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33rd MEETING OF THE STATISTICAL PROGRAMME COMMITTEE

THE HAGUE, 25 MAY 1999

Item 8 of the Agenda

Quality improvement in the calculation of the PPPs: proposals from Eurostat

Theme 55

Quality improvement in the calculation of the PPPs: proposals from Eurostat

Executive Summary

During the meeting on 17 September 1998 (30th SPC Meeting), the quality of the PPPs was discussed in depth, both as concerns the quality implications of the ECP Reform and with the view to improving the quality of national PPPs in order to pave the way for regional PPPs.

The ECP Reform was launched in January 1999 as anticipated and the work has started successfully. The mutually agreed timetable for 1999, supported by appropriate informatics tools and most importantly by sufficient funding, will substantially improve the timeliness of the results which is an important element of the overall quality. The ECP Reform will increase the quality of volume comparison also through improved product lists. Coherence with HICPs will be particularly looked at when implementing COICOP for PPPs.

A 5-year PPP Development Plan, agreed with and cofinanced by DGXVI, aims at improving the quality of national PPPs; and at preparing regional PPPs. The various measures included relate both the practical aspects of the PPP work and to methodological development such as treatment of non-market services. One particular element to mention is a complete analysis of the existing working methods, before starting the work with regional PPPs.

The readiness of both DGXVI and DGIA (via the PHARE Program) to finance major part of the ECP Reform greatly enhanced the resources available for the PPP work. However, Eurostat will pay particular attention to prioritisation of the work related to various sectors. The number of product groups (Basic Headings) and consequently the number of product definitions will be reduced, though not compromising the quality of results. Fewer resources are expected to be allocated to sectors such as non-market services, or capital formation, and proxy parities and indices may be used instead. The savings incurred would be directed to further improve the results in private consumption sector which eventually accounts for 60 % of GDP in general and where additional resources should improve the quality of results.

The impact of the measures must be monitored. The monitoring will concentrate on the process itself, including statistical indicators on timeliness and dissemination of results.

The strength of the legal basis of PPPs has certain positive quality implications in terms of commitment to the work and allocation of resources by the NSIs. Eurostat is considering to propose a Regulation on PPPs based on the coming new Regulations on Structural and Cohesion Funds which also would increase the transparency of the work as a whole.

***This paper is provided as an information document for the SPC.
A discussion and comments are invited but no decisions are called for.***

1. Introduction

The Reform of the European Comparison Programme (ECP), and quality and other issues pertinent to PPPs were thoroughly discussed at the 30th meeting of the SPC in Brussels on 17 September 1998. The scheme for the ECP reform, the implementation of which was scheduled for 1 January 1999, was welcomed by the delegates. During the discussion certain problem areas were raised for discussion: coherence between the results for different groups foreseen in the proposed ECP Reform plan; coherence between PPPs and HICPs; and coherence for Euro zone data. But first and foremost, to improve the quality in general of national PPPs, and to monitor the quality was seen to be of primary importance.

This paper outlines the measures taken so far to respond to the issues raised at the last meeting of the Committee, and particularly those related to quality. Over five years perspective Eurostat is aiming to produce regional PPPs; certain preparatory actions are planned, and presented here too.

2. ECP Reform

The ECP Reform was launched in January 1999 as planned. As to the plan discussed at the September 1998 SPC meeting, the group structure was slightly changed. Due to the fact that both Netherlands and UK eventually withdrew their willingness to act as group leader, the group structure was changed to be only three groups instead of three, led by Finland, Austria and Italy (see Annex 1). This is not expected to have any negative impact on the quality of work

To facilitate the planning and allocation of resources of the three Group Leaders and the participating NSIs, a detailed timetable for 1999 was distributed in January 1999 (see Annex 2). So far the timetable has been closely followed (Planning Meeting for the first 1999 consumer price survey in January, pre-survey missions in February and Group Meetings in March and finalization of the group specific Product Lists in April). The timetable means a substantial shortening of a survey cycle: the results of the first 1999 consumer price survey are expected to be available by the end of 1999. The Group Leaders will monitor the progress of the work within their groups and Eurostat as a whole. **However, success depends at the end on the active participation of the NSIs; they should give appropriate priority to the PPP work and allocate sufficient resources to the preparation of the price collection and price collection itself.**

