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Purchasing Power Parities: Prioritisation of sectors for comparison

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PURCHASING POWER PARITIES: PRIORITISATION OF SECTORS FOR COMPARISON

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SUMMARY:

This paper takes up issues raised by the Castles and Ryten reports concerning PPP quality and resources. In seeking long-term quality improvements in PPPs, the author argues against a Utopian approach which seeks to apply simultaneously high-quality methods across all sectors of GDP, but instead to prioritise action, with the limited resources available, to those sectors likely to be capable of rapid improvement and with an important influence on the overall results.

BACKGROUND: CASTLES AND RYTEN REPORTS

1. At the end of 1996, the OECD commissioned Ian Castles (former Australian Statistician) to carry out a review of the joint OECD-Eurostat PPP programme. The terms of reference for the review are attached at Annex A. The report was completed in the summer of 1997. At the same time, the UN Statistical Commission asked Jacob Ryten (formerly of Statistics Canada) to make an evaluation of the global International Comparison Programme (ICP), in the light of the Castles Report. The terms of reference for this review are attached at Annex B. The Ryten report was delivered in late 1998.
2. The two reports have much in common. It is not the purpose of this paper to review the reports, but to highlight some specific points relating to sectoral prioritisation.
3. The Castles Report devotes considerable space to the discussion of shortcomings within the household consumption sector. A detailed examination was made of the quality of input data and results for telephone services, men's footwear, and furniture and fixtures. In all three cases, serious criticisms were made of the results, particularly those relating to non-European OECD member states. The general conclusion was that many of the results are implausible. The report does not positively identify the causes of the weaknesses, but it points to the low number of price observations made in many countries in these sectors. For example, in Japan, only 3 prices were obtained for telephone services in 1993, while for men's footwear

only 5 prices were obtained by the USA in the same year. The reasons for such superficial surveys may not be the same: in the case of telephone services there were (and still are, probably now even more) problems in specifying comparable products. For footwear, the US difficulty may be the result of limiting the PPP survey to items found in the CPI database.

4. Castles identified similar problems in the machinery and equipment sector, though without indicating any possible reasons. The Castles report also addressed the issue of what are termed “comparison-resistant” sectors – in particular housing and non-market (or partly non-market) services such as education and health services and public administration. The report queries whether the type of information currently used for calculating PPPs in these sectors is sufficiently useful to justify the costs of collection and calculation.

5. Finally, Castles suggests that in the Gross Fixed Capital Formation sector, the results obtained by using gross rather than net measures lead to a large overweighting of GFCF, and that further study of the uses of PPPs should be made before considering any extra resources in this sector.

6. In conclusion, Castles recommended that as a matter of concept, strategy and management the calculation of non-household components of GDP should be stopped, at least while the present resource situation remains as it is.

7. The Ryten report takes up the above issues, and largely concurs with the Castles view that some form of prioritisation is necessary for the credibility of PPPs: “*On grounds of efficiency there is no question that attempting to do everything at the same time produces more questionable results than otherwise*”. The report concludes that, at least for non-OECD countries, household consumption expenditure should be the main priority; PPPs for GDP as a whole could be derived by extrapolation or projection.

8. Eurostat largely concurred with the views expressed in the Castles Report. A copy of its formal response is attached at Annex C. Its subsequent actions and plans have to a large extent reflected these views, and the remainder of this paper is devoted to presenting an overview of what Eurostat has done in the past three years to change its approach to PPP work.

9. Eurostat has responded to the Ryten Report in similar terms (see Annex D). To quote: “. . . *the limited resources should be more clearly directed to the areas where visible quality improvements are achievable, and fewer efforts devoted – at least in the short term – to areas like GFCF or non-market services. These cannot, however, be left totally aside because they form a substantial part of GDP and PPPs.*”

EUROSTAT ACTIONS TO IMPROVE QUALITY BY PRIORITISATION.

10. At the time the Castles review was under way, Eurostat was being faced with demands from the European Commission to make preparations for including the EU Candidate Countries (CCs) as equal members of its multilateral comparison group. At the time, the Eurostat group comprised not only the 15 EU member states but also Norway, Iceland, Switzerland and Poland – a total of 19 countries. This was already placing severe burdens on the capability of Eurostat to coordinate the annual PPP work; as in many other areas of statistical work, extra resources had not been made available to cope with the enlargement of the EU. The prospect of adding a further dozen countries to the PPP comparison group clearly indicated that a new method of working was necessary.

11. Eurostat took up this challenge by proposing a new form of work management which would not only make it possible to cope with a group of 30 or so countries, but which would also offer the prospect of improving the quality of the results, at least for household consumption. The priority this given to this sector was a deliberate choice and reflects Eurostat's concurrence with the Castles prescription.

12. This is not the place to describe in detail the operation of the "ECP Reform" as it was called. But in brief, what was done was to divide the group of 30 (now 31) countries into three subgroups, each relatively homogeneous in terms of markets. Each subgroup was to be coordinated by an EU member state. These are Finland (Northern Group), Austria (Central Group) and Italy (Southern Group).

13. The ECP Reform has been in place for two years, and four surveys have taken place in that time. It has been a pioneering task, with many pitfalls and many lessons learned as the process matured. There is still much development to be done. But the system is now proven, and the first multilateral results for the enlarged group are currently being published. A short review of the history of this reform is given in Annex E.

14. This reorganisation has not, of course, been cost-free. In fact the total resources allocated to the household consumption sector surveys has increased substantially (by around €800,000) reflecting the higher priority allocated to this important and "comparison-friendly" sector.

