



## 2<sup>nd</sup> ICP 2011 Technical Advisory Group Meeting

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Washington DC  
February 17-19, 2010

### Draft Minutes

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## **1 INTRODUCTION**

The Second Meeting of the ICP Technical Advisory Group was hosted by the World Bank in Washington DC from 17 to 19 February 2010. It was attended by 26 participants as shown in Annex 2. Mr. Misha V. Belkindas, Manager at DECDG welcomed the participants and delivered the opening speech. He expressed his appreciation of the work accomplished so far by the Global Office and the effort put by the TAG in producing the many documents proposed for discussion at the meeting. He acknowledged that under the ICP 2011, more emphasis is put on National Accounts than in the previous round and wished the TAG to have fruitful deliberations whose conclusions will serve as input to the upcoming Executive Board meeting.

Mr. Erwin Diewert, Chair of the TAG, led the discussions according to the meeting agenda shown in Annex 1 and with reference to papers the list of which is given in Annex 3.

## **2 OBJECTIVES OF THE MEETING**

Following its first meeting held in October 2009, the TAG established 10 working groups to undertake specific research studies with a view to improving the relevant ICP methodologies. The research topics include: the treatment of owner-occupied housing, the treatment of financial services, the measurement of government outputs, problems associated with the review of survey frameworks, the treatment of exports and imports, the adjustment of household consumption data for net purchases abroad, the representativity problem, the aggregation of global PPPs, construction PPPs, PPP-based poverty analysis, and the back-casting methodology in terms of handling PPP revisions.

The main objective of the second meeting was to discuss the reports of the working groups, review their work plans, the division of work, the need for data and assistance from the Global Office, and the time frame for implementation. Prior to this, the meeting examined a brief report on the collaboration and partnership arrangements initiated by the Global Office on selected comparison-resistant and other problematic areas.

## **3 MAIN CONCLUSIONS OF THE MEETING**

### **3.1 Collaboration on Specific Areas**

The Global Office provided an overview of the status of the collaboration it has established with specialized departments in the World Bank, and other external organizations in the areas of education, health, government, energy, water and transport, to improve the relevant methods.

The meeting noted that for these areas, the approaches used in the 2005 round will be implemented as a fallback position should the envisioned improvements methodologies not prove successful. As regards government occupations, the TAG agreed to ask the Public Governance team at the World Bank to look at the 2005 data on wages from all

regions, and to evaluate the data and provide their assessment to the TAG. This entails providing the Public Governance team with access to detailed wage data collected in the 2005 round in compliance with 2005 Data Access Policy.

### **3.2 Research topics: Main outcomes**

Each working group briefly presented its findings, followed by a general discussion by the TAG. The outcomes of these deliberations on the research topics were:

#### **01: Owner-occupied housing**

The TAG agreed that the differences in the ways that countries calculate the imputed rent of owner-occupied dwellings are leading to consistency problems when these estimates are compared across countries. In many cases, they also present the Global Office with making a choice between a reasonable PPP for a country but an apparently distorted real expenditure or, if a direct quantity approach is used to calculate the real expenditures, a plausible real expenditure but a badly distorted PPP.

The effort to improve housing PPPs and real expenditures involves three steps.

**Step one** — User Cost. The TAG suggested that the user cost approach should be used to calculate national accounts values for owner-occupied dwellings in those countries that do not have relatively large, broadly-based rental markets on which to base rental equivalence estimates. The questionnaire to collect the data required to produce user-cost estimates as shown in the ICP Handbook will be updated to reflect the need to include the value of land. The documentation describing how to obtain the necessary data will also be updated. The TAG recommended that training be provided to the regions and countries on the User Cost when they are also reviewing national accounts. The OECD has developed training material. The TAG also strongly recommended that the User Cost data also be used for the national accounts—in other words, there should not be two sets of expenditure data for owner occupied housing; one for national accounts, the other for the ICP.

