

**28th MEETING OF THE COMMITTEE
ON MONETARY, FINANCIAL AND
BALANCE OF PAYMENTS STATISTICS**

Luxembourg, 15 - 16 June 2004

<p>PART A - ITEMS FOR DISCUSSION</p>

Item A.7.1 of the agenda

**Joint ECB's DG-S/Eurostat Task Force on the quality
of quarterly national accounts - Final report**

In its June 2003 meeting, the CMFB supported the establishment of a joint Eurostat/ECB Task Force to work out proposals for an operational assessment of quality in the field of quarterly national accounts, focusing on output quality in order to provide guidance to users for the interpretation of these statistics. The Task Force reported its progress to the CMFB in January 2004 and presents its final report to the CMFB meeting in June 2004. The Task Force will be disbanded in July/August 2004 after having incorporated the comments provided at the CMFB meeting in the final report.

The CMFB is invited to

- **approve the final report, in particular the recommendations with regard to press releases on growth in quarterly real GDP and expenditure components for euro area/EU;¹**
- **encourage a co-ordinated implementation of these recommendations for national press releases on growth in quarterly real GDP and expenditure components.**

¹ Annex A1 (page 18 - 21) presents by way of **example** Eurostat's press release on the first regular estimates for the fourth quarter 2003 amended by many, but not all of the recommendations made by the Task Force. The example is presented for illustration purposes only. The final decision on the format of the press release is with the Commission (Eurostat).



EUROPEAN
COMMISSION



EUROPEAN CENTRAL BANK
DIRECTORATE GENERAL STATISTICS

Statistical Office of the European Communities

Task Force on Quality

Final Report on the Output Quality Assessment of Quarterly National Accounts

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Executive Summary

In line with its mandate and workplan, the aim of the task force (TF) on output quality assessment in quarterly national accounts was to make recommendations on **“headline” and “supplementary” indicators** of the quality of Eurostat’s published **growth in quarterly Euro area/EU real GDP and its expenditure components**. Member States should then be encouraged, but not obliged, to produce matching indicators for GDP growth at the national level.

The TF studied the European Statistical System (ESS) and the IMF approaches to quality in statistics, and looked carefully into the work of the TF on quality of balance of payments statistics. It also considered Member States’ approaches to quality assessment of quarterly national accounts. Finally, the TF took note of four users’ views on quality issues.

The TF decided to use the **IMF’s Data Quality Assessment Framework (DQAF)** and its specific application to national accounts as the main structure on which to base its work, with the **ESS quality definitions** supplementing it. Using the DQAF, the TF identified four quality elements for which it felt meaningful quantitative indicators can be easily constructed, and four elements for which qualitative statements can be produced.

The TF also considered the **communication to the public** on indicators of and statements on the quality of Euro area/EU GDP. The split between quantitative indicators and qualitative statements does not align exactly with “headline” and “supplementary” indicators. The TF recommends that some, but not all quantitative indicators should be published in regular press releases. Some qualitative statements should also be included in press releases. It recommends that a more comprehensive report on the quality of Euro area/EU growth should be posted on Eurostat’s website. This should cover the eight quality elements referred to above in greater detail, and perhaps make brief references to some of the other quality elements of the IMF’s DQAF.

1. Recommendations with regard to press releases on growth in real GDP and expenditure components for euro area/EU

Quantitative quality indicators

i. scope

Press notices should include, particularly in the early quarters after significant changes in availability (e. g. after enlargement), a brief explanation on the length of time series available.

ii. revisions

Press notices should mention the average revision to estimates at a particular stage in the quarterly sequence. This should be in tabular form if information on expenditure components is also given. There should also be a frequency distribution of past revisions – either as a chart or spelt out (simply) in words. Finally, there should be a link to more detailed analyses of revisions.

iii. source data

Press notices should include a source data indicator which mentions the proportion that the available Member States’ GDP (in total) represents of European GDP.

iv. timeliness

Press notices should include the date of the next GDP quarterly release, and the date of the next GDP release of the same form (indicating the timeliness of the release), as well as a link to the published release calendar on the website.

Qualitative quality statements

i. transparency

As appropriate, major changes to national accounts methodology should be mentioned in press notices.

ii. metadata

Press notices should contain a link to Eurostat's documentation on national accounts and in particular to the ESA 95.

iii., iv. relevance and consistency

The TF proposes not to address these two elements in press notices, but to describe them in appropriate detail in the website document.

2. Recommendations concerning the comprehensive report on the quality of Euro area/EU quarterly national accounts

- A standing quality document should be prepared drawing on all eight elements and published on Eurostat's website. This document would provide more detailed background information and specific analyses. It should be reviewed annually, and updated as necessary.
- To launch the new quality initiative, an article should be published in one of Eurostat's paper publications.

3. Recommendation to Member States

- Member States should be encouraged to develop and publish similar quality information on their national GDP estimates, in line with Eurostat.

4. Timetable

- Eurostat should try to make an early start on this initiative, beginning to add quality statements to the press releases in autumn 2004, and drafting a first version of the standing quality document by the end of 2004.

Main Report

1. The mandate

The mandate for the task force on the quality of quarterly national accounts was endorsed by CMFB in June 2003, and set the objectives as:

1. *identify a limited set of indicators to operationally measure output quality, with particular attention to those quality dimensions that affect the Euro area/EU aggregates. This shall involve:*
 - *a stocktaking of current NSI practices in this field,*
 - *an assessment of the TF findings on b.o.p. statistics in the context of QNA,*
 - *use of the relevant elements of the IMF's data quality assessment framework and Eurostat quality principles as a starting point,*
2. *define, operationalise and assess the set of quantitative indicators to assess output quality;*
3. *define, operationalise and assess a set of supplementary qualitative indicators;*
4. *conduct an empirical feasibility study on the quality indicators identified above;*
5. *elaborate a proposal (including a timetable) for implementing the indicators in the EU Member States;*
6. *make proposals for monitoring and communicating the quality assessment in a European context.*

The mandate asked the task force to submit its final report to CMFB in June 2004.

