24 July 2008

# Quality Report on Quarterly Non-financial Accounts for the General government

## INTRODUCTION

Regulation (EC) No 1221/2002 of the European Parliament and of the Council of 10 June 2002, states, in Article 8, that the Commission (Eurostat) shall submit to the European Parliament and to the Council a report containing an assessment of the reliability of quarterly data delivered by Member States. In order to fulfil this legal requirement, a quality report on quarterly non-financial accounts for the general government was adopted by the Commission and transmitted to the European Parliament and to the Council in June 2006. This quality report is available in the GFS dedicated section of the Eurostat web site at:

http://epp.eurostat.ec.europa.eu/pls/portal/url/ITEM/323DE60A412035CFE0440003BA9321FE

The aim of the quality report was to capture the multiple dimensions of quality, following criteria commonly used to assess the quality of statistics. The Report was broadly agreed with the members of the Eurostat Working Group on Short-term Public Finance Statistics.

The Report comprised general sections, explaining the underlying concepts, technical issues, and main country findings, and a final section with a summary of conclusions and recommendations by country. More extensive documentation underpinning those findings has been available on the Eurostat website since 2006.

Two years after the adoption by the Commission of the first report, there have been changes and significant improvements in the quality of the statistics transmitted by Member States. One significant change when compared to the previous report is that all EU Member States are now transmitting data. Compilers and users have become more familiar with this data flow.

Consequently, Eurostat decided to update this quality report in order to take into account developments in the last two years. Contrary to the first quality report, which was requested by legislation and officially adopted by the Commission, it is planned that this report will be mainly a working document for compilers and users, and  that it will be placed in the web site once discussed by the members of the Working Group on STPFS.

The structure of the report has been slightly amended in order to take into account the latest aspects of quality assessment and the need to evaluate the change in quality. The main changes in the structure are as follows:

- A section on the evolution of data quality since the time of the previous quality report has been added at the beginning, by including the "assessment and recommendation" table from the previous report with an additional column showing main improvements since then.

- The section "Institutional arrangements" has been re-named "Compilation Arrangements".

- The section "Timeliness and Coverage" becomes "Timeliness, Coverage, and Publications".

- A new section 5.2. "Coherence between quarterly non-financial accounts for general government and EDP notification data" has been introduced.

- A new section 5.4. "Coherence between non-financial and financial accounts" has been included.

**Structure of the Quality Report**

**1.** Evolution of quarterly non-financial accounts for the general government data quality compared to the first report of 2006

**2.** Compilation arrangements

**3.** Accessibility and clarity

**4.** Timeliness, coverage and publications

**5.** Coherence

**5.1.** Coherence between quarterly and annual data

**5.2.** Coherence between quarterly non-financial accounts for general government and EDP notification data

**5.3.** Coherence between provisional and final statistics

**5.4.** Coherence between non-financial and financial statistics

**6.** Comparability over time

**7.** Accuracy and reliability

**7.1.** Coverage of data sources

**7.2.** Methodologies and assumptions used in the estimates of statistics

**7.3.** ESA 95 conceptual adjustments

**7.4.** Revisions of statistics

**8.** Conclusions and recommendations

## 1. EVOLUTION OF QUARTERLY NON-FINANCIAL ACCOUNTS FOR THE GENERAL GOVERNMENT DATA QUALITY COMPARED TO THE FIRST REPORT

This section shows the progress made between the first quality report produced in 2006 and this new report. The first quality report referred to the data transmission of end September 2005 (2005 Q2 figures), while this update concentrates on the transmissions up to March 2008 (2007 Q4 data). In the meantime, compilers have been more familiar with the production of these figures.

When the first quality report was released, there were 25 Member States in the European Union. Since then Bulgaria and Romania have joined the Union, and they are accordingly included in this report.

At the time of the first report, 13 Member States were publishing STPFS or related data on their own web sites; now there are 19. On the Eurostat side, the accessibility of data has also improved as STPFS data are currently published for all EU Member States. Eurostat has also arranged the presentation of quarterly data in the dissemination data base (New Cronos) in a clearer way. Eurostat has developed a dedicated section on government finance statistics (GFS) in the web site, providing information on data, metadata, quality reports, manuals, legal basis, EDP-related issues, etc., in order to find all this information in a single domain[1].

Moreover, STPFS data are now published in quarterly GFS integrated tables in the dedicated GFS section of the Eurostat web site. These tables show quarterly non-financial accounts for the general government, quarterly financial accounts and quarterly debt data, in a user-friendly and more consistent way. Eurostat is also currently discussing with Member States, in the framework of the Working Group STPFS, how to improve the metadata explaining the figures released.

The timeliness of data transmission, according to the deadlines included in the Regulation (t+3 months after the reference quarter) is considered to be broadly satisfactory, with only four countries transmitting their data with a significant delay (i.e. more than 3 days after the deadline) during the four transmissions for the data corresponding to 2007.