**Step two** — Quantity Method. The TAG considered that the quantity approach to estimating real expenditures on owner-occupied dwellings (used to some extent in the 2005 ICP) should be developed further. Additional information to be obtained includes the land area associated with the housing and also the population by type of dwelling. The recording form for capturing the Quantity data is to be updated along with appropriate documentation. The TAG recommended that the quantity data be provided by all countries including those able to use rental data; the purpose is to have an evaluation of the consistency between the two results.

**Step three** — A set of SPDs will be prepared for housing, covering a range of different types of houses and several quality indicators

These three items are to be presented to the regional coordinators at the April 2010 workshop. Each region will be challenged to include the above three steps when they provide training to the countries. The goal is that data collection for all three steps begins as soon as the training has been received with the understanding the data will be subjected to data validation that may lead to additional data collection. In other words,

the housing data will be subjected to the same rigorous data validation as the rest of consumption.

## **02: Financial services**

The TAG recommended that broadly-based reference PPPs should be used for all components of expenditure on financial services. They should be consistent with those used by OECD and Eurostat for the corresponding aggregates.

The 1993 SNA allows two alternative treatments of financial intermediation services indirectly measured (FISIM). One involves treating the whole of FISIM as the intermediate input of a nominal industry, while the other recommends allocating FISIM across its various uses, including final expenditures. The latter treatment results in a higher GDP, with the size of the increase dependent on the size of the financial sector in a country (e.g. countries like Germany and Luxembourg have higher FISIM than those that do not have large financial centres). The TAG agreed that the World Bank, with the assistance of the Regional Coordinators, should encourage all countries to allocate FISIM across final expenditures. The World Bank will prepare detailed guidelines on the processes that can be used for allocating FISIM.

## **03: Measurement of government outputs (general government, public education, public health)**

The TAG agreed that the occupations for which wages were collected in the 2005 ICP should be checked to ensure they are still relevant, and updated if necessary. In the 2005 ICP, the wages collected related to a person with about five years experience in a particular occupation. In addition to that, the World Bank proposes to collect data for the bottom and top of the range for each occupation as well to provide additional information which will be useful in validating the occupation data, given that job classifications have tended to become less sharply defined in recent years.

The TAG thought it would be useful for regions to examine the possibility of using the OECD/Eurostat volume indicators approach for education (pupil days) in the 2011 ICP, but recognised that the necessary data are unlikely to be available for a similar type of volume approach to be adopted for health in regions other than OECD/Eurostat.

## **04: Review of survey frameworks and the use of representativity indicators**

The TAG recommended a number of important initiatives for the 2011 ICP based in input from data users who strongly urged the ICP to ensure a better coverage of the national domain as well as show disaggregated results:

- ideally, all prices should be classified into urban or rural where possible (e.g. it is not useful in a country like Singapore) but, at a minimum, it should be possible to disaggregate national annual average prices into the urban and rural components;
- the major types of outlets should be defined and all prices collected should be classified by type of outlet;
- Household survey results should be used as a guide in determining the sample for data collection.
- “representativity” is a difficult concept to explain and ended up not being used in several ICP regions. However, the TAG stated that it represents a critical

concept, especially for the core set of products used for linking. The Tag recommended the term representativity be replaced by a product classification of “important” and “not important”. “Important” refers to the relative size of expenditure on a given product. Countries are asked to say whether they think that a given product probably accounts for “quite a lot” of total expenditure on this Basic Heading or “not very much”. For example, for the Basic Heading “Rice”, a country may say that *white rice, 50% broken grain, sold loose* is “important” while *Uncle Ben’s pre-cooked rice sold in 500 gram packets* is “not important”. All products within a Basic Heading must be classified as “important” or “not important”.

- The Survey Framework chapter for the ICP book will be provided to the April Regional Coordinator workshop because it is both a methodological issue and also involves data access matters.

#### **05: Treatment of exports and imports and adjustment of household consumption for net purchases abroad**

The item “net expenditures abroad” arises when household final consumption expenditure is compiled from sources other than a household expenditure survey. Some regions have a significant proportion of countries reporting zero expenditure for this component. The TAG agreed that, in such regions, net expenditures abroad should be allocated across tourism-related components of household final consumption expenditure. The advantage is that greater consistency will be achieved for the components of household final consumption expenditure across countries in those regions.

