
- ensure full data completeness of mandatory data in order to comply with the ESA 2010 Regulation;
- respect the transmission deadlines set out in the ESA 2010 Regulation and address the overall delayed delivery of annual data;
- implement the improvement actions on the ESA 2010 methodology which have been identified in the context of GNI for own resource purposes (as of May 2018);
- make specific information on implemented major revisions by ESA 2010 table or domain available to users on national websites;
- transmit reference metadata in accordance with the Single Integrated Metadata Structure (SIMS) v. 2.0, as well as explanatory metadata on major events, major revisions, and series breaks.

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

**Table 14: Country-specific recommendations**

Recommendation	Countries*
Improve compliance in terms of the completeness of certain tables	<b>BG, CZ, EE, EL, ES, FR, HR, HU, IE, CY, LV, LT, LU, MT, RO, PL, SI, FI, SE, UK</b> <b>IS, NO</b>
Improve compliance in terms of the punctuality of certain tables	<b>BG, EL, ES, FR, HR, IE, LV, LU, MT, PL, RO</b> <b>IS, CH</b>
Address systematic difficulties in delivering NFSA data to Eurostat	<b>BG, HR, LU, MT</b> <b>IS</b>
Develop and publish information on the national revision policy	<b>ES, HR, IE, LU, MT, RO</b> <b>CH</b>
Foster efforts towards alignment of the national revision policy to the harmonised European revision policy endorsed by the CMFB	<b>CZ, DK, EL, FR, HR, IE, LT, LU, HU, MT, NL, PL, FI, SE, UK</b>
Widen the scope of the methodological documentation available online	<b>BG, CZ, EL, HR, CY, LV, MT, SK</b> <b>CH, NO</b>
For Table 27, achieve adherence with ESA 2010 methodology and comparability with related GFS tables	<b>EL</b>
Ensure further the consistency of annual and quarterly financial accounts	<b>BG, DK, IE, LT, LV, SK</b>
Reduce vertical discrepancies between financial and non-	<b>BG, EL, HR, LV, MT, FI, SE</b>

financial sector accounts	IS
Ensure further the consistency of annual and quarterly non-financial sector accounts	EL, HR, LU, PL, RO, FI
Address the differences between quarterly NFSA and quarterly GFS data	MT, AT, PL, UK
	NO
Address coherence issues annual and quarterly NAMA data and between NAMA and NFSA data.	IS
Improve the data transmission to implement accurately the recommendations of the ESA 2010 Validation Handbook regarding data flags	BE, EL, ES, HR, IE, CY, LT, LU, MT, PL, RO, FI, SE
	NO
Participate in activities on metadata, under the umbrella of the NAWG	AT, BE, EE, FI, FR, IT, CY, LV, LT, LU, MT, NL, PL, PT, RO, SE, UK
	NO
Transmit explanatory metadata on major events, major revisions, and series breaks along with the annual FA data	AT, BE, DE, DK, EL, ES, FR, HR, CY, LV, HU, NL, PL, PT, RO, FI, SE, UK
	IS, NO
Pursue the development/update of the voluntary ASA inventory	BE, DE, DK, EE, EL, ES, FR, IT, CY, LU, HU, MT, NL, UK,
Pursue the development/update of the voluntary QNA inventory	BG, EE, ES, FR, IE, IT, CY, LV, LU, HU, MT, RO, SI, SK, SE, UK

\* Countries in bold denote those with major gaps to be addressed.

# Annexes

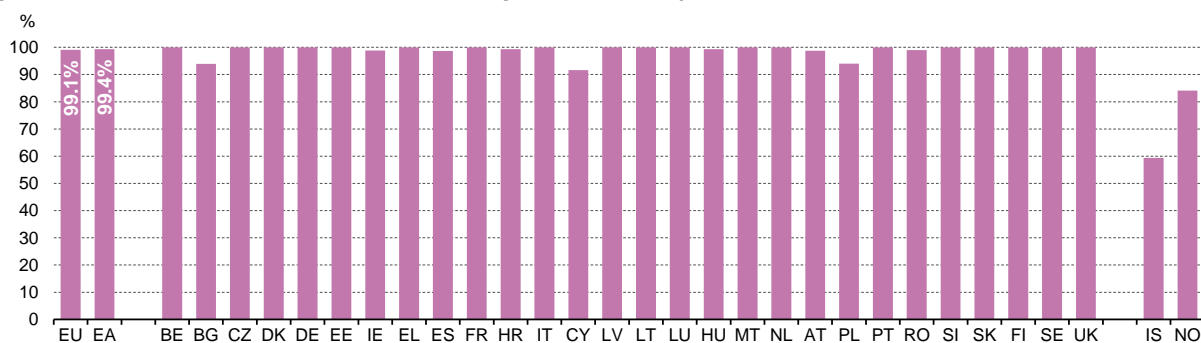
## Annex 1: ESA 2010 Transmission Programme

