

**STATISTICS DIRECTORATE
COMMITTEE ON STATISTICS**

Cancels & replaces the same document of 13 September 2007

Working Party on National Accounts

**THE SITUATION OF QUARTERLY NATIONAL ACCOUNTS DATA TRANSMISSION TO THE
OECD**

**To be held on 3-5 October 2007
Tour Europe, Paris la Défense
Beginning at 9:30 a.m. on the first day**

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JT03232190

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THE SITUATION OF QUARTERLY NATIONAL ACCOUNTS DATA TRANSMISSION TO THE OECD

1. The OECD maintains an internal database containing most of the quarterly national accounts produced by OECD Member countries. The QNA database is used by many people in the OECD Secretariat, particularly those in the Economics Department. Not all countries compile a full set of quarterly accounts, and so the content of the database differs from one country to another. It is worth noting that during the past two years the QNA database has become more homogeneous and complete, and this is especially true for European countries. The requirements of internal users of the quarterly national accounts database are: full scope of what is published by the national statistical institute (NSI), accuracy, comparability and timeliness. Therefore, sets of tables of the OECD-Eurostat common questionnaire are supplemented by other data published by NSIs as quickly as possible, usually the day of release.
2. The scope of the database includes: GDP - expenditure and output approaches (current prices and volume estimates), GDP income approach (current prices), Saving and net lending (current prices), Gross fixed capital formation (current prices and volume estimates) broken down separately by type of asset or product and by institutional sector, Disposable income and Real disposable income components, Population and Employment, Employment by industry, Household final consumption expenditure (current prices and volume estimates) by durability and by purpose, Institutional sector accounts and specific accounts for some countries.
3. For European countries that respond to the ESA95 questionnaire, data from the Excel or Gesmes files supplied are used to update the QNA database, and for some countries additional data are available from the reported national files or obtained by direct access to national databases. It is recommended that European countries send the tables to Eurostat and the OECD (SNA.Contact@OECD.org) at the same time. For non-EU countries, data are either taken directly from national databases or from national files sent to the OECD, no specific questionnaire is used.
4. A homogeneous set of selected series for each country from the QNA database is published in the OECD publication *Quarterly National Accounts*. Both electronic and paper versions are released on the same day, at approximately T+120 days. For example, the forthcoming 2007/3 edition will be released on November 5th, 2007. The data will extend up to 2007Q2, except for Belgium, Korea and the United States for which some 2007Q3 data will be available. In the first week of each month, the electronic publication is updated on OLISnet and SourceOECD.
5. Every morning an extract of the electronic publication is updated in the OECD data warehouse, OECD.Stat. It gives information on GDP by expenditure at current prices and for volume estimates for all OECD Member countries and for some groups of countries. Volume and price indices are also given for GDP and its main expenditure components (Private final consumption expenditure, Government final consumption expenditure, Gross fixed capital formation, Exports of goods and services and Imports of goods and services). Also, every morning quarterly growth rates for seasonally adjusted GDP in volume are updated for OECD Member countries and zones. Finally, every quarter OECD publishes a news release on quarterly GDP volume growth for the OECD area. All of these products are freely available through the OECD Statistics portal at www.oecd.org/std/qna/statistics.

6. Since February 2007, the OECD seasonally adjusts GDP by expenditure components with X12 ARIMA for countries which do not provide such series, i.e. Iceland and Sweden for current price estimates and Turkey for current price and volume estimates. These data are published with an estimation control code ('E') and are used in zone calculations.

Data transmission to the OECD

7. Almost all countries announce in advance the release days for their quarterly national accounts. The release calendar is available directly on their national websites and/or on the IMF's Dissemination Standard Bulletin Board (DSBB). Given the requirements of our users, it is recommended that countries should send their data to the OECD as soon as possible on the release day of their QNA. Most countries now do so, except in some cases Australia, Greece, Ireland, Korea, Norway, Poland and the United Kingdom.

Table 1 shows some characteristics of data release and data transmission for OECD Member countries.