15. Another paper presented by Eurostat at this seminar relates to the current drive to reduce the number of basic headings and also the number of products priced. This can also be seen as a form of within-sector prioritisation. Consider first the issue of the number of basic headings. A basic heading may be defined as the level of detailed expenditure for which weights are available. Now weights are available in many EU countries at a very detailed level – for CPI work there may often be 600 or more headings. Does this mean that the PPP basic headings should be maximised? Not at all. For each basic heading a selection of representative products has to be selected and carefully specified. If a reasonably accurate PPP is to be calculated for each basic heading, the surveys must adequately cover all of the selected products with a sufficient number of price quotations. All the resulting data must be carefully checked and processed.

16. The introduction of COICOP from 1999 has stimulated a review of the PPP basic headings (as well as for other fields including HICPs and Household Budget Surveys). Eurostat's view is that it is unwise to take a maximalist approach: there are other criteria for establishing the appropriate level of basic headings than simply the existence of weights. For example, price indices for updating PPPs are now also available at a certain COICOP level: this is an important factor to be taken into account.

17. A separate though related issue is the choice of the appropriate number of products to be priced. This is also discussed at length in another Eurostat document presented at this seminar. In summary, simulations have shown that large reductions of the present numbers can be made without significant differences to the overall results. Eurostat's view is that with limited resources gains in quality can be made by reducing the number of products to be priced, allowing more effort to be spent on item specification, correct identification of products in retail outlets, and a greater number of price quotations. In addition, less effort needs to be spent on translation, processing, and – crucially – data validation. All this adds up to a prioritisation recipe for a more efficient use of limited resources.

18. Statisticians should never forget that they are not indispensable. People need PPPs but if they are either too late or not credible users will turn elsewhere. The Economist's famous "Big Mac" index has survived because it is indeed a first approximation to a full comparison.

19. Let us turn next to GFCF. In the Eurostat PPP work, annual surveys are made of equipment goods and of construction. The results are frequently challenged – as indeed the equipment goods are by Castles. This appears to be another case of maximalism: since we are producing annual PPP estimates we have to carry out annual surveys. But in fact because of limited resources these capital surveys have a tendency to stagnation: products, construction projects and methods have not changed sufficiently to reflect technical progress over the years. The consequence is that in the desire to have fresh annual data we have lost sight of the potential gains to be made by having less frequent benchmark surveys and filling in the gaps with good estimations. Eurostat has finally taken action in this area by awarding a research contract to a consortium of private companies operating in these fields. They are charged with developing a new method aimed at producing annual estimates without the need for annual benchmark surveys. It is not beyond the realms of possibility that a new method may provide estimates of better quality than at present. In this case, however, a pre-condition is that the new method must have a lower cost than at present. Savings can then be directed towards further improvement in the more comparison-friendly sectors.

20. For example, pilot work is already being done on the use of alternative sources of data for household consumption, especially as concerns barcode scanner data derived from supermarket sales. This offers a potentially rich field for obtaining data not only on prices (at true transaction values) but also on products themselves, giving an opportunity for a more scientifically based selection of representative products. This is a complex and possibly costly approach, but it is hard to imagine that in, say, a decade from now the old pen-and-paper methods for collecting shop prices will still

be in use. A start has to be made to modernise our collection methods. And, yet again, quality should be better: scanner databases can provide the average transaction price for millions rather than just tens of transactions – and over a full year rather than a single point in time.

21. Non-market services are probably the most comparison-resistant sector of all. At present, Eurostat has no plan to change the existing methods, even though they are widely recognised as inadequate if not inappropriate. The weight of these sectors in GDP is such that it would be wrong to ignore them completely. The hope is that in the medium term, after significant and lasting improvements have been put in place in the comparison-friendly sectors, efforts can again be directed at improving the methodology and results in these difficult sectors. But the outlook is not good. In the past decade Eurostat has sponsored two major studies of methodology in the field of health and education. Neither was considered to have proposed any worthwhile and practicable improvements. It may indeed, as suggested by Castles and Ryten, be that PPPs of sufficient accuracy in these sectors simply cannot be calculated. But Eurostat does not feel that the time has yet arrived to give up. In any case, the costs of obtaining and processing the data are at present relatively low, since they arise in most countries as by-products of data systems which already exist for other purposes.

22. Finally, as regards the calculation of PPPs for housing, there are certainly serious problems in the current methodology which result in PPPs of doubtful accuracy. But in this case, Eurostat considers that improvements can and should be made in the fairly short term. A special Task Force is planned to study the problem, and hopefully some significant improvements can be made without requiring significant extra resources.

CONCLUSION

23. In conclusion, this paper has attempted to demonstrate that the route to better-quality PPPs is not to try to make simultaneous improvements in all sectors, but to prioritise by paying close attention to costs and likely pay-offs. These may sometimes appear counter-intuitive, but careful analysis and simulation can show that efficiencies are there if we take the trouble to search for them and not be bound excessively by past practices.