The mandate was supplemented by a workplan provided by Eurostat and the ECB (DG Statistics). This emphasised the need to concentrate on quality indicators for national accounts at the euro area and EU levels (though Member States should also be encouraged to adopt the same set of indicators). In developing the indicators, the TF was asked to consider the needs of users in interpreting national accounts data. At the same time, the indicators should be useful in guiding producers on where users require improvements. Of prime importance therefore was that the indicators should be simple and easy to understand. Finally, Eurostat and the ECB asked the TF to confine its work to the sequence of headline estimates of growth in real quarterly GDP and its expenditure components.

2. The quality framework

The TF looked at the work of the TF on quality of BoP statistics. Throughout, the TF included a representative from the BoP TF to ensure that inconsistent approaches did not emerge, for example, concerning revision analysis. The TF also looked at TF members' approaches to quality assessment of quarterly national accounts in their own countries. There is clearly a great awareness of quality issues in national accounts in Member States, but their approaches

tend to be rather informal. There are few examples of systematic publication of quality information on GDP estimates. Finally, the TF also briefly reviewed experiences of statistical institutes in the USA, Canada and Australia, and the work done in the GNP committee's task force on accuracy.

The TF studied the IMF and the European Statistical System (ESS) approaches to quality in statistics. It decided to take the IMF's Data Quality Assessment Framework (DQAF) as the main structure on which to base its work, with the ESS quality definition supplementing it. One particular advantage of this decision is that the IMF has published a quality assessment structure specifically for national accounts.

The TF worked systematically through the IMF's DQAF framework, categorising elements of quality into three groups. The **first group** consists of those four elements for which the TF felt **quantitative indicators** could be meaningfully constructed for quarterly euro area/EU GDP and its expenditure components. The **second group** consists of those four elements for which the TF felt that, although quantitative indicators could not be meaningfully constructed, publishable **qualitative statements** could be made. The **third group** consists of those elements that, in the opinion of the TF, were either of little relevance in terms of the TF's mandate and workplan or did not offer prospects for successful construction of quality indicators.

The following table shows a full list of the IMF quality elements, and how the TF categorised each of these elements into the three groups:

Quality Dimensions	Elements	Indicator?
0. Prerequisites of quality	0.1 Legal and institutional environment	n/a
	0.2 Resources	n/a
	0.3 Relevance	qualitative
	0.4 Other quality management	n/a
1. Integrity	1.1 Professionalism	n/a
	1.2 Transparency	qualitative
	1.3 Ethical standards	n/a
2. Methodological soundness	2.1 Concepts and definitions	n/a
	2.2 Scope	quantitative
	2.3 Classification/sectorization	n/a
	2.4 Basis for recording	n/a
3. Accuracy and reliability	3.1 Source data	quantitative
	3.2 Assessment of source data	n/a
	3.3 Statistical techniques	n/a
	3.4 Assessment and validation of intermediate data and statistical outputs	n/a
	3.5 Revision studies	quantitative
4. Serviceability	4.1 Periodicity and timeliness	quantitative
	4.2 Consistency	qualitative
	4.3 Revision policy and practice	n/a
5. Accessibility	5.1 Data accessibility	n/a
	5.2 Metadata accessibility	qualitative
	5.3 Assistance to users	n/a

Recommendation:

- using the IMF's DQAF quality elements, four should be developed into quantitative indicators, and four into qualitative statements.

3. Quantitative Indicators

The TF identified four IMF quality elements for which quantitative indicators should be regularly computed. These are:

Methodological soundness – scope (element 2.2 in IMF DQAF)

The DQAF defines scope largely in terms of being in accordance with internationally accepted standards (SNA). It lists the range and breakdown of national accounts aggregates that should be regularly compiled and published. The argument is that the greater the quantity and diversity of data within this area of statistics, the greater is the ability to meet users' needs in this area. The greater also is the ability of users to interpret the data.

Within the restricted terms of the mandate, the TF interpreted this element to be the scope of the GDP data set in terms of length of time series, transaction breakdowns, geographical units, availability of seasonally adjusted and unadjusted series, etc. The TF looked at these characteristics and at the feasibility of constructing a single indicator that would encapsulate all of them. It decided that it was not possible to do this in a simple and meaningful way. For example, the length of time series tends to dominate a single indicator. On the other hand, introducing a weighting system on the various dimensions would be complex and incomprehensible to users.

The TF therefore proposes simply to identify the most relevant dimensions, and to show scope separately within each. These are:

1. **Length of time series** – Eurostat's stated aim is to have all quarterly national accounts data back to 1980 Q1. Currently the full set of GDP (and expenditure components) data for euro area and EU only goes back to 1991 Q1 (i.e. 53 rather than 97 observations).
2. **Number of transaction variables** – this reflects the IMF element in that it measures the number of variables currently available for euro area and EU. The number available can be compared with the number of variables required by ESA (the relevant standard in Europe). Currently 71 (about three-quarters) of the 96 variables required as compulsory in table 1 of the ESA transmission programme are available.
3. **Seasonal adjustment** – again, this reflects the IMF element, and states how many types of series are available. Currently two (unadjusted, and seasonally adjusted with partial correction for working day variation) out of the four possible types (unadjusted, seasonally adjusted, not seasonally adjusted but working day adjusted, and seasonally and working day adjusted) are available.
4. **Other** – although the TF did not look closely at them, it felt that breakdowns by industry or consumption purposes or geography might be additional dimensions that could be referred to in a quality assessment.

While this element lends itself to some quantitative assessment, the TF did not consider it as a candidate for inclusion in quarterly GDP press notices, except in times of rapid change like enlargement, when the length of time series for each of euro area and EU25 should be shown. It would need to be carefully explained in a fuller quality document. It might conveniently be presented in a table.

Recommendations:

- The **scope** element should show the scope of the GDP data set in terms of (i) length of time series available, (ii) number of transactions variables, (iii) seasonal and working-day adjustment (i.e. number of adjusted and unadjusted series available), (iv) other, such as breakdowns of industry, consumption purposes, and geography.

- There should be no reference to **scope** in Eurostat's quarterly GDP press releases, except perhaps in the early days of enlargement to show the length of series for each of euro area and EU25. In addition, a link to additional data available on Eurostat's website should be provided.

