

## **Executive Summary**

Regional Coordinators Meeting, September 13-16, 2005  
The World Bank, Washington D.C.

The purpose of this summary is to provide an overview of the discussions during the latest ICP Regional Coordinators Meeting. The primary purpose of the meeting was to obtain a comprehensive understanding of the data collection status by region, update work plans and data collection time schedules, conduct a preliminary review of data quality using regional level Quaranta tables, and do a final review of the product specifications for the consumption portion of the Ring list. The meeting began with a presentation of the status of data collection in each region. A summary of the regional status reports is available as Appendix 3. This was followed by a review of a set of requirements for regions and countries to participate fully in the ICP. Many of the following requirements were agreed upon in the March 2005 meeting.

### **Requirements for participation in ICP 2003-2006**

A paper summarizing the basic requirements for countries and regions participating in the program was circulated during the meeting. The requirements highlighted include:

- All participating countries are expected to collect and submit data for at least two quarters except for items where only a single data collection will be practical such as for housing. The main reason for two data collections is to identify problems with the correct products being priced and rectify other data problems such as outlet selection, number of observations, etc;
- Price collection may be limited to the capital city only if auxiliary data (such as expenditure weights and prices derived from CPI) are available to extrapolate national average prices;
- Countries must submit individual price observations to the Regional Coordinator. If this is not possible due to confidentiality reasons, average prices must be provided, accompanied by the following statistical measures – number of price observations, variance co-efficients, and the representativity indicator.
- Data review workshops should be completed at the regional level after each cycle of data collection. The Global Office will also organize regional workshops;
- Regional coordinators are to send preliminary average prices by item by basic heading by country along with the number of observations, variance coefficients and the representativity indicator to the Global Office for the regional data review workshops as well as final data once available.
- Basic Heading parities will be computed using the CPRD method as endorsed by the TAG. The methodologies adopted for the collection of prices for Housing, Construction, Government and Equipment have been recommended by the TAG. Any deviation from these methodologies will require approval from the Global Office.
- The Basket of Construction Components for the construction comparison and the global equipment specifications will need to be used by all Ring countries for the Ring comparison.
- Expenditure weights will be supplied for the 155 Basic Headings.

### **Data Access.**

About two months prior to the workshop, the Global Office sent each region a template to be used to submit the average prices and other diagnostics as noted in the above section. The LAC, W. Asia, and African regions met the requirements for the data submission to the Global Office. The Asian representative presented Quaranta tables for his region but did not leave data with the global office. The CIS region brought paper copies of three Quaranta tables with country names suppressed. Neither procedure, particularly that of the CIS, was acceptable by the other regional coordinators and the Global Office. Their expectation in the interest of data quality and transparency was that average prices, number of observations, variance coefficients and representativity indicators should be sent to the Global Office for its review and also for review by other regions at Global workshops to ensure consistent procedures are being followed and data of comparable quality are being collected across the regions. The Asia and CIS regions did not submit data because they felt this was in conflict with the agreements they had with the countries.

The data access issue is fundamental and will be taken to the Executive Board with the proposals for data access summarized in Attachment 1 at the end of this summary. The Asia and CIS regions are expected to review these matters with their respective constituencies to clear up any concerns or ambiguities and start reporting the same way as their peers. This will need to be done by both regions in time for the next global data review workshop scheduled for February 6-10, 2006

It was agreed that direction will be sought from the ICP Executive Board about the location of the Global data base at the end of the round. Each region will have a data base containing all regional results. However, for the global comparison and for analysis purposes, a global data base must be created. The global data base will contain national annual average prices by country by item, by basic heading, the number of observations, the variance coefficients, and representativity indicator.

The Global Office is the coordinator for the Ring country data collection. The Ring countries should be informed that their micro data will be forwarded to the Global office. The Ring price collection will also entail recording more descriptive information in addition to the actual prices. This descriptive information will be used to ensure like-with-like was priced and if not create new products, make quality adjustments, etc.

The Global Office will function as an official statistical office guaranteeing the strict confidentiality and integrity of all data placed in its custody. Necessary steps have been taken as outlined in the following section.