Luxembourg
Jan 2001

ANNEX A

CASTLES REVIEW OF JOINT OECD/EUROSTAT PPP PROGRAMME

TERMS OF REFERENCE

To write a report, in electronic form (preferably Word 6) on the following issues:

- 1) Why and how are PPPs, in electronic and other formats, used by analysts in:
 - a) OECD and EU (Eurostat and DGs)?
 - b) Other international organisations?
 - c) Government agencies?
 - d) Business community?
 - e) Universities and research institutes?
 - f) The Media?
 - 2) How well do PPPs produced by OECD/Eurostat meet the needs of the users listed in 1) above?
 - 3) What analytic uses could be served by better exploitation of the price and expenditure data provided by countries for the OECD-Eurostat PPP programme?
 - 4) Are there alternative ways of comparing "comparison-resistant" goods and services, such as housing, health, education, collective government services or construction and equipment goods?
 - 5) What is the burden, additional to national statistical purposes, on participating countries:
 - a) under the existing programmes?
 - b) if the consultants' recommendations under 4) are implemented?
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ANNEX B

TERMS OF REFERENCE FOR THE EVALUATION OF THE INTERNATIONAL COMPARISON PROGRAMME (ICP) – JACOB RYTEN

General direction of the evaluation process

1. Carry out a comprehensive analysis of the conceptual and technical problems associated with the ICP programme, as well as the adequacy of its overall organizational framework. Develop the outline for a strategy of improvement and propose practical steps for its gradual implementation. Assess the resources implications of the suggested improvement measures. Summarize and present the findings in a report.

Specific issues to be addressed

2. Establish objective criteria against which the validity of ICP results can be measured. Provide a critical evaluation of the accuracy and quality of purchasing power parity (PPP) data based on these criteria.
3. Conduct a general review of the analytical uses to which ICP results are commonly put. Examine the adequacy of the available ICP estimates for such analytical purposes, in particular, the practice of using PPPs for aggregation across countries to obtain group, regional and world growth rates. Specify areas where PPPs provide a meaningful analytical tool. Indicate the analytical uses which can potentially be served by mobilizing to maximum effect the price and expenditure information and subsets of that corpus of data which are currently provided by countries participating in regional and global PPP exercises. List the shortcomings and limitations that have to be overcome to enhance the analytical capability of ICP results and assess the realism of achieving improvements.
4. Examine the possibility of strengthening the technical underpinnings of the programme. Evaluate the appropriateness of the applied methods for comparing distant countries. Identify unresolved technical issues and determine problem areas on which further research should focus to build confidence in the numbers. Specify the expected issues, like the adequacy of the sampling design, the choice of aggregation methods, the treatment of quality differences and technologically advanced products, the balance between exercising expert judgement and applying scientific statistical methods, and other issues of concern.
5. Explore options to make the programme less resource intensive without running a risk of information loss and deterioration of quality. Propose the introduction of approaches and practical, operational changes providing countries with direct benefits from participation and easing their burden. Demonstrate the usefulness of ICP results at the national and international levels. Look for potential possibilities to maximize the use of national consumer price index (CPI) information for satisfying ICP data requirements, in spite of the differences in the measurement objectives of the two programmes.

ANNEX C

EUROSTAT RESPONSE TO CASTLES REPORT ON OECD/EUROSTAT PPP PROGRAMME

1. The initiative to carry out this review of the OECD/Eurostat PPP Programme has been fully supported by Eurostat: periodic evaluations of major statistical programmes are always necessary, particularly with programmes like this where the connections between producers and users are not always obvious. Two discussions took place between Mr Castles and Eurostat, and the report has clearly benefited from these.
2. The terms of reference refer to the “OECD/Eurostat PPP programme” as if it were a single programme. It should be noted that there are several important points of difference in methods and practices employed by the two organisations in the groups which they are responsible for co-ordinating, largely due to respective market structures.
3. The review was commissioned by OECD, not by Eurostat, and the report’s comments are focused more towards OECD than Eurostat. Certain criticisms, in particular those concerning data quality, have more relevance to OECD than to Eurostat, although Eurostat would in general accept the principles of these criticisms.
4. Although the report has covered many aspects of the PPP programme, the terms of reference (on which Eurostat was consulted) have not been fully elaborated. It would have helped to put the aims of the programme into better perspective by devoting more attention to the diverse users of PPPs, as referred to in the first item of the terms of reference. Nor has the important question of resource burdens on participating countries been addressed (point (v) of the terms of reference), except for a brief reference in para 2.13.
5. Nevertheless, the main conclusions of the report are ones with which Eurostat would not argue. These may be summarised as follows:
 - a. Underlining the importance of PPPs in the context of the increasingly global nature of economic statistics;
 - b. Highlighting the chronic under-resourcing of the programme - especially in regard to the macro-economic uses as opposed to salary adjustment uses;
 - c. Resulting from b., criticism of the accuracy of the detailed results, leading to doubts on the validity of the overall results;
 - d. The suggestion that too much emphasis is given to GFCF comparisons, at the expense of the quality of the more important consumer expenditure results;

- e. The suggestion to concentrate scarce resources on “comparison-friendly” areas, and correspondingly less to “comparison-resistant” areas such as non-market services.

Eurostat has a number of specific comments to make on these five main issues, noted in the following paragraphs.

6. As the report shows, there is considerable academic interest in the theory and application of PPPs. On the other hand, there is a marked lack of specific applications, both in the private and public sectors; Eurostat believes this is due to a combination of two factors: doubts concerning reliability, and lack of understanding of what PPPs are and how they can be used. The European Commission is in fact probably the largest single user of PPPs, both at macro- and micro-levels, in the application of Structural and Cohesion Funds and in the correction coefficients applied to staff salaries. A debate has also recently begun on the possible application of PPPs in the calculation of EU budget contributions from Member States.
7. With regard to resources, the traditional approach to PPP work has necessitated a high level of human resource input, in particular the carrying out of price surveys of retail products. Given that the prospects for a major increase in resources in this area - especially in Member States - is unlikely (in fact a diminution seems more likely) Eurostat has already begun to address the question of how to obtain results of at least as good quality as now but using fewer human resources. A major study is about to be launched to evaluate alternative sources of information on consumer products and their prices, focusing specially on databases derived from barcode scanners.
8. Regarding the accuracy of the detailed results, Eurostat notes the results of the report’s detailed assessments of accuracy in certain areas such as telephone services and men’s footwear. Eurostat accepts the general thrust of these criticisms, whilst noting that many of the extreme examples of small numbers of price quotations refer to members of the OECD group rather than the Eurostat group. This perhaps partly reflects the geographical differences between the two groups, Eurostat being much better placed to co-ordinate surveys in a relatively self-contained geographical group. The revised working methods of ECP will further improve the situation in this respect. For example, in Table 6, the average number of price quotations for men’s footwear in the Eurostat group is 16, while the OECD average is only 9.