Eurostat will supply the necessary software to the three Group Leaders and to the NSIs to facilitate the making of product lists for price collection and checking of the prices collected by the NSIs; and validation of prices by the Group Leaders. Eurostat has renewed its own calculation tools for calculation of the price survey results for 29 countries and of the annual results. These programs are based on commonly available software packages, which are more user friendly and substantially quicker than the previous tools. The Group leaders have had a chance to familiarise themselves with these tools since autumn 1998 and the final versions will be supplied in time to support the making of the first consumer price survey of 1999. They are expected to facilitate price checking and price validation and to speed up the price survey. Necessary training is being given.

In the new ECP structure effective communication facilities are essential. In addition to the traditional faxes and e-mails a specific Internet based communication platform has been created for

discussion, exchange of information and even for virtual meetings. This platform, called CIRCA, has two main advantages: it is independent of the type of users' software or hardware, and it has effective security structure.

Comprehensive guidelines on price collection have been distributed to all NSIs to ensure that as similar methods as possible are applied. Eurostat has organised training on the basic principles relevant to the PPP work to the Group Leaders' new personnel. Together with the training and guidelines the use of the same software by the NSIs, Group Leaders and Eurostat will streamline the working methods and make them more uniform among the 29 participating countries, with an expected positive impact on quality of the results.

Last but not least, financing of the ECP Reform is secured. The Group Leaders need to employ new personnel with substantial annual costs. To support the improvement of the quality of the PPP work in general, DGXVI is making funds available to finance the work of the Group Leaders in relation to non-PHARE countries. Alongside this, the EU PHARE program will finance the work related to the PHARE countries as a part of the Pilot Project for Price Statistics. This Pilot Project includes both PPPs and HICPs but at the beginning the main emphasis will be on the PPP work. The Project Manager will allocate a substantial part of his capacity to the PPP work and liaise between the Accession Countries and the Group Leaders. In the end, the final quality of the results depends on the input and commitment of the NSIs, who do the actual fieldwork.

3. Coherence

The ECP Reform is basically a delegation issue: instead of Eurostat, the three Group Leaders will co-ordinate and monitor the consumer price collection within their respective groups, under supervision of Eurostat. Before the start of the price survey within the groups, Eurostat together with OECD will secure sufficient overlap between the three lists in order to get sufficient comparability between all 29 countries. After the price surveys by the groups no group specific results of price surveys will be calculated; Eurostat will calculate the only set of official results for all 29 participating countries, on the basis of the validated price information received from the Group Leaders. Thus there will be no coherence problem in this respect.

One particular aspect, however, is to pay due attention to the fact that all duty stations need to be compared directly with Brussels for Correction Coefficient purposes. The product list to be priced in Brussels might have to be more extensive than in other capitals to allow for bilateral comparisons of high quality.

Eurostat fully recognises the importance of coherence, and the advantages thereof, between PPPs and HICPs. In particular, the HICPs will be used instead of national CPIs to update parities; both data-sets will be COICOP based. Work is going on to analyse whether it would be possible to apply to PPPs the same COICOP based product grouping (Basic Headings) as to HICPs. This would mean a reduction of the number of Basic Headings from the present level of 220 (private consumption only) to 90 (used for HICP). If there would be no significant negative impact on quality of the results, Eurostat will apply COICOP at the reduced Basic Heading level for the 1999 results.

At the GDP Volume Comparison Working Party Meeting on 18-19 November 1998, the question how to deal with the euro zone was discussed. Eurostat's proposal to continue to calculate the official results on the basis of the average of EU-15, and to calculate separate results for the 11 EMU countries as a block was supported. The results will, however, be that the results of individual 15 Member States, and of the 11 EMU participant as a block will be based on the EU average (EU-15=100). This solution will not create any coherence problems between the individual country results and the results of the euro zone.

4. Specific quality measures

As it was underlined during the September 1998 SPC meeting, the ECP Reform in itself is regarded as a major quality measure too: it is expected to improve the comparability of products to be priced within a group and to make price collection and validation more structured and faster. More detailed annual contracts with NSIs, and closer follow-up of due dates will help to meet the overall timetable referred to above, and to greatly improve the timeliness of the results.

