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## **Objectives of the ICP 2011**

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## **I. Introduction**

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The International Comparison Program (ICP) will soon be implemented as a true global initiative for the second time, with the reference year 2011. It will build on well programmed activities of a wide network of national and bi- and multi-lateral institutions that will engage in methodological research and review, survey activities and data processing and analysis in the areas of price statistics and national accounts and related fields with a view to estimating purchasing power parities (PPPs) of the world's principal economies.

It will have a wider geographical coverage and a broader technical scope.

## **II. Objectives of the 2011 ICP**

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### **A. Scope of the 2011 round**

#### ***1. Building on the previous ICP round***

The 2005 ICP was the largest ICP round to date, covering 146 economies from five geographic regions: Africa, Asia and the Pacific, Commonwealth of Independent States, Central and Latin America, and Western Asia, and the countries of the regular PPP program managed by the Organization for Economic Cooperation and Development (OECD) and the Statistical Office of the European Union (Eurostat).

Following its successful completion under the World Bank management, the UNSC requested the Bank to take on the global coordination of the 2011 Round, which was officially accepted.

The 2011 round of the International Comparison Program (ICP) will leverage on the successful implementation of the 2005 round which, based on a concerted effort by international and national statistical agencies, was better planned, managed and coordinated than ever.

In a paper on "Lessons Learned from ICP 2005" submitted to the present meeting, Fred Vogel provides an exhaustive summary of the ICP assets earned from the previous round. They cover seven main categories:

- Item lists – regional specifications for household consumption products; household consumption specifications for the ring exercise; global specifications for health, education, government compensation, machinery and equipment; global specifications for housing quantities.

- Specific methodologies – Basket of Construction Components—a new method needing a serious evaluation to overcome shortcomings caused by data collection difficulties and lack of understanding about required weights.
- Linking the regions; ring methodology used to link the regions into the global comparison.
- Knowledge base - the ICP Handbook that provides the theoretical and methodological framework for the ICP; the ICP Operational Manual which supplements the Handbook; various research papers on a wide spectrum of ICP issues.
- Data processing – A family of software tools was developed to rationalize, automate and streamline various ICP processes (Structured Product Description; developing product specifications, data validation, analysis, etc.).
- Policies on data confidentiality, access by researchers. Procedures were agreed upon to maintain data confidentiality, yet also provide researchers access to unpublished data for more in-depth analysis.
- Capacity Building—experience gained by the global, regional, and national organizers on defining prices, price collection, analysis, and improving national accounts provides an improved foundation for moving forward.

While a lot was achieved in the previous program, the amount of work ahead remains daunting. It includes actions aimed at finalizing or implementing recommendations of the ICP Interim Technical Advisory Group, as well as other innovations and improvements deemed necessary.

### *A broader scope*

The ICP Global Office will work to broaden the scope of the program, streamline quality assessment processes, improve the poverty relevance of PPP statistics, ensure the sustainability of PPP delivery, and enhance statistical capacity building activities related to the generation of ICP basic data with a specific focus on price statistics and the implementation of the System of National Accounts (SNA-2008).

The coverage of the program will be enlarged to accommodate up to 47 additional countries from Africa (3 countries), Central America (5), CIS (2), Latin America (10), West Asia (2) as well as smaller countries from Caribbean (12) and Pacific Islands (13).

The ICP work will cover the period 2009-2013.

### **B. The 2011 ICP: a round of innovations**

The first 18 months in the program lifespan will be devoted, besides institutional setting up, to defining and preparing critical improvements to the methodologies and implementation approaches of the program to ensure that it better responds to global demand for cross-country comparison.

These innovations will be carried out by experts in the relevant areas, in partnership with private/public research and development agencies. They consist in:

1. Reaching out to the users – by organizing an international users conference in partnership with all ICP international and bilateral partners. In addition to international organizations (IMF, WHO, WTO, OECD, Eurostat, E.U., World Bank, AfDB, ADB, UNDP, etc.) that are the major users of ICP statistics, the ICP Global Office will also reach out to a wide variety of potential users that have created their own sectoral systems of collection, retrieval, management and analysis of data (prices, costs, expenditures) on global services and operations.
2. Better addressing users' needs through improved methodologies in terms of:

- a. Enhancing the program's economic relevance – by establishing or reinstating in a concrete manner, the system of National Accounts as the reference framework for the determination of PPPs. This entails specifying the detailed ICP requirements for national accounts data, the major uses of these data and possible methods of imputing detailed (e.g. basic heading) data for those countries that do not compile their accounts at the level required for the ICP.