Eurostat is well aware of the quality problems in its basic data, and has been taking positive action - in collaboration with OECD - to make improvements in recent years. For example, a manual of survey guidelines has been written with the aim of improving the quality and consistency of consumer price surveys.

However, further work could certainly be done to improve basic data quality. The evaluation project referred to in para. 7 offers one possibility of obtaining, in the future, more accurate average prices based on much larger numbers of transactions. In addition, Eurostat is currently examining

alternative sources of price data such as, for example, the results of the motor car price comparisons carried out regularly by Directorate-General IV of the European Commission.

9. Eurostat agrees with the report's conclusion that there is an imbalance of resources devoted on the one hand to consumers' expenditure and on the other hand to gross fixed capital formation (GFCF). The proportions of these two components in GDP are typically over 60 % and less than 20 %. Yet - as far as Eurostat is concerned - the resources devoted to the two components are roughly equal. Eurostat has already begun to address the question of how to obtain GFCF data of reasonable quality using significantly less resources.
10. Similarly, Eurostat has strong sympathy with the idea of concentrating scarce resources on "comparison-friendly" rather than "comparison-resistant" areas, though not entirely at the risk of ignoring the latter - indeed, Statistics Netherlands are currently carrying out a project, financed by Eurostat, to seek better ways of making price comparisons in the fields of health and education. Eurostat has also begun to review the "Basic heading" structure with the aim of reducing the number of headings, and thereby concentrating attention on those goods and services which have a higher weight in the overall consumption pattern. Such a review is in any case necessitated by the need to adopt a new classification, based on COICOP, by 1999.
11. It will be apparent from the above comments that Eurostat has already anticipated many of the problems raised in the report, and begun to take action on various fronts. In addition to those already mentioned, the computing system will shortly be overhauled so as to replace an old and no longer supported software with a more up-to-date, flexible, and supported system.
12. A further reform about to take place is necessitated by the need to bring the EU Candidate Countries into the Eurostat comparison group. To cope with this very significant increase - which will bring the membership of the group up to about 30 -, the participating countries will be grouped under four Member States "group leaders". Price surveys will be carried out separately in each group but under close supervision and coordination by Eurostat. Eurostat will remain responsible for producing PPPs, calculating real GDPs and publishing results. This represents a historical reorganisation of the European wide PPP work but on the other hand its organisational nature is to be underlined; it does not imply any methodological changes.
13. Paragraph 6.33 of the report makes the suggestion that many of the quality problems highlighted in the report could be solved by making use of a full-time "expert co-ordinator". Eurostat has strong doubts about this suggestion. It could, indeed, be said that the OECD and Eurostat already have several full-time "expert co-ordinators" - i.e. our own PPP secretariats. The addition of one more is not likely to make a significant difference to quality of results. Eurostat's preferred approach is, as already referred to above, to make a whole range of organisational and methodological changes to the programme, aimed at making better use of existing resources. Furthermore, any external funding of an expert co-ordinator could create problems of accountability and priority-setting.

14. The report makes reference (para 6.2.) to the “locus of responsibility” for the PPP estimates. There have in the past been conflicting points of view on various issues (such as aggregation methods) between OECD and Eurostat, though happily these now seem to be minimal. But attention does need to be focused on the future direction of the OECD/Eurostat collaboration. The world has changed considerably since the collaboration began. Now, Eurostat has clear responsibility for co-ordinating and producing PPP results for most European countries, while OECD’s membership is growing on a global scale (Mexico, Korea etc.). An additional long-standing problem is that most participating countries see little benefit to themselves in participation - the exercise is an essentially international one which can and should only be led by influential international organisations.
15. Last but not least, Eurostat would like to underline that the longstanding cooperation with OECD in ECP and ICP, highly appreciated by Eurostat, will continue and OECD will have an important role in ensuring that European results are fully utilised in international price comparisons within ICP. Furthermore, Eurostat taking greater responsibility for the ECP, OECD may concentrate more on non-European areas, which due to their more varied market structures are particularly problematic as indicated by the Castles report.
16. Finally, Eurostat looks forward to contributing to the next phase of PPP review, sponsored by the United Nations Statistical Commission, and into which the present OECD report will feed. Eurostat expects to make a significant contribution to the UN review.

Luxembourg
Jan 1998.

THE RYTEN REPORT ON THE INTERNATIONAL COMPARISON PROGRAMME (ICP) – EUROSTAT RESPONSE

The World needs PPPs

Eurostat welcomes the Ryten Report and gives its support to most of its recommendations. Eurostat shares the worries as to the overall credibility of the results, particularly at the lower level of aggregation, but believes that with measures suggested the quality and thus credibility of the results of the ICP could be gradually improved

The Ryten Report follows the Castles Report commissioned by OECD and it largely endorses Castles' main findings, most of which are already approved by Eurostat (see letter from M. Franchet to M. Kincannon ref. 301565, 23.10.97). The attention of the Ryten Report is more directed towards the non-European countries but the findings in the report are of great interest to Eurostat as well because the European Comparison Programme is an integral part of the ICP.