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

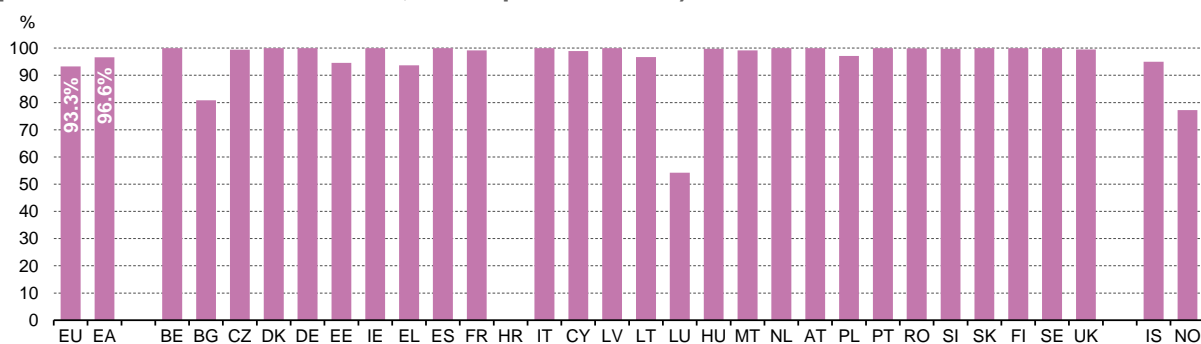
Table No	Subject of the tables	Frequency	Deadline t + months (days where specified)	Period covered
T1Q	Main aggregates	quarterly	2	1995Q1 onwards
T1A	Main aggregates	annual	2/9	1995 onwards
T2	Main aggregates of general government	annual	3/9	1995 onwards
T3	Tables by industry	annual	9/21	1995 onwards
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	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	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

## Annex 2: Completeness rates per ESA 2010 domain and table

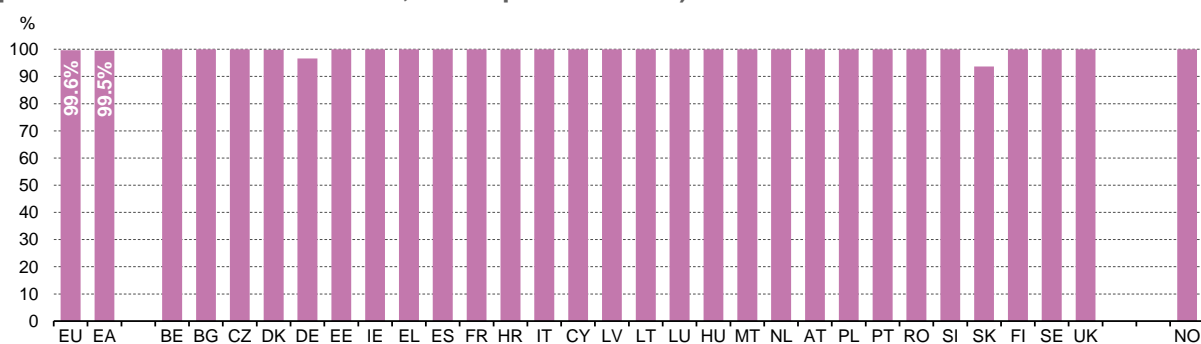
**Figure 10: Table 1Q - Main aggregates - quarterly**  
(period covered: 1995Q1–2017Q3, data reported in 2017)



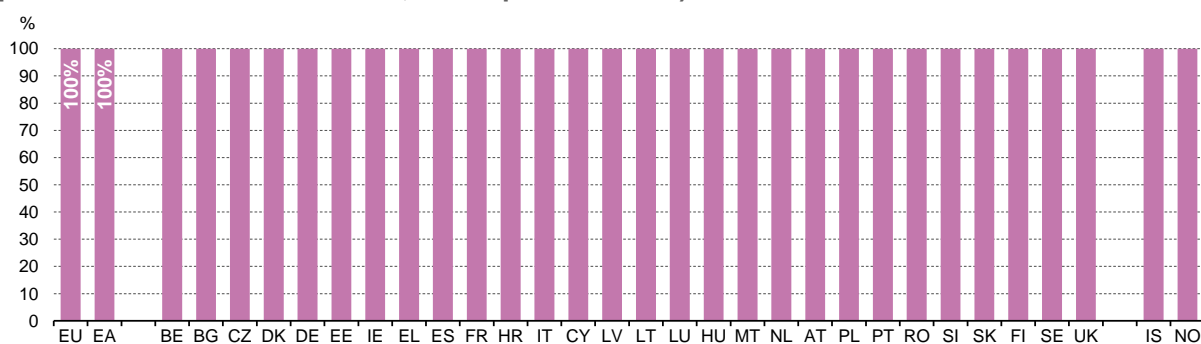
**Figure 11: Table 801 - Non-financial accounts by sector - quarterly**  
(period covered: 1999Q1–2017Q3, data reported in 2017)



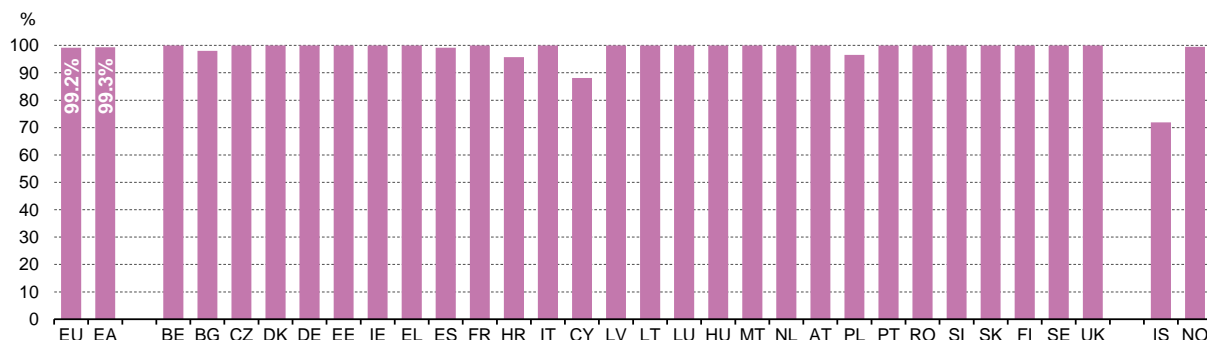
**Figure 12: Table 27 - Financial accounts of general government - quarterly**  
(period covered: 1999Q1–2017Q3, data reported in 2017)



**Figure 13: Table 28 - Government debt (Maastricht debt) for general government - quarterly**  
(period covered: 2000Q1–2017Q3, data reported in 2017)