### **Data confidentiality.**

The ICP Global Office is bound by World Bank staff confidentiality agreements which are similar to those in National Statistical offices. The Global Office has drawn up a letter

to be sent to the head of each regional coordinating office defining the principles of data confidentiality to be applied to ICP and the procedures to be followed to ensure the integrity of the process. Regional Offices will submit data and other sensitive information to the Global Office via **PPP2005@worldbank.org** - a secure address with limited access. The data will be moved immediately to a secure directory with the status “Strictly Confidential”. Access will be restricted to recipients defined by the originating organization following World Bank rules.

As regards the product list, it was decided in the meeting that the product catalogs as prepared for internal use will not be made public on websites. However, an informative version of the catalogs will be prepared for public information purposes. These will not contain specific references to brand names. The regional coordinators are requested to make specific proposals regarding how general the public version should be and when it should be made available.

The Global Office also clarified that while countries own the micro data, the ownership of average prices and PPPs rests with the regional coordinators and the Global Office.

### **Data Review.**

Four regions provided an extensive review of Quaranta tables for the other regional coordinators and the Global Office. These regions have also held data review workshops to review the same results with the national statistical offices. The problems the regions found during their data reviews with the country coordinators were discussed and proposed solutions offered. The data review each region shared with the other regional coordinators showed good examples where the results were consistent between exchange rate and PPP indices and small variance coefficients. Other examples were shown where problems were identified during their regional reviews. The problems found during the discussions with the national statistical offices as well as during the global review included:

- Incorrect units of measure. An example involved counts such as one battery vs. a pack of two batteries.
- Different units of measure. For example kilograms used in one country; another using liters.
- Wide ranges in the units of measure. For example, some regions had ranges more than twice as large as other regions leading to large variance coefficients because of the additional variability imposed.
- Specification errors. The data review showed that often large variance coefficients were the result of loosely defined specifications. An example is when high and low quality products were priced, or when no brand was specified.
- Too few observations. Some large countries were only reporting 5 or fewer observations.
- Too few products. The result is an incomplete matrix requiring imputation of PPPs and a loss of robustness in the basic heading comparison.
- Products only collected from high-end outlets.

Several questions were raised by the regions. One of the issues is that not all countries will be collecting data over the full calendar year. They request guidance on how to prepare national annual average prices. Similar questions apply for the data collection to be done in 2006.

### **Actions Resulting from Data Review.**

The following are actions undertaken by the regions to review data as well as requirements resulting from this review.

Survey guidelines regarding the unit of measure issues should be updated.

Products with wide ranges and loose specifications will need to be reviewed. If it is felt that specifications cannot be tightened for some products, they will be removed from the list. Regions are encouraged to create new products where required.

Countries need to comply with the minimum number of observations required. The table shown in attachment two was reviewed. It was agreed 15 observations should be a minimum for each data collection period. Larger countries with more diversified economies will need to price more than the minimum to capture their market realities.

Countries that have limited their collection to upscale outlets are asked to make their data collection more representative.

The Latin American region has completed a collection and review of medicines and medical products. Other regions were planning do only one data collection to take place in quarter IV this year. The LAC review of this category revealed more price variability than expected and also more problems than expected matching comparable items. The coordinators recommend the creation of a brand matrix consisting of international, national and local identifiers vs. generic and branded products. They also recommend two price collections because of the specification problems.

### **The issue of own account consumption.**

The issue is how to price own consumption when estimating the national annual average prices. The CIS region uses base prices for own consumption and weights these with market prices for the rest of the consumption at the item level. This primarily affects food items; the base price is a producer or farm gate price. Other regions said they assume the own consumption is priced at market prices requiring no further adjustment. In both instances the procedure in place is consistent with how countries include own consumption in their national accounts. The standard for SNA is to price own consumption using base prices.

For ICP purposes countries are required to apply parities to the official GDP and it is accepted that there will be some inter country inconsistencies. This will be acknowledged in publication through the use of meta data.

## **Machinery and Equipment.**

The Global Office provided generic global SPD/PS which the regions can use for their data collection by adding more detailed specifications and identifying models and makes to reflect what is available in their countries. Latin American countries are reviewing import data bases as part of their preparations. The issue is that in other regions, the collection of these items requires the use of technical experts to complete the pricing and data collection exercise. They will be hiring regional experts to develop the more detailed specifications for data collection. The collection in the CIS region is underway. The LAC will be conducting data collection Dec 05-Feb 06. and the Africa, region is preparing for a Quarter I and II 2006 collection.