In terms of coverage, there has also been significant improvement. At the time of the first report only 19 countries provided the full coverage of statistics required by the Regulation. A full coverage (in terms of transactions and periods) is now achieved by 25 countries, even if six countries still have yet to fully report the back series covered by Regulation (EC) 264/2000.

---

1 http://epp.eurostat.ec.europa.eu/portal/page?_pageid=2373,47631312,2373_58674332&_dad=portal&_schema=PORTAL

The coherence between quarterly and annual data has also improved consistently since the time of the last report. At that time 13 countries showed perfect coherence, while this is now the case for 24 countries.

As for comparability over time, many Member States reported no breaks in their time series.

Owing to the experience gained in the compilation of STPFS data by national compilers, the impact of revisions significantly decreased for all countries over the last two years. Currently, the absolute average revision of B.9 varies between 0.1% and 0.4% of GDP, a rather limited range, for 17 countries, instead of 4 countries in 2006.

Countries pursued their efforts in increasing the coverage of basic data sources in order to move closer to the requirements of Article 3 of the Regulation (EC) No 264/2000.

Finally, for a large majority of countries there was a sharp decrease in the amount of revisions in the fourth quarter of the B.9 for the three preceding quarters, as compared to the situation described in the previous report. From 2004 to 2007, the absolute average revision of the three preceding quarters, made in the fourth quarter for the B.9 variable, was limited to a range of 0.1% to 0.5% of GDP for 24 countries, whereas only 11 countries showed a similar result in the previous report (for data covering the period 2002-2004).

The table below describes the most significant advances in those areas identified in the previous report (Bulgaria and Romania were not included):

| **Member State** | **Two years ago, the data and the metadata were of:** | **An effort had to be made on:** | **After 2 years, progress is observed on:** |
|---|---|---|---|
| **Belgium** | Good overall quality | • 90% criterion is not fulfilled (87%) for D62 | • The coverage of D62 increased to 89% |
| **Czech Republic** | Insufficient overall quality | • Consistency between quarterly and annual data<br>• Interest is to be consolidated on a quarterly basis<br>• The progress in gradually incorporating improved quarterly basic sources is welcomed. | • Consistency between quarterly and annual data achieved<br>• Interest consolidated on a quarterly basis |
| **Denmark** | Good overall quality | • Consistency between annual and quarterly data | • The consistency between annual and quarterly data improved for the period 1999-2007, except for the transactions D4. |
| **Germany** | Good overall quality | - | - |

| | | | |
|---|---|---|---|
| **Estonia** | Insufficient timeliness of transmission | • Timeliness<br>• Coverage | • Coverage compliant with STPFS regulation<br>• Improved timeliness of data transmission |
| **Ireland** | Insufficient overall quality | • Methodological description of the national practices for the ESA 95 transactions to be supplied<br>• 90% criterion D62 (75%).<br>• Consistency between quarterly and annual data must be ensured. | • Methodological description provided<br>• Consistency between quarterly and annual data achieved<br>• 90% criterion reached |
| **Greece** | Insufficient overall quality | • Basic sources to be further developed and quality improved<br>• Impact of revisions been significant after two years, and also in the fourth quarter for the three preceding quarters. | • Revision after two years reduced from 3.2% to 0.9% of GDP<br>• Revision in Q4 of 3 preceding quarters reduced from 1.9% to 0.6% of GDP |
| **Spain** | Good overall quality | • Missing time-series to be reported | • Missing series are now reported for 1999Q1-1999Q4 (but flagged as "non-publishable") |
| **France** | Good overall quality | • Increase the coverage of direct sources for D.62 (85%) | • The coverage of D.62 increased to 87% |
| **Italy** | Good overall quality | • Further progress expected as regards the coherence between provisional and final statistics | • Average revision after 8 quarters reduced from 1.5% to 0.3% |
| **Cyprus** | Insufficient coverage | • Missing time-series to be supplied<br>• Progress in availability of quarterly basic sources for local government. | • Complete time series delivered |
| **Latvia** | Good overall quality | • Further progress to be achieved as regards coherence between provisional and final statistics. | • Revision after 8 quarters reduced from 2.1% to 0.4% of GDP |