Eurostat fully signs up to the main conclusion of Mr. Ryten, namely that there is no alternative to Purchasing Power Parities for making cross-country comparisons. Quoting his words “.. without PPPs, the system of international economic statistics required to inform policy making, monitoring and evaluation would be considerably poorer”. It is also important to keep in mind that the ICP is an integral part of the harmonised approach towards national accounts, implemented in the SNA. At the same time, Eurostat shares the view of Mr. Ryten that the ICP is in crisis. This is not because of weaknesses in the methodological basis but because of weaknesses related to the practical work; these lead to a credibility gap and reduce the value and use of the results as policy-making tools. At the end it is the use of the results that defines the value of the programme.

Within the EU, the results of the European Comparison Programme have important policy making applications: the regional aid programmes and the adjustment of remuneration, both with substantial financial implications. There is no prospect that the European Comparison Programme could come to an end: Eurostat is obliged to provide the European Commission with high quality PPPs even in the regrettable situation where the ICP would “fade away”. In fact, the scope of Eurostat's responsibility will greatly increase with the enlargement of the EU to include many Central and Eastern European countries and others.

Quality for survival

The Report stresses the pivotal importance of the high quality of the results but correctly notes that this cannot be achieved free of charge: more commitment is needed from all collaborators, be it the international organisations co-ordinating the work or National Statistical Institutions collecting the data. The present downward leading vicious circle must be turned to an upward leading path by gradually

implementing the various recommendations in the Report. In this context Eurostat would like to particularly emphasise timeliness as one of the corner stones of overall quality. From the point of view of policy-making, timeliness is maybe the most important element; the high quality of the results is taken as given. More efficient organisation of the work, supported by appropriate informatics tools for editing the price data and guidance in various forms would by definition lead to improved results. The Report also underlines, and rightly so, the crucial importance of data collection and of the expenditure weights used. Eurostat fully subscribes to the notion in the Report, only too often forgotten, that the overall quality of the results depends on the weakest element.

Eurostat adheres to the Report as to the shared responsibility for the results. It has been a long lasting Eurostat practice to have the results approved by the participating countries. Admittedly this may cause some additional delays but on the other hand it increases the involvement and commitment of the National Statistical Offices in the work, and thus its quality.

Eurostat would like to reiterate the view already expressed in the context of the Castles Report: the limited resources should be more clearly directed to the areas where visible quality improvements are achievable, and fewer efforts devoted – at least in the short term - to areas like GFCF or non-market services. These cannot, however, be left totally aside because they form a substantial part of GDP and PPPs. Eurostat is actively searching for ways and means to reduce the inputs in these sectors without compromising the quality of the overall results.

Point of disagreement in the Report

There is only one recommendation in the Report which is difficult for Eurostat to endorse. That is to have a worldwide co-ordinator. Both the ICP and the European Comparison Programme have rather well established co-ordination structures with divided responsibilities. There is a danger that a separate worldwide co-ordinator might duplicate or interfere with the existing structures. It would be preferable to return to a stronger central ICP co-ordination from the United Nations.

Quality measures in Eurostat

Eurostat has recognised the importance of the overall quality (including timeliness) of PPP results, and has taken various actions designed to improve quality. First and foremost, from 1 January 1999 Eurostat has reorganised the data collection by delegating the consumer price surveys in its group of 29 countries to three sub-groups, based on similar considerations as presented in the Ryten Report. The reorganisation rests on the closely defined division of tasks between Eurostat, co-ordinators of the three sub-groups and National Statistical Offices. It is expected that the quality of results of the sub-groups, and thus the overall results of the 29 participating countries, will improve. This reorganisation is supported by a detailed annual timetable covering all actions from data collection to dissemination of the results. Contracts with National Statistical Offices concerning data collection and editing are being

made tighter with explicit requirements to follow agreed guidelines in price collection.

In addition, Eurostat is launching a 5-year development programme covering both practical work and methodological development. For the time being, Eurostat is mapping out possibilities to employ electronically available data sources to harmonise the price collection methods, to expand the sample size and thus to increase the quality of the results. This might open possibilities for increasing the frequency and geographical coverage of the surveys. Eurostat has also launched a project to analyse the potential users and to put in place a tailored dissemination programme with a view to attract potential users outside the EU machinery and international organisations.

The main users within the EU have endorsed the need to improve quality and entered into co-funding arrangements to support the measures taken.

It is worth mentioning already now that Eurostat is facing a major new challenge. The coverage of the PPP work is planned to be deepened from national to regional (i.e. sub-national) PPPs. Eurostat is expected to provide results at a regional level by 2005 at the latest. Part of the development programme will tackle issues related to regional PPPs.

Continued co-operation needed

Eurostat expects that the present active co-operation will continue and further intensify between all the international organisations participating in the co-ordination of the ICP, and in the European Comparison Programme as a part of it. This is the only way to secure maximum comparability and high quality of the results worldwide and will give its utmost contribution also in the future. The same goes for co-operation with the NSOs, which are both suppliers of data and customers using the results.