Accuracy and reliability – revisions (3.5)

The DQAF describes this element in terms of undertaking regular studies and analyses of revisions. The TF felt that users should be provided with a few simple indicators, and that, in future, detailed analyses could be undertaken (and published) to provide further background information. The TF was aware of the well-known dangers inherent to revision indicators. Of all quality elements, it is for this one that it is perhaps the easiest to produce large numbers of different, and sometimes quite complicated, quantitative indicators. However, these indicators may not always give a true reflection of quality. They can be misleading in the sense that few or small revisions do not necessarily imply accurate (high quality) data.

In order to home in on a few simple indicators, the TF made an extensive study of the wide range of possible indicators. The value of the analysis is somewhat limited by the short length of time series (and, to some extent, by the very low level) of quarterly GDP growth available at the European level. The TF looked at the following list of indicators:

- mean/median of absolute/relative revisions
- (average) balance of revisions
- ratio of upwards/downwards revisions
- correlation of revisions with size of GDP growth
- (average) sum of absolute revisions, range of revisions
- variance of revisions
- number of changes of sign in first/second order derivative
- mean absolute relative error
- mean square error, and root mean squared error
- frequency distribution of revisions

The TF felt there was a risk of including too much information on revisions in the press notices, dominating other aspects of quality. It therefore recommends that there should be a brief statement about average revisions to estimates in the release, possibly in tabular form if components were covered, and a chart of the frequency distribution. This would be complemented by a reference to more detailed information on revisions (on Eurostat's website – see below). The text of the press notice should also describe by how much the latest estimate has been revised since the last quarter, with a brief explanation, if possible.

Recommendations:

- The **revisions** indicators should be few and simple. They should be restricted to average revisions for GDP and its expenditure components, and the frequency distribution of past revisions.
- These **revisions** indicators should be published regularly in Eurostat's press notices.
- The press notice should also show by how much the latest estimate has been revised since last publication. It should ideally also include information on which countries revised.
- A fuller analysis of past revisions should be annually undertaken, published, and referred to in the press notice.

Accuracy and reliability – source data (3.1)

The DQAF has an extensive definition of this element of quality, covering adequacy and timeliness of source data and its consistency with national accounts definitions. The TF took the view that this would be an impossible task at the European level given the multitude of different sources used across all Member States. It therefore proposes to define this indicator in terms of the quantity of information available to Eurostat for compilation of each of the estimates of quarterly euro area and EU GDP. (While only GDP estimates are referred to in the following paragraphs, the same arguments apply to the estimates of expenditure components of euro area and EU GDP.)

Because Eurostat compiles euro area and EU GDP from information provided by Member States, it is important for users to know whether the euro area or EU estimate is based on all (12, 25) or a sub-set of Member States' data. One indicator of the quantity of information available is the list of countries that have transmitted data. The quality of European GDP estimates based on returns from the seven largest countries would be far superior to those based on returns from the seven smallest. Therefore, another way of showing the information content in the GDP estimates is to show the proportion of euro area and EU GDP covered by the GDP of the countries whose data have been used in their compilation.

The quarterly press notices should therefore include a statement that indicates the proportion of euro area and EU GDP covered by the Member States whose data have been used for estimating the aggregates. In its press notice of quarterly "flash" GDP, Eurostat already includes the number and list of reporting countries. This should be complemented with the GDP proportion. The indicators should also be published in Eurostat's later quarterly GDP press notices.

The source indicators described above take no account of the quality of the national GDP estimates transmitted by Member States. In particular, no account is taken of the fact that Member States use less than complete (and sometimes different) information when compiling their earlier estimates of GDP. The TF has examined the possibility of refining the source indicators by adjusting each Member States' contribution to EU and euro area GDP to take account of this varying information content in their national GDP estimates. The proposal is to get each Member State to indicate what proportion of final quarterly information is available to them when they transmit data for Eurostat to compile the "flash", first and second estimates of euro area and EU GDP **for the latest quarter** (only). So, for example, country A represents 10% of EU GDP, and uses 60% of its final quarterly data set in compiling its first estimate of GDP. (The other 40% may not yet be available, and is replaced by, for example, projections, econometric estimates, indirect methods, or alternative but weaker data). Country A's contribution to the source quality indicator would be 6%. The aim is to be able to make a statement along the following lines: "This estimate [of EU GDP in 2004 Q1] is based on information from seven Member States, whose GDP represents 78% of EU GDP. Taking into account that quarterly information available to these Member States is still incomplete; the EU estimate is based on about half of the quarterly information that will eventually be available to all Member States".

TF members have produced rough estimates of the proportion for their countries. Largely on the basis of this experience a set of guidelines has been developed to help Member States compile the proportion for each of their early estimates (which would not be expected to change quarter by quarter). The guidelines (which are attached in annex 3 to this report) make it clear that a fully harmonised, objective, and accurate assessment of the proportion is not possible. Member States would be asked to give a figure to the nearest 10%. The aim of the indicator is to give users a good, rather than accurate impression of the quantity of source data supporting the European estimates of GDP. Task force members are currently testing these guidelines on their national GDP. The approach will require further testing across all Member

States before an assessment of its usefulness can be made. However, the task force believes that this further refinement to the indicator can be achieved.

Recommendations:

- The source data element should be defined in terms of the quantity of Member States’ information available to Eurostat for the latest estimate of quarterly GDP growth.
- The indicator should indicate the countries whose data are included in the estimate and the proportion that their GDP represents of euro area and EU GDP.
- After further research, the **source data** indicator might be supplemented with a component that would show the proportion of final quarterly national data included in the latest estimate of euro area and EU GDP.

Serviceability – timeliness (4.2)

The DQAF element defines timeliness in terms of its own dissemination standards. It seeks publication of quarterly GDP within three months after the end of the reference quarter. Europe has its own dissemination standards. The ESA 95 regulation sets out its timeliness requirements for GDP transmissions from Member States. In recent years, timeliness targets for the publication of euro area and EU GDP have been specified in ECOFIN’s EMU Action Plan, and in the context of Principal European Economic Indicators (PEEIs).