| | | | |
|---|---|---|---|
| **Lithuania** | Insufficient timeliness and coverage | • Missing time-series to be provided<br>• Timeliness of transmissions to be improved. | • Missing series transmitted<br>• Timeliness compliant with Regulation |
| **Luxembourg** | Good overall quality; Insufficient coverage | • Missing time-series to be provided<br>• Progress expected to increase collection of quarterly basic sources for local government.<br>• Impact of revisions significant after two years. | • Missing series have been supplied<br>• Revisions after two years reduced from 8.1% to 0.6% of GDP |
| **Hungary** | Insufficient coverage and timeliness | • Missing time-series to be provided<br>• Timeliness to be further improved.<br>• Collection of quarterly basic sources from local government.<br>• The impact of revisions significant | • Missing time series now provided<br>• Timeliness within the Regulation deadlines<br>• Collection of quarterly basic sources from local governments has improved, data are timely reported<br>• Revision in the 4$^{th}$ quarter of 3 preceding quarters reduced from 2.8% to 0.4% |
| **Malta** | Incomplete coverage | • Missing time-series to be provided. | • Complete data set delivered |
| **Netherlands** | Good overall quality | • Progress expected to gradually incorporate improved quarterly basic sources. | • Ongoing action |
| **Austria** | Good overall quality | • Impact of revisions significant after two years and also in the 4th quarter for the three preceding quarters.<br>• Progress expected in order to gradually incorporate improved quarterly basic data sources. | • Revisions after 2 years reduced from 1.1% to 0.4% of GDP |

| | | | |
|---|---|---|---|
| **Poland** | Insufficient consistency between quarterly and annual data | • Ensure consistency between quarterly and annual data over time.<br>• Increase the collection of quarterly basic sources.<br>• Impact of revisions significant in the 4th quarter for the three preceding quarters | • Quarterly and annual data consistent<br>• Revisions in 4th quarter of the 3 preceding quarters reduced from 1% to 0.3% of GDP |
| **Portugal** | Good overall quality | • Further improvement needed in collecting quarterly data from regional and local government | • Achieved almost complete (97%) coverage of the municipalities sub-sector and complete coverage (inc. payment arrears) or regional government units from 2003 onwards |
| **Slovenia** | Incomplete coverage | • Missing ESA 95 transactions to be provided | • Complete data set delivered |
| **Slovakia** | Insufficient overall quality | • Consistency to be ensured between quarterly and annual data<br>• D4, D7 and D9 to be consolidated.<br>• Further improvements expected in estimating accrual data on a quarterly basis. | • Consistency between quarterly and annual data achieved<br>• Data compiled on accruals basis<br>• D4, D7 and D9 items consolidated |
| **Finland** | Good overall quality | - | - |
| **Sweden** | Good overall quality; incomplete coverage | • Missing time-series to be reported<br>• Progress to be achieved in collecting quarterly basic sources, particularly for social security funds.<br>• Further improvement needed in consolidating D.4 both on an annual and on a quarterly basis.<br>• Ensure more coherence between provisional and final statistics. | • Complete data set transmitted<br>• D4 consolidated<br>• Revisions after 2 years reduced from 1.2% to 0.1% |

| | | | |
|---|---|---|---|
| **United Kingdom** | Good overall quality | • Ensure coherence between quarterly and annual data<br>• Further develop the availability of quarterly basic sources for local government. | • Coherence between quarterly and annual data achieved |

## 2. COMPILATION ARRANGEMENTS

Quarterly non-financial accounts for general government are compiled by the National Statistical Institutes in all Member States, except for Belgium (the National Bank of Belgium). In a number of Member States, working groups made up of representatives of the National Statistical Institute, National Central Bank and Ministry of Finance deal with quarterly accounts methodological issues (a similar approach to that adopted for annual accounts). Moreover, these working groups often analyse consistency between quarterly non-financial and financial accounts[2]. Eurostat recommends the constitution of these bodies in those cases where they do not exist.

## 3. ACCESSIBILITY AND CLARITY

Accessibility refers to the physical conditions in which users can obtain data, i.e. where to go, how to order, delivery time, and formats for accessing the data. It also indicates whether data are accompanied by appropriate metadata and methodological manuals. Eurostat is currently publishing on its website Member States' data on taxes and social payments, which are covered by Commission Regulation (EC) No 264/2000, and the ESA 95 transactions covered by the Regulation (EC) No 1221/2002 of the European Parliament and of the Council of 10 June 2002. Eurostat also shows quarterly non-financial accounts for the general government sector, together with quarterly financial accounts and quarterly government debt, in an integrated presentation. Moreover, it has improved the presentation of quarterly government data in New Cronos.

As for dissemination policies at national level, the situation is currently as follows: 19 Member States – Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Spain, Italy, Cyprus, Latvia, Lithuania, Hungary, Malta, the Netherlands, Austria, Slovenia, Slovakia, Finland, Sweden and United Kingdom - currently publish quarterly non-financial accounts for general government, albeit only partially in some countries (i.e. mainly quarterly taxes and social payments). A number of Member States - Luxembourg, Poland, Portugal and Sweden – plan to publish or to further enlarge the published data. Published statistics are usually available on the websites of the National Statistics Institutes, mainly in their national languages. Data are sometimes accompanied by metadata or brief methodological notes.