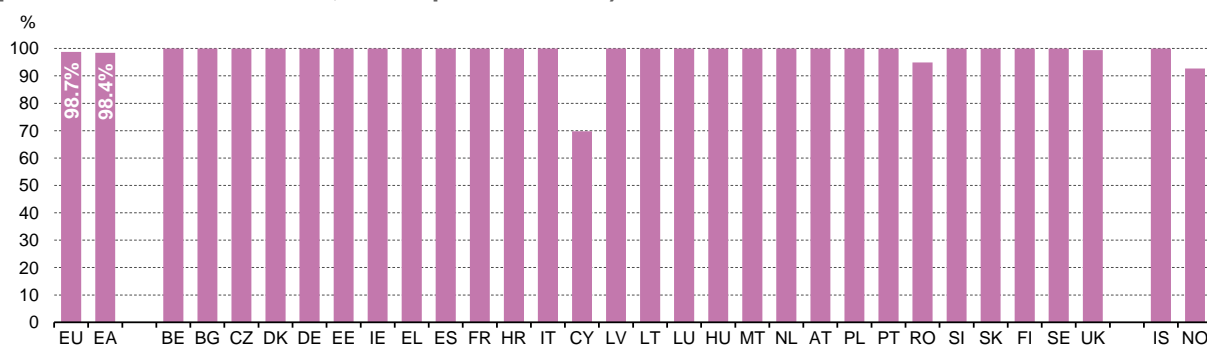
**Figure 14: Table 1A - Main aggregates - annual**  
(period covered: 1995–2016, data reported in 2017)



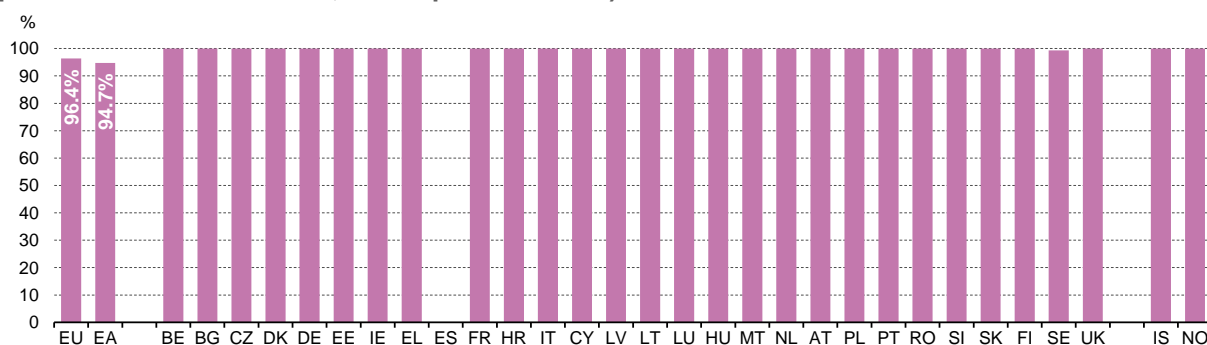
**Figure 15: Table 3 - Tables by industry - annual**  
(period covered: 1995–2016, data reported in 2017)



**Figure 16: Table 5 - Household final consumption expenditure by purpose - annual**  
(period covered: 1995–2016, data reported in 2017)

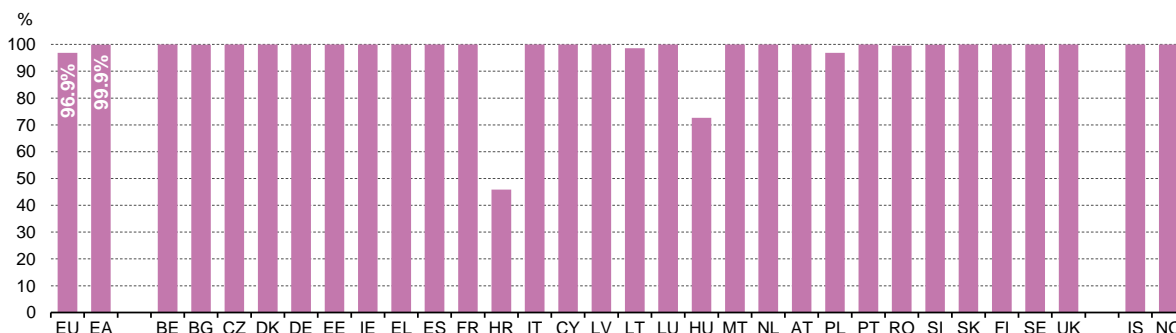


**Figure 17: Table 20 - Cross classification of fixed assets by industry and by asset - annual**  
(period covered: 2000–2015, data reported in 2017)