The TF proposes that this aspect of quality can be shown both in terms of its past improvement, and potential for improvement towards the PEEI targets. The changing timeliness of Eurostat’s press notices does not necessarily show how performance has improved (or might improve), because the content of press notices has changed (e.g. merging the contents of the second and the third release), and may continue to change. Of more importance is to look at the changing timeliness of the publication of key statistics such as GDP growth, GDP level etc. On this basis, as the table below shows, there has been a considerable improvement in the timeliness of the publication of euro area and EU quarterly GDP figures over the last three years. Except for GDP growth, there is still considerable room for improvement before PEEI targets are achieved.

Time of first release of GDP (days after end of quarter)

Variable	3 years ago	Over last 4 quarters	PEEI target
GDP growth	71	44	45
GDP level	99	74	60
GDP basic breakdowns, growth	71	65	60
GDP basic breakdowns, levels	99	74	60

The TF does not recommend including many references to timeliness in Eurostat’s press notices. It is important to state in each GDP press notice when the next GDP release is due to be published, and when the next version of this particular release is due to be published. The latter can be written in such a way as to indicate the timeliness of this release. Timeliness is an important quality indicator, and has become particularly important in Europe in the last few years. The TF therefore recommends that an explanation of the indicator is included in a fuller quality statement. The table above should be included as part of this statement.

Recommendations:

- The **timeliness** indicator should show, in the website quality document, past improvement and potential for improvement towards the PEEI targets for GDP growth and level (and their breakdowns) in a table.
- For this element, the press notices should only indicate when the next estimate of GDP and when next version of this particular press release is to be published.

4. Qualitative Statements

The TF identified four IMF quality elements for which it felt that, though quantitative indicators could not be meaningfully constructed, publishable qualitative statements could be made. These are:

Integrity – transparency (1.2)

The IMF definition of this element covers the terms and conditions under which statistics are collected, processed and disseminated, publication of pre-release access, badging of statistical products, and advance notice of changes to methodology etc. The task force feels that this is a key aspect of quality. There is, in general, a good story to be told on these aspects of integrity. These are not the sort of issues to be covered regularly in press releases, but should be described in a website document on GDP quality. The one exception might be for Eurostat to trail major changes in methodology etc. in its press notices, with a brief statement on the change, its expected date of introduction, and a reference to a more detailed explanation.

Recommendation:

- The **transparency** element should be described in the website document, but not in regular press releases, except to trail major changes in methodology etc.

Serviceability – relevance (4.1)

The IMF defines this element in terms of the statistics meeting users' needs, consultation processes, and whether specific actions are taken to address users' concerns. The TF considers this an important element of quality. These are not the sort of issues to be covered regularly in press releases, but should be openly discussed in a website document on GDP quality.

There is little doubt that GDP statistics are very relevant to many users. The GDP press notices are amongst the most consulted of all Eurostat's releases. The ESA 95 regulation itself gives some support to relevance. It had to go through all the legislative processes that involve consultation with users and others outside the statistical system. If there are questions about relevance these relate to the presentation of the statistics – their detail, their availability and accessibility, the metadata, explanations of current movements or revisions etc. Many of these issues are covered in other elements of quality. The statement on relevance needs to address the processes of consultation with users, and their effectiveness. The TF feels that consultation with official bodies (mainly the Commission and ECB) is reasonably good. This is supplemented by consultation processes between national compilers and their governments (mainly finance ministries).

The areas where consultation is at its weakest are with non-official users – the media, the markets, businesses, research institutes, academia etc. Much of the consultation with these bodies tends to be reactive rather than proactive. The TF was also not sure that there was a comprehensive process of review of consultation procedures that assures senior management that issues of concern to users are being addressed.

Recommendation:

- The **relevance** element should be described in the website document but not in regular press releases.

Serviceability – consistency (4.3)

The IMF definition of this element covers internal consistency, consistency over time, and consistency with other major data sets. The TF feels that this is an important element of quality. A description of the three aspects of consistency should be included in Eurostat's website quality document.

At first sight, it would appear that Europe has a reasonably good story to tell on consistency, particularly internal consistency. On closer examination, there are a number of areas where there is room for improvement, or where choices have to be made about where inconsistencies are to be displayed. The European national accounts data set is large, multi-dimensional, and complicated, and becoming more complicated as time goes by. It is becoming increasingly difficult to maintain consistency in all dimensions. One area of difficulty is associated with intra-Europe transactions that lead to asymmetries, and therefore difficulties in maintaining consistency between the sum of Member States' and European figures. Another is that there are inconsistencies at the national level between balance of payments and national accounts (i.e. rest of world transactions) statistics, which when summed lead to inconsistencies at the European level. These inconsistencies are likely to become more prominent as Europe develops its institutional sector accounts.

The TF recommends that these issues are discussed in a website quality document, along side the many positive aspects of consistency.

Recommendations:

- The **consistency** element covers internal consistency, consistency over time, and consistency with other major data sets.
- This element should be described in the website document.
- The **consistency** element needs to be kept under review as euro area and EU macro economic data sets expand and expose issues like asymmetries more prominently.

Accessibility – Metadata accessibility (5.2)

The IMF definition of this element covers the adequacy, comprehensiveness, availability, and accessibility of metadata. The TF feels that this is an important aspect of quality. This is reinforced by comments made by the users we interviewed. A link to Eurostat's national accounts documentation should be included in the quarterly press notices.

As with other elements (e.g. transparency and consistency), metadata accessibility should be discussed in the website document. What is and is not available should be described. If there are plans for known gaps or weaknesses to be filled, these should be explained. If there are resource constraints on making improvements this too should be explained. There could be a general invitation on the website asking users to comment (by e-mail) on the effectiveness of metadata, and on any improvements that they would like.

Recommendation:

- **Metadata accessibility** should be covered in the website document, and a link to Eurostat's national accounts documentation and in particular to the ESA 95 should be included in the press releases.

5. Recommendations on publications

Eurostat press releases (45, 65 and 105 days after the quarter) already include some quality statements. For example, the “flash” (45 day) release comments on the number of Member States that have reported their GDP in time for inclusion in the compilation of the EU aggregate GDP. This release also gives some indication of past revisions to the early estimate of GDP.

