

International Comparison Program

[07.04]

Note on Pricing more Global Core Items

Global Office



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1 Purpose

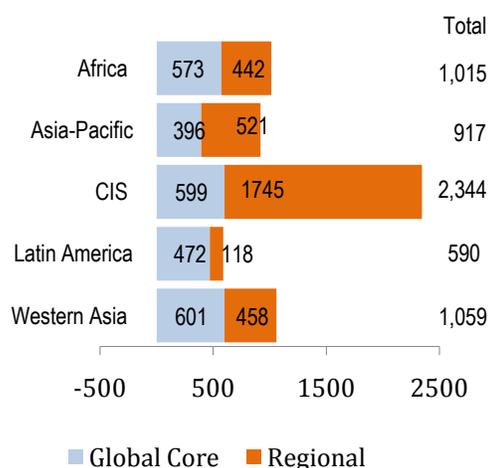
At its last meeting, held on February 20, 2011, the ICP Executive Board requested “the Technical Advisory Group (TAG) to submit by May 2011, through the Global Office, a technical note on the regional and/or global PPP impact, if any, of China’s pricing all 601 items from the Global Core list, instead of the sole subset of it which all Economies in the Asia and Pacific region jointly agreed to include in their price surveys.”

The purpose of this note¹ is to briefly describe the issue at hand and invite the TAG to reach a recommendation to be submitted to the Board to inform its decision. The question is whether prices of global core items collected by one Economy only in a particular Region should be included in the computation of between-region Basic Headings PPPs. The body of the note is divided into two main sections: a reminder about regional subsets of the global core list; and a brief review of the implications, at various levels. A conclusion is also suggested to help the TAG answer the question raised by the Board.

2 Sub-set of Global Core Items in Regional Lists

In the 2011 round, the global core list approach will be used to link within-region BH PPPs in order to produce global BH PPPs. Within this approach, each economy is expected to price a sub-set of the global core list consisting of 601 items. This subset is usually agreed upon at the regional level between all economies in the Region and included in the overall list of items priced within the Region (referred to as the amalgamated regional list of items). The graph below shows the number of Global Core items selected by each region.

Number of Items on Regional Lists



¹ The note was prepared by Michel Mouyelo-Katoula, Fred Vogel, Nada Hamadeh, and Immeddine Ijerbi, with input from Paul McCarthy, Yuri Dikhanov and Sergey Sergueev.

However, an economy in a Region may end up pricing more global core items than other economies in the Region. This issue can arise in two different cases:

- All the economies in a Region have agreed to include a subset of the global core list, but one economy decides to undertake extra-pricing;
- The entire global core list is inserted in a regional amalgamated list, but in the end, a particular item from the global core list is priced by one economy only in the Region. We can even have a case where for several global core items no binary link can be established between economies in the Region, either because only one economy priced each of these core items, or because some prices were rejected during the validation process to the effect of defeating the binary link principle. The latter can happen even when all the economies have agreed on a common subset of core items.

3 Implications of an Economy’s Pricing More Global Core Items

An Economy’s pricing more global core items than other economies in its Region can benefit, bias, influence or otherwise affect the program depending on the treatment of the relevant prices at the national, regional and global levels.

3.1 At National level

The additional pricing will benefit the Economy concerned in terms of capacity building and may improve the data validation process.

A particular Economy may consider undertaking this additional task in order to learn about the price levels of items deemed globally available and important. This can benefit directly or indirectly national statistical or economic programs and translate into an extended and improved Consumer Price Index (CPI) infrastructure and process.

It can also benefit the ICP data validation process at the national level. Indeed, comparing the prices of additional items with those of products from the agreed subset in a particular basic heading may possibly improve the quality of the Economy’s prices to be included in the regional computation. It will be critical that the concept of “important-less important” be applied to all of the core products to avoid possible bias because the products not on the regional core list may have different price levels.

3.2 At Regional level

The computation of within-region BH PPPs is normally done after compiling the average prices of the regionally selected products for all countries within the Region. At the computational level, if an Economy is pricing items that are not priced by other countries in the Region, these prices cannot be included in the computation of the regional results. These additional prices cannot be included in the data validation process at the regional level, as there is no binary link to other Economies in the Region. Therefore the additional pricing will have no bearing on the regional results.

3.3 Potential Impact at Global level

At the global level, if the additional products priced by the Economy only are included in the calculation of between-region BH PPPs, the relevant linking factors will be biased towards the Economy thus affecting the relative position in the world of the Region in question. While these additional prices would allow for more links with countries from other Regions, they will not change anything in the Region within-region results as the linking approach provides for the fixity of regional results. Including these additional prices in the regional linking process would increase the impact (weight) of the Economy in the between-region links. The magnitude of this effect will depend on the aggregation method used. If the Country Approach (CAR) is used at the BH level then the impact of the Economy's additional price data is reduced for the Region as a whole but the Economy will have more links with the countries from other regions and its PPP in the global exercise will be more robust.

The effect would also depend on the degree to which the extra product prices are representative of price levels within the Region as a whole. Given that these products have been excluded from pricing in the Regional list of products, the implication is that they are not commonly available in Economies throughout the Region and so their price levels may potentially be higher than the average for other products priced in each basic heading. Thus the use of the "importance" concept to assign different explicit or implicit "weights" for product prices depending on the importance of the product in the consumption basket of an Economy will be crucial in this case.

However, some rough estimation has shown that the magnitude of this effect will most likely be small. To illustrate, suppose a Region has 23 Economies, and that they have elected at the regional level to price 390 products from the Global Core List. If one Economy in the Region decides to price all 601 Global Core items, the effect of this additional pricing on the relative position of the Region vis-avis other regions in the Global results can be written as:

$$e = \ln(D) * [M / (m*(M-m+1))] * [(N-n)/N]$$

where:

D is systematic distortion,

M is total number of countries in the global CPD regression (around 200)

m is number of countries in Region (23)

N is total number of global core items (601)

n is number of core items priced in Region (390)

Thus, the effect of a 10% systematic distortion would be equal to

$$e = \ln(1.10) * (200/(23*178)) * (211/601) = 0.002$$

Nevertheless, these additional prices can be used by the Global Office in the price validation of the global core items across all Economies for quality purposes.

4 Conclusions

A country's decision to price more global core items than is actually agreed within its Region may result in better quality for that Economy's price data sets and sounder validation of price data for products in the global core list for all the participating Economies in the global program. Despite the possible benefits from having a broader range of products included in the link between the Region and other Regions, there is also a potential downside. Including these additional prices in the global PPP computation could potentially lead to a small bias in the link between the Region and other Regions (bias in the price levels and in the real expenditures). However, the relationships between the Economies within the Region would not be affected by the Economy pricing the extra products. The set of core prices will give rise to additional analysis and reviews of methodology that should provide additional insight into the estimation of PPPs across countries. While the ultimate use of the additional prices may be dependent on how the products were priced in Economies in other Regions, maximum use will be made of them in the data validation and future research.

5 Issues for Discussion

The TAG is requested to pronounce itself on the advantages and drawbacks of the above mentioned additional prices, and determine whether, beyond the Economy's own purpose and benefit (capacity building, CPI improvement, intra-country validation) they should also be:

included in the validation of prices at global level

included in the computation of between-region BH PPPs