The Asia and W. Asia regions have a funding shortfall that could delay their data collection efforts. The issue was whether the other regions should continue with their data collection plans. It was agreed that the LAC, CIS and Africa would continue with their plans under the assumption the Asian and W. Asian regions would be funded.

It was also agreed the Global office would prepare a core international equipment list, mainly to minimize the extra data collection required by the Ring countries.

A question was raised about how the equipment and construction data would be processed as it does not fit the Tool Pack format. Data collection forms will be prepared by the Global Office. These forms will be designed to capture all price determining characteristics and be used for computing average prices. The averages would then be uploaded into the Tool Pack for PPP calculation and aggregation. If hedonic estimation is warranted, this will be done as part of the estimation of average prices.

## **Housing**

Appendix 3 contains a table presented by Alan Heston that will be reviewed by the TAG. The issue is that it will not be possible to conduct rental surveys in many countries. The proposal to be taken to the TAG is that the data used to prepare the housing expenditures for the expenditure weights also be used to prepare unit values for housing rents and imputed rentals for owner occupied housing.

The LAC will be using data from real estate sales organizations and urged other regions to consider this approach.

The Quantity approach will be used in the absence of any other approach. The worksheet in appendix three contains the necessary data requirements for this exercise as well.

### **Ring Data Collection issues**

The Global office provided an overview of the process to prepare the Ring product specifications. Several technical questions were raised during this discussion and suggestions surfaced.

- There was a concern about seasonal items. For example, while a product may be available in every country, it may be very expensive in one and cheap in another because of the seasonality effect. It was suggested these products may need to be split into two products to reflect their respective seasonality.
- Should average prices adjusted to national annual prices or taken as “as is”. This question will be taken to the TAG.
- It was suggested that a subset of occupations should be defined for the Ring comparison which would only include positions present in NSO’s, Ministry of Finance, etc.
- There was a question about how own consumption should be considered since the regions differ in their procedures. It was agreed each Ring country would follow the same methods used for their regional comparison.
- It was requested that the Global Office prepare core specifications for the equipment and construction sector comparison for the Ring comparison.

It was agreed that all Ring countries would use the Basket of Construction Components for construction and the Global Office equipment specifications for the Ring data collection.

### **Summary of Data Collection and workplan issues.**

- Data collection for consumption items will continue through Quarter I 2006 in order to complete two data collections for many items.
- Regions only planning one collection of prices for health were encouraged to continue into 2006.
- Data collection for the Ring program will be in Quarters I and II, 2006.
- Data collection for construction, equipment, housing, and government will mostly be in 2006.
- Regions will publish preliminary PPPs for consumption items in Quarters III and IV 2006.
- Regions will publish preliminary PPPs for GDP Quarter IV 2006 or Quarter I 2007.
- PPPs for the Ring comparison will follow the regional time frame.
- Time tables included in appendices.

### **Countries with unstable currencies.**

**Some countries use the US dollar in addition to their own currency for market transactions. There is usually considerable variation in the exchange rate from day to day and from trader to trader. This is a problem in countries such as Congo and**

**Iraq. The data from these countries may not be used in the regional comparison, but** would be used in supplemental analysis to determine their PPPs.

### **Fixity**

Regional rankings will be preserved when Global PPP results are published as recommended by the TAG. Procedures to maintain regional rankings may be seen in Chapter 13 of the ICP Handbook which is available on the ICP website.

### **Tool Pack issues**

The Tool Pack is being used in Asia and W. Asia. All countries in W. Asia are using the complete package as are 16 of the Asian countries. Six Asian countries are using the PAM and DPM. The CPI is not used at the national level in the LAC region because the ICP is a part of each countries CPI with systems adequate to produce micro data with the required detail. Africa has prepared simpler software for country use for data collection and national data review. The CIS region is using software resulting from the European comparison. Africa and Latin America are using the Tool Pack to prepare regional quaranta tables. One Latin American country is using the full Tool Pack system.