Table 1 - Data release and data transmission

	First release of Q1 2007 - Number of days after the end of the quarter¹	Advanced release calendar available on both national website and IMF's DSBB²?	Reception of data on the release day for Q1 and Q2 2007?
Australia	67	Yes	No for Q2
Austria	67	Only DSBB	
Belgium	67	Yes	
Canada	61	Yes	
Czech Republic	69	Yes	
Denmark	73	Yes	
Finland	74	Yes	
France	45	Yes	Partial delivery for Q1 (ESA) ³
Germany	54	Yes	
Greece	45	Yes	No for Q1 and Q2
Hungary	69	Yes	
Iceland	74	Yes	
Ireland	94	Yes (NLT ⁴)	No for Q1
Italy	69	Yes	
Japan	48	Yes	
Korea	25	Yes (NLT ⁴)	No for Q1 and Q2
Luxembourg	96	Yes	
Mexico	47	Yes	
Netherlands	45	Yes	
New Zealand	90	Only national website	
Norway	53	Yes	No for Q1 (ESA)
Poland	61	Yes (national website in Polish only)	Partial delivery for Q1
Portugal	69	Yes	
Slovak Republic	62	Yes	
Spain	53	Yes	
Sweden	60	Yes	
Switzerland	61	Yes	
Turkey	93	Yes	
United Kingdom	55	Yes	No for Q1 (ESA files)
United States	27	Yes	

1. The number of days indicated refers to the complete release of GDP and its components (expenditure or production approach, volume estimates). GDP flash estimates are not taken into account.
2. IMF's Dissemination Standards Bulletin Board.
3. Introduction of chain volume estimates.
4. No specific release date, but a date for which the release will not be later than. Nevertheless a specific release date is available a few days before the release.

8. The OECD Secretariat would be grateful if Member countries could insert a brief note appended to the data transmission to signal any important changes, such as a new base/reference year for volume estimates, a major benchmark revision, the inclusion of additional data, or a methodological change such

as the allocation of FISIM. It would also be appreciated if national press releases and GDP flash estimates could be sent to SNA.Contact@OECD.org as soon as they become available. The OECD will respect the embargo if applicable. Such actions would greatly assist the editing undertaken by OECD staff and also facilitate the incorporation of appropriate metadata in OECD databases and publications.

9. We would like also to remind countries that we store separately datasets corresponding to different methodologies, and so when a major methodological change is made (e.g. allocation of FISIM) we would prefer countries to send only data with the new methodology.

Introduction of chain volume estimates and allocation of FISIM in 2007

10. By the end of 2007 all EU countries are expected to have introduced two major changes recommended in the 1993 SNA: chain volume estimates and the allocation of FISIM to its users. Almost all EU countries have now done so.

Chaining

11. Until quite recently, most European countries rebased their constant price estimates every five years. These estimates were then linked to provide long, continuous time series. Most have now adopted annually re-weighted, chain volume estimates using the Laspeyres formula. This is equivalent to linking each year constant price estimates expressed in the prices of the previous year. Most OECD countries have chosen to use this method, but there are two major exceptions - the US and Canada - which have chosen to use the Fisher formula. The US estimates are derived using annual weights except at the end of the series where it is not possible to apply the Fisher formula using annual weights for quarterly data. To get over this problem quarterly weights are used to calculate the latest volume estimates. The Canadian chain volume estimates are derived only for quarterly seasonally adjusted expenditure data, using quarterly weights throughout.

Three methods to compile chain-linked estimates in QNA

12. While it is straightforward to chain annual data, it is not so straightforward to link quarterly volume estimates derived using annual weights. Using the Laspeyres formula, for each year the values of the four quarters are expressed in the prices of the previous year. Thus, the difference between the fourth quarter of year t-1 and the first quarter of year t is a combination of the change in volume between the two quarters and the change in the average prices of year t-1 and the average prices of year t. In order to create a chain volume series it is necessary to adjust the quarterly values to remove the effect of the annual price change. Within the OECD Member countries three different methods have been used: the annual overlap method, the one quarter overlap method and the over-the-year method. The first two methods involve calculating and applying a link factor that is used to remove the effect of the annual price change.

13. Although, the one quarter overlap method was recommended by Eurostat, most EU countries have chosen to use the annual overlap method and in recognition of this fact Eurostat has decided to also use the annual overlap method to derive EU aggregates.

14. The advantage of the annual overlap method is that it ensures consistency with annual volume estimates since it uses the same link factors. The disadvantage is that the growth rate from the latest quarter to which the annual link factor is applied to the next quarter is 'damaged' by the linking process. The extent of the damage is determined by the difference between the one quarter link factor and the annual link factor. In cases where price or volume relativities are stable the difference is small, but if neither are stable then the damage to the quarterly growth rate at the link quarter can be significant.

15. Table 2 gives a list of the methods used by Member countries and their plans to change over to chain volume estimates (if scheduled). It has been filled in using information gathered by Eurostat ("Changes to National Accounts – status 17 April 2007) and information provided by countries to the OECD.