These requirements will be useful to all the countries, whether they are implementing the SNA for the first time, or improving their national accounts, or upgrading the coverage of their accounts (particularly producing expenditure-based GDP estimates for the first time), or their national accounts meet all the standards of 1993 SNA, and they will review them against the set requirements.

- b. Ensuring greater consistency between prices and expenditures - This will include specific tasks of ensuring consistency between survey prices and national accounts: a price monitoring approach will be developed and principles related to global pricing strategies (used by multinational companies) will be taken into consideration in designing a price benchmarking system.
- c. Comparing investment expenditures and price levels from a National Accounts perspective – A new approach for construction PPPs will envisage collection of prices/rates for three types of resources: labor (rates of equivalent labor), materials (with adjustment for quality differentials), and equipment rentals. In addition, data on taxes/fees/margins etc. will be collected also. The three types of resources will be broken down further into groups (steel, cement etc), which will be sampled with individual tightly specified items (cement of such and such quality, etc.).

As regards equipment PPPs, the 2005 list of specifications will be thoroughly reviewed by addressing the issue of price determining factors. The ICP considers identity as the key principle for selecting and comparing equipment prices across the countries. Yet, for some reasons, different versions of the same equipment item can be manufactured to meet the specificities of the various regions/countries where they will be sold. In terms of technical performance, these versions can be equivalent and should be treated as the same

item. However, if prices are different across the countries, this could be explained by tariffs, local conditions, tax policies, etc.

- d. Revisiting health methods from the standpoint of service delivery – The objective for health services, whether public or private is to develop a parsimonious instrument for collecting total costs, intermediate outputs, and associated variables from health production units.

While pursuing research on education PPPs, we aim to improve the implementation of the method used in 2005 for public and private education services.

3. Capacity building and knowledge sharing – For sustainability, transparency sake, the program will include capacity building activities: develop training modules; conduct training at regional and country level; partner with universities and statistical training centers in each region in the world. Also, a book on PPP theory, methodologies and computation processes will be prepared and the ICP website will be revamped.
4. Consistency in time and space analysis of PPPs – Pilot exercises are underway in Asia and Africa using 2005 prices as benchmark and compiling PPPs for 2009 on the basis of a reduced version of the 2005 list of items. This work is expected to be extended to all ICP regions with a view to reducing the ICP workload in the future and making the ICP an almost by-product of countries' routine activities, with minimal additional survey efforts. This way, the ICP will become an annual activity, yet requiring far less financial and time resources than an ad-hoc round conducted every 5 years.
5. Data Quality Framework - A Data Quality Assessment Framework (DQAF) for the ICP has been developed and will be enforced through an effective quality check list to evaluate the quality of: (i) ICP processes in countries, regional offices, and the Global Office; and (ii) input and output ICP data. The aim of this framework is to introduce rigor, structure, and a common language in the assessment of the quality of microeconomic data. The framework recognizes the complexity of the data collection and the statistical arrangement at the national, regional and Global levels. At the national level, the price collection framework should ensure that prices collected are suitable for the calculation of annual national average prices. At the regional level, the recording system should ensure the consistency between prices and national annual prices or accepted procedures that are used to estimate national annual average prices. At the Global level, the most innovative contribution is the elaboration of a Global Core Item List for each price survey.

### **III. Product Specifications**

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#### **A. Global Core Item List for the Main Survey**

Under the ICP 2011, the Global Office wishes to improve some aspects of the existing body of methodologies, including the process of linking the regions into Global PPPs. As far as the latter is concerned, the approach proposed consists in using core items identified by the Global Office (GO) from goods and services surveyed as part of the Ring exercise in 2005. The core list of consumer goods and services is a selection of items obtained through a process that ensures that, at global level, core items reproduce the same PPPs for the 2005 Round as the entire list. The core list should be part of each regional list. Relevant items will be priced by all countries in each region [and sub-region]. Prior to implementation, the Global Core List will be thoroughly reviewed by national coordinators, regional coordinators and the Global Office. It was prepared by the Global Office and sent to all the regions as well as OECD and Eurostat.