New utilities in the Tool Pack include computation systems (a) for Weighted Averages and (b) to re-compute converted (reference) prices of products from observed prices, quantity and UoMs, using "Preferred Quantity" and "Preferred UoM", per the Regional Product list. Tool Pack questions raised by Regional Offices and the response from the Global Office IT team can be seen in a power point presentation available on the ICP website. A summary of some of the issues discussed follows:

- The Global Office IT team has disabled the editing function in the Tool Pack to prevent countries from changing "Preferred UoM" and "Preferred Quantity" values from the product specifications without the concurrence of the Regional Office;
- It was agreed that no further changes would be made to the DPM that would in any way conflict with other functionalities already in place in the system (this was a response to Asia's request to display Preferred Quantity and UoMs in the Quranta Tables);
- Statistics Canada reported a failure in the "BH and above" index aggregation process. This happened because items under a few BHs did not have any prices recorded. So the PPPs at the BH level could not be computed by the Tool Pack.
- A functionality allowing price collectors in countries with varying price structures (like Nepal) to set up independent outlier limits in the PCM will be difficult to implement at this stage but will be considered for future versions of the software;
- African Development Bank (AfDB) IT security guidelines do not allow the ToolPack to be installed on their computers due to the Tool Pack's use of Microsoft's Internet Information Server (IIS) as a prerequisite for its

installation. AfDB has developed a software – SEMPER - to facilitate data entry and merging as an alternative but are using the DPM to generate Quaranta Tables;

- The Global Office fully appreciates the interest in the CPI utility of the ToolPack in Africa but at the moment their focus is on the ICP aspect of the software.

### **Other discussions.**

- The objective is to finish data collection in 2005. It has become clear that not all countries or indeed regions will be capable of submitting prices for two quarters in 2005 as previously agreed. This will require they collect prices in 2006 for at least one quarter. Price collection for other components of the GDP and the Ring will also be done in 2006. The issue of how to convert 2006 prices to 2005 for the global comparison will be put forth to the TAG;
- The Global Office (Yuri Dikhanov) will package the “Dikhanov analysis table” as a standard data cleansing process in a user friendly format for the Regional Offices;
- The Global Office will provide a subset (core international list) from the regional Equipment and Construction list for the Ring Comparison;
- The Global Office will identify a subset of Government Occupations for the Ring Comparison.

### **Next Regional Coordinators Meeting**

- Tentatively scheduled for February 6-10, 2006. Regional Coordinators are requested to inform the Global Manager about their availability.

### **Ring Meeting**

The Ring Meeting, September 19-22, was an extension of the Regional Coordinators Meeting focusing on finalizing the Ring Product list. The procedures used to build the Ring List was revisited at the beginning of the meeting (please see power point presentation on the ICP website). A draft catalogue, published by the Global Office, was circulated and revised.

The objective of the meeting was to draw on the knowledge and experience of regional coordinators and country price statisticians to re-assess and fine-tune the draft Ring Product list. Surveys for the Ring Comparison will take place in the 1 and 2 Quarters of 2006. Prices will be collected in capital or major cities only.

The draft Ring list is a reduced, standardized and harmonized version of the product lists created by each of the 6 regions for the Regional Comparison. The original consolidated regional list of over 5,500 products was reduced to about 1200 in the Ring list. Products



that made the final cut met representativity, comparability and statistical value (based on needs for running elementary aggregation with CPRD) requirements. The number of items in each Basic Heading in the final list depends on:

- The expenditure share of the Basic Heading in question
- The homogeneity of the items in the basic heading
- The expected price variation of items within each basic heading

Participants in the Ring meeting reviewed the draft catalogue and proposed changes and modifications in range, size, quantity and images based on their country experiences. Many of the images in the catalogue appeared to be more representative of high-end markets and will need to be replaced. Quantity ranges were often found to be too wide. Duplicate items were removed from the list.