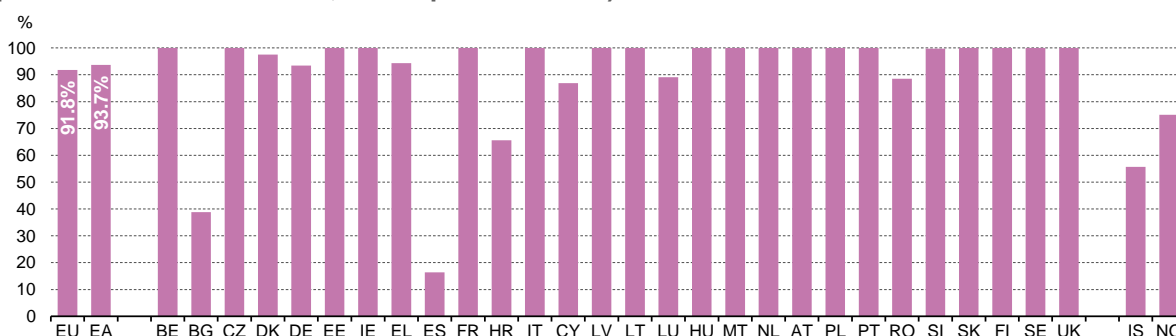




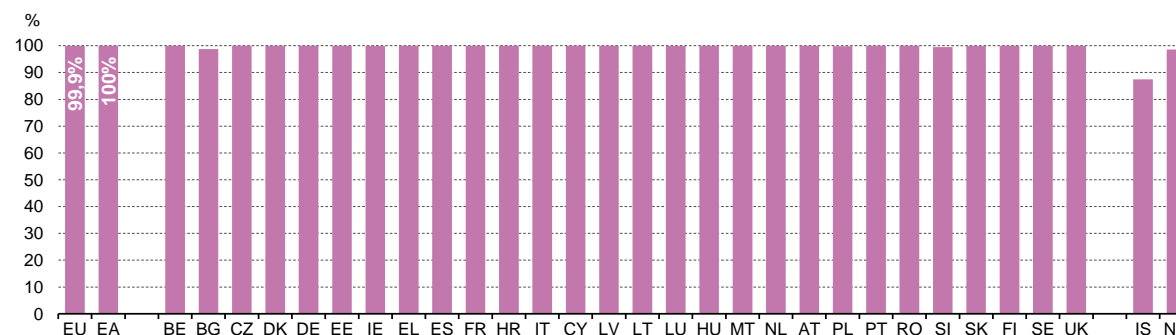
**Figure 18: Table 22 - Cross classification of gross fixed capital formation by industry and by asset – annual (period covered: 1995–2015, data reported in 2017)**



**Figure 19: Table 26 - Balance sheets for non-financial assets - annual (period covered: 1995–2015, data reported in 2017)**



**Figure 20: Table 2 - Main aggregates of general government - annual (period covered: 1995–2016, data reported in 2017)**

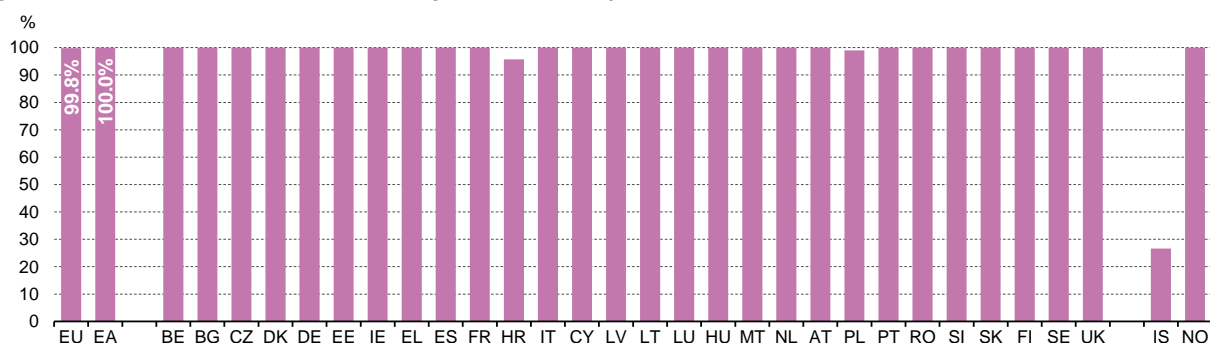


**Figure 21: Table 9<sup>12</sup> - Detailed tax and social contribution receipts by type of tax and social contribution and receiving subsector including the list of taxes and social contributions according to national classification – annual (period covered: 1995–2016, data reported in 2017)**

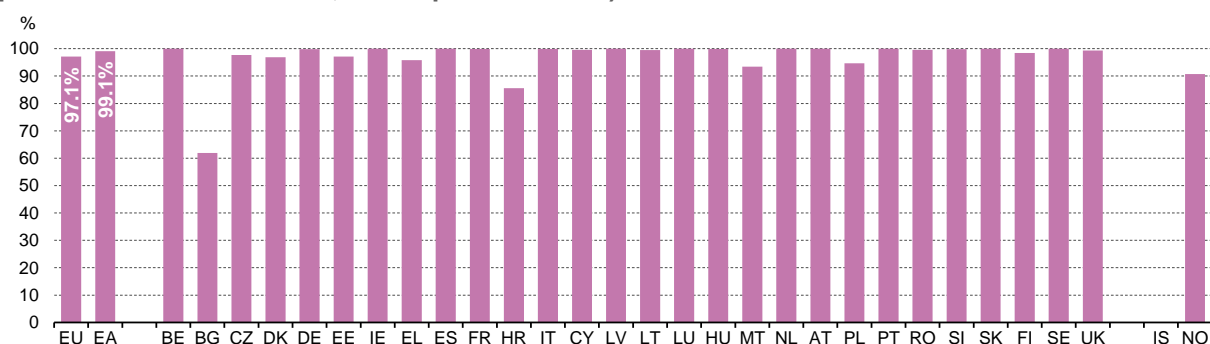


<sup>12</sup> The transmission of National Tax Lists is not separately reported. National Tax Lists were generally sent – as required – at the same time as the ESA table 9. Switzerland did not provide a National Tax List.