#### **B. Health & Education**

Irrespective of whether research on health and education PPPs will yield new approaches for collecting data for the estimation of PPPs for these services – market or non market-, methods that were used in 2005 will be carried over in 2011, at least for consistency purposes. If the ongoing research proves successful, both the 2005 and the new methods will be implemented, otherwise only the old methods will be used.

To effectively implement the 2005 method for public health and education services, countries are advised to entrust the relevant activities to their national accounts experts, given the tight relationship between relevant expenditures (sum of government compensations of employees at national level) and underlying compensations values. Nine (9) steps are recommended: identification of categories of government units; stratification of government units; initial data collection; scale adjustment; determination of modal salaries; calculation of [weighted] average of all modal salaries for each occupation; data collection on total salaries by category of government units; completing a table of data and other information per occupation; consistency checks and validation.

Survey instruments necessary to implement the 2005 methods for private health and education services will be improved by mid-2010, in terms of: updating the specifications; designing sound and user-friendly survey forms; preparing detailed and clear guidelines for survey design, data collection, price averaging, national accounts activities to be conducted in relation to health and education, data validation [both prices and national accounts data], and adherence to quality requirements. In the meantime, the Global Office has formatted the existing specifications into SPD (structured product description) templates to make it easier for regional coordinators to review them and propose any changes deemed necessary, with a view to arriving at the final specifications that will be implemented in all the countries.

## **IV. Housing and Gross Capital Formation**

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### **A. Quantity Approach, Rental & Reference PPPs**

In the 2005 Round of ICP, regions used one or a combination of three approaches to compute PPPs for rental housing. The first approach is the quantity method (physical measures of the numbers and characteristics of dwellings were used). The second approach was the direct rent approach (rental data for comparable housing types). The third was the neutral approach in the sense that housing had no effect on the overall PPPs for individual consumption. This method was used when there was an absence of detailed rental data and detailed information on the numbers and characteristics of dwellings.

Based on the experience with ICP 2005, the quantity method could be improved in several ways, by: developing editing, cross-checks and consistency procedures; identifying quantity indicators such as the total surface area of dwellings and the number of rooms; adding other quality indicators to those used in ICP 2005, such as the number of persons per room; calculating separate volume indicators for different kinds of dwellings; and defining ways of determining weights to obtain a national volume indicator. Additional avenues are being pursued that include partnership with specialized institutions.

### **B. Surveys on Gross Fixed Capital Formation**

#### ***1. Construction***

A new method was introduced in the 2005 ICP. In practice, it falls in between the input and model based approaches. It was termed the “basket of construction components” (BOCC) approach, and it involves pricing identifiable, complete, installed components (including the materials and labor), plus the cost of hiring any capital equipment used. The product list focused on components (such as a column footing) that were significant in the total cost and then identified the major elements of each. The types of inputs and the mix between labor and equipment differ between economies. The BOCC approach took into account such variations in the mix of inputs. The Global Office selected components which represented the principal types of construction activities around the world. Twelve basic construction inputs (such as labor, equipment rental costs, and selected materials) were also priced. These global specifications were priced by all ICP regions. Construction contains three basic headings: residential buildings, nonresidential buildings, and civil engineering projects. PPPs were first computed within each system using the cost data for each component within it, the same as if they were product prices. These were then weighted separately to the three construction basic headings.

But the BOCC method has some disadvantages in that it is based on estimated bid prices, not actual market prices; it may not fully account for contractors’ margins; it is difficult to establish average annual and national price levels; it does not take account of project size or complexity; it may not accommodate the full range of types of construction work; it does not accommodate work to existing buildings (repair, maintenance and

improvement); it proves difficult to aggregate components to sectoral or national totals; and it has no established consistent relation to National Accounts.

For 2011, the Global Office has prepared a concept note on the need for an alternative method to be developed. The concept note recalls major approaches that have been used over the years to collect price data for international construction price comparisons. These have been based on input prices, output prices, intermediate prices, and some combination of the above. It proposes an approach based on input prices weighted to represent national construction output, the weighting being based on input-output tables.

## ***2. Equipment***

Pricing the goods underlying investment expenditures on machinery and equipment was a problematic area in both the regional and the ring comparisons. The approach adopted was similar to the one for consumption Global Office goods and services, for which SPDs were used as the starting point. For machinery and equipment, the 2005 Global Office prepared the SPDs on a worldwide basis and developed the product specifications.

