GUIDANCE ON THE PUBLICATION AND TRANSMISSION OF NATIONAL ACCOUNTS DATA AND METADATA IN THE CONTEXT OF THE COVID-19 CRISIS

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UNIT C2 — NATIONAL ACCOUNTS PRODUCTION
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Background

National accounts will be among the most sought statistics to show the economic impact of the COVID-19 crisis. On 8 April 2020, Directors of Macroeconomic Statistics (DMES) discussed the challenges that the crisis has created for macroeconomic statistics.

Member States’ working arrangements often take the form of remote working or a mixture of remote and office working. Countries are working towards maintaining the statistical production, in line with existing deadlines, however they see significant risks to the quality and timeliness of information. The ongoing work in primary statistics in response to COVID-19 restrictions is important, as these data form key inputs to the national accounts. Some countries will face delayed or incomplete administrative data sources too.

Statisticians are looking into alternative information to fill in for gaps in traditional data sources. They are also examining imputation methods and models, with the expectation that the past relationships between indicators and macroeconomic statistics will not necessarily continue under the COVID-19 crisis. Compilers would have to make assumptions about industries, which have fully or partially ‘closed’. The situation differs across countries – in some March data are heavily affected (and therefore 2020Q1 data) whereas others see statistical difficulties from April onwards (i.e. 2020Q2 data).

DMES underlined the importance of sharing best practice as well as good and timely communication, preferably with common messages for users. Members specifically invited Eurostat to develop common guidance notes on:

- how to pre-warn users of future quality issues / greater revisions;
- how to communicate during data releases on data quality, including flagging, metadata, and transparency of conceptual approaches, and
- whether or not certain statistical series should be suppressed if the level of imputation is high.

Eurostat has created a dedicated page with guidance supporting statistical compilers.
Aim and scope

This note gives guidance on the publication of national accounts data and metadata covered by the ESA 2010 transmission programme¹, except for government finance statistics², in the context of the COVID-19 crisis.

It applies to national accounts data due for transmission to Eurostat from April to June 2020 and, consequently, for national and Eurostat publications until the end of July. In line with the ESA 2010 transmission programme, the focus is on the reporting of 2020Q1 in quarterly national and sector accounts. While national publication dates vary across countries, they are broadly aligned with the following releases preannounced in Eurostat’s release calendar:

<table>
<thead>
<tr>
<th>Eurostat release date</th>
<th>Dataset</th>
<th>Reference period</th>
<th>Type of publication</th>
<th>Transmission deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 April</td>
<td>Preliminary GDP flash estimates</td>
<td>2020Q1</td>
<td>News release, database update</td>
<td>29 April</td>
</tr>
<tr>
<td>15 May</td>
<td>GDP and employment flash estimates</td>
<td>2020Q1</td>
<td>News release, database update</td>
<td>14 May</td>
</tr>
<tr>
<td>9 June</td>
<td>GDP, employment and national accounts main aggregates release</td>
<td>2020Q1</td>
<td>News release, database update</td>
<td>31 May</td>
</tr>
<tr>
<td>20 July</td>
<td>GDP, employment and national accounts main aggregates release</td>
<td>2020Q1</td>
<td>Database update</td>
<td>No later than the day they are published nationally</td>
</tr>
<tr>
<td>3 and 28 July</td>
<td>Quarterly sector accounts: households and business</td>
<td>2020Q1</td>
<td>News releases, database update</td>
<td>24 and 30 June for euro area and non-euro area members respectively</td>
</tr>
</tbody>
</table>

The note also covers cases specified in footnote 1, Table “Overview of the tables” of ESA 2010 transmission programme regarding Member States’ obligation to submit any newly reported or revised variables under the ESA 2010 transmission programme no later than the day they are published nationally.

Methodological aspects of data compilation are addressed in separate guidance notes of COVID-19 relevance.

This note will be updated to cover transmissions of data and metadata for 2020Q2 when more experience is gained with the reporting of 2020Q1 and if the need for guidance persists.

General approach

It is essential that Eurostat and Member States ensure a full transparency regarding impacts of the COVID-19 crisis on national accounts. As a rule, compilers should apply the European Statistics Code of Practice and the Quality assurance framework of the European Statistical System (ESS) concerning their news and data releases. Recommendations of the two documents on transparency and communication are even more relevant under the current situation.