The TAG agreed there is no need to adjust exchange rates for the differences in international freight cost between countries because it is such a small proportion of the total values of exports and imports. Actual, i.e. unadjusted, exchange rates will continue to be used.

#### **06: Aggregation and linking issues**

The TAG endorsed moving from a ring approach for linking regions to the “core product list” approach where every country in the comparison would endeavour to price all products on the core product list that were “representative” or “important” in their country. The weighted CPD methodology should be used for 2011 instead of the CPRD used to link the regions at the Basic Heading level of aggregation in ICP 2005, but of course, the sample of item prices would be very much larger in ICP 2011 and hence should be more reliable. .

There was a short discussion on how to link regions at the basic heading level using the global core approach. Two possibilities were mentioned: (1) run one global CPD regression using only the core products with results adjusted for regional parities in order to retain regional fixity [similar to the 2005 Ring approach when every country becomes part of the Ring]; (2) run one global CPD regression using regional products *as well as* the global core products, with results adjusted for regional parities [bringing in regional products would strengthen intra-regional parities, and a possible overlap in product lists between regions would strengthen inter-regional links]. No decision was made as this would not affect price collection and could be deferred to later stages of the program.

There was some discussion on the advantages of additive methods of aggregation, such as the Geary-Khamis (GK) and Iklé-Dikhanov-Balk (IDB) methods, versus methods that were more closely based on the economic approach to index number theory (such as the GEKS and spatial linking approaches). The TAG did not come to any definitive conclusions on what method should be used at higher levels of aggregation, except that:

- As usual, the ICP program should provide users with results based on a method that made adequate allowance for substitution across commodities (like the GEKS method) and the ICP should provide users with results based on an additive method (like GK or IDB);
- There was a preference for IDB over GK as the preferred additive method.

The TAG considered five possible methods for *linking across regions* at higher levels of aggregation and discussed the advantages and disadvantages of each method. The five methods and a summary of their advantages and disadvantages are listed below.

### **Method 1: The National Accounts Method**

This method is a regional counterpart to methods used by national income accountants to form annual accounts by aggregating over quarterly accounts. The method works as follows:

- Regional quantity vectors are obtained by adding up volumes across countries;
- Regional values by commodity are converted to regional currency values and then added up to obtain regional total expenditures in the currency of the numeraire country in the region;
- Divide the regional total expenditures by the regional total quantities to obtain regional unit value prices;
- Apply GEKS using the regional unit value prices and the total regional quantities.

The *advantages* of this method are:

- It is similar to SNA accounting when constructing annual volumes out of quarterly volumes;
- It is invariant to choice of numeraire countries and regions.

The *disadvantages* of this method are:

- It is an additive method within the regions and thus if relative prices differ substantially across countries in the region, this method will not make adequate allowance for substitution behavior;
- It uses nominal exchange rates to convert country expenditures into a common regional numeraire currency within each region.

*Conclusion:* The method is unsatisfactory.

### **Method 2: ICP 2005 Method**

This method works as follows:

- Regional quantity vectors obtained by adding up volumes across countries;

- Regional prices are chosen to be the Basic Heading prices of the numeraire country in the region;
- Apply GEKS using the regional prices and the total regional quantities.

*Advantages:*

- Relatively simple.

*Disadvantages:*

- The method is additive within the regions;
- The method is not invariant to the choice of the numeraire countries within the regions.

*Conclusion:* The method is unsatisfactory.

### **Method 3: The Use of the Geometric Average of the Regional Numeraires as Regional Price Weights (Sergeev)**

This method works as follows:

- Regional quantity vectors obtained by adding up volumes across countries;
- Regional prices are chosen to be the geometric mean of the Basic Heading prices for each country in the region;
- Apply GEKS using the geometric mean regional prices and the total regional quantities.

*Advantages:*

- Relatively simple.
- The method is invariant to the choice of numeraire countries and regions.