Eurostat has published two manuals on the methodology of quarterly government accounts. The first edition, *Manual on Compilation of Taxes and Social Payments on a Quarterly*

[2] In some Member States such as Belgium, Lithuania, the Netherlands or Luxembourg the same institution compiles both quarterly non-financial and financial accounts for general government.

*Basis*[3] was published in 2002 and concentrated on the transactions included in Commission Regulation (EC) No 264/2000. This manual was supplemented by a new *Manual on quarterly non-financial accounts for general government* which covers all of the remaining ESA 95 transactions. It has a similar structure, providing methodological guidance and describing national practices for each of the sub-sectors of general government. This manual is available to the general public on the Eurostat website.

It should be noted that under the terms of the two Regulations on short-term public finance statistics, Member States are required to provide Eurostat with a description of the sources and methods used to compile quarterly data and to provide details of any revision of the initial description when communicating the revised data.

## 4. TIMELINESS, COVERAGE AND PUBLICATIONS

Timeliness reflects the time gap between data availability and the event it describes. According to the Regulations on short-term public finance statistics, data shall be delivered to Eurostat not later than 3 months from the end of the quarter to which the data relate.

Examining the quarterly transmissions from March 2006 to March 2008 (2006Q1-2007Q4 data), 15 Member States reported quarterly non-financial accounts for general government without delays for all quarters[4]. They were: Czech Republic, Denmark, Germany, Estonia, Ireland, Spain, France, Italy, Cyprus, Lithuania, Austria, Slovenia Slovakia, Finland, and Sweden. Other Member States (Belgium, Bulgaria, Greece, Luxembourg, Hungary, Malta, the Netherlands) had a delay of 3 to 5 days in at least one of their transmissions. The Romanian data are transmitted at irregular intervals, which do not comply with the provisions of the Regulation (although the situation has improved in the latest transmissions).

Considering the most recent period, the timeliness of data transmissions significantly improved over the past 4 quarters, with the number of countries transmitting their data with delay being reduced to 4.

Regarding the coverage of data transmission, for taxes and social payments (Article 5 of Regulation (EC) No 264/2000) Member States are required to deliver quarterly data to Eurostat starting from the first quarter of 1991. For the remaining ESA 95 transactions (Regulation (EC) No 1221/2002, Article 6), quarterly data should be transmitted starting from the first quarter of 1999.

Ireland and Greece still need to report the back series covered by the Regulation (EC) No 264/2000. As for the new Member States, the following countries provide back series from the first quarter of 1995: Czech Republic, Latvia, Lithuania, and Slovenia[5]. Estonia and Slovakia provide back series from the first quarter of 1993, while Malta and Poland provide these series from the first quarter 1991.

---

[3] European Communities (2002), Manual on Compilation of Taxes and Social Payments on a Quarterly Basis, Luxembourg: Office for Official Publications of the European Communities.

[4] Germany and Cyprus report their data well in advance of the transmission delay set out in the Regulation

[5] Except for the transaction *social benefits other than social transfers in kind* (D62PAY) which is provided from the 1st quarter of 1999 onwards

Bulgaria, Cyprus (data starting from the first quarter of 1998), Hungary and Romania do not provide back series from the deadlines included in the Regulations. For the additional ESA 95 transactions included in Regulation (EC) 1221/2002, the situation substantially improved from 2006 to 2008. All countries now comply with the request, except Romania and, to a lesser extent, Bulgaria, for which a few transactions (P11_P12_P131, D92_D99REC, total revenue, gross saving, net lending/net borrowing) are reported from the first quarter of 2002 (instead of 1999).

*Compliance with legislation*

It can be concluded that the large majority of Member States comply with the major elements of the European Parliament and the Council Regulation (EC) no 1221/2002 and Commission Regulation (EC) no 264/2000, which form the legal basis for the collection and transmission of quarterly non-financial accounts for the general government.

The coverage of transactions is well achieved by all countries. However, Romania should transmit the series starting from 1999 Q1, and Bulgaria should transmit five variables included in the legislation for the period 1999 Q1 to 2001 Q4.

As for the transmission of back series for the transactions covered by the regulation N° 264/2000, Ireland, Greece, Bulgaria, Hungary and Romania still need to report the data starting from the 1995 Q1[6]. Eurostat will contact these countries in a bilateral basis in order to establish compliance work plans.

## 5. COHERENCE

Coherence of statistics relates to their suitability to be reliably combined in different ways and for various uses.

### 5.1. Coherence between quarterly and annual data

In both Regulations it is stated that the quarterly data and the corresponding annual data shall be consistent (Articles 3 and 4 respectively). When analysing the consistency between quarterly and annual figures, it can be concluded that the coherence between quarterly and annual data improved over the past two years.

For data referring to quarters before 1999, there remain inconsistencies for Denmark and Portugal for certain transactions.