The new Global Office prepared an initial Global core list of equipment items using a core list generation tool. The list will be reviewed through an interactive process requiring the close collaboration of the ICP Global Office, the Regional Coordinators, and National Coordinators. It will then be submitted to an equipment expert who will: compare the Eurostat-OECD and the ICP lists to highlight differences and similarities and make concrete proposals in terms of defining common items that will be priced under each of the two PPP programs; update the list and make sure that it contains common items with Eurostat-OECD as well as other items deemed relevant for pricing in non Eurostat-OECD countries in the world; address the issue of price determining factors; prepare a note on Global Pricing strategies for equipment products.

Also, the 2011 Round will aim to improve analysis through the following measures: (i) defining clearly the relationship between exchange rates and PPPs for imported machinery and equipment; (ii) describing all the information and its respective sources required to combine PPPs with exchange rates in order to calculate PPPs for machinery and equipment; (iii) designing a questionnaire that could be used for 2011 Round of the ICP and testing the feasibility of the questionnaire in about twenty countries including some with well-resourced offices as well as some with limited resources; and (iv) explaining the practical procedures for using the information collected in the questionnaire as well as from international sources to calculate proxy PPPs.

## **V. National Accounts**

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The Interim TAG recommended the establishment of a Joint Working Group with representatives from the WB, IMF, EU, OECD and the African national accounts working group to develop a strategy for the improvement of national accounts data used by ICP. It was recommended that the group should also include a national accounts expert and an expert on Household Expenditure Surveys from the World Bank.

The Joint Working Group is being established. OECD, ESCWA, the African Development Bank and Eurostat have already agreed to participate in the group. Some initial reference documents are also being prepared which will be submitted to the Group for review. This includes the National Accounts Framework for ICP and Guidelines for the implementation of National Accounts activities for ICP.

### **A. A framework for ICP**

It emerges from lessons learned in the implementation of ICP 2005 that some specific sections of the SNA-1993 must be extracted in a coherent manner and completed with additional material (on supply and use tables, price and volume measurement, etc.) to form the national accounts framework for ICP. The framework will build on Chapter 8 of the ICP handbook and include additional write up on the consistency between prices and GDP aggregates.

In his paper on the delineation of a National Accounts Framework for ICP, Paul McCarthy presents broad issues relating to national accounts and the ICP and to defining the national accounts framework that is going to be used in the ICP. He provides “some ideas on national accounting issues that should be included as part of the final framework”. “A complete description of this framework and the implications for its use in the ICP will be contained in the national accounts chapter in the 2011 ICP Handbook”, which will be available by mid-2010. According to McCarthy, “one question that needs to be answered is why do we need to define a national accounts framework for the ICP when the *System of National Accounts, 1993* (i.e. the “1993 SNA”) already provides the international framework for national accounts. In fact, the main output from the ICP is a set of comparable estimates of GDP expressed in a common currency for the majority of countries in the world, with the definition of GDP being consistent with that in the 1993 SNA. Therefore, it is clear the ICP uses the 1993 SNA as the national accounting framework, but there are some specific ICP requirements that mean it is necessary to make some modifications and clarifications. For example, the ICP uses a special product classification, which is required because of its use as the starting point for specifying the product lists to be priced for the ICP. In addition, a number of the GDP components pose special problems for the ICP that are less pronounced in time series and so special consideration is required for ICP purposes.”

### **B. Guidelines and proposed sequence of ICP-related national accounts activities**

Another lesson learned in 2005 is the need to translate the SNA framework into operational guidelines to help the countries provide as reliable and consistent GDP expenditures vectors as possible. The quality of global and regional PPPs and PPP-adjusted GDP hinges on good quality prices and sound GDP expenditures estimates.

In a separate paper, the Global Office underlines the relevance of these guidelines and gives an initial indication of the main tasks that national accountants will be required to undertake for the 2011 ICP during the next few years. These include the range of activities to be carried out in the national and regional offices. The paper presents some

initial ideas on the broad issues involved but without going into specific details about the national accounts matters. Complete details of the tasks involved and ideas on how to implement them will be presented in this redrafted chapter, which should be available by mid 2010.