A major challenge for participants in the meeting was to maintain a balance between high, medium and low-end products in the list to reflect the economic situation and consumption pattern of the Ring Countries. As a result “brand” and “quality” issues were discussed in detail. It was decided that the issue of ‘Brand’ would be dealt with individually based on the needs of each basic heading. It was agreed that the emphasis would be on pricing medium range products with an adequate balance of low-end and brandless items. Due to the global presence of some multinational companies and brands it was also deemed important to include some specific branded products, particularly in Household appliances, Electronic goods and Clothing, etc. Where specific brands are mentioned price collectors will be asked to price equivalent or comparable brands in their country. Brand stratum of high, medium and low is to be introduced to better capture “quality” and price differences for certain basic headings. Extensive guidelines are to be provided to guide price collectors in these issues. The guidelines will advise the price collector that if multiple items meet the product specifications, prices for 2-3 should be recorded to reflect the range.

It was agreed that the Global Office would make the modifications recommended in the meeting and send the draft list to the participants on 15 October. Regional Coordinators and other meeting participants would review the list and send any comments to the Global Office by 23 October. It is expected that the final Ring product list containing Consumption items will be sent to the regions on 30 October.

END

## Appendix 1.

### Access rights to ICP input data and results by type of user

ICP input data and results \ Type of user	Public	NSI of participating countries with regard to data of other countries in the region	Government departments of participating countries	Scientific institutes, researchers, other international organisations	Regional coordinators for the countries in their region	Global Office for all countries <sup>1</sup>
Aggregated ICP results and survey level results (PPP, volume index, PLI) down to the level of analytical categories	yes	yes	yes	yes	yes	yes
Item list for price surveys, questionnaires for collecting other input data	no	yes	yes, restricted procedure	yes, restricted procedure	yes	yes
Price survey results at basic heading level (PPP)	no	yes	yes, restricted procedure	yes, restricted procedure	yes	yes
Average prices per item	no	yes	yes, restricted procedure	yes, restricted procedure	yes	yes
Individual price observations	no	no	no	no	yes	No, except for Ring compariso
GDP expenditure weights and CPI at basic heading level	no	yes	yes, restricted procedure	yes, restricted procedure	yes	yes
Salaries, rents, quantity information for housing	no	yes	yes, restricted procedure	yes, restricted procedure	yes	yes

<sup>1</sup> If the Global Office wants to analyze Eurostat/OECD PPP comparison data below the basic heading level (see footnote 4 ), it has to consult the restricted regional database.

## Appendix 2.

### Determining the number of outlets.

The target number of outlets depends upon two factors. One is the variability of the individual prices around the population mean. This measure of variability is called the Standard Deviation. The coefficient of variation (CV) is the Standard Deviation (SD) divided by the mean. A CV of 30 percent means that two thirds of the individual prices will lie within plus or minus one SD from the mean. A CV of 40 percent means that 90 percent of the individual observations will be plus or minus 2 SDs.

Variations in prices can depend on several factors. One would expect more variability in prices across a country than there would be within a capital city. In addition, there will be more variability if measuring prices across time vs. a point in time. Last but not least, variation can become large if the products are loosely defined or units of measure have too wide a range.

The mean and SD are population parameters. It is not possible to include every possible outlet in a country and observe every price for the ICP. Therefore, a sample of locations around a country and a sample of outlets within each location are selected. The issue that comes up is how many outlets should be selected. The table in the next page was prepared to provide some guidance.

Once one has information about the CV, the next thing is to determine the target precision. One could select a large number of different samples of outlets and collect data from each. Each sample of outlets would provide average prices. Precision is the term used to describe the variation in the different sample means. The SD divided by the square root of the sample size is a measure of the sampling error (SE). The SE divided by the mean is the relative sampling error and can be used to determine the sample size needed for a target level of precision.

The table below shows different measures of the CV across the top row. The target precision is shown in the left column. One can choose a desired level of precision and read across the table to find the CV to find the number of outlets required to achieve it. Different target levels of precision can vary depending on the importance of the product in the price comparison. However, they should not be greater than 15 percent and lower for important items measured across the entire country. A general guideline is that a minimum of 15 observations should be made for each price collection.