Concerning data for 1999 and after, inconsistencies are found for Denmark for the transactions D4 in the period. Inconsistencies between quarterly and annual data are also found for France for transactions D9 (for 2003) and for transactions D62PAY and D7PAY (for 2007).

### 5.2. Coherence between quarterly non-financial accounts for general government and EDP data

[6] The back series of Cyprus are currently reported from the 1st quarter 1998 onwards. They should be reported from the first quarter of 1995, in order to be fully compliant with the legislation.

The analysis of the coherence between quarterly non-financial accounts for the general government and EDP data is undertaken by comparing the annualised net lending/net borrowing (B.9) from STPFS with the net lending/net borrowing (B.9) from the EDP notifications, after adjusting the latter for the treatment of interest swaps. This analysis was made for the years between 2004 and 2007 and on the basis of STPFS and EDP notifications data transmitted at end March/beginning of April 2008.

The comparison shows good consistency between the annualised net lending/net borrowing (STPFS B9) and the net lending/net borrowing from EDP notifications, adjusted for swaps. STPFS B9 and EDP B9 are fully consistent over 2004-2007 for most Member States (23 out of 27).

While there was a perfect match for a majority of countries, there were deviations for Denmark and Estonia, and to a lesser extent France, Austria and Romania. For Estonia and Romania these deviations generally reflected recent accounting changes made by these Member States not yet reflected in quarterly accounts. Deviations for the United Kingdom are fully accounted for by Eurostat's amendment (UMTS). France provided a revised and consistent data set on 15 May.

### 5.3. Coherence between provisional and final statistics

The average revision of a value after two years, i.e. after eight quarters, was analysed in both absolute and nominal values to assess whether the final statistics differ significantly from the provisional ones[7].

For those Member States that show significant revisions in this period, reference is made to the ESA 95 transactions that have significantly influenced either total expenditure or total revenue (or both). This indicator helps in assessing the impact of revisions, particularly the volatility of net lending/borrowing B.9, which is a prominent balancing item[8]. Several factors affect revisions. For quarterly statistics these are related not only to the availability of final annual accounts but also to other factors such as updating, quality reviews, changes in data sources or methods, ESA 95 conceptual adjustments, etc. One important aspect of both Regulations is that direct sources must be used for compiling non-financial accounts for general government and no seasonally adjusted figures are to be transmitted to the Commission (raw data).

In summary, it was observed that the absolute average revision of B.9 varies between 0.1% and 0.2% of Gross Domestic Product (GDP) for Belgium, Germany, France, Cyprus, Lithuania, the Netherlands, Sweden, and United Kingdom. A second group of Member States - Finland, Ireland, Italy, Denmark, Portugal, Bulgaria, Poland, Romania, Slovakia, Austria, and Latvia - shows an absolute average revision over two years of between 0.2% and 0.5% of GDP. A third group shows an absolute average revision higher than 0.5 % of GDP; this group includes the Czech Republic (0.6%), Luxembourg (0.6%), Slovenia (0.6%), Hungary (0.8%), Estonia (0.8%), Greece (1%) and Malta (1%). The arithmetic average revisions of the values two years later tend to show a lower impact of revisions. The

---

[7] Average difference of the following: fourth quarter 2007 minus fourth quarter 2005, third quarter 2007 minus third quarter 2005, second quarter 2007 minus second quarter 2005, first quarter 2007 minus first quarter 2005, fourth quarter 2006 minus fourth quarter 2004, third quarter 2006 minus third quarter 2004, second quarter 2006 minus second quarter 2004, first quarter 2006 minus first quarter 2004.

[8] The question of revisions is further analysed under item 6, accuracy and reliability.

Member States presenting the most significant average revisions over this period have been Estonia (0.4%), Slovakia (0.3%), Malta (-0.6%[9]), Slovenia (-0.6%) and Hungary (-0.8%).

The absolute average revision of B.9 significantly decreased over the past two years, reflecting the improved accuracy of the data. In the quality report published in 2006, six Member States (Greece, Italy, Latvia, Luxembourg, Austria and Sweden) had an absolute average revision of B.9 higher than 1% of GDP, whereas in the present report, the highest value of the absolute average revision is 1% of GDP.

The aim in compiling those statistics would be to minimize, for each quarter, the differences between the initial estimates and final figures. Although no similar quality assessment is being made for annual statistics, since 1999 the non-weighted average of absolute revisions in the annual deficit ratios of Member States has been 0.27% of GDP after six months, 0.34% after one year and 0.43% after 18 months.