Eurostat has also taken a number of other measures with the aim of improving quality, which also includes the timeliness of the results.

DGXVI and DGIX are the main users within the Commission of the PPPs. With a view to increase where possible the quality of the results, and in anticipation of the need for calculation of regional PPPs, DGXVI has agreed to finance a medium term PPP Development Plan. The plan covers the budget years 1999-2003 and its total value is around € 5 m. This follows the comments made by Mr. Landaburu, Director General of DGXVI, at the March 1998 SPC Meeting.

A substantial part of the DGXVI funds will be used to finance the work of the three Group Leaders as mentioned above. The other measures relate both to practical work and to methodological development. The latter part of the plan aims at paving the way for regional PPPs.

The development measures include:

use of electronically available data and centralised data sources more generally to speed up price collection and to increase the number of quotations. ACNielsen's report on possibilities offered by electronically available data (part of SUPCOM-97) is encouraging in this respect;

dissemination of the results will be supported by a multi-annual targeted publication program, and by PPP seminars to attract more interest and new users;

communication facilities between Eurostat and its collaborators will be developed further to allow for most effective working methods (possibly by creating a separate information space dedicated to PPP work with direct but controlled access by all collaborators);

further training (missions and seminars) to NSIs to strengthen the application of uniform working methods and best practices.

Methodological development will concentrate on:

further analysis of possibilities to find output measures to non-market services (government expenditure);

mapping out relevant issues concerning regional PPPs, including need and present availability of data.

After some experience has been gained concerning the implementation and functioning of the ECP Reform, and before entering into regional PPP production, a complete evaluation of the working methods applied by Eurostat, Group Leaders and NSIs will be carried out to create a solid ground for further fundamental change.

5. Prioritisation

Even though resources available for the PPP work are substantially increased due to cofinancing arrangements with DGXVI and the EU PHARE Program, a careful prioritisation of the use of resources will remain necessary. The guiding principle should be to direct the resources to areas where improvements are feasible and reduce the inputs in areas where no material improvements can be achieved, or achieved only at disproportional costs. The following explains Eurostat's present line of thinking in this respect.

It was noted at the September 1998 SPC meeting that government services are particularly difficult because usually there are no market prices available and even output is difficult, if not impossible, to measure. Eurostat is setting up a Task Force¹ to evaluate possibilities to use proxy parities as a short-term solution. At the same time, however, the information available on public sector salaries paid will be analysed and more effective ways suggested to collect the information necessary for the present input price method.

Parities for Gross Fixed Capital Formation are based on price surveys for equipment goods and construction work. Though they do not impose similar kinds of insurmountable problems as Government Services, the total cost of these price surveys carried out annually is disproportionately high. Another Task Force will study the possibilities for reducing the frequency of these surveys by using appropriate indices. In addition, an EU-EFTA joint survey on equipment goods indices will be available in spring 2000. During the present times of low inflation the reduced frequency of actual surveys should not have any detrimental impact on the quality of the results.

Private consumption is by far the most important component of GDP. It is fair to say, too, that in this sector additional investment should result in improved quality. Accordingly, Eurostat will direct possible savings in other sectors, notably in Gross Fixed Capital Formation, to improve price surveys of private consumption. It may concern selected sectors only where better product coverage and more prices could be achieved (for example by using scanner data based information).

¹ As a part of the ECP Reform it was agreed to set up specific Task Forces to analyze problematic policy issues and to report to the PPP Working Party. The Task Forces will comprise representatives of Eurostat, OECD and of NSIs from both the EU Member States and the Accession Countries.

As noted earlier, the number of Basic Headings will be reviewed in relation to the implementation of COICOP with the basic aim of applying approximately the same number as used for HICPs and Correction Coefficients. Related to this, the number of products under each new Basic Heading should be reduced, though paying due attention to the homogeneity within the Basic Heading. For the time being, the number of products has grown over the years and had in many cases gone far beyond the level necessary for achieving good results (for example around 25 mattresses). This would be in line with reallocation of scarce resources: at the same cost more prices could be collected for fewer but more carefully selected products.

Finally, certain rebalancing of the price surveys for private consumption is advisable. Firstly, less effort could be put in Basic Headings with lower weight in overall consumption. Secondly, the survey cycle may be rearranged in order to balance the total GDP weight of surveys done during a year.