*Disadvantages:*

- The method is additive within the regions.

*Conclusion:* The method is unsatisfactory (from the viewpoint of the economic approach to index number theory) due to additivity within the regions. Sergey suggests that if it is decided to avoid additivity as well as the use of regional quantities, then use democratic regional BH weights calculated by the arithmetic averaging the expenditure shares of the countries within the regions.

### **Method 4: Global GEKS and Adding Up Regional Shares Method (Dikhanov)**

This method works as follows:

- Run a global GEKS which will give the relative volume of each country in the comparison;
- Add up the shares for all countries in a region; this will give an estimate of the world share for each region;
- These regional shares plus the within region shares determined separately by each region will give us the relative volume for each country in the world comparison.

*Advantages:*

- This method is consistent with the economic approach to index number theory; i.e., there are no additivity problems.

*Disadvantage:*

- The only disadvantage is relative to the spatial linking method; i.e., the global GEKS method uses each country as a numeraire country, calculates the parity of every other country relative to the numeraire country and then averages all of these global parities. The problem is that some of the bilateral comparisons will be made between very dissimilar countries and hence will not be as reliable as bilateral comparisons between more similar countries.

**Method 5: Spatial Linking based on Similarity of Price and Quantity Structures (Robert Hill)**

This method works as follows:

- Start out by making a bilateral comparison between the two countries which have the most similar relative price structures.
- Look for a third country which has the most similar relative price structure to the first two countries and link in this third country to the comparisons of volume between the first two countries and so on.
- At the end of this procedure, we have a *minimum spanning tree*: a path between all countries that minimized the sum of the relative price (and perhaps quantity) similarity measures. We can now form each country's share of world product.
- Add up the shares for all countries in a region; this will give an estimate of the world share for each region;
- These regional shares plus the within region shares determined separately by each region will give us the relative volume for each country in the world comparison. (The last two steps in this method are the same as in Method 4 above).

*Advantages:*

- This method is consistent with the economic approach to index number theory; i.e., there are no additivity problems.
- The bilateral comparisons are made between pairs of countries that are most similar in price (and quantity) structures (subject to some restrictions) and hence are likely to be more reliable than other methods.

*Disadvantages:*

- The method may be unstable; i.e., small perturbations in the data could lead to large differences in the final results.
- A country with perhaps unreliable data could play the role of a local "star" country and distort the entire set of comparisons.
- Spanning trees will vary for different aggregates.

Hill (2009) discusses the first two disadvantages listed above and ways to overcome them, which are:

- Countries which are thought to have lower quality data could be restricted to enter the set of comparisons only once; i.e., this would rule out unreliable countries having a local “star” role.
- The instability problem could be addressed by having several sets of alternative spanning trees; the final parity would be a geometric average of these alternative spanning tree parities. However, the details on how exactly to construct these alternative spanning trees remains to be done.

The TAG did not rule out any of the last three methods described above. The TAG recommended that some empirical testing on the last three methods, using ICP 2005 data, should be carried out and a report prepared for the TAG’s consideration at its next meeting. The TAG agreed that these pending issues should not affect the data collection plans.

*Reference:* Hill, R.J. (2009), “Comparing Per Capita Income Levels Across Countries Using Spanning Trees: Robustness, Prior Restrictions, Hybrids and Hierarchies”, pp. 217-244 in *Purchasing Power Parities of Currencies: Recent Advances in Methods and Applications*, D.S. Prasada Rao (ed.), Cheltenham UK: Edward Elgar.

### **Regional Linking below the Basic Heading level**

In terms of regional linking, the group discussed some issues raised by Sergey on aggregation below the basic heading level and resolved that:

- The use of geometric mean of prices collected from multiple ring countries within a region would amount to throwing important information on price variability within regions and, therefore, rejected the suggestion; and
- The use of "core" commodities would replace the use of "ring countries" followed in the 2005 Round. The group’s view is that there is no need to examine issues relating to the use of ring countries further.