### 5.4. Coherence between Financial and Non-Financial Accounts

From December 2005 all Member States have to deliver to Eurostat a complete general government dataset, comprising expenditure, revenue and deficit on the one hand, and transactions in financial assets and liabilities on the other. The deficit is in theory equal to the net financial transactions (i.e., the “above the line” is equal to the “below the line”). In practice, source data issues, compilation issues and institutional arrangements lead to differences, often called “statistical discrepancy” (the discrepancy between the non-financial and the financial accounts). Whilst the discrepancy is (generally) noticeably lower for the general government sector than for other sectors of the economy, different statistical approaches exist currently in Europe: some fiscal compilers show the discrepancy to its full extent, while others reduce or eliminate it during the statistical compilation process. Eurostat initiated work in 2005 on this topic in order to assess national practices and to propose best practice, and this work continues.

When looking at the **average discrepancy** as a share of quarterly GDP (from 1999 Q1 to 2007 Q4) it can observed that 23 Member States (out of 26 available) recorded an average discrepancy of between -0.2% and +0.2% of quarterly GDP. Of these, 14 Member States exhibited an average discrepancy at around 0% of quarterly GDP: the Czech Republic, Denmark, Germany, France, Italy, Cyprus, Lithuania, the Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, and the United Kingdom. By contrast, for Greece and Sweden high average discrepancies can be observed, at 0.6% and -0.9% of quarterly GDP respectively.

When concentrating only on **recent quarters** (2004 Q1 to 2007 Q4), 22 Member States recorded an **average discrepancy** of between -0.2% and +0.2%, including Greece. Finland shows a discrepancy of -0.3%. Ireland has a discrepancy of 0.4% Q-GDP while Austria and Sweden show a discrepancy of -0.6% of Q-GDP[10]. Discrepancies are higher when looking at the most recent quarters for Estonia, Latvia, Lithuania, Austria (disregarding the reclassification issue mentioned in footnote 10 the discrepancy for Austria decreased), Romania and Finland.

---

[9] A minus sign means increasing deficit figures.

[10] The case of Austria is explained for some reclassifications made during the last transmission. This is expected to be resolved in future data transmissions.

The analysis of the **standard deviations** of the divergences for the whole period shows that 18 Members States recorded a total standard deviation higher than or equal to 1% of Q-GDP. This result signals a significant volatility of the discrepancies for a significant number of countries.

When concentrating on **recent quarters**, 11 countries had a **standard deviation** under 1% of GDP: the Czech Republic, Denmark, Germany, Cyprus, Lithuania, the Netherlands, Poland, Portugal, Romania, Slovakia, and the United Kingdom. For Lithuania, the Netherlands and Portugal this means that the most important statistical discrepancies mainly concern back data. The median of the standard deviation across Member States is 1.5 %.

The analysis of the **absolute discrepancy** reveals that 10 Member States had an average of the absolute discrepancies below or equal to 1% of quarterly GDP: Belgium, the Czech Republic, Cyprus, Lithuania, the Netherlands, Poland, Portugal, Romania, Slovakia, and the United Kingdom. 12 Member States have shown an average of absolute discrepancies between 1% and 2.5% of quarterly GDP: Bulgaria, Estonia, Ireland, Spain, France, Italy, Latvia, Hungary, Malta, Austria, Slovenia, and Finland. Germany and Denmark recorded an absolute discrepancy of 0% over the whole period. Two Member States had an average of absolute discrepancy exceeding 2.5% of quarterly GDP: Sweden and Greece.

When looking at the **seasonality of the discrepancy** over the whole period (1999 Q1 to 2007 Q4), there is a clear seasonal pattern (the average is above two times of the standard deviation) for Spain in all quarters. For some other Member States, seasonality might exist although it is less marked: Belgium, Bulgaria, Cyprus, Hungary, Austria, Slovenia, Sweden, and the United Kingdom. For the remaining Member States, there is no noticeable seasonal pattern. Germany and Denmark have not been included in this analysis, as their discrepancies are set to zero over the whole period.

## 6. COMPARABILITY OVER TIME

The purpose of comparability is to measure the impact of differences in applied statistical concepts and measurement tools/procedures when statistics are compared between geographical areas, non-geographical domains, or over time. Regulation (EC) 1221/2002 provided a transitional period for those Member States which were not able to use the sources and methods and/or to follow the timetable laid down in the Regulation. “Best quarterly estimates” were to be transmitted initially, gradually incorporating new information that became available during the process of compiling an improved system. The transitional period ended on 31 March 2005 (Article 9(4)).

Most Member States have not reported breaks[11] in the time-series during the transmission period. Exceptions were the Czech Republic (new quarterly data sources were incorporated starting in 2003), Spain (new benchmark year starting in 2000), Poland (new methodology applied in 2004) and Portugal (new quarterly data sources were incorporated starting in 2003; revision of back data is an ongoing action).

---

[11] Breaks in statistical time series occur when there is a change in the standards for defining and observing a variable over time. Such changes may be the result of a single change or the combination of multiple changes at any point in time of observation of the variable. The specific causes of breaks in a statistical time series include changes in classifications used, definitions of the variable, coverage, etc. (*in OECD, Glossary of Statistical Terms*).