The COVID-19 crisis will draw the user attention to national accounts data reflecting measures undertaken by governments and directed to financial and non-financial corporations and

² Eurostat will publish similar guidelines on government finance statistics at its website.
households. The methodological guidance notes that are being published refer to national accounts variables that will be affected. It is very likely that the compilation of some of them will be more challenging than usual. Challenges will differ across Member States due to specificities in the government measures.

Member States are invited to analyse if their national publications (news releases, database updates, electronic publications, etc.) need to be complemented with information specifying the impact of crisis on data sources, methods used and the quality of data. Users will be interested in what changes have been implemented in the normal compilation practice and how they affect data quality.

To ensure transparency, it is necessary to prepare and publish crisis-relevant information (metadata) and disseminate the data with appropriate flags and footnotes.

Furthermore, communication actions could be indispensable in three phases:

- Before the release of data affected by the crisis;
- During the affected data release, and
- Post-crisis when the possible data issues are resolved.

**COMMUNICATION PRIOR TO DATA RELEASE**

Common statistical practice already foresees pre-communication on major events in national accounts such as on planned major revisions. Under the COVID-19 crisis, Member States may consider to pre-announce:

- If the release calendar will be maintained or how it will change;
- Challenges related to data sources and methods;
- Mitigation actions to address the challenges;
- The expected impact on data quality (e.g. completeness, accuracy, exhaustiveness, etc.) in qualitative terms as far as this is feasible.

Eurostat will publish a note to users on its website under ESA 2010 implementation and data quality and link the individual pages of national accounts domains to it. Member States may consider referencing this note in their national communication.

**COMMUNICATION WITH DATA RELEASE**

Member States are asked to include COVID-19 relevant information in the metadata as follows:

- Implemented adjustments to the compilation methods and data sources, specifically for the month(s) and quarter(s) affected by the crisis;
- Details on missing data and imputations carried out;
- Clarifications on major events: revisions, data inconsistencies, outliers, use of flags including breaks in time series and zero and negative values;
- Explanations regarding seasonal adjustment: direct/indirect approach, calendar adjustment, log transformation, mean effect, ARIMA model, outliers (type and period) and other relevant information.

Availability of these crucial metadata is important for understanding the published data. While it is already clear that compilers will be confronted with extraordinary challenges and workload, COVID-19 relevant metadata should cover all major issues comprehensively.

Aggregates could be flagged with ‘p’ for provisional, ‘e’ for estimates or even ‘u’ flag for low reliability as appropriate from the national compilation perspective. The use of ‘n’ flag – not for publication – for aggregates affected by the COVID-19 crisis is inappropriate and would not be
of service to data users.

Suppression of data from dissemination is obligatory for reasons of statistical confidentiality defined in Regulation (EC) No 223/2009, i.e. to prevent identification of individual units. In case of quality concerns due to the crisis, suppressing the dissemination should not be the first choice because users will be deprived of essential information. Statisticians may not be able to ensure the usual data quality for each aggregate. Yet, availability of lower reliability aggregates would serve users better than a lack of information.

For the above reasons, the general recommendations are to:

- Report the mandatory data specified in the ESA 2010 free for dissemination, flagged in an appropriate manner and accompanied by metadata;
- Revise the data with low reliability flags as soon as new source information arrives;
- Publish these updates nationally and transmit them to Eurostat as soon as possible, even if the timing falls between normal publication dates. The low reliability flags should be removed at this stage.

It is expected that crisis restrictions will be lifted gradually and that problems in data sources will be resolved in a similar way. It will be important for users that there is no delay in publishing data updates and improving quality. National accountants should not aim to minimize the frequency of revisions by grouping quality improvements in affected data because some users perceive frequent data changes negatively in principle. On the contrary, data revisions will be important under the COVID-19 crisis as the main instrument to improve the data quality.

When expected quality issues have been resolved, related metadata should be updated accordingly.