Luxembourg
February 1999

PROGRESS REPORT ON PPPs FOR STATISTICAL PROGRAMME COMMITTEE - SEPTEMBER 2000

I INTRODUCTION

The aim of this report is to evaluate the measures taken or planned by Eurostat to improve the quality of the PPP work, most importantly the reform of the European Comparison Programme ("ECP Reform"); and to briefly reflect other development activities which aim at increasing the quality of national PPPs and introducing regional PPPs. Thus it reflects the discussions held at the 30th and 33rd SPC meetings in September 1998 and May 1999. The main emphasis is on factual description of the ECP reform (Paragraphs 1 to 7) and on evaluation of the progress achieved so far (paragraphs 8 to 20) because it is by far the most important element in the overall plan to increase the quality of the PPPs. The implementation of this reform is, however, only one element of the development plan: other activities to be implemented in the near future are presented briefly in paragraphs 21-30. This document is to inform the members of the SPC of the progress made, underlining though that the reference period is relatively short and that some of the expectations of the ECP Reform have not fully materialised yet.

II ECP REFORM - FACTUAL DESCRIPTION

1. The ECP Reform, which was launched in January 1999 after 2 years intensive planning, reorganised the price collection for final private household consumption by:
 - Creating three groups with group-specific product lists with a certain amount of overlapping products; and
 - Introducing a series of survey-specific meetings
- ✓ Between Eurostat, OECD and the three Group Leaders (Statistics Finland, Statistics Austria, ISTAT) to ensure a harmonised approach to the forthcoming survey in all participating countries (**Planning meetings**) and to establish a sufficient overlap between the three group product lists (**Overlap meetings**);
- ✓ Between the Group Leaders and Group Members with Eurostat's and OECD's participation to finalise the draft group product lists (**Group meetings**).
 - Reshaping the work of the Working Group on Purchasing Power Parities to concentrate on discussing the methodological and more general issues but not to deal with product definitions or the minutiae of individual price surveys.

The ECP Reform is the most important individual development activity concerning the Purchasing Power Parities and its successful implementation and consolidation of the new working methods are crucial for the whole price programme and for the quality of the overall results.

2. The additional work carried out by the Group Leaders (approximately 9 person years altogether) is funded under the terms of a specific contract from DG REGIO (Regional Policy) for the part that relates to the EU Member States and from the Eurostat Phare Programme concerning the work done in relation to the Candidate Countries. This funding amounts in total to about €700,000. Eurostat wishes to place on record its appreciation of the commitment and professionalism of the three NSIs concerned. Without their contribution, the ECP Reform could not have happened.
3. Prices collected for PPP purposes are also used for calculation of Correction Coefficients for EC staff salaries. Therefore prices for products in all three group lists need to be collected in Brussels, and a representative of the Belgian Ministry of Economic Affairs attends the Planning meetings and Overlap meetings.
4. Securing the homogeneity of the work of all participating countries is of vital importance. Eurostat continues to co-ordinate the ECP as a whole and issues appropriate guidelines. It also remains, as before, the guardian of the methodological development, in close collaboration with OECD. It gives all necessary technical help within the limits of its resource capabilities and provides the appropriate informatics tools to the NSIs and the Group Leaders to check and report the price data and to validate them. Eurostat also assists in the preparation of the survey material by providing comprehensive glossaries of the definitions in all 24 languages of the participating countries. An electronic documentation centre "CIRCA" is used for easy distribution of documents and information to all participating countries and OECD. It is Eurostat's intention to allow public access to certain parts of this website, with the agreement of the Working Party.
5. Eurostat prepares a detailed annual timetable for the PPP work to assist the planning of the capacity allocation by all participants and to secure timely supply of data and calculation and publication of the results.
6. Eurostat continues to publish the survey results and the aggregate annual results only after prior approval (explicit or implicit) of NSIs.
7. The three Group Leaders established teams to co-ordinate the PPP work within their respective Groups and to prepare the price surveys and to validate the observed price data. This was done in the course of 1999 and all teams have now gained experience. The Group Leaders make missions to Group Members to study the markets and thus help to secure the relevance of the products.

III ECP REFORM - EVALUATION SO FAR

8. The primary objective set for the ECP Reform was to improve the quality (including the timeliness) of the results by placing more responsibility for the surveys on Member States and through more efficient ways of working. As a result Eurostat could allocate more resources to co-ordinate the ECP as a whole, take better care of methodological development and analyse more thoroughly and disseminate the results more quickly. These objectives are still valid and experience should be assessed against this background.

(a) Timeliness of the results

9. The ECP Reform was launched in January 1999 and the first price survey was completed in summer 1999. In spite of the very tight deadlines set, the price collection and primary checking was by and large done and prices delivered to the Group Leaders within the time limit indicated in the timetable.

10. Clearly the time allocated for the 1999 pre-survey work and for the validation of the price data by the Group Leaders turned out to be unreasonably short. This was taken into account when establishing in December 1999 the survey schedule for the year 2000 and in the current planning of the 2001 timetable. In case of the first survey of 1999 the time allocated for pre-survey work was only 2 months but already 4 months for the second survey of 1999 and 4-5 months for the first survey of 2000.

11. More attention is now being paid to the timeliness of the work both by Eurostat, the Group Leaders and the Group Members. Meeting the deadlines of the price collection by the NSIs is both an achievement and a proof that there was quite some room for tightening as anticipated. It also underlines the effectiveness of the co-ordination by the three Group Leaders. The price collection itself has been finalised within the agreed 3 months which is less than the half of the time taken before. On the other hand, the time for validation by the Group Leaders, 3 months, turned out to be too short for the first survey of 1999, which at the end required 6 months due to the fact that the validation and preparation of the following survey overlapped. It was subsequently agreed between Eurostat and the Group Leaders that 5 months is needed for validation of the survey results before submitting them to Eurostat. However, even 5 months is less than the half of the time taken for validation of the 1998 surveys.