The guidelines will include the following aspects:

- (i) basic headings for which basic data will be required;
- (ii) data sources for each basic heading or higher levels of GDP breakdown;
- (iii) categories of prices of products under each basic heading or at each higher level;
- (iv) the utilization of ICP survey prices in national accounts work for ICP;
- (v) estimates of notional quantities or values at constant prices for each basic heading or higher aggregate;
- (vi) consistency between these prices and ICP survey prices;
- (vii) compilation of supply and use tables;
- (viii) GDP forecast from benchmark ICP work;
- (ix) validation procedures at country and regional level;
- (x) data processing issues; and
- (xi) implementation timetable

## **VI. Data Management & Processing Resources**

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The Regional Coordinators meeting reviewed the proposed procedures for archiving and accessing the ICP data, metadata and results.

Special emphasis will be laid on metadata management. A specific software package will be used for entering, managing and archiving survey metadata and data.

As regards data processing, the Global Office conducted an evaluation of its 2005 ICP software which led to proposing a list of requirements for the 2011 Software Suite. The ICP software suite will be modular, simple, user friendly, fast and easy to install. It will allow for the archiving of various versions of the raw and validated data, as well as the metadata. It will build on the current existing tools at the World Bank and Regional Offices to save on the development, testing and documentation time.

## **VII. Data Quality Requirements & Institutional Aspects**

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### **A. Data Quality Framework & Data Quality Assessment Check List**

To improve the data quality of the ICP data, in the 2005 Round effort went to: (i) the harmonization and standardization of practices in countries and regional offices; (ii) national implementation agencies met on a regular basis with regional coordinators to ensure consistency; (iii) an ICP Handbook and Operational Manual were developed to ensure common understanding and uses of the methodology; and (iv) a number of ICP software were implemented.

A Data Quality Assessment Framework (DQAF) for the ICP was developed to evaluate the quality of: (i) the ICP processes in countries, regional offices, and the Global Office (GO); and (ii) the input and output ICP data. The aim of this framework is to introduce rigor, structure, and a common language in the assessment of the quality of microeconomic data.

The framework is organized in a cascading structure that covers general and specific issues such as: prerequisites and dimensions of qualities. These include:

- Elements and indicators that have an overarching role as prerequisites or institutional preconditions for the quality of statistics. The focus is on the stakeholders, in this case the GO and the regional and national coordinators. These prerequisites are: (i) legal and institutional environment; (ii) resources available for statistical program; (iii) relevance; and (iv) other quality management.
- Dimensions of qualities covers five dimensions with their respective elements: (i) assurances of integrity (professionalism, transparency and ethical standards); (ii) methodological soundness (concept and definitions, scope, classification/sectorization, and basis for recording); (iii) accuracy and reliability (source of data, assessment of source data, statistical techniques, assessment and validation of intermediate data and statistical outputs and revision studies); (iv) serviceability (periodicity and timeliness, consistency, and revision policy and practice); and (v) accessibility (data accessibility, metadata accessibility and assistance to users).

The framework recognizes the complexity of the data collection and the statistical arrangement at the national, regional and GO levels. At the national level, the price collection framework should ensure that prices collected are suitable for the calculation of annual national average prices. At the regional level, the recording system should ensure the consistency between prices and national annual prices or accepted procedures that are used to estimate national annual average prices. At the GO level, the most innovative contribution is the elaboration of Global Core Item lists.

The ICP DQAF will be enforced through check lists for the countries, the regions and the Global Office.

## **B. Institutional Arrangements**

A draft ICP Governance Framework was prepared to define the role of the various Governance bodies of the ICP whose overall mandate is to coordinate the international, regional, and national efforts to produce Purchasing Power Parities and related measures of real expenditures in coordination with the OECD/Eurostat ICP programs.

The ICP Governance Framework formalizes the status of the ICP Executive Board whose members come from the international organizations and national statistical institutes. This includes the terms of reference for the ICP Executive Board and the Technical Advisory Group. It also specifies the Global Office's role within the framework of the ICP governance structure and its reporting requirements to the UNSC.

In compliance with the Governance Framework, the Global Office has prepared Memoranda or Letters of Agreement with regional offices as well as OECD and Eurostat to define the role and responsibilities of:

- The ICP global Office in the World Bank as it relates to the coordination of the regional programs
- The Regional Coordinating Agency