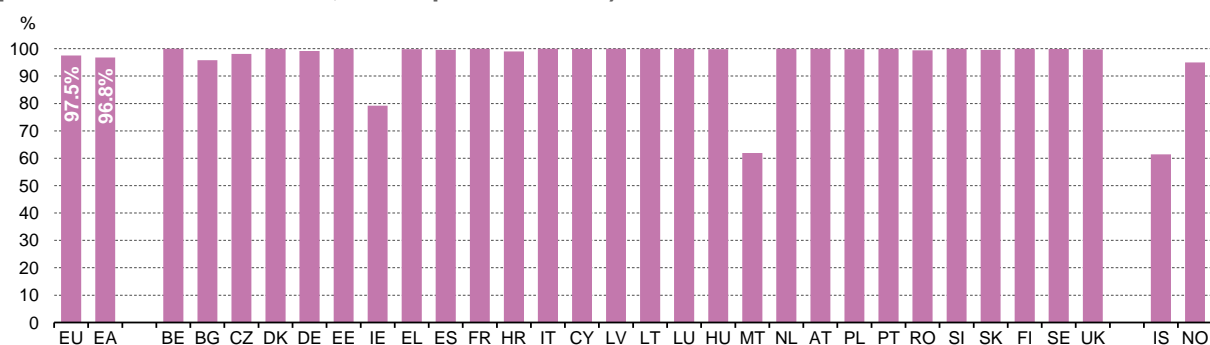
**Figure 22: Table 11 - General government expenditure by function - annual**  
(period covered: 1995–2016, data reported in 2017)



**Figure 23: Table 8 - Non-financial accounts by sector - annual**  
(period covered: 1995–2016, data reported in 2017)



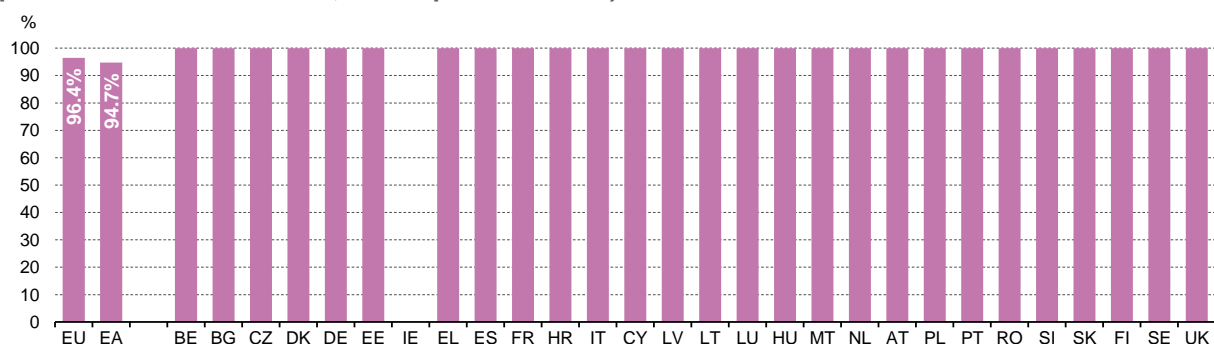
**Figure 24: Table 6 - Financial accounts by sector (transactions) - annual**  
(period covered: 1995–2016, data reported in 2017)



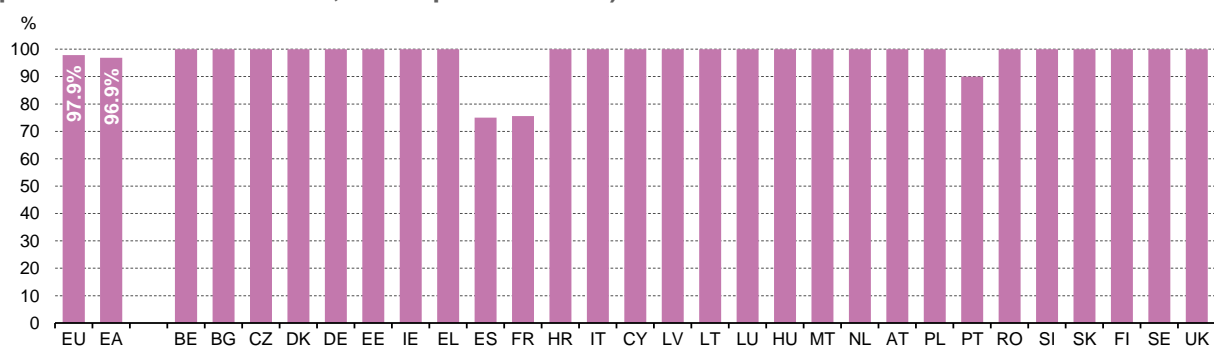
**Figure 25: Table 7 - Balance sheets for financial assets and liabilities - annual**  
(period covered: 1995–2016, data reported in 2017)



**Figure 26: Table 10.1 (t+12) - Tables by industry and by region (NUTS level 2) - annual**  
(period covered: 2000–2016, data reported in 2017)



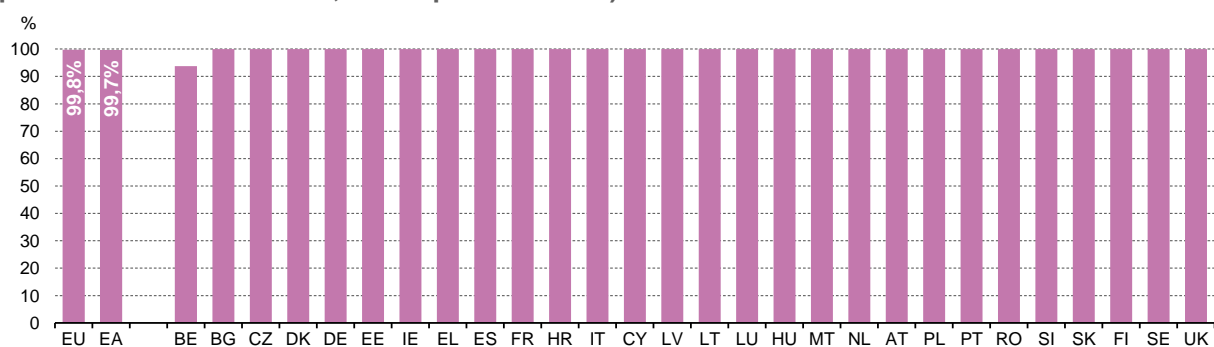
**Figure 27: Table 10.2 - Tables by industry and by region (NUTS level 2) - annual**  
(period covered: 2000–2015, data reported in 2017)