12. Timely publication of the overall annual results is important. Eurostat has to pay more attention to effective and timely dissemination of the results and make them available also electronically. As far as the individual survey results are concerned, they have been published only once, for the Food and beverages survey of 1995 which were published early 1997. At the PPP Working Party meeting in May 2000, it was agreed to re-start publication of individual survey results immediately after the results have been approved by the NSIs. It is hoped that this can begin with the results of the second survey of 2000. Concerning the results of the future annual GDP volume comparison, the aim is to have them published before the summer recess in the second year after the reference year, based on the data available by the end of April of the second year (mainly the most up-to-date GDP figures). In the past, the publication has tended to be delayed for various reasons: the annual results of 1995 and 1996 were published jointly in April 1999 and the results of 1997 were published in November 1999. The 1998 annual results are expected to be published in October 2000. Similarly, the publication of the preliminary annual results have been delayed from the targeted end of January, and concerning the 1998 preliminary results they were published only in April 2000. Obviously, more discipline is needed both by the NSIs and by Eurostat to respect the cut-off dates (such as the end of April for the final annual results).

(b) More effective way of working and more responsibility to the Member States

13. The Group Leaders together with the Group Members have now prepared 4 price surveys (99-1, 99-2, 00-1 and 00-2), co-ordinated 3 price collections (99-1, 99-2 and 00-1) and validated the data of 2 surveys (99-1 and 99-2). The Group Leaders have devoted a lot of effort to the work and the co-ordination of the Groups' work functions well. The Group Members seem to appreciate to work in smaller groups and to participate more actively than in the past in the preparation of price surveys; the pre-survey work has certainly become more productive. The fact that the draft group lists are firstly discussed up to a certain degree by all Group Leaders during their preparation and secondly looked at jointly before the finalisation at four successive meetings by the Group Leaders, Eurostat and OECD, has increased both the relevance of the product lists and the quality of product definitions in general. Recently introduced standardised (separately for each survey) definition structures will make the work even more effective.

14. The co-ordination between the Group Leaders needs to be made even more active to further improve the overlap and at an earlier stage. It has been agreed recently that more consultations between the Group Leaders are needed during the validation period to achieve the maximum quality of the comparison between all 31 countries (Turkey has recently joined the group).

15. To make the price collection more focused it was intended that the overall length of the product list was to be reduced. This aim has materialised quite well at the level of the Group Members but because of the need to keep a sufficient number of group specific products in the lists, the product lists covering all three Groups is about the same length as before. However, at the level of each individual NSI the product list is reduced by some 50 %, from the level of about 600 products on average to 300 products or less and thus more effort than before could be devoted to pricing each individual product. In fact, the trend continues and the size of the group specific product lists is approaching the level of 200. This relates closely to the discussion on the number of Basic Headings and products within each Basic Heading (see paragraph 22).

16. The main purpose of the Group meetings is to decide the content of the proposed Group Product List on the basis of the pre-survey work. This did not work as well as expected in the case of the two 1999 price surveys when in fact a lot of preparatory work was done and detailed product-level discussions held during and after the Group meetings. On the other hand, the Group meetings could by and large finalise the group product lists for the first price survey of 2000, thus making the work of the Overlap meeting really effective. This reflects both the increased experience and the fact that more time was available.

17. The feared lack of overlap of the group lists (important to secure effective comparison between all 31 countries) has turned out not to be a serious problem, especially after each Overlap meeting where certain amendments have been agreed to strengthen the overlap. In 99-1, roughly 50% of the products were common to 2 or 3 groups and about 30% were common to all three groups. The figures for 99-2 and 00-

1 surveys are 65% and 45%; and 40% and 20% respectively. It is to be noted that these are ex-ante figures before the actual price collection.

18. It is essential from the point of view of quality and effectiveness of the work that all participants use the same informatics tools to ensure that identical working methods are applied when producing input for calculation of the survey results. Eurostat regrets that the full set of tools have not been available: they will be ready for use in autumn 2000. Eurostat encourages the more active use of CIRCA as an effective communication tool.

19. It is crucial for a successful price comparison that local price collectors have the product definitions readily available in their own language. Since full textual translation into 24 languages is impractical, a new approach using simplified headings for specifications, in conjunction with a glossary of terms in all languages, has been adopted. This is a clear improvement as compared to the situation in the past, where only a small number of full translations were provided. The use of glossaries started already in case of the 99-1 price survey. Understandably this was experimental and the glossary and translation was available too late to be effective. Since then the content and timeliness of the glossaries has improved and the glossary for the 00-2 price survey was available already at the beginning of March 2000.

20. As a whole, the support given by Eurostat for the survey preparation reached the level aimed at during the preparation of the second price survey of the current year.

<p>The views above were by and large endorsed by all participating countries during the recent meeting of the Working Party on Purchasing Power Parities on 23-25 May 2000.</p>
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IV FURTHER ACTIONS TO IMPROVE QUALITY

21. Even though the ECP Reform is now successfully implemented, there are various important areas where further development is in progress or planned: optimisation and reduction of the number of Basic Headings and number of products; strengthening the overall foundation of the PPP work by adopting a Regulation; more effective dissemination of the results; use of more modern and effective data collection methods and of centrally available data sources; "now-casting" of the results; putting in place appropriate quality monitoring routines; optimisation of the sequence and content of the price surveys; and last but not least production of regional PPPs. Furthermore, some of these activities could be effectively contracted to carefully selected external organisations, thus releasing the limited in-house capacity more for co-ordination and dissemination. Progress on these development plans is outlined in the following paragraphs.

