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## SHORT-TERM BUSINESS STATISTICS Luxembourg, 26<sup>th</sup> October 2005

### Back-casting and back-cast data availability

#### 1. Introduction

There are many components that are needed to make the transition from NACE Rev. 1.1 to NACE Rev. 2 a success. For short-term statistics (STS) several of those will be treated in the framework of the Council and Parliament Regulation on NACE itself, where **the first reference period, the level of detail and the deadlines** for those data that have to be transmitted according to the new NACE beginning with this first reference period will be fixed.

A problem very specific for STS is the fact that we need at the time when the first data are delivered according to NACE Rev. 2 in 2009., a full matrix of **weights** for the base year, 2005, with the dimensions: variable, country and NACE. These problems will be discussed in the first part of this meeting.

The component that will be under consideration in this paper is the question of the level of NACE detail, deadlines etc. for data to be delivered according to the new NACE, but for periods **before the first reference period**. The back-data question.

If the NACE Regulation will proceed as foreseen, the first reference period for STS for the change from NACE Rev. 1.1 to NACE Rev. 2 will be **January 2009** for monthly data and **first Quarter 2009** for quarterly data. For the reference periods to follow, the Annex of the NACE Regulation determines the level of detail etc.

The Annex of the NACE Regulation leaves in addition room for a **Commission Regulation** to determine the **requirements for back-data**. It would, however, be very difficult to impose with this Commission Regulation more requirements than the original Council Regulations. According to the STS Regulations 1165/98 and 1158/2005 data according to NACE Rev. 1.1 need to be sent beginning with the reference period January 1998 for monthly data and first Quarter 1998 for quarterly data. So, it would be very unlikely to have a Commission Regulation that would go beyond that.

Apart from this legal aspect, there is an important issue concerning the **working day and seasonal adjustment**. Time series of a certain length are required for a reasonable application of such an adjustment. In addition to that, it would look quite odd, if at the time, when the reference period 2009 is first published, this would be the only period that is available in NACE Rev. 2.

Concerning the **user needs**, at national and European levels, it has to be said that it would be very difficult to explain to users, that a change in a classification would mean a significant **loss of data**, a loss of long series. And as many European aggregates, and also figures on a country level go back much beyond 1998, appropriate solutions have to be found.

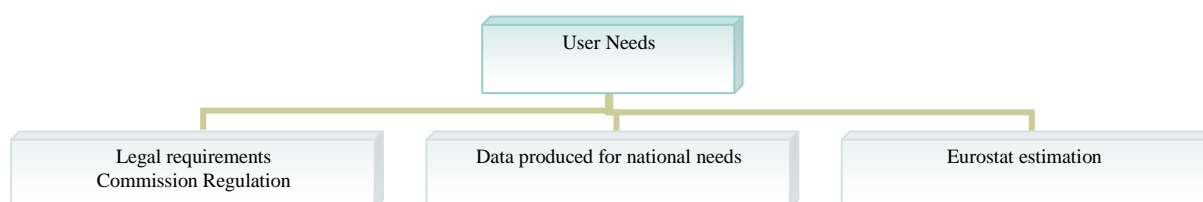
Considering all these aspects, it is not obvious, what a solution that would satisfy all needs could look like. Therefore, it may help to structure the problem a bit more.

## 2. The structure of the problem

Under the assumption that the change to the new NACE will not add data, the requirement that we face from the user perspective is **not to lose data**, i.e. that all series available currently in NACE Rev. 1.1., will be available in NACE Rev. 2. For simplicity let's call this the User Needs.

To satisfy the User Needs, there are three routes to obtaining information: Firstly, creating a legal obligation to deliver these data in the form of a Commission Regulation. Secondly, by data that are available anyhow, because NSIs will produce them because there are national needs. Thirdly, by Eurostat estimation. From the point of Eurostat a priority order would be to exploit in a first step the **two first sources**, because it is obvious that the best information can be found inside the NSIs, and only apply estimation techniques, if the first two sources wouldn't give this information and it would be needed to satisfy the User Needs.

Graphically, the problem would look as follows:



## 3. User Needs

At the European level, the ECB is the most prominent user of STS data. The ECB paper for the Working Group notes that currently STS data is available back to 1985 and calls for back data on the new basis also back to 1985. As stated before, it seems likely that users wish that a change in a classification would not result in a loss of data. From a statistical point of view too such a situation would also facilitate the problems of working day and seasonal adjustment. The shorter the time series would be, the more problematic are these adjustments.