The TF acknowledges that this is already a useful start and believes that it is important to include some additional quality information in each of Eurostat’s three quarterly GDP press releases.

However, the TF recognises the dangers of including too much quality information in press releases, particularly as it could distract from the actual numbers and as most of it is expected to change little from quarter to quarter.

There is, of course, much to be said about the quality of GDP and its components. The most important indicators and statements have been identified above and certainly constitute valuable information to which the users should have access. However, it is clear that this sort of comprehensive quality information goes beyond the scope of a press release. The TF therefore feels that there should be an article or document about QNA quality that should be published in an appropriate Eurostat publication series (e.g. “Working Papers and Studies”), and posted on its website. Reference to the article and website should be included in the press releases. This document should draw on the eight indicators/statements identified above, but could make reference to other of the IMF elements where these might add to the overall picture of GDP quality.

Information included regularly in press releases will need to be kept under review, and changes made to indicators/statements before they become out of date. The website quality statement should also be kept under review, but it is not envisaged that it should be constantly updated. It would probably be sufficient to update this once a year.

In consequence, the TF **recommends** that:

- all regular QNA releases should include some additional quality information,
- a standing, more comprehensive background document on QNA quality should be published, on the website,
- to launch the new approach, the standing document with a covering article should be published in one of Eurostat’s paper releases.

The following gives more details on these recommendations.

The quality statement in the press releases

The TF recommends that comments on quality included in press notices should be brief, easy to understand, and specific to the release.

What is included in Eurostat’s three quarterly GDP press releases will vary somewhat according to the time of the release – 45-, 65- and 105-day releases. However, the broad content should be similar for each release. The task force recommends that the following quality issues should be included in the release:

- On *timeliness*: the date of the next GDP quarterly release (indicating the timeliness of the release); and a link to the published release calendar on the website.

- On *revisions*: first, a statement on the revision of the estimate of growth in the latest quarter since the last publication. This would be included only in the 65- and the 105-day releases. Users need to know whether the estimate is unchanged since last time or has been revised. If the latter, a footnote on any major reason for revision should be added. Second, a brief statement on the average revisions to estimates at this stage in the quarterly sequence. This should be in tabular form, particularly in the 65-day and 105-day releases, if information on expenditure components is also given. Third, there should be a frequency distribution of past revisions – either as a chart or spelt out (simply) in words. Finally, there should be a link to more detailed analyses of revisions (possibly included in the standing website document).
- On *source data*: the Member States whose data has been used in the estimation of European GDP, and the proportion that their GDP (in total) represents of European GDP. Once estimation of the proportion of final quarterly data used by each Member State has been satisfactorily tested, this proportion might also be included (see draft statement at the end of the fourth paragraph in the section on the source indicator, above).
- On *scope*: a statement on the nature of the (seasonal) adjustment applied to the series. This may need to be elaborated in a footnote unless it can be clearly and precisely stated in the text. Also, particularly in the early quarters after enlargement, and after significant changes in availability, there should be a note on the length of time series available for each of euro area and EU25.
- On *metadata accessibility*: a link to Eurostat documentation on national accounts compilation and in particular to ESA 95.
- On *transparency*: as appropriate, major changes to national accounts methodology (e.g. chain linking) etc should be trailed in quarterly GDP releases.
- On *quality generally*: there should be a link to the standing quality document on Eurostat's website.

The standing quality document on Eurostat's website

With respect to the comprehensive quality information that goes beyond the scope of a press release, the task force recommends the following:

- A standing quality document should be prepared, and structured on the basis of the IMF's DQAF. It should be published on Eurostat's web-site, and reviewed annually, and updated as necessary.
- It should concentrate on the eight elements identified by the task force as the most relevant, but, for completeness, it may make brief comments on all other elements.
- All elements should be openly and honestly discussed in the website document, showing both the poorer aspects as well as the good ones. References should be made to planned improvements and to barriers to improvements.
- At its launch, the new document should be heralded with an article in one of Eurostat's paper publications.

6. Timetable

Recommendations:

- Quality statements should be added to the press notices as soon as possible. A start should be made in autumn 2004. They do not all need to be added at the same time (some need more testing).
- A start should be made immediately on the website quality document; a first version of this document should be drafted by the end of 2004.
- Member States should be encouraged to develop and publish similar quality information on their national GDP estimates, in line with Eurostat.
- The position on quality of GDP growth should be reviewed in about two years' time to take account of the rapidly changing statistical environment.

Annexes

Annex 1: Example of a quality statement in Eurostat press releases

The example presented in this annex gives an impression of what a press release supplemented by specific quality statements might look like.

Eurostat's press release on the first regular estimates for the fourth quarter 2003 was used as a basis. Amendments were made to incorporate many, but not yet all of the recommendations made by the Task Force.

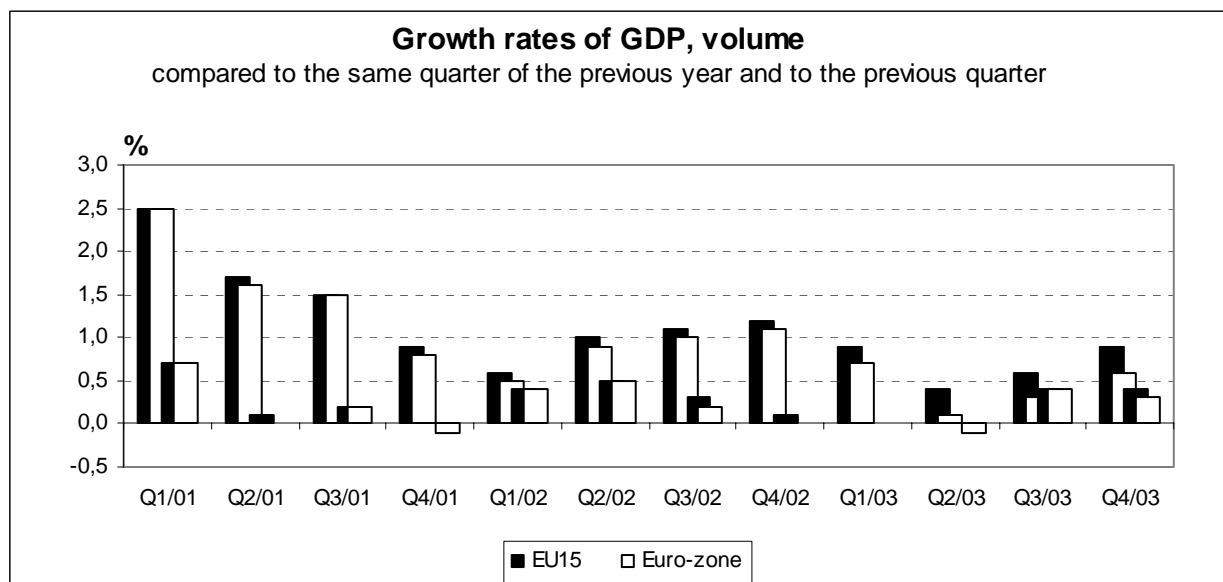
The example is presented for illustration purposes only. The final decision on the format of the release is with the Commission (Eurostat).