Eurostat will publish a questions and answers document on the statistical impact of the crisis on national accounts on its website under ESA 2010 implementation and data quality. Member States may consider referencing this document in their national communication. In addition, Eurostat will disseminate COVID-19 related country metadata for the affected national accounts series and aggregates, together with the publication of country data.

POST-CRISIS COMMUNICATION

After the crisis, it will be appropriate to assess the actual impact of it on data quality and draw some lessons learnt. While the expectation is that crisis-related quality issues will be fully resolved within a reasonable delay, the chance that some of them may persist is not excluded.

At EU level, the impact assessment will be done in the context of the ESA 2010 quality reporting and assessment. This work will start on 15 February 2021 with the launch of the quality exercise for data transmitted by Member States to Eurostat in 2020. While the public assessment report of Eurostat for data transmissions in 2020 will cover the whole calendar year and, thus, be available with a delay of about a year, the preliminary analysis and communication could start when working arrangements go back to normal and data for 2020Q1 and 2020Q2 have been updated after their first release.

Specific guidance on ESA 2010 data and metadata reporting

GDP AND EMPLOYMENT FLASH ESTIMATES

The publication of GDP and employment flash estimates for 2020Q1 nationally and at EU level will be maintained as foreseen in the release calendars. Eurostat is providing guidance on the methodological aspects of compilation. Member States are asked to send to Eurostat concise metadata on the implemented adjustments to the compilation methods and data sources,
specifically for the month(s) of 2020Q1 affected by the crisis. In its news releases, Eurostat will add information regarding methods and revisions of relevance for the European aggregates. Similarly, Member States may consider publishing relevant metadata in their national publications. National and Eurostat data flags, footnotes and metadata should correspond to each other.

NATIONAL ACCOUNTS MAIN AGGREGATES

The publication of national accounts main aggregates for 2020Q1 nationally and at EU level will be maintained as foreseen in the release calendars. Eurostat is providing guidance on the methodological aspects of compilation. Member States are asked to send to Eurostat concise metadata on the implemented adjustments to the compilation methods and data sources as well as missing values and imputations, in addition to metadata collected regularly. Eurostat intends to follow the approach applied during benchmark revisions and publish country specific information. At the Eurostat web page on National accounts (including GDP), there will be a note to users on the page on data and a link to a file with country specific information. Similarly, Member States may consider publishing relevant metadata in their national publications. National and Eurostat data flags, footnotes and metadata should correspond to each other.

NON-FINANCIAL SECTOR ACCOUNTS

The publication of non-financial sector accounts for 2020Q1 nationally and at EU level will be maintained as foreseen in the release calendars. Member States are asked to send to Eurostat concise metadata on the implemented adjustments to the compilation methods and data sources as well as missing values and imputations, in addition to metadata collected regularly. In particular, Eurostat invites Member States to explain the methodological approach they have selected for recording the state aid to enterprises and individuals due to the pandemic and show its impact on sectors and parts of the accounts.

Eurostat intends to extend the country specific metadata that are presently limited to issues of data consistency (latest metadata are available here from the green tab “Cross-domain inconsistencies metadata”). Eurostat will add a link from the key sector accounts indicators by country webpage to the page with country specific metadata. Similarly, Member States may consider publishing relevant metadata in their national publications. Data flags, footnotes and metadata of ESA 2010 datasets in national dissemination as well as in the national and Eurostat publications should correspond to each other.

OTHER DATASETS

Transmission of other datasets specified in the ESA 2010 transmission programme is not required on a mandatory basis until the end of June 2020. It may take place, however, for national reasons, especially if the data release has been planned. The above recommendations broadly apply to such national publications and transmissions to Eurostat.

Some Member States intend to undertake benchmark revisions of national accounts in 2020. In addition to following the recommendations on benchmark revisions described in the Practical guidelines for revising ESA 2010 data, it seems appropriate to communicate clearly, if the crisis has any impact on the revised data.

Coordination with data providers

The COVID-19 crisis demonstrates clearly the dependence of national accounts on availability and quality of source data: administrative sources as well as other statistics such as surveys and balance of payments. Close national coordination will be very beneficial. Consistency between national accounts and balance of payments remains an important objective. This should articulate in consistent metadata and use of flags and footnotes for identical aggregates.