Table 2 - Chaining of QNA: State of play

	Producing chain volume estimates	Plans to disseminate chain volume estimates	Reference year of chain volume estimates	Chaining Method
Australia	Yes		2004-2005 ¹	Quarter overlap
Austria	Yes		2000	Quarter overlap
Belgium	Yes		2004	Annual overlap
Canada	Yes-Fisher		2002	Quarter overlap
Czech Republic	Yes		2000	Annual overlap
Denmark	Yes		2000	Quarter overlap
Finland	Yes		2000	Annual overlap
France	Yes		2000	Annual overlap
Germany	Yes		2000	Annual overlap
Greece	Yes		2000	Indirect method ²
Hungary	Yes		2000	Annual overlap
Iceland	Yes		2000	Annual overlap
Ireland	Yes		2005 ¹	Annual overlap
Italy	Yes		2000	Annual overlap
Japan	Yes		2000	Quarter overlap
Korea	No	No		
Luxembourg	Yes		2000	Annual overlap
Mexico	No	No		
Netherlands	Yes		2000	Over the year (original data) Annual overlap (SA data)
New Zealand	Yes		1995-96	Annual overlap
Norway	Yes ³		2004 ¹	Annual overlap
Poland	Yes		2000	Annual overlap
Portugal	Yes		2000	Indirect method ²
Slovak Republic	No	?	2000?	Over the year?
Spain	Yes		2000	Annual overlap
Sweden	Yes		2000	Over the year
Switzerland	Yes		2000	Annual overlap
Turkey	No	?	1998?	?
United Kingdom	Yes		2003	Quarter overlap
United States	Yes-Fisher		2000	Quarter overlap

1. The reference year is updated each year.

2. QNA are derived from chain volume annual accounts using an indirect method.

3. Quarterly estimates are not annually rebased, but are benchmarked to annually chain-linked data.

Difficulties caused by chaining for OECD economic analysis and forecasting

16. One of the major outputs of the OECD Secretariat is its economic assessments of countries and forecasts of their future economic growth. The introduction of chaining in Quarterly National Accounts has made the calculation of contributions to quarterly GDP growth less straightforward, in particular for changes in inventories and also the external balance. Quarterly changes in inventories and their contribution to GDP growth are subject to regular scrutiny by economists engaged in business cycle analysis. Data sources used for their compilation however vary between Member States, and with them reliability and meaningfulness of the figures.

17. Some European countries have started to include the contributions to growth in the OECD-Eurostat questionnaire but the majority does not do so. Some Member countries make them available for downloading in their databases or on their web page. But, when no data are available, the OECD's Economics Department is obliged to derive approximate estimates by themselves.

18. The OECD and Eurostat request countries to supply contributions to growth data for the quarterly tables 0101, 0102, 0104, and 0105 (only P51 and P52+P53 in table 0105) as per the current questionnaire (or tables 0101 and 0102 in the new questionnaire). Transmission of contributions to growth is strictly voluntary. Details are provided in Attachment 1, prepared by Eurostat. Top priority should be given to supplying the contributions to growth of GDP by changes in inventories and external balance (seasonally adjusted data, q-o-q growth rates). In the meantime, it would be appreciated to have the higher data precision when possible, 4 or 5 decimal points, for control matters.

19. Table 3 gives the availability of contributions to growth of GDP by changes in inventories and external balance for chain volume estimates, seasonally adjusted data, q-o-q growth rates.

Table 3 – Availability of contributions to GDP growth of GDP by changes in inventories and external balance – chain volume estimates, seasonally adjusted data (SA), q-o-q growth rates

Availability of contributions to GDP growth by ...	changes in inventories (TRP52)	external balance	Source	Current number of decimal points
Australia	Yes	Yes	National database	1
Austria				
Belgium				
Canada	Yes	Yes	National database	5
Czech Republic				
Denmark				
Finland				
France	Yes	Yes	National database	1
Germany	Yes	Yes	National file	1
Greece				
Hungary				
Iceland				
Ireland				
Italy	Yes		ESA file 0105	2
Japan	Yes	Yes	National file	3
Korea ¹				
Luxembourg				
Mexico ¹				
Netherlands	Only TRP52+TRP53, y-o-y, not SA			
New Zealand				
Norway				
Poland				
Portugal	Only TRP52+TRP53			
Slovak Republic ¹				
Spain				
Sweden				
Switzerland				
Turkey ¹				
United Kingdom				
United States	Yes	Yes	National database	4

¹ Still constant prices

Allocation of FISIM (Financial intermediation services indirectly measured) to industries/sectors.