EMBARGO: Thursday 4 March 2004 - 11.00 CET

32/2004 - 4 March 2004

First estimates for the fourth quarter of 2003

Euro-zone GDP up by 0.3%, EU15 GDP up by 0.4%
 +0.6% and +0.9% respectively compared to the fourth quarter of 2002



Euro-zone¹ GDP grew by 0.3% and **EU15** GDP by 0.4% in the fourth quarter of 2003 compared to the previous quarter, according to first estimates² out today from **Eurostat**, the **Statistical Office of the European Communities**. Both figures are unchanged with respect to those released in the earlier flash estimate on 13 February.³ In the preceding third quarter of 2003, growth rates had been +0.4% for both zones.

Compared to the same quarter of the previous year, GDP grew by 0.6% in the euro-zone and by 0.9% in the EU15, after +0.3% and +0.6% respectively in the third quarter.

Investments growing quicker than private consumption and imports faster than exports

During the fourth quarter of 2003, household⁴ final consumption expenditure grew by 0.1% in the **euro-zone** and by 0.3% in the **EU15** (after +0.2% and +0.4% respectively in the third quarter of 2003). Investments grew by 0.6% in the **euro-zone** and by 0.8% in the **EU15** (after -0.2% and +0.1% in the previous quarter). Exports grew by 0.2% in the **euro-zone** and by 0.5% in the **EU15** (after +2.3% and +1.9% in the previous quarter) and imports by 2.1% in both zones (after +0.8% in both zones in the third quarter of 2003).

Industry up, trade, transport and communication down

During the fourth quarter of 2003, total gross value added grew by 0.3% in both the **euro-zone** and the **EU15**, after +0.5% in both zones in the previous quarter. Compared to the fourth quarter of 2002, total gross

value added increased by 0.6% in the **euro-zone** and by 0.9% in the **EU15**.

During the fourth quarter of 2003, gross value added in Industry grew by 0.7% in the **euro-zone** and by 0.6% in the **EU15**. Gross value added in Construction grew by 0.1% in the **euro-zone** and by 0.5% in the **EU15**. Trade, transport and communications services fell by 0.3% in the **euro-zone** and by 0.1% in the **EU15** while Financial services and business activities slightly increased: +0.1% and +0.3% respectively. Agriculture grew by 1.1% in the **euro-zone** and by 0.9% in the **EU15**.

Summary quality information

European Quarterly National Accounts are compiled in accordance with the European System of Accounts 1995 (ESA95), using the available Member States' data. The estimate of 2004q1 euro-zone/EU15 GDP presented in this release was based on Member States' data covering 72% of euro-zone GDP (78% of EU15 GDP). As new information becomes available from Member States the European estimates are subject to revision.

Compared to the flash estimate of 13 February 2004 euro-zone/EU15 GDP growth was revised by 0.02 percentage points (0.01 for the EU15). The results of the first regular estimate presented above may be subject to further revision at the occasion of the second regular estimate, scheduled for release on 16.05.2004. In the past, the second regular estimate has led to an average revision of ± 0.01 percentage points for the euro-zone (± 0.01 for the EU15). Over the last eleven quarters, the second regular estimate confirmed the sign of GDP growth reported in the earlier estimate in all cases, and it confirmed the acceleration or deceleration of GDP growth in 8 out of 11 cases.

GDP and expenditure components: 2004q1 quarter-on-quarter growth (seasonally adjusted, constant prices)

Components		Current Estimate	Previous estimate	Current Revision ¹⁾	Average revision ¹⁾
Euro-zone	Gross domestic product	0.3	0.3	0.0	0.0
	Private final consumption exp.	0.2	0.2	0.0	-0.0
	Government final consumption exp.	0.4	0.4	0.0	0.2
	Gross fixed capital formation	-0.2	-0.1	-0.1	0.1
	Exports	0.9	0.8	0.1	-0.2
	Imports	0.3	0.3	-0.0	0.0
EU15	Gross domestic product	0.3	0.3	0.0	0.0
	Private final consumption exp.	0.2	0.2	0.0	-0.0
	Government final consumption exp.	0.4	0.4	0.0	0.2
	Gross fixed capital formation	-0.2	-0.1	-0.1	0.1
	Exports	0.9	0.8	0.1	-0.2
	Imports	0.3	0.3	-0.0	0.0

¹⁾ Percentage points.

Further information on **quality** is available at <http://www.europa.eu.int/comm/eurostat/newcronos/info/notmeth/en/theme1/euroind/na/na-quality.htm>.

More **general information** on European QNA is available from Eurostat's metadata at <http://www.europa.eu.int/comm/eurostat/newcronos/info/notmeth/en/theme1/euroind/na/na.htm>

More **data** on European quarterly national accounts are available on Eurostat's website at <http://europa.eu.int/comm/eurostat>, and then follow "Free & online" – "Short-Term indicators".