### **07: Construction PPPs**

The existing approaches to estimating construction prices were discussed. It was mentioned that the BOCC approach used in 2005 round had implementation problems as it attempted to measure prices for complex components that do not exist separately from bigger projects and thus was highly subjective. This was evidenced by intra-component cost analysis which produced highly unlikely cost structures for most countries. Another problem with BOCC was difficulties of obtaining weights at the systems level, which necessitated using single weight structures for large groups of countries.

At the same time, the OECD/Eurostat representatives strongly discouraged TAG from considering the BOQ approach for usage outside of the OECD/EU region on the grounds that it was too costly to implement and it would require quite elaborate management process.

Finally, a new approach on comparing construction was presented to the TAG. The central point of the proposal is that a construction project is determined by the sum of the materials that went into it. The approach would concentrate on measuring only elementary components such as cement, wood, steel etc., and would decompose national accounting construction categories into expenditures on elementary components as well

as into capital and labor bills, thus bringing consistency with national accounts into the picture. It was also mentioned that the new approach would be less costly to implement, in addition, it is consistent with construction PPIs as they price many of the same components.

It was mentioned that the new approach would require heavy use of SU and input-output tables which many countries lack, in this regard it was proposed that groups of similar countries may use same decomposition of construction expenditures.

The TAG agreed that data availability [SUTs and I-OTs] should be assessed, some trial PPPs using the new approach should be produced for several countries so that the TAG can check their implications, and that the processes should be pilot tested in a number of countries by the end of September 2010. It was agreed that the fall back solution will be to continue with a revised form of the Basket of Construction Components with additional study needed required to determine the necessary weights to combine the components.

### **08: Poverty**

There is a large discrepancy between the 2005 benchmark PPPs for developing countries compared with the extrapolated 1993 ICP results. It is impossible to definitively identify the causes but the TAG considered it is likely to be a combination of the poor quality of the 1993 results combined with the uncertainties introduced into the series when extrapolating the 1993 benchmark over a lengthy period.

Further research will be conducted into the implications of the 2005 results for poverty analysis, including topics such as checking the consistency of unit values from household expenditure surveys with the prices collected for the ICP, the comparison of unit value based and ICP based parities for foods for a set of experimental countries, and to more closely examine the relationship between urban and rural prices (where the necessary data are available). Research will also explore the effects of excluding “Western” product specifications from the ring comparison, as well as whether alternative linking schemes might ameliorate the problems of averaging weights between very different countries, as in the example of air fares in the comparison between Cameroon and the UK. The TAG suggested that it would be useful to improve the quality of household surveys in developing countries via technical assistance.

### **09: Extrapolating PPPs between benchmarks and estimation of PPPs for non-benchmark countries**

The TAG was informed that some further testing is going ahead on methods to extrapolate PPPs between ICP benchmarks. Also, worthwhile progress has been made in estimating PPPs for non-benchmark countries but further research is required.

### **10: Sub-national PPPs**

The TAG agreed that sub-national PPPs would be useful for the ICP because they would enable national annual average prices to be constructed based on prices collected in only one or two major regions in a country. However, the TAG recognised that the computer systems used to compile CPIs in national statistical offices are often not structured in a way that enables detailed prices to be extracted for identical products, which are necessary to compile sub-national PPPs.

#### **4 FUTURE MEETINGS**

The next TAG meetings are scheduled to be held in June and October 2010. The June meeting will be in Paris, France hosted by the OECD on June 10 and 11, 2010.