20. Several non-European countries have been allocating FISIM to all sectors for many years: Australia, Canada, Korea, and the United States. Over the past three years, almost all European countries have implemented it in their quarterly accounts. Table 4 lists those countries that have allocated FISIM and those that are planning to do so.

Table 4 - Allocation of FISIM

	Allocation of FISIM	Plans to introduce FISIM
Australia	Yes	
Austria	Yes	
Belgium	Yes	
Canada	Yes	
Czech Republic	Yes	
Denmark	Yes	
Finland	Yes	
France	Yes	
Germany	Yes	
Greece	Yes	
Hungary	Yes	
Iceland	Yes	
Ireland	Yes	
Italy	Yes	
Japan	No ¹	2010
Korea	Yes	
Luxembourg	Yes	
Mexico	No	?
Netherlands	Yes	
New Zealand	No	?
Norway	Yes	
Poland	Yes	
Portugal	Yes	
Slovak Republic	Yes	
Spain	Yes	
Sweden	Yes	
Switzerland	Yes	
Turkey	No	?
United Kingdom	Forthcoming	2008?
United States	Yes	

1. Japan is compiling alternative accounts including the allocation of FISIM, but they are not used by the OECD as it is not yet the headline Japanese national accounts.

Quarterly Sector Accounts

21. Eurostat Regulation 1161/2005 on the compilation of quarterly non-financial accounts by institutional sector entered into force in August 2005. The sector accounts follow the methodology of the ESA95. On 1st of June 2007, the quarterly sector accounts for the Euro Area and the European Union were released for the first time by Eurostat. They provide a comprehensive overview of the Euro area/EU27 as a single economy and allow for a wide-ranging analysis of the interactions among the institutional sectors.

22. Quarterly institutional sector accounts data are stored in the OECD QNA database (following OECD economists' needs) as made available by the following countries: Australia, Canada, Italy, Norway, Slovak Republic, Sweden, the United Kingdom and the United States.

New ESA95 questionnaire and new key family

23. The current ESA95 questionnaire has been revised and a new key family has been adopted for the European transmission programme. These changes are expected to be implemented at the same time, with EU countries using the new questionnaire to send their data to the OECD and Eurostat from December 2007. The Secretariat has started to amend its systems to deal with the change, and it is hoped that countries are equally well prepared. If so, with due cooperation we should have a smooth transition.

24. Regarding QNA data transmission, the following structural changes are expected in the new ESA95 questionnaire:

- In the new **ESA table 0101**, “Gross value added at basic prices and GDP at market prices”, the NACE A6 shows the Manufacturing separately. Moreover, the detailed components of “Taxes less subsidies on products” are added.
- The new **ESA table 0102** replaces former ESA tables 0102, 0104, 0105 and 0106 related to GDP by expenditure. This merger will avoid duplicates. It will also include “Private consumption expenditure”. Gross fixed capital formation (GFCF) by product, previously in the ESA table 0105, is replaced by GFCF by asset (AN_F6 breakdown).
- The new **ESA table 0103** includes the compensation of employees’ breakdown, previously in the ESA table 0112. The detailed components of “Taxes less subsidies on production and imports” are added. Data on Manufacturing for compensation of employees and wages and salaries are added.
- The new **ESA table 0107** includes former ESA table 0108 to present “Disposable income, saving and net lending/borrowing” in one place.
- The new **ESA table 0111** also includes Manufacturing data for employment, employees and self-employed
- The new **ESA table 0117**, “Final consumption expenditure of households by durability” is now requested on a mandatory basis and it includes non-durable goods.

25. As indicated in the document “*ESA95 key family*” (Eurostat C2/CN 589/en, 25 January 2006), the proposed new key family is based on the following main principles:

- To be parsimonious in the definitions of codes;
- To set up a single, all encompassing, set of code lists;
- To stay as close as possible to the ESA95 classification concepts, as published in the ESA95 and in subsequent revisions in various regulations;
- To implement these standard classifications completely, as described in ESA95 (including codes that are not used in the proposed data TP);
- To accept 64 characters as the theoretical maximum length for series keys in the transmission key family;
- To prevent “data collision” between different vintages for identical items included in several tables of the TP (e.g. gross domestic product included in Tables 0101 – 0109);
- To respect GESMES/TS syntax rules;
- To incorporate SODI (SDMX Open Data Interchange) and SDMX (Statistical Data and Metadata Exchange) requirements.

Conclusion

- **Member countries are reminded that the principle governing the transmission of data is:**

transmit data to OECD (and Eurostat) as quickly as possible on the day of release by the NSI.

