



**Technical Advisory Group
Minutes of the Sixth Meeting
October 3-4, 2011
Washington, DC**

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Background

The TAG met in Washington on 3-4 October 2011 to discuss a number of issues including the potential use of productivity adjustments for several components, some investigations into informal construction, estimating PPPs for education using a quantity approach, clustering and graphical approaches to data validation, and issues associated with extrapolating PPPs to form time series.

Session I. Productivity adjustments for government services

Issues

The April 2011 TAG meeting recommended that the global aggregation for government final consumption expenditure based on inputs (i.e. compensation of the employees involved) should incorporate productivity adjustments for all countries in all regions, even if a region's results were not adjusted. However, there was insufficient time at that meeting to discuss potential methods.

The TAG considered a procedure based on adjusting the compensation-based measures using estimates of capital intensity, defined as the ratio of capital stock to labor. This affects three basic headings - compensation of employees for health, education, and Collective consumption by government. Ideally, the capital/labor ratios would refer specifically to each major function (education, health, collective services) within the government sector. However, in practice, data limitations mean it will be necessary to assume that the ratio for each government function is identical to that of a country's whole economy.

The TAG recognized that many countries will not have the necessary data, particularly for capital stock. It will be necessary for those countries to "borrow" capital/labor ratios from similar countries to make the productivity adjustments. The Global Office will check how many countries have the labor and capital stock data required to make productivity adjustments.

Recommendations

The TAG recommended that productivity adjustments should be made for all countries in each region to government collective services as well as for health and education services. To the extent possible, the adjustments should be based on labor and capital stock data specific to each country. The TAG recognized that, due to lack of data on capital stock, some countries will have to "borrow" adjustment factors from countries with similar economies in their region. OECD and Eurostat countries are not affected for health and education because they use output-based estimates. However, they will be using compensation of employees for collective services.

If a region does not explicitly adjust for productivity differences between countries in its regional results the TAG recommends that productivity adjustments should still be made for all countries using an input-based (i.e. compensation) approach when aggregating the regional results to a global total.

The Global Office will review international and national data sets for the labor and capital stock data required for the productivity adjustments. For linking purposes, the Eurostat-OECD will either need to provide some compensation data for health and education, or output measures for the other regions will be needed.

Session II. Construction and Education

Construction

Issues

The new method adopted for construction in the 2011 ICP requires each country to provide weights for labor, materials and equipment hire for each basic heading. As a result, there is no need to adjust for labor productivity differences between countries. However, an underlying assumption is that total factor productivity (TFP) is equal across countries.

Recommendation

The TAG recommended that the assumption of identical TFP in each country should be explicitly recorded in the TAG minutes and in the text in the 2011 ICP publication.

Informal construction

Issues

The TAG discussed a presentation on the issues associated with informal dwellings to determine how this component should be treated in the ICP. The key points are:

- size is not a good indicator of whether a dwelling should be considered to be “informal”, although some of these dwellings are very small (from 12 square meters up);
- the type of floor covering is an important indicator of quality (a dirt floor being the lowest type of quality);
- the status of land is not necessarily important because someone can still sell an informal building even if they do not own the land on which it is located, with the length of time they have been using the land being an indicator of the strength of their rights to it;
- some countries include estimates of the value of informal construction in their national accounts although they are not shown explicitly;

- the ICP would require a separate basic heading for informal dwelling construction to enable it to be treated separately from other construction, with ICP estimates of real expenditure being based on numbers living in such dwellings;

Recommendation

The TAG agreed that it will not be possible to produce specific estimates of informal construction in the 2011 ICP because of the lack of time to finalize investigations but the aim should be to include such estimates in the next round.

Countries in which informal construction is significant should be encouraged to include estimates of informal construction in their national accounts as part of gross fixed capital formation on dwellings.

Education

Issues

The Eurostat-OECD uses output measures for the production of real expenditures on health and education services by government instead of compensation of employees, which will be used in the other regions. In order to have a common set of data for linking it was proposed that data on number of teachers and students be obtained in as much detail as possible by each country for education.