1. Euro-zone: Belgium, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland.
2. European Quarterly National Accounts (QNA) are compiled using annual data of all Member States and quarterly data as available. Member States' data are **seasonally adjusted** according to national adjustment procedures. Data are also corrected for working days for Belgium, Germany, Spain, France, Italy, the Netherlands, Austria, Sweden and the United Kingdom. Seasonally adjusted European aggregates are calculated from seasonally adjusted Member States' data.
3. News release 19/2004 of 13.02.2004. For a full release calendar, see <http://europa.eu.int/comm/eurostat>, then follow "News releases". The first release including figures for 2004Q1 is scheduled for 16.05.2004.
4. NPISH (Non-profit institutions serving households) included.

Growth rates of GDP in volume
(based on seasonally adjusted data)

	Percentage change compared to the previous quarter					Percentage change compared to the same quarter of the previous year				
	2003				Previously released value* 2003 Q4	2003				Previously released value* 2003 Q4
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Euro-zone	0.0	-0.1	0.4	0.3	(0.3)	0.7	0.1	0.3	0.6	(0.6)
EU15	0.1	0.0	0.4	0.4	(0.4)	0.9	0.4	0.5	0.9	(0.9)
EU Member States										
Belgium	0.1	0.0	0.6	0.7	(0.6)	1.5	0.8	0.8	1.3	(1.2)
Denmark	0.8	-0.5	0.1	0.6	(0.3)	0.5	0.1	0.1	1.0	(0.3)
Germany	-0.2	-0.2	0.2	0.2	(0.2)	0.1	-0.3	-0.3	0.0	(0.0)
Greece	2.9	0.5	1.8	-0.3	(-0.3)	4.3	4.5	5.0	5.0	(5.0)
Spain	0.5	0.7	0.6	0.7	(0.7)	2.2	2.3	2.4	2.7	(2.7)
France	0.0	-0.4	0.4	0.5	(0.5)	0.7	-0.4	-0.2	0.6	(0.6)
Ireland	-1.4	2.3	-1.2	3.1	:	0.6	2.3	-0.2	2.7	:
Italy	-0.2	-0.1	0.4	0.0	(0.0)	0.6	0.2	0.5	0.1	(0.1)
Luxembourg	:	:	:	:	:	:	:	:	:	:
Netherlands	-0.3	-0.5	0.0	0.4	(0.3)	-0.2	-1.1	-1.2	-0.4	(-0.5)
Austria	0.5	0.0	0.1	0.1	:	1.4	0.4	0.9	0.8	:
Portugal	0.2	0.0	-0.5	-0.2	:	-1.4	-2.2	-1.0	-0.5	:
Finland	-0.3	0.8	0.8	0.3	(0.3)	2.4	1.4	2.0	1.6	(1.6)
Sweden	0.5	0.4	0.6	0.7	:	1.7	1.3	1.6	2.1	:
United Kingdom	0.3	0.6	0.8	0.9	(0.9)	1.9	2.2	2.2	2.7	(2.8)
EFTA Countries										
Norway	-0.1	-0.2	0.8	:	:	0.1	-1.8	0.2	:	:
Switzerland	-1.1	0.1	0.5	0.5	:	-0.4	-0.8	-0.6	-0.1	:
Main economic partners										
United States	0.5	0.8	2.0	1.0	(1.0)	2.1	2.4	3.6	4.3	(4.3)
Japan	0.6	0.8	0.6	1.7	(1.7)	2.7	2.4	2.0	3.8	(3.8)
Canada	0.6	-0.1	0.2	:	:	2.8	1.6	1.1	:	:

: Data not available

* See News Release 32/2004 issued on 4 March 2004

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<http://europa.eu.int/comm/eurostat>

Annex 2: The views of some users

To provide the TF with some background to quality of GDP estimates and users' views of it, the chairman and secretariat interviewed four users. There is no suggestion that these users are representative of their population. Indeed, at least three of them were selected because of their special interest in quality of GDP estimates. Commission (DG ECFIN) and ECB economists were visited, and they, of course, have a particular interest unlikely to be reflected elsewhere. The director of a London research institute was visited because of his long-expressed desire to see more quality information on macro-economic statistics published. The fourth interviewee was an economist in a commercial bank in Frankfurt.

There was a general welcome for more information on quality, and also a fairly clear desire for Europe to match the USA on timeliness and detailed breakdown of quarterly GDP estimates. All four users wanted more explanation. They wanted more explanation for revisions, and more explanation of how Eurostat combined information from Member States (particularly on inventories). One user suggested that Eurostat should publish a short article each quarter explaining the links between Member States' figures and revisions and Eurostat's – even if this was a week after publication of the GDP estimate.

None of the four wanted detailed analyses of revisions. They recognised the dangers of relying too heavily on revisions as a quality indicator.

Annex 3: Guidelines for Member States on the estimation of the proportion of “final” quarterly data used in early estimates of GDP for the latest quarter

Introduction

Eurostat is planning to compile and estimate a number of quality indicators of its estimates of EU15 and Euro area quarterly GDP. One of these indicators attempts to assess the reliability of GDP estimates for the latest quarter by examining the quantity of source data input into early estimates of GDP. At its simplest, indicators at the European levels can indicate the number of Member States whose data are included in the European estimates. For example, for its “flash” quarterly GDP estimate, Eurostat may have received information from only seven (out of twelve, fifteen, or twenty-five) Member States. Developing this indicator a stage further, Eurostat can calculate the proportion (say, 78%) of EU15 GDP that these seven countries represent.

It is known that Member States produce their early estimates of quarterly GDP for the latest quarter on the basis of incomplete information. More precisely, they make these early estimates on the basis of less information than they will use in estimating later (and particularly “final”) estimates. Eurostat is aiming to refine the quality indicator described in the first paragraph to take account of the fact that Member States’ early estimates themselves are less reliable than later estimates. The objective is to get data from Member States that enables Eurostat to publish a statement of the following sort:

“This (early) estimate of EU15 (or EU25 or Euro area) GDP growth for the first quarter of 2004 is based on information from seven countries (list of countries), covering 78% of EU 15 GDP. At this stage, Member States’ estimates of their GDP are not yet based on full and final information. This estimate of EU15 GDP growth is therefore based on about half of the quarterly information that will finally be available.”