- **As delegates may have noted, some information is missing in the tables in this paper. It would be useful if the following countries could remedy this:**

- **Chaining:** Could Korea, Mexico, Slovak Republic and Turkey indicate if and when they expect to introduce quarterly chain volume data? Could those countries that have not yet adopted chaining indicate the planned date in table 2? In addition, could those EU countries for which there are question marks in table 2, please provide the missing information?
- **Allocation of FISIM:** Could Mexico, New Zealand and Turkey indicate if and when they expect to allocate FISIM?

- Attachment 1

Transmission of quarterly contributions to GDP growth

In document CN 599 presented at the NAWG in May 2006, Eurostat had announced a framework for a voluntary transmission of data on quarterly contributions to growth. This note specifies the parameters for such transmissions to Eurostat and OECD.

Context: Transmission of contributions to growth is strictly voluntary. The motivation for this request is that for NSIs already publishing contributions, Eurostat and OECD need to re-disseminate exactly the same values.

Scope: Contributions are welcome for quarterly tables 0101, 0102, 0104 and 0105 (only P51 and P52+P53 in table 0105) of the current ESA95 transmission programme. Application to the corresponding annual tables is straightforward, but not strictly necessary because the reproduction of annual contributions is easily possible from the data already available.

Frequency: with every regular QNA transmission for tables 0101 to 0105.

Format: Transmissions can be done together with the standard transmission of QNA levels, in the same files or in separate files. We propose to distinguish the contributions by the following price assessment codes:

CNTY	contribution to GDP volume growth compared to the same quarter of the previous year
CNTQ	contribution to GDP volume growth compared to the previous quarter

These two codes can be used in GESMES messages or in the Excel-version of the questionnaire, in the place of CUP, COPPY etc. The seasonal adjustment status indicated shall be that of the source data from which the contributions were calculated.

Unit: Contributions are expressed in percentage points of GDP growth, i.e. the sum of contributions – provided they are constructed to be additive – shall be GDP growth in %. The unit code to be used is "POINTS". The unit multiplier shall be 1. Precision is at the discretion of sender, preferably two decimal digits.

Calculation: Document CN 599 gave an overview of approaches to the calculation of contributions to growth. There is however no general recommendation from Eurostat.

Example

For the euro area, quarter-on-quarter GDP growth in 2006Q2 was +0.88%, of which 0.23 can be attributed to growth in consumption, +0.58 to growth in investments, +0.52 to growth in exports and -0.44 to growth in imports.

A GESMES file for sending the contributions to quarter-on-quarter GDP volume growth in 2006Q2 would contain the following lines:

EUR12,TRB1*G,,,,CNTQ,6,POINTS,Q,MIX,S,TOT,,20062,0.88

EUR12,TRP3,,,,CNTQ,6,POINTS,Q,MIX,S,TOT,,20062,0.23

EUR12,TRP5,,,,CNTQ,6,POINTS,Q,MIX,S,TOT,,20062,0.58

EUR12,TRP6,,,,CNTQ,6,POINTS,Q,MIX,S,TOT,,20062,0.52

EUR12,TRP7,,,,CNTQ,6,POINTS,Q,MIX,S,TOT,,20062,-0.44

If sent using the Excel-questionnaire, the file would contain a sheet named Q-CNTQ-S:

Questionnaire "ESA 95"		
Table:	0102	
Sheet:	Q-CNTQ-S	
Label:	GDP Identity from the Expenditure Side	
KEY INFORMATION	SENDER	EUROSTAT FOOTNOTES
Reporting Country: EUR12	Name:	Footnote 1:
Prices: CNTQ	Telephone:	Footnote 2:
Field_1 (Transaction): row 23	Fax :	Footnote 3:
Field_2 (Not used):	VERSION	Footnote 4:
Field_3 (Not used):	Version:	Footnote 5:
Field_4 (Not used):	Update:	SPECIFIC ELEMENTS
Time: col 2	Date :	
Unit: POINTS	DATA START	SENDER FOOTNOTES
Unit Multiplier: 1	Row : 25	Footnote 1:
Flag:	Column: 3	Footnote 2:
Adjustment Type: S	CONTROL	Footnote 3:
Adjustment Meth.: MIX	Row : 23	Footnote 4:
Observation Type: TOT	Column: 2	

Quarter/Year	Time Code	Gross Domestic Product	Final Consumption Expenditure	Gross Capital Formation	Exports	Imports
Code of Transaction		TRB1*G	TRP3	TRP5	TRP6	TRP7
1	2	3=4+5+6-7+8	4	5	6	7
Second quarter	2006Q2	0.88	0.23	0.58	0.52	-0.44