Recommendation

The Global Office will do a review of available data. Eurostat-OECD offered to calculate PPPs for education for all countries participating in PISA by spring 2012, using their output methodology (quantity indicators adjusted by PISA). These PPPs could be used to link Eurostat-OECD with the other ICP regions. The quality adjustment based on PISA will be compared with an adjustment based on teacher/student ratios when data are available.

Session III. Data Validation

Issues

Two presentations provided alternative methods to validate PPPs at the Basic Heading level and above. One was using simple box and whisker data plots while the second was based on cluster analysis. Both methods point to the need to validate PPPs at the basic heading level for both core and regional data sets. It was also pointed out that expenditure data be part of the validation above the Basic heading level; one example was provided by a review of the Paasche-Laspeyres spreads from the Fisher index.

Recommendation

The data plots should be part of the data review package; the clustering method should also be considered.

Session IV. Extrapolating PPPs

Issues

The most common method of extrapolation from the latest ICP benchmarks is to use time series of price deflators at a broad level (typically GDP but sometimes for several components of GDP) to move the PPPs for a country. A base country (usually the USA) has to be used in this process. The assumptions that underlie this method are very restrictive, along the lines that the countries involved have similar economic structures and their economies are evolving in a similar way. In addition, a practical consideration is that the real estimates of GDP in each country's time series should be estimated using the same types of techniques (e.g. for quality adjusting the national accounts deflators). This is particularly problematical when the USA is used as the base country because the USA uses hedonics for quality adjustments more extensively than virtually all other countries in the world. The result of this practical issue is that the GDP deflators for the USA are likely to increase at a slower rate than those of other countries. In other words, the price levels estimated for countries by extrapolating their GDP deflators against that of the USA will be too high and so their extrapolated PPPs will be overstated going forwards (or understated when using this technique for backcasting PPPs). In addition, large changes in a country's terms of trade will adversely affect the results of this type of extrapolation procedure.

In an OECD/Eurostat PPP round several years ago, the new benchmark PPPs and real expenditures were criticized because they did not match the extrapolated PPPs and real expenditures for that year. In other words, the extrapolations were used as the target that the latest benchmark PPPs should be assessed against. While this is obviously not very sensible, it is possible that the accuracy of the 2011 ICP results will be assessed in this way.

Extrapolation methods were discussed, mainly whether they should be based on the dynamic version of the Balassa-Samuelson effect, which is that price levels increase as per capita income increases.

Recommendation

The TAG agreed that the assumptions underlying PPP and real expenditure extrapolations are not well understood. The TAG suggested that the Global Office should take every opportunity to educate users of PPP data by describing the implications of the assumptions involved in extrapolating PPPs. It will also be important to stress that the extrapolated series are very rough estimates rather than the target that the 2011 ICP benchmarks should be aiming for.

The TAG also noted that an annual update would be the best means of compiling annual series of PPPs. Once the 2011 ICP round is completed it would be a useful exercise for the Global Office to investigate the possibilities of producing such series based on a combination of CPI data and a limited amount of price collection.

Before the 2011 results are published, the 2011 results extrapolated from the 2005 ICP need to be closely evaluated with the new benchmark data to provide as much information as possible about the Balassa-Samuelson effect and other factors such as the relationship of tradable to non tradable goods, etc.

Session V. Comparisons between ICP 2005 and 2011 results

Issues

ICP 2011 results will differ from 2005 for several reasons; the main one is that economic and price structures will have changed. The discussion centered on how to explain changes in results between rounds. Apart from the practical problems in interpreting results based on different regional structures for the two years, changes in methodology also contribute to the differences. Examples of significant changes that will affect the comparison between rounds are the use of a global core instead of the Ring, overall use of productivity adjustments for non market services, and improved estimates of dwelling services.

Recommendations

Where possible compute PPPs and indices to simulate what was done in 2005 to provide a measure of changes caused by methodology.