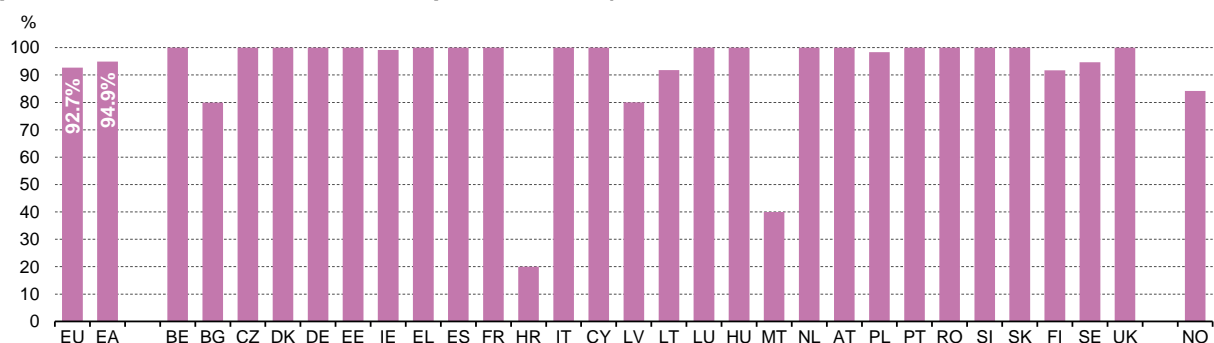
**Figure 28: Table 12 - Tables by industry and by region (NUTS level 3) - annual**  
(period covered: 2000–2015, data reported in 2017)



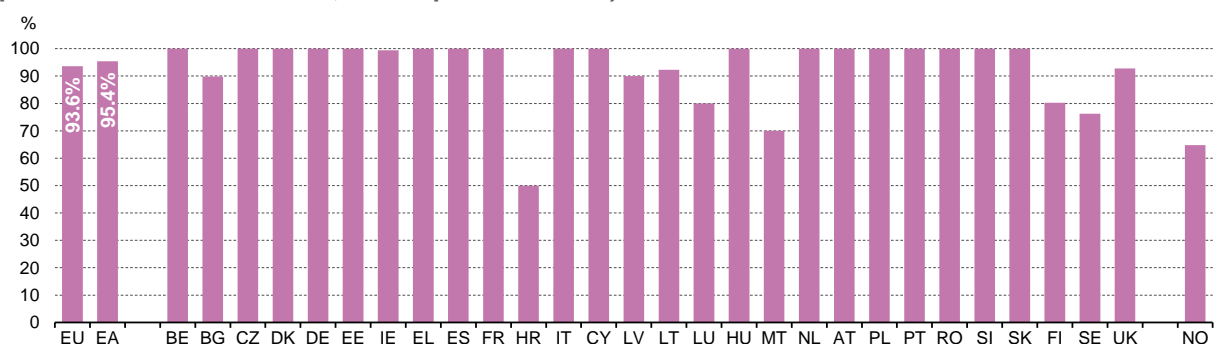
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(period covered: 2000–2015, data reported in 2017)



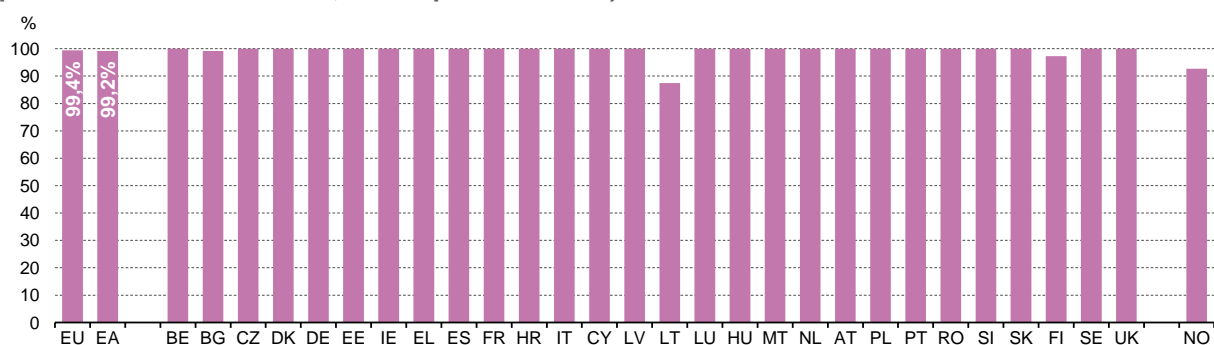
**Figure 30:** Table 15 - Supply table at basic prices incl. transformation into purchasers' prices - annual (period covered: 2010–2014, data reported in 2017)



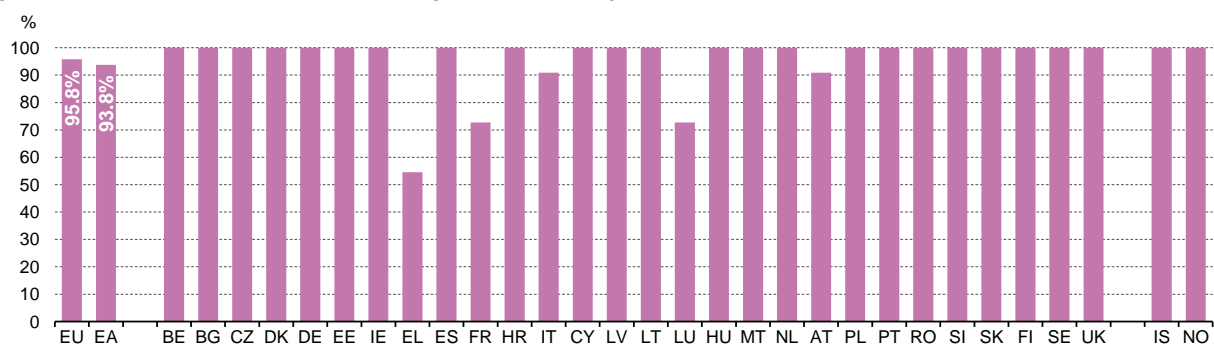
**Figure 31:** Table 16 - Use table at purchasers' prices – annual & five-yearly (period covered: 2010–2014, data reported in 2017)