## 4. Data produced for national needs

STS data are also used for national needs and Eurostat assumes national statistical offices will be under pressure to produce long time series for national users.

Eurostat launched a questionnaire to identify what are the current plans of NSIs to produce backdata. The results are shown in the excel sheet that you could find on the CIRCA website,

showing the countries' proposed date of first publication of the data and the length of the time series.

Out of the 29 countries that responded to the questionnaire 16 countries expressed their plans in detail. Belgium, Ireland, Finland, Luxembourg and Sweden gave an overall description and Hungary, Denmark, Poland, Portugal, Netherlands, Norway, United Kingdom and Czech Republic are not able to provide any exact plans for the time being as the discussion within NSIs is still ongoing.

It can be seen that in this initial round many countries plan the first delivery to Eurostat in March 2009 as required by the Regulation; some are looking to March 2010 and two to even later years.. The first reference period covered by the time series would be 2000 for a large number of countries, 2003 for some; and earlier years for a few countries.

The situation depicted in the table is less satisfactory than Eurostat had expected and clearly would pose major problems for availability and use of STS data at European level. If some countries really provide back-data only in March or June 2010 then Eurostat would not be able to publish seasonally or working-day adjusted data in 2009. So a special consideration on eventual split of the work in order to provide at least back-data up to 2005 in the year 2009 needs to be done.

Concerning the first reference period of the back-cast data, from the indications in the table, Eurostat would have some data since 1990 or 1995, but most of the time series will start in 1998 or 2000 as a first set of back-cast series.

Most of the countries intend to estimate the data at the level of detail that is foreseen in the STS Regulation and in that sense the data availability will not dramatically change. We can conclude from this table that it is highly desirable for countries to agree to converge on a more synchronised programme for transmission of STS indicators with respect to period and length of time series.

If countries consider this useful, Eurostat could organise a task force to suggest techniques for countries to calculate further back data from the existing data on the NACE rev 1 and other sources. As can be seen from the table at the end of document 03-05, approximately half the classes of NACE rev 2 correspond exactly to classes of NACE rev 1 and there the back data are automatically available. For the other half of the classes varying degrees of sub-dividing and re-arranging are necessary.

## **5. Legal requirements**

The STS Regulation requires all countries to supply data from 1998. Eurostat proposes this should also be the target for the full data on the new basis: NACE rev 2 and base year 2005. This could be considered a reasonable length of series for national users as well.

To ensure coordination between countries, Eurostat, as a DG of the European Commission could take the initiative and make a legislative proposal. That means that Eurostat would collect views from Member States, formalise that in a proposal to the Statistical Programme Committee, and, if adopted there under the so-called comitology procedure, will result in a binding Commission Regulation.

## **6. Estimation by Eurostat**

If small amounts of data were missing for one or another reason, there might be possibilities for Eurostat to make unofficial estimates to plug the gaps. However the basis for such estimates is likely to be extremely fragile and this could only be a last resort in exceptional cases.

## **7. Conclusion**

It would be highly desirable, if all Member States would agree to deliver the required STS data according to the level of detail specified in the Annex of the NACE Regulation back to 1998. The second aspect would be the timing, if all back data could be delivered at the same time as the data for the reference period January 2009/first quarter 2009, then the situation would be satisfactory from the user point of view.

Together with this information and the additional earlier data that will be produced for national purposes, Eurostat could calculate a first set of information, that should be then complemented by Eurostat estimations for the remaining part to satisfy the user requirements.

The most difficult scenario would be, if Member States would provide very short series of back-data, or would provide backdata much later than March 2009. Such a case would not be acceptable from the point of view of the European Commission, considering especially the needs of the ECB and the other users.

In between these two extreme cases, there maybe a compromise possible that would satisfy the concerns of all parties. For example, there may be in a first step a difference in the level of detail for normal data delivery and backdata delivery, it may also be that in March 2009 a two step approach for the lengths of the backdata time series is considered. In addition, we may apply the idea of thresholds for very small countries, so in the backdata question, we would apply a similar principle as in the amendment Regulation. Of course in all of these questions there is a strong relation to the plans that countries have to produce data for national purposes.

*The members of the STS Working Group are invited to consider how far they can voluntarily converge on an agreed programme for transmitting back data and how far a Commission Regulation could assist in this process.*