6. Monitoring quality improvement

The various measures outlined above will increase the overall quality of the PPP results. It is however imperative to monitor the quality changes in order to readjust priorities and use existing resources as effectively as possible.

At first glimpse, monitoring the quality of the PPPs and its improvement over time looks rather difficult. Price surveys, as with HICPs, are not based on probability sampling, so it is not possible to calculate variances of precise margins of error.

The monitoring of quality must therefore rest more on evaluation of the process itself, focusing especially on statistics which should act as indicators of quality. Some proposals are listed in Annex 3. For example, analysis of the variation of national prices collected by the NSIs gives an indication firstly of the quality of the product definition itself and secondly of the quality of the price survey process. On the other hand, the timeliness of providing data to the main users is an indicator of the quality of the dissemination procedures.

Some of these measures will be implemented in 1999.

7. PPP Regulation

There is no specific legal basis, which relates directly to PPPs. The NSIs have collected the prices, and submitted them after primary checking to Eurostat on the basis of the annual survey contracts. As noted during the 30th SPC meeting, the new draft regulations on reform of the Structural and Cohesion Funds and on regional measures for Accession Countries make a reference to the use of PPPs in the main body of the regulations itself while in the current regulations PPPs are mentioned only in the preambles.

“Article 3 Objective 1

- 1. The regions covered by Objective 1 shall be regions corresponding to level II of the Nomenclature of Territorial Statistical Units (NUTS level II) whose per capita GDP, **measured in purchasing power parities** and calculated on the basis of Community*

figures for the last three years available, is less than 75 % of the Community average.”

[Proposal for a Council Regulation (EC) laying down general provisions on the Structural Funds COM/98/0131 final - AVC 98/0090, Official Journal C 176 , 09/06/1998 p. 0001]

However, the situation is rather precarious when the availability of the PPPs is not secured by an appropriate legal basis. Even more importantly, the present situation is very fragile because the NSIs have no obligation to enter into annual survey contracts with Eurostat. If one of the Member States would eventually not sign the proposed contract the whole present basis of the volume comparison within the EU and in the larger context would collapse - and Eurostat would have to find an alternative method.

Informal discussion on the desirability of a legal measure on PPPs, and specifically on a PPP Regulation, has continued now for quite some time. It seems that there is a rather common support to the idea of proposing a regulation which both would oblige the EEA Countries to provide the necessary information to Eurostat and outline the basic principles and methods applied. This would increase the transparency of the work and might also strengthen the commitment of the national administrations to the PPP work, including its funding. Indirectly a Regulation might thus have positive quality implications. Furthermore, it would create the “acquis communautaire” for the accession process.

8. Confidentiality

The Statistical Confidentiality Committee adopted Eurostat’s proposal for lifting the confidentiality of price data submitted to Eurostat, provided that the outlet where a price has been collected is not revealed. This will facilitate the practical work at Eurostat but might also have positive implications to the dissemination of results. No decisions have been taken as to resurrecting the previous practice of publishing results at a low level of aggregation, or even at the level of individual product. Such information would be interesting to some users of PPPs and related information (such as research institutes, or consumers associations). However, this is more a matter of the quality of such results than of confidentiality. If the reallocation of resources discussed above would lead to more extensive price collection and an increased number of quotations per product, price comparisons even at product level might be publishable.

9. Conclusion

Eurostat believes that the measures now in hand to improve the quality of PPPs, including timeliness, will lead to a relatively rapid and lasting improvement of the overall quality of the PPP results. To echo the views of the recent reports of Mr. Castles and Mr. Ryten, PPPs are an essential tool for international comparisons but to be useful the resources applied to them have to be adequate. Eurostat’s actions involve an increase in the total PPP resources and a better and more efficient use of those resources.