**Figure 32:** Table 17 - Symmetric input-output table at basic prices - five yearly (period covered: 2010–2014, data reported in 2017)

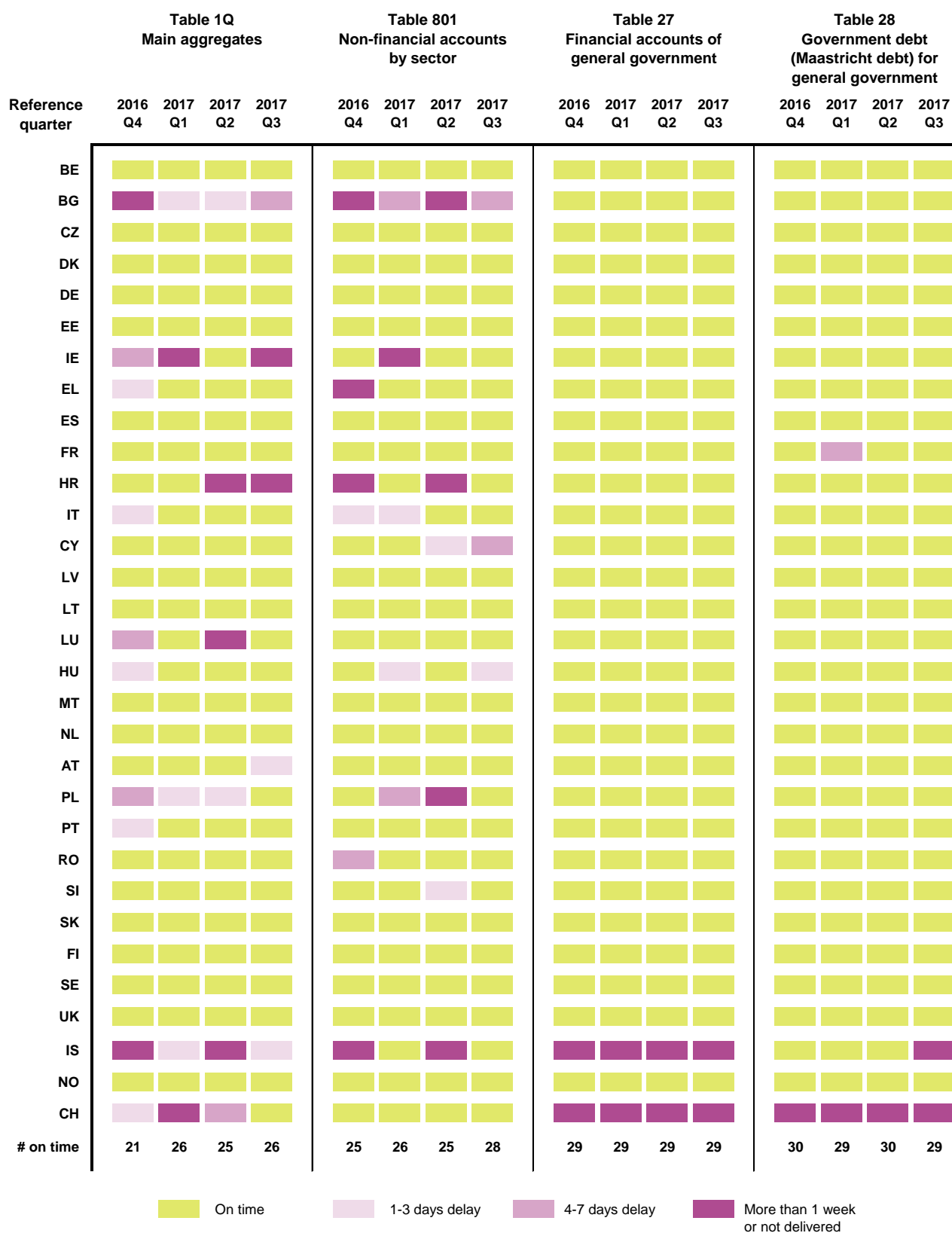


**Figure 33:** Table 29 - Accrued-to-date pension entitlements in social insurance - annual (period covered: 2012–2015, data reported in 2017)