**Samples sizes by target precision, and relative standard deviation of item being priced-- .10 significance level**

Target Precision	Relative Standard Deviation--				
	0.1	0.2	0.3	0.4	0.5
	n	n	n	n	n
5	14	45	100	176	273
10	5	14	27	46	70
15		9	14	22	33
20		5	9	14	20
30			6	9	14

Target Precision=  
Estimated price +/- 5 percent 90  
percent of the time

Standard Deviation approximately =  $1/4(\text{maximum minus minimum})$

Relative Standard Deviation =  $(\text{Standard Deviation}/\text{Average price})$

Measure of variability of prices

If relative SD >.5, need more tightly specified product  
Consider importance of BH

six pack beverage

max= \$6.00

min = \$3.00

Standard deviation =  $3/4=$ \$.75

mean = \$4.50

relative SD =  $.75/4.50=$ .17

Target precision(.05) n=45

Target precision).10) n=14

### **Appendix 3.**

#### **Summary of Regional Status reports.**

Each region gave a very complete overview of their situation. Their Power Point presentations are available on the ICP website under the meetings tab. In addition two regions submitted written comments. These are also on the website.

W. Asia. Data collection took place during the first quarter in 8 countries with two more beginning in the second quarter. Yemen has only completed partial collection and the United Arab Emirates has dropped out of the comparison. Eight countries have submitted data for data review. Future data review workshops have been scheduled. The region expects to continue data collection into 2006. Egypt is participating in both the African and W. Asia comparisons in addition to being a Ring country. One of the discussion points was that a country cannot be in two regional comparisons. One proposal was that Egypt would appear in the African comparison. Their results in the W. Asia comparison would appear as special analysis in that report. The issue is that a country cannot be in two regions when doing the global comparison because it would have two PPPs raising the question which one is to be used for the global PPPs.

Latin America. Ten countries have been collecting data over the calendar year and will be preparing PPPs at the full GDP level. The ICP draws heavily on the national CPI operation for the sample of outlets, the product specifications, price collection and the country level editing and computations. The coverage is urban areas in all countries. Data collection occurs during a 4-6 week period each quarter. The region initiated the concept of having quarterly data review workshops which has been adopted by most of the other regions. The region is planning a video conference on 12 October to establish criteria for the concordance between national and ICP classifications. Preliminary publication for consumption will be June 2006 and for the full GDP in December 2006.

CIS. The CIS presented a table showing details by country on number of priced items, types of outlets, and periodicity of price collection. Eleven countries are participating—Uzbekistan has dropped out of the program. Four countries are pricing in the Capital city only. All take own consumption in account in the preparation of average prices. The table showed the number of price quotations per item. This raised many questions because the numbers ranged from 5 to 100. This led to the recommendation that a minimum number of observations must be met. The region has reviewed 2004 data, but has not held a data review for 2005 data being collected. Data collection for investment goods is also underway.

Asia All 23 countries started data collection by April 2005. Some started during the second quarter. Four countries surveyed only food during the first quarter. Twenty one countries computed average prices for the first quarter. As of July, twenty-two countries

had surveyed the full consumption basket. Seventeen countries will submit prices with a rural/urban dimension. Data review workshops have also been held. Nineteen countries have submitted GDP weights ranging from 2002-2004. All but one country will be participating at the full GDP level. The region has held numerous Tool Pack training workshops for the countries.

Africa. Forty three countries have conducted pilot surveys. Thirty nine countries so far have met the requirements for full participation in the ICP. Regional workshops were held on data quality; in addition a major effort went into sending staff and consultants into 41 countries. The first round of data review workshops has been completed with a schedule for the remaining. The region prepared a template for pharmaceutical products and a set of survey guidelines. The region is not using the Tool Pack at the country level. The decision was made when the fund transfer delayed data collection and the purchase of computers to concentrate on getting the countries started and not to use the Tool Pack. The AfDB developed a software, coined SEMPER, for country use. The software was demonstrated in the meeting. The region described its plan to calculate national average prices with less than a full year of data. Finally, the region acknowledged the valuable contributions of ONS, UK and INSEE, France.

Eurostat/OECD. An overview was provided of the Eurostat/OECD data collection schedule and actions taken in support of the Ring program, statistical capacity building, and work with the AfDB to support the ICP Africa. The region, while it conducts its own comparison program, will be a full participant in the Ring comparison. In light of this, the Ring countries under the coordination of the ONS have conducted pre surveys of the draft Ring list. Questions were raised about how to deal with seasonal items, funding translation and uncertainties over the Ring time table for investment items.

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