**PPP
ECP REFORM 1999**

MEMBERS OF THE 3 SUB-GROUPS

Group Leader	Finland	Austria	Italy
Members	Denmark	Belgium	Bulgaria
	Estonia	Czech	Cyprus
	Iceland	Germany	France
	Ireland	Hungary	Greece
	Latvia	Luxembourg	Portugal
	Lithuania	Netherlands	Romania
	Norway	Poland	Spain
	Sweden	Slovak	
	UK	Slovenia	
		Switzerland	

PPP – TIMETABLE 1999

Survey 99-1 Furniture; glassware, tableware

Preparation by NSIs based on previous Product List (pre-surveys, translation)	4/1/1999
Previous survey: analytical material to Group Leaders by Eurostat (coverage, representativity, overlap)	14/1/1999
Planning meeting in Luxembourg (Eurostat, Group Leaders, OECD)	21/1/1999
Specific requests from Group Leaders to NSIs (amendments, deletions, new products)	27/1/1999
Pre-survey missions by Group Leaders particularly to Candidate Countries	
Proposals for definitions from NSIs	5/2/1999
Draft Group Product Lists by Group Leaders one language, electronic format to be decided at Group Meetings	26/2/1999
Group Meeting in Vienna	4-5/3/1999
Group Meeting in Helsinki	11-12/3/1999
Group Meeting in Rome	18-19/3/1999
The Group Product Lists to NSIs immediately after each Group Meeting	
Start-up of price survey preparation	
Overlap meeting in Paris (Eurostat, Group Leaders, OECD)	12/4/1999
Possible additional items to Product Lists from Group Product Lists/OECD	12/4/1999
Final Product Lists for each Group confirmed by Eurostat	12/4/1999
Final Group Product Lists to NSIs (one language, electronic format)	21/4/1999

Start-up of price collection by NSIs

Prices to Group Leaders pre-checked by NSIs	30/7/1999
Summary report on the survey by NSIs to Group Leaders	30/7/1999
Validation by Group Leaders	
Average prices to Eurostat	31/10/1999

Survey 99-2 Transport, other goods and services

Previous survey: analytical material to Group Leaders by Eurostat (coverage, representativity, overlap)	30/4/1999
Preparation by NSIs based on previous Product List (pre-surveys, translation)	2/5/1999
Planning meeting in Luxembourg (Eurostat, Group Leaders, OECD)	17/6/1999
Specific requests from Group Leaders to NSIs (amendments, deletions, new products)	25/6/1999
Pre-survey missions by Group Leaders particularly to Candidate Countries	
Proposals for definitions from NSIs	6/8/1999
Draft Group Product Lists by Group Leaders one language, electronic format to be decided at Group Meetings	27/8/1999
Group Meeting in Vienna	6-7/9/1999
Group Meeting in Rome	13-14/9/1999
Group Meeting in Helsinki	20-21/9/1999
The Group Product Lists to NSIs immediately after each Group Meeting	

Start-up of price survey preparations	
Overlap meeting in Paris (Eurostat, Group Leaders, OECD)	8/10/1999
Possible additional items to Product Lists from Group Product Lists/OECD	8/10/1999
Final Product Lists for each Group confirmed by Eurostat	8/10/1999
Final Group Product Lists to NSIs (one language, electronic format)	15/10/1999
Start-up of price collection by NSIs	
Prices to Group Leaders pre-checked by NSIs	31/12/1999
Summary report on the survey by NSI to Group Leaders	31/12/1999
Validation by Group Leaders	
Average prices to Eurostat	31/3/2000
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Capital Goods Working Groups in Paris Eurostat, OECD, 29 NSIs	1-4/6/1999
Plenary Meeting in Luxembourg Eurostat, OECD, 29 NSIs	21-22/6/1999

PPP QUALITY IMPROVEMENT: PROPOSED INDICATORS

Quality of price surveys by NSIs:

1. Time used for price collection, and price checking
2. Number of days delay in submitting the checked prices to the Group Leader
3. Number of corrections made during the validation process by the Group Leader
4. Variation of prices within a country and within the Group

Quality of validation process by the Group Leaders:

5. Number of corrections made after submission of validated average prices to Eurostat
6. Time used for validation
7. Number of days delay in submitting the validated average prices to Eurostat

Quality of the calculation process at Eurostat:

8. Time used for producing price survey results
9. Time used for producing aggregate results
10. Timeliness of providing information to the main users (B2, DGXVI, DGII/XVI...)
11. User satisfaction report and index

Quality of dissemination of the results (and other data):

12. Number of publications sold
13. Number of contacts in New Cronos, other platforms
14. Number of days delay to respond to outside queries