Annex 1. Agenda

Day 1: October 3, 2011

08:30 – 09:00	Check in and breakfast
09:00 – 09:30	Welcome comments and meeting objectives
Session I	Productivity Adjustment
09:30 – 11:00	Data needed for productivity adjustment for Government
11:00 – 11:15	Coffee
Session II	Additional Items for Discussion
11:15 – 12:30	Informal Construction
12:30 – 14:00	Lunch
14:00 – 14:30	Education
Session III	Validation
14:30 – 15:15	Validating Basic Heading PPPs
15:15 – 15:30	Coffee
15:30-17:00	Clustering approach and procedures used in the validation of price data for core products

Day 2: October 4, 2011

08:30 – 09:00	Breakfast
Session IV	Extrapolating PPPs between Benchmarks and Estimation of PPPs for non Benchmark Countries
09:00 – 11:00	<ul style="list-style-type: none"> - Methods to extrapolate and interpolate between benchmarks - Incorporation of new benchmarks - Estimation of PPPs for non-benchmark countries
11:00 – 11:15	Coffee
Session V	Final Results and Revisions
11:15 – 13:00	2005 and 2011 Revision Policies
13:00 – 14:30	Lunch
14:30 – 15:30	<ul style="list-style-type: none"> - Presenting comparisons of 2011 and 2005 results - Presenting time series of ICP data
PPP Computation Task Force Meeting	
15:30 – 16:30	Implementing Linking Methods and Parallel Computations
16:30 – 17:30	Producing prototypes of validation tables

Annex 2. List of Participants

	Name	Organization
	TAG Members	
1	McCarthy, Paul	Chair
2	Vogel, Frederic	Deputy Chair
3	Biggeri, Luigi	University of Florence
4	Deaton, Angus	Princeton University
5	Diewert, Erwin	University of British Columbia
6	Dikhanov, Yuri	World Bank
7	Dong, Qui	Beijing Normal University
8	Douglas, May Julian	University of KwaZulu-Natal
9	Heston, Alan	University of Pennsylvania
10	Hill, Robert	University of Graz
11	Koechlin, Francette	OECD
12	Konijn, Paulus	Eurostat
13	Sergeev, Sergey	Statistics Austria
14	Silver, Mick	IMF
15	Timmer, Marcel	University of Groningen
16	Thomas, Jim	Bureau of Labor Statistics
17	Ziechang, Kimberly	IMF
	Observers	
18	Chinganya, Oliver	African Development Bank
19	Muwele, Besa	African Development Bank
20	Kouakou, Koffi Marc	African Development Bank
21	Palanyandy, Chellam	Asian Development Bank
22	Wang, Lei	China National Bureau of Statistics
23	Accibas, Valerica	CIS-STAT
24	Refayet, Md Ehraz	George Washington University
25	Espiritu, M. Angela	IMF
26	Hemmati, Mahnza	IMF
27	Kumar, Sanjay	India Central Statistical Organization
28	Kuznetsov, Vasily	ROSSTAT
29	Marconi, Salvador	UN-ECLAC
30	Dorin, Federico	UN-ECLAC
31	Savio, Giovanni	UN-ESCWA
32	Skaini, Majed	UN-ESCWA
33	Barnard, Germaine	University of KwaZulu-Natal
34	Diga, Kathleen	University of KwaZulu-Natal
35	Mabunda, Nyiko	University of KwaZulu-Natal
36	Meikle, Jim	World Bank Consultant
37	Roberts, David	World Bank Consultant
	ICP Global Office	
38	Mouyelo-Katoula, Michel	ICP Global Manager
39	Abels, Miglena	Consultant
40	Djayeola, Biokou Mathieu	Consultant

41	Hamadeh, Nada	Senior Statistician
42	Lee, Min Ji	Junior Professional Associate
43	Min, Kyung Sam	Senior Statistician
44	Rissanen, Marko Olavi	Consultant
45	Romand, Virginia	Consultant
46	Yamanaka, Mizuki	Consultant