For Eurostat to estimate this proportion of final quarterly data available for estimating EU15 (or EU25 or Euro area) GDP, it requires information from Member States on the proportion of final quarterly data available to them. The guidelines below are intended to provide Member States with assistance in estimating this proportion.

Guidelines

Eurostat recognises that there are many different approaches used within the Union to estimate quarterly GDP. It is clear that it will not be possible to devise a method of estimating the required proportion that is fully harmonised across Europe. Indeed, there is no expectation that Member States’ estimates will be precise estimates. They will include a considerable element of judgement, and will need to be described as “broad” estimates. These guidelines therefore attempt to define a method that produces an estimate of the required proportion that gives a *good impression* to users of the quantity of final quarterly data used in the estimate of GDP, and therefore of the reliability of the estimate.

Having said this, it does not seem unreasonable to expect compilers of GDP to have a good knowledge of the way in which new and better data is included into the

succession of estimates of quarterly GDP for the latest quarter. It is this knowledge that this indicator should capture and pass on to users.

The following list of guidelines attempt to add more precision to the definition of the required proportion in those areas where there is the greatest and most obvious uncertainty or scope for different interpretation.

Guideline 1: Member States should provide, for *early estimates* of GDP growth for the latest quarter, an estimate of the proportion of *final quarterly information* used in the compilation of the estimate of the latest quarter's GDP. While the proportion of final quarterly information available shall be provided to Eurostat on GDP level only, Member States should perform their assessment (at least) at the level of main expenditure components and / or main industries.

Guideline 2: This proportion should be estimated for each *transmission to Eurostat within 105 days of the end of the latest quarter*. Member States are not asked to provide estimates of this proportion for estimates of quarter t-1, t-2 etc when estimates of quarter t are beginning to be published.

Guideline 3: The proportion for each estimate is expected to *remain unchanged quarter by quarter*. Member States will be free periodically to review their proportions in the light of major changes to their quarterly methodology. (In exceptional circumstances, when, for example, a key part of source data becomes temporarily unavailable, Member States should notify Eurostat of the unusual decline in quantity of source data included in a particular estimate).

Guideline 4: the *final quarterly information* should be that quarterly data set used for estimation immediately before annual information begins to become available, in a significant way, for use in enhancing the quarterly data set. This will not necessarily be the same elapsed time after each calendar quarter. For example, annual data may begin to enhance or replace quarterly data six months after the end of the year i.e. six months after the end of the fourth quarter, but fifteen months after the end of the first quarter. Nor will it be the same point in time for all components, or for all Member States. Member States will need to decide upon the point in time that most nearly reflects this definition. Some judgement will be needed.

Guideline 5: It is possible that, as the estimates for a particular quarter move from early towards final estimates, Member States *switch from one quarterly data source to another final quarterly source* (before any use is made of annual data for the reference year). For example, in the first instance, an indirect source may be used, pending the availability of a (more) direct final quarterly source. This can happen even if the first source is complete, and usually because the new final source is considered to be better. In these cases, the compiler should make an expert judgement about the relative quality of the two data sources. For example, the compiler may judge that the quality of the first source is relatively poor, and its quality should score as only a third of the quality of the final quarterly information. On the other hand, the compiler may consider the improvement in quality to be fairly limited, and score the quality of the first source as 90% of the quality of the final quarterly source.

Guideline 6: There are *three approaches to estimating GDP* – the expenditure, income, and output (or production) approaches. Member States may use two or three approaches in the later estimates of quarterly GDP, but fewer (usually one) approaches in the early estimates. In the case where only one approach is used in the early estimate, the required proportion should be calculated on the basis of the proportion of final quarterly information used for estimating this approach only. For example (1), the Member State eventually uses three (or two) approaches, but estimates only the expenditure approach for its first estimate. Information for the first estimate represents 60% of the quarterly expenditure information finally available. The Member State should score 60% (and not 20% or 40%). For example (2), the Member State eventually uses three (or two) approaches, and two (or three) approaches for the first estimate. The Member State should calculate the required proportions for each approach separately, and report the maximum of the two (or three).

Guideline 7: Fairly obviously, where *monthly data* are used to estimate quarterly figures, each month should have a weight of one-third. Where partial monthly data are available, a stylised assumption of half a month should be used (unless monthly information is itself made up of weekly data, in which case, months can be divided into their four parts).

Guideline 8: For the expenditure approach to GDP estimation, imports and, on occasions, inventories will have *negative weights*. Member States should calculate the required proportion using absolute weights for the components of GDP, i.e. for a given component, the weight shall be the share of its absolute value in the sum of absolute values of all components.

Guideline 9: Where components are constructed as the *product of a nominal (currency) value and a deflator*, the stylised assumption of equal weights for each of the nominal value and the deflator should be used.

Guideline 10: the required proportion should be calculated and reported for *the main aggregates of GDP*, particularly the expenditure aggregates, where possible.

Guideline 11: The required proportions should be shown to the nearest 10% (for GDP and its components). This reflects the subjective nature of much of the estimation process, and should ease the burden on compilers. (Estimates at the European level may be shown to the nearest 5%).

Annex 4: List of TF members and meetings

Chair

Chairman Mr. John Kidgell

Secretariat

ECB Mr. Wim Haine
Estat Mr. Ingo Kuhnert

Members

Germany Mr. Albert Braakmann
Spain Mr. Jesús Buoso
France Mr. Aurélien Daubaire
Italy Ms. Francesca Di Palma
Netherlands Mr. Jan Berdowski
Portugal Mr. Pedro Oliveira
Finland Mr. Arto Kokkinen
Sweden Mr. Lennart Nordberg
ECB Mr. Henning Ahnert
Estat Mr. Roberto Barcellan
Estat Mr. Joachim Recktenwald
Estat Mr. Giovanni Savio

Observer

ECB Ms. Violetta Damia
ECB Ms. Carmen Picon Aguilar
ECB Mr. Jorge Diz Dias
ESTAT Mr. Matthias Ludwig

The task force met three times:

Luxembourg, 06./07.11.2003

Frankfurt, 15./16.12.2003

Luxembourg, 01./02.04.2004