## **5 ANNEXES**

- Agenda of the meeting
- List of participants
- List of papers

## **Annex 1: Agenda of the meeting**

February 17-19, 2010

### **Day 1: Wednesday, 17 February 2010**

- 08:30-09:00*            *Check-in & Coffee*
- 09:00-09:15*            **Welcome & Opening Remarks**
- 09:15-09:30*            **Adoption of the agenda and approval of the minutes of previous meeting**
- 09:30-11:00*            **Status Report on ICP Research and Collaboration on Specific Areas**  
*Report from the Global Office on methodological research activities undertaken since last TAG meeting, as well as on collaboration with World Bank departments and other agencies on Education, Health, Government, Energy, Water and Transport*
- 11:00-11:15*            *Coffee Break*
- 11:15-11:45*            **Organizing ICP Research Working Groups**  
*Composition of the groups, objectives, timeframe, expected deliverables, modus operandi*  
*Organization of the meeting*
- 11:45-12:30*            **Research Item 01: Owner-Occupied Housing**
- 12:30-14:00*            *Lunch Break*
- 14:00-14:30*            **Research Item 02: Treatment of Financial Services**
- 14:30-16:00*            **Research Item 03: Measurement of Government Outputs**  
**General Government; Public Education; Public Health**
- 16:00-18:00*            **Working Group Meetings**  
*Separate working group meetings to agree on: work plans; the division of work; the method of work; the need for data and assistance from the Global Office*

### **Day 2: Thursday, 18 February 2010**

- 09:00-10:00*            **Research Item 04: Problems with the Review of Survey Frameworks, and the use of representativity indicators**

- 10:00-10:45      **Research Item 05: Treatment of Exports and Imports, and adjustment of Household Consumption for Net Purchases Abroad**
- 10:45-11:00      *Coffee Break*
- 11:00-11:45      **Research Item 06: Aggregation and linking Issues**
- 11:45-12:30      **Research Item 07: Construction PPPs**
- 12:30-14:00      *Lunch Break*
- 14:00-14:45      **Research Item 08: Poverty**
- 14:45-15:30      **Research Item 09: Extrapolating PPPs between benchmarks and estimation of PPPs for non benchmark countries**
- 15:30-16:00      **Research Item 10: Sub-national PPPs**
- 16:00-18:00      **Working Group Meetings**  
*Separate working group meetings to agree on: work plans; the division of work; the method of work; the need for data and assistance from the Global Office; time frame*

**Day 3: Friday, 19 February 2010**

- 09:00 -11:00      **Working Group Reports to Plenary**
- 11:00-11:30      *Coffee Break*
- 11:30-12:30      **Way Forward and Concluding Remarks**

**Note:**

*On days 1 & 2, Research Items 1-10 will be discussed in plenary in terms of reviewing the objectives, the conceptual and methodological issues, the envisioned approaches and the list of reference material.*

## **Annex 2: List of participants**

### TAG

Diewert, Erwin	Chair
Biggeri, Luigi	
Deaton, Angus	
Ducharme, Louis Marc	
Heston, Alan	
Koechlin, Francette	
Konijn, Paulus	
Langer, Tom Andersen	
McCarthy, Paul John	
Rao, D. S. Prasada	
Silver, Mick	
Thomas, Jim	
Vogel, Frederic A.	Deputy Chair

### DECDG

Belkindas, Misha

### ICP Global Office

Mouyelo-Katoula, Michel	Global Manager
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Akcadag, Olga  
Dikhanov, Yuri  
Djayeola, Mathieu  
Hamadeh, Nada  
Hong, Chen  
Prieto-Oramas, Beatriz  
Romand, Virginia  
Song, Seong Heon  
Yamanaka, Mizuki