## 7. ACCURACY AND RELIABILITY

### 7.1. Coverage of data sources

Regarding the use of data sources, Article 3 of Commission Regulation (EC) No 264/2000 states, on the issue of taxes and social payments, that quarterly data shall be based on direct information available from basic sources, such as for example from public accounts or administrative sources, representing, for each category, at least 90% of the amount of the category. Regulation (EC) 1221/2002, which covers all the remaining ESA 95 transactions, specifies that quarterly data shall be based as far as possible on direct information from basic sources, with the objective of minimising, for each quarter, differences between the initial estimates and the final figures, when relevant.

Most Member States meet the 90% criterion for taxes and social payments, particularly for taxes (D2, D5, and D91). The social benefit category (D62) causes more difficulties, in particular for Belgium (89%) and France (87%).

The direct information requirements in Regulation (EC) 1221/2002 are not as strict, though it is stated that quarterly data shall be based as much as possible on direct information. The situation is different from one Member State to another, and some - Belgium, France, Ireland, Latvia, Lithuania, Luxembourg, Hungary, and Sweden - point to some difficulties in using direct basic sources for compiling quarterly ESA 95 transactions.

### 7.2. Methodologies and assumptions used in the estimates of statistics

Both Regulations specify that direct information shall be completed by coverage adjustments, if needed, and by conceptual adjustments in order to bring quarterly data in line with ESA 95 concepts. Adjustments are needed in all Member States for estimating quarterly non-financial accounts for the general government sector, especially for those ESA 95 transactions covered by Regulation (EC) 1221/2002. The problem of data availability is mostly related to local government (for example, in Belgium, Luxembourg, Austria, and the United Kingdom) and/or to specific units in general government.

The extent to which statistical models are used for estimating missing figures varies across Member States. These models have been developed in Belgium, the Czech Republic, France and Italy using basic sources as indicators and/or forecasts. Some countries adopt a mixed approach based on the codification of quarterly basic sources into ESA 95 transactions, similar to the methodology followed in annual accounts, with missing figures being estimated.

### 7.3. ESA 95 conceptual adjustments

As stated above, conceptual adjustments are to be made in order to bring quarterly data in line with ESA 95 concepts. Most of the adjustments made in quarterly accounts of general government are similar to those made in annual accounts. They follow ESA 95 principles as regards time of recording, so whenever basic sources are on a cash basis, accrual adjustments are implemented where necessary (mainly for taxes and social contributions).

### 7.4. Revisions of statistics

In order to provide a quantitative analysis on revisions, the indicator used was the revision in the fourth quarter of the three preceding quarters from 2004 to 2007, for each of the ESA 95 transactions. The findings below describe the impact of revisions in B.9 (Net lending/net borrowing).

For 16 countries (Belgium, Cyprus, Estonia, Denmark, Germany, Spain, France, Italy, Austria, Lithuania, the Netherlands, Portugal, Finland, Slovenia, Sweden and the United Kingdom), the absolute average revision of the three preceding quarters conducted in the fourth quarter changed B.9 by between 0.1% and 0.2% of GDP[12]. For a second group of countries (Bulgaria, the Czech Republic, Malta and Poland) these revisions varied from 0.2% to 0.3% of GDP. The countries with the highest average revisions on B.9 were Greece (0.6% of GDP), Luxembourg (0.5% of GDP), Hungary, Latvia, Ireland and Slovakia (0.4% of GDP).

The bias when analysing the arithmetic average values was less than 0.5% for all countries.

The magnitude of these revisions is not very significant, given that 16 Member States revised the three preceding quarters within the small interval 0.1%-0.2% of GDP on average, which shows a very significant improvement in comparison with the situation in 2006.

## 8. Conclusions and recommendations

Significant progress has been achieved since the publication of the first quality report in 2006 and quarterly non-financial accounts for general government have been further developed since the first transmissions. This has also been recognised by important institutional bodies such as the Economic and Financial Committee (EFC). Data for most countries are of good quality and useful for analytical purposes, and they are now disseminated. However, a number of countries have to implement specific measures for improving the quality of the reported data. In some cases, the identified lack of quality of the data is linked to the fact that a Member State is failing to comply with its Community obligations.

The observed revisions are similar to those of other short-term (quarterly) statistics. Moreover, their magnitude has substantially diminished over the past two years, as national compilers have become more familiar with the transmission of these data. The publication of quarterly non-financial accounts for general government is being promoted, through various channels and with appropriate guidance to users. This means providing appropriate metadata to reflect national practices and to warn users of the volatility of these quarterly figures, particularly for certain Member States. Publication has been a stimulus for quality, and Eurostat started to disseminate these statistics at the beginning of 2006 in consultation with Member States. A major step forward was the presentation of quarterly government finance statistics in an integrated template. Experience shows that, at national and European level, users are becoming more familiar with these statistics, and more accustomed to dealing with the volatility of quarterly statistics, and are developing a better understanding of them over time.