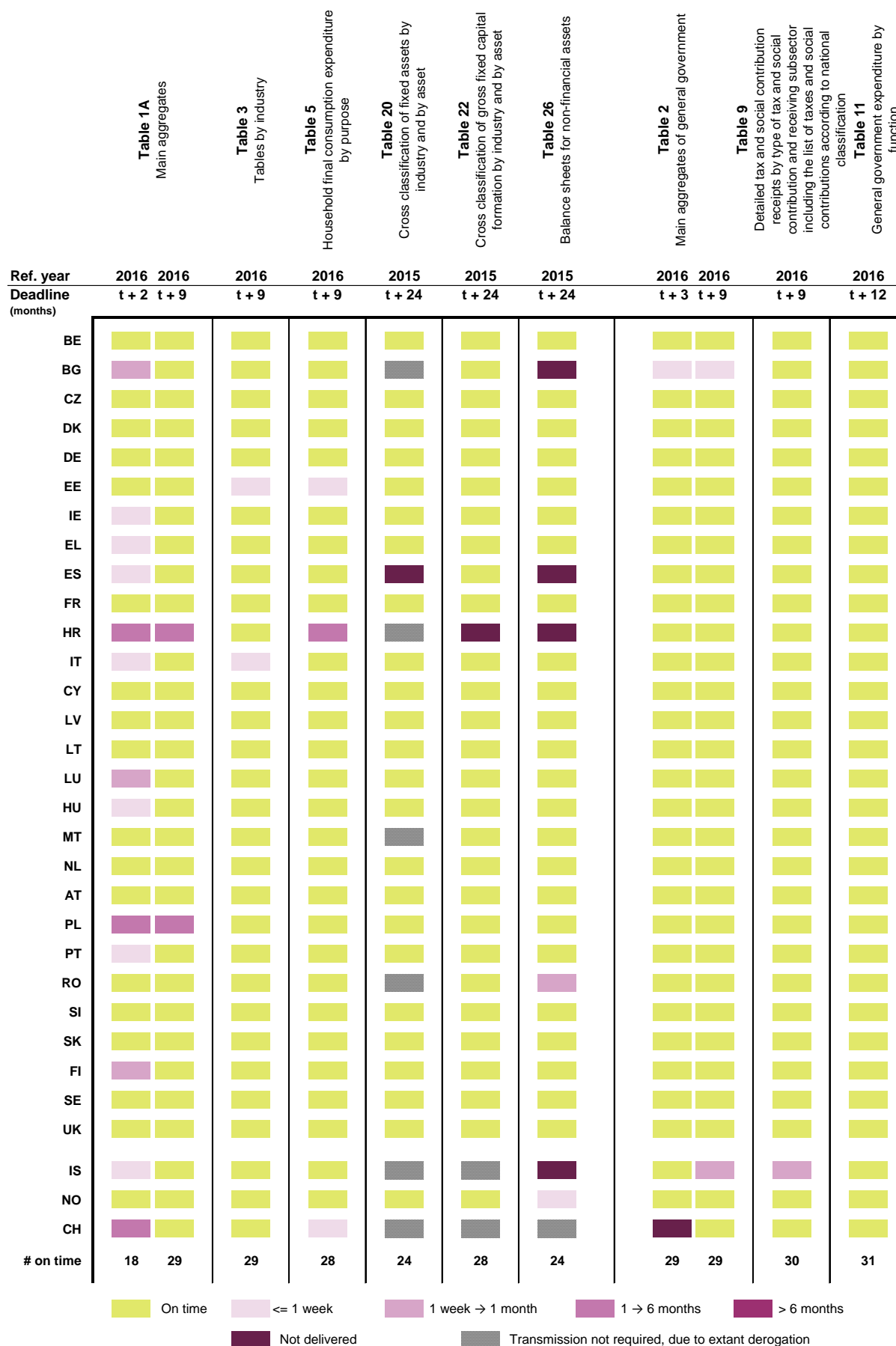


## Annex 3: Punctuality indicators per ESA 2010 domain and table

Figure 34: Punctuality of national accounts quarterly tables reported in 2017



**Figure 35: Punctuality of annual tables for national accounts main aggregates and government financial statistics reported in 2017**



**Figure 36: Punctuality of annual tables for sector accounts, supply, use and input-output tables, regional accounts and pension entitlements reported in 2017**



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## List of acronyms

- ASA: annual non-financial sector accounts
- CIRCABC: a collaborative platform of the European Commission, which offers an easy distribution and management of documents
- CMFB: Committee on Monetary, Financial and Balance of Payments Statistics
- EA: Euro area
- ECFIN: Economic and Financial Affairs Directorate General of the European Commission
- ECB: European Central Bank
- EDP: Excessive deficit procedure
- EFTA: European Free Trade Association
- ESA 2010: European System of National and Regional Accounts 2010
- ESS: European Statistical System
- EU: European Union
- Eurobase: statistical data base of Eurostat
- FIGARO: Full International and Global Accounts for Research in Input-Output Analysis project
- GDP: Gross domestic product
- GFS: Government finance statistics
- GNI: Gross national income
- GVA: Gross value added
- HERP: Harmonised European Revision Policy
- IMF: International Monetary Fund
- MIP: Macroeconomic Imbalance Procedure
- NACE: Statistical Classification of Economic Activities in the European Community  
(FR: Nomenclature statistique des activités économiques dans la Communauté européenne)
- NAMA: national accounts main aggregates
- NPISH: Non-profit institutions serving households
- NSI: National Statistical Institute
- NUTS: Nomenclature of territorial units for statistics  
(FR: Nomenclature des Unités territoriales statistiques)
- PEEIs: Principal European Economic Indicators
- OECD: Organisation for Economic Cooperation and Development
- QFAGG: quarterly financial accounts for general government
- QNA: quarterly national accounts

- QSA: quarterly non-financial sector accounts
- SDMX: Statistical metadata and data exchange standard
- SGP: Stability and Growth Pact
- SNA 2008: System of National Accounts 2008
- SUIOT: supply and use, input-output tables
- ULC: Unit labour cost

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# Quality report on National and Regional Accounts

2017 DATA

This document presents Eurostat's assessment of the quality of the national and regional accounts transmitted in the year 2017 by the EU Member States, Iceland, Norway and Switzerland, and information on Eurostat's publications of European aggregates. The quality report contains the second assessment of results since the start of data transmission according to the European System of Accounts (ESA 2010) on 1 September 2014. In general, data sent in 2017 were broadly in line with the ESS quality standards and the ESA 2010 Regulation. Member States have been able to comply with the new data requirements and methodology, while the process of adapting national data compilation systems will continue until 2020.

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