22. The necessity to migrate to a COICOP-based PPP classification led to consider a more general optimisation of the number of Basic Headings (BH) and of products. This was thoroughly discussed during the Working Group meeting on 23-

25 May 2000 and Eurostat's proposal to introduce a BH structure which is based on COICOP 3-digit classification (a reduction of the number of Basic Headings from the present 219 to around 120 as far as private consumption is concerned) was adopted as a general approach, while allowing for a more detailed classification where justified. The Working Group also saw obvious merits in having fewer but better selected products for which more prices than at present would be collected. Thus the existing resources allocated for the price surveys would not be reduced but focused more precisely to increase the overall quality of the results.

23. The Working Group reiterated unanimously its support for a Regulation of the European Parliament and of the Council on PPPs and saw it as an important quality measure, presenting many useful ideas as to the content of the Regulation. This issue is discussed in more depth in Doc. EEA CPS 2000/38/7. Eurostat has already begun to draft the outline of an eventual regulation to help speed up the work of a Task Force to be set up in October 2000 to prepare a Commission proposal for the regulation (assuming that the SPC takes a favourable view).

24. The Working Group also agreed to Eurostat's proposal to publish regularly the results of the individual price surveys. This should take place as soon as possible after the results are available. Complementing the publication of annual results which will continue to concentrate on GDP volume comparisons, publications of the survey results will concentrate on price level comparison including comparison at the level of individual products where appropriate. A standard content of such publications, which would make the publication more rapid, was discussed at the recent Working Group meeting.

25. Eurostat has contracted a pilot project to collect price data using bar code scanner sources. The results will be available towards the end of the year and need to be analysed carefully, but it is quite possible that much higher numbers of price quotations and a wider geographical sample could be secured, together with more accurate information on market penetration of specific products. This could make such a method quite attractive, depending, however, on the costs involved. The costs must be seen in perspective because the same data could be used both for PPPs and for monitoring the functioning of the Internal Market, consumer policies etc. Also other centrally available data sources must be evaluated, such as the internet, multinational retailers, international or national consumer and trade organisations, monopolistic suppliers and also the Commission itself.

26. Traditionally, PPPs are calculated annually and published for the year $t-2$. For example the PPPs and volume comparison of 1998 are published in 2000. It is obvious that for various users such data, though interesting, are simply too old. Therefore it is important to develop appropriate methods to update the annual results using commonly available indices (such as HICPs) and make them available possibly on a quarterly basis, matching the quarterly GDP estimates. OECD has for a considerable time updated and published results using appropriate indices, even though the results relating to the European countries are mostly based on the results produced by Eurostat. Eurostat should be able to publish its own updated results.

27. It is impossible to evaluate the improvement of quality without appropriate yardsticks, which should be put in place as soon as practicable (discussed already at

SPC in September 1999). Such evaluation needs to cover preparation of the price surveys, price collection and validation, calculation of the results and publication, as well as progress on the various development projects within Eurostat.

28. Traditionally, price surveys for private household consumption have been done over a three-year cycle. On the other hand, prices of equipment goods and construction work have been collected annually. More effective allocation of resources of both Eurostat and participating countries might speak in favour of revamping the whole survey cycle. The results of the pilot project on bar code scanner sources as well as of use of other centrally available sources (see paragraph 25) will possibly have significant implications to the future survey cycle. Availability of appropriate indices for updating of the results, and newly emerging needs (to supply relevant data for evaluation of public procurement regime; and to strengthen the data base for short-term indicators) might require maintaining at least the present frequency. Various alternatives will be carefully analysed by Eurostat.

29. It is Eurostat's intention to produce Regional PPPs by 2004 (at present, Regional PPPs are implicitly assumed to be the same as national PPPs in order to "deflate" Regional GDPs for allocation of Structural Funds). The preparations will include identification and evaluation of alternative methods to achieve regional PPPs at reasonable costs. The availability of relevant data in all participating countries (including all Candidate Countries) must be analysed early enough so that necessary data sources will be in place. Some additional costs, potentially substantial, cannot be avoided and the funding must be secured as well. Preparations in close co-operation with DG REGIO and DG ECFIN will start towards the end of the year. Eurostat accepts, however, the expressed view of the SPC that the first priority is the improvement of the existing national PPP results, and most of its development work is aimed at this objective.

30. The ECP Reform has shown that many activities such as validation of price data and calculation of the results can be effectively done outside Eurostat without putting quality in danger. With this in mind, Eurostat has recently launched a call for tenders covering a wide range of work on price statistics, including PPPs. The work includes: preparation of product lists, validation of the observed prices, calculation of the survey results and the annual results; methodological development and "now"-casting", more effective use of CPI databases for PPPs, use of PPPs for temporal analysis; preparation of publications; development of new estimation methodology for capital goods prices; and finally thorough analysis of centrally available data sources to reduce the need for traditional surveys in retail outlets. Thus many of the activities referred to above (paragraphs 21 to 29) might be contracted to external experts, Eurostat of course always retaining overall responsibility.

V CONCLUSION

31. A great deal has been achieved since the implementation of the ECP Reform at the beginning of 1999 in terms of improving the quality of PPPs. Eurostat is particularly pleased to inform the Committee that the new organisation of the price collection under the ECP has proved to be a true success story. However, there remains a large amount of work to be done before it can be said that the PPPs have reached a fully acceptable level of quality. In particular, continued attention needs to be paid to the timeliness of various activities and appropriate quality indicators should be put in place to allow an evaluation of the progress made. On the other hand the planned outsourcing of various essential development tasks to external experts will both release the existing Eurostat resources for overall co-ordination and planning, and speed up the finalisation of these tasks.

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