Finally, Eurostat reports to the EFC on the availability and quality of quarterly non-financial accounts for the general government (it is one of the Principal European Economic Indicators) in the framework of the updates of the EFC Status Report. Moreover, these data

[12] In the case of Germany the described revision indicator lies within the small range of 0.1% and 0.2% of GDP only because the final annual accounts for compiling STPFS are available later than in the 4th quarter.

are essential for the compilation of quarterly European sector accounts. The last EFC Status Report, adopted by the ECOFIN Council on 13 November 2007, notes that *"the compilation of quarterly non-financial accounts for the general government confirmed the improvements in timeliness and coverage recorded in 2006, meeting the targets set in the joint report of the Council and the Commission of March 2003. Eurostat releases data for a significant number of Member States, although some countries still restrict the publication by Eurostat of these data for some quarters or variables, and those countries are asked to lift these reservations*". Eurostat will report on these issues to the EFC and to the ECOFIN Council, in the context of the 2008 EFC Status Report.

It is recommended that this assessment be continued over time in order to monitor further progress achieved by Member States and to improve quality. Some more specific recommendations by Member State are described below:

| **Member State** | **An effort should be made on:** |
|---|---|
| **Belgium** | • The coverage of direct sources for D62 increased to 89%, which is close to 90% criterion set out in the Regulation |
| **Bulgaria** | • Provision of whole time series for variables P11_P12_P131, D92_D99REC, B8G, B9,<br>• Coherence with quarterly financial accounts<br>• Provision of back series for transactions covered by the Regulation (EC) No 264/2000 |
| **Czech Republic** | • Impact of revisions after two years could be further reduced |
| **Denmark** | • Consistency with annual data, in particular for transactions D4PAY and D4REC |
| **Germany** | • Maintain the good data quality currently achieved<br>• Remove, as requested by the EFC, the reservations for the dissemination of data for all variables and quarters, right after their transmission |
| **Estonia** | • Further improvement of the impact of revisions |
| **Ireland** | • Consistency with financial accounts<br>• Provision of back series for transactions covered by the Regulation (EC) No 264/2000 |
| **Greece** | • Provision of back series for transactions covered by the Regulation (EC) No 264/2000<br>• Coherence with financial accounts (discrepancies)<br>• Further improve the impact of revisions |
| **Spain** | • Coherence with financial accounts (seasonality of the discrepancy)<br>• Provision of back series for transactions covered by the Regulation (EC) No 264/2000 |

| | |
|---|---|
| **France** | • Coherence with annual data for the first STPFS transmission of year which occurs at end March.<br>• Coherence with financial accounts<br>• Increase the coverage of direct sources for D.62 (87%)<br>• Remove, as requested by the EFC, the reservations for the dissemination of data for all variables and quarters |
| **Italy** | • Maintain the good data quality achieved<br>• Report more frequently information on major events |
| **Cyprus** | • Provision from 1995Q1 of back series for transactions covered by the Regulation (EC) No 264/2000<br>• Progress in availability of quarterly basic sources for local government. |
| **Latvia** | • Further reduction of the impact of revisions |
| **Lithuania** | • Further improve consistency between quarterly and annual data for all transactions and all years |
| **Luxembourg** | • Further reduce the impact of revisions |
| **Hungary** | • Coherence with financial accounts<br>• Impact of revisions could be further reduced |
| **Malta** | • Further improve the impact of revisions |
| **Netherlands** | • Gradually incorporate improved quarterly basic sources |
| **Austria** | • Gradually incorporate improved quarterly basic sources |
| **Poland** | • Improve timeliness of data transmissions |
| **Portugal** | • Lift the publication restrictions over the period 1999Q1-2002Q4, for transactions covered by the Regulation (EC) No 1221/2002 |
| **Romania** | • Provide series covering the period requested by the Regulation<br>• Ensure coherence with annual data<br>• Improve timeliness |
| **Slovenia** | • Further decrease the impact of revisions after two years |
| **Slovakia** | • Further reduce the impact of within year revisions |
| **Finland** | • Maintain the good data quality achieved |
| **Sweden** | • Consistency with financial accounts (discrepancies) |
| **United Kingdom** | • Further develop the availability of quarterly basic sources for local government |

Persons to contact: Anatole TOKOFAI, Eduardo BARREDO CAPELOT
Eurostat – Unit C5 – Validation of Public Accounts
Tf +352 4301 35402
Anatole.Tokofai@ec.europa.eu
Eduardo.barredo-capelot@ec.europa.eu