### Observers

Blades, Derek  
Keidel, Albert  
Meikle, Jim  
Reid, Gary  
Roberts, David

### **Annex 3: List of papers**

#	Paper Title	Authors	
<i>Status Report on ICP Research and Collaboration on Specific Areas</i>			
[00.01]	Status of Collaboration on Education, Health, Government, Energy, Water and Transport	Nada Hamadeh	1.
<i>Research Item 01: Owner-Occupied Housing</i>			
[01.01]	An Exploration of Alternative Treatments of Owner- Occupied Housing in a CPI	Keith Woolford	2.
[01.02]	Housing in Western Asia	Alan Heston and Nada Hamadeh	
[01.03]	Questionnaire	Global Office	3.
[01.04]	Final report on land price separation study	INE, Portugal for Eurostat	4.
[01.05]	Housing in ICP 2011 : Issues to be Resolved	Derek Blades	5.
[01.06]	Notes on the Treatment of Housing in the National Accounts and the ICP	W. Erwin Diewert	6.
[01.07]	Reconciling User Costs and Rental - Equivalence: Evidence from the U.S. Consumer Expenditure Survey	Thesia I. Garner, Randal Verbrugge	7.
[01.08]	The Decomposition of a House Price index into Land and Structures Components: A Hedonic Regression Approach	W. Erwin Diewert, Jan de Haan and Rens Hendriks	8.
[01.09]	The Paris OECD-IMF Workshop on Real Estate Price Indexes: Conclusions and Future Directions	Erwin Diewert	9.
[01.10]	The Puzzling Divergence of Rents and User Costs, 1980–2004	Randal Verbrugge	10.
[01.11]	The Puzzling Divergence of U.S. Rents and User Costs, 1980-2004: Summary and Extensions	Thesia I. Garner and Randal Verbrugge	11.
[01.12]	User Cost for Rents of Dwellings in the West Balkan Countries	OECD and Statistics Norway	12.
<i>Research Item 02: Treatment of Financial Services</i>			
[02.01]	Treatment of Financial Services	Erwin Diewert, Paul McCarthy, Kim Zieschang	13.
<i>Research Item 03: Measurement of Government Outputs- Education; Public Health</i>		<i>General Government; Public</i>	
[03.01]	Chapter 18: Health and Education	Global Office	14.
<i>Research Item 04: Problems with the Review of Survey Frameworks, and the use of representativity indicators</i>			
[04.01]	Are integration and comparison between CPIs and PPPs feasible?	Luigi Biggeri and Tiziana Laureti	15.
[04.02]	Family of Consumer Price Indices for Different Purposes - The CPIs for Sub-groups of Population	Luigi Biggeri and Laura Leoni	16.
[04.03]	The interpretation of the PPPs: a method for measuring the factors that affect the comparisons and the integration with the CPI work at regional level	Luigi Biggeri , Rita De Carli and Tiziana Laureti	17.

[04.04]	Notes on representativity	Global Office	18.
[04.05]	Survey Framework for the ICP Price Collection	Frederic Vogel	19.
[04.06]	Income Effect and Urban-Rural Price Differentials from the Household Survey Perspective	Yuri Dikhanov	20.

*Research Item 05: Treatment of Exports and Imports, and adjustment of Household Consumption for Net Purchases Abroad*

[05.01]	Treatment of Exports and Imports	Paul McCarthy and Sergey Sergeev	21.
[05.02]	Adjustment of household consumption for net purchases abroad	Paul McCarthy and Sergey Sergeev	22.

*Research Item 06: Aggregation and linking Issues*

[06.01]	Similarity Indexes and Criteria for Spatial Linking	Erwin Diewert	23.
[06.02]	The evaluation of the approaches for the linking of the regions at the aggregated levels	Sergey Sergeev	24.
[06.03]	A note on the Methodology for Linking the Regions within the ICP	Prasada Rao	25.
[06.04]	A Note on Sergeev's Democratic Method of Linking Regions at the Basic Heading Level	Erwin Diewert	26.

*Research Item 07: Construction PPPs*

[07.01]	A New Approach to International Construction Price Comparisons	Rick Best, Jim Meikle and Paul Thomas	27.
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*Research Item 08: Poverty*

[08.01]	Poverty Related Issues for the 2011 ICP Round	Angus Deaton	28.
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*Research Item 09: Extrapolating PPPs between benchmarks and estimation of PPPs for non benchmark countries*

[09.01]	Estimation of PPPs for Non-Benchmark Economies for the 2005 ICP Round	Changqing Sun and Eric Swanson	29.
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*Research Item 10: Sub-national PPPs*

[10.01]	Sub National PPPs based on integration with CPIs - Research Project, Draft Proposal	Luigi Biggeri et al	30.
[10.02]	Asia and Pacific Region Sub-National Purchasing Power Parities Case Study for The Philippines	Paul McCarthy	31.