



Minutes of the Third Meeting of the ICP Task Force on PPP Computation and Time Series

September 27-28, 2018

World Bank, Washington, DC

Welcome and Meeting Objectives

The third meeting of the International Comparison Program (ICP) Task Force on Purchasing Power Parity (PPP) Computation and Time Series was held on September 27-28, 2018, at the World Bank headquarters in Washington, DC.

The main objective of the meeting was to review and discuss the progress to date on various ICP Research Agenda topics assigned to the Task Force, per the agenda provided in Annex 1. The meeting participants are listed in Annex 2.

Introductory remarks

Erwin Diewert, University of British Columbia, and Marko Rissanen, Global ICP Unit, made introductory remarks and highlighted recommendations from the second meeting of the ICP Technical Advisory Group (TAG). The related presentation is available [here](#).

Agreements and conclusions:

- The Task Force took note of the recommendations from the second meeting of the ICP TAG, including the importance of assessing the quality and comparability of ICP results, the need to consider recalculating the global and regional ICP 2011 results, and the necessity of having empirical results accompany theoretical proposals presented to the TAG.
- In addition, the Task Force took note of the need to provide recommendations on the required level of detail for interpolation indices, as well as on the approach for incorporating interim regional results into a global set of PPPs, especially as both points have significant operational implications.

Review of the ICP 2017, interim and extrapolation data submitted to date

Marko Rissanen presented the submission status, coverage and quality of the ICP 2017 and interim data.

Agreements and conclusions:

- In terms of inter-regional linking for the ICP 2017 data, no issues were identified with inter-regional overlap of household data; however, regional submissions for non-household data were

limited at the moment; thus, a similar analysis was not possible for these headings. Furthermore, it was noted that the household consumption data submitted to date had not been aligned temporally yet, given the differences in regional survey schedules.

- In terms of quality of the ICP 2017 household consumption data, it was noted that the starting position for the global validation is notably better than during the 2011 round of ICP; however, the current datasets do still contain several obvious outliers. The Global, Regional and National Implementing Agencies will continue the efforts to validate the ICP 2017 household data, as well as non-household consumption data.
- Furthermore, regarding the ICP 2017 household consumption data, it was noted that a few countries exhibit unusual price level indices (PLIs) due to uncertainties with the reported market exchange rates. The Global ICP Unit and the Task Force should support the Regional and National Implementing Agencies in determining the most appropriate exchange rates to be used for ICP purposes.
- Interim regional data for reference years 2015 and 2016 do not seem to allow for inter-regional linking at the item level, due to poor overlap. However, regional results could be incorporated into global PPP timeseries, where applicable. For the time-being, Eurostat-OECD (2012-2016), Western Asia (2012-2016) and CIS (2014) interim results should be incorporated into global PPP timeseries, while Africa and Asia interim results are still under review. If regional interim results are not incorporated into global PPP timeseries, the fixity of the interim regional results cannot be maintained.

Furthermore, Mizuki Yamanaka and William Vigil-Oliver, Global ICP Unit, presented the submission status, coverage and quality of the extrapolation data, on behalf of the [Task Team on Data Quality Assurance](#). The related presentations are available [here](#) and [here](#).

Agreements and conclusions:

- The Task Force took note of the availability and quality of submitted extrapolation datasets, namely, CPIs, GDP expenditures, deflators, population, and exchange rates. It was highlighted that both the availability and quality of the datasets continue to improve with each iteration of regional submissions.
- In terms of the quality of CPI series, results from the initial consistency checks between General CPI and underlying COICOP-12 series, for all years of interest, were promising. Therefore, as of now, there are no major concern with using COICOP-12 data, although the Task Team will attempt to gather metadata and country-specific information on those CPI series for which further checks are needed.
- Overall, the Task Team will continue the efforts to expand and validate the available datasets for PPP timeseries.
- The Task Force recommended to continue the efforts to compile CPI and GDP expenditure data at most detailed level available, even if the level of detail would vary from country to another. As for GDP deflators, the Task Force recommended compiling the data at the main aggregate level only.

Building PPP timeseries for the interim period

The following presentations were made:

- Refined proposal for producing “interpolated” PPP time-series for the years between reference year comparisons, Prasada Rao, The University of Queensland and Hitotsubashi Institute for Advanced Study | [Presentation](#) | [Document](#)
- Alternative methods for interpolating PPPs, Erwin Diewert | [Presentation](#) | [Document](#)

Agreements and conclusions:

- The Task Force took note of the progress made with the possible approaches for producing global PPP timeseries between reference year comparisons. Especially, convergence between the suggested methods, namely, the “Penn World Table”, “State-space approach” and “Diewert and Fox” methods was noted, albeit the methods perform differently under certain situations.
- The Task Force recommended to follow an interpolation approach that relies on PPP extrapolation from 2011 and retropolation from 2017 at the lowest level of detail possible, using CPIs, deflators, and exchange rates as extrapolation indices. The extrapolated detailed PPPs are then aggregated into aggregate-level PPPs. Similarly, the retropolated detailed PPPs are aggregated into aggregate-level PPPs. These two sets of results are then averaged geometrically, with weights based on the distance from the benchmark comparisons. This method is close to the current “Penn World Table” method, albeit the averaging approach is different, namely, geometric instead of arithmetic. Furthermore, it was stressed that the suggested approach should incorporate regional interim results, where available, in order to maintain fixity of the interim regional results.
- The Task Force will continue to assess this method for building global PPP timeseries, based on the updated datasets that will be submitted by Regional Implementing Agencies in January 2019, then will present the method and findings to the TAG at their May 2019 meeting.

Recalculating ICP 2011 results

The following presentations were made:

- Eurostat PPP revision exercise, Paulus Konijn, Eurostat | [Presentation](#)
- Process and requirements, Yuri Dikhanov, Global ICP Unit, World Bank | [Presentation](#)

Agreements and conclusions:

- The Task Force took note of Eurostat’s experiences with PPP revisions.
- The Task Force recommended to recalculate the ICP 2011 results, incorporating the ICP 2017 classification, as well as revised regional results, GDP expenditures and global core list item prices, where applicable. Furthermore, updated productivity adjustment factors for 2011 should be utilized. It was also noted that the recommendations from the ICP Housing Task Force should be taken into account, including incorporating potential new data sources, as well as revised regional results, where applicable.
- To facilitate the recalculation of the results, the Global Implementing Unit will develop a timetable covering various steps involved. Moreover, the Regional Implementing Agencies should continue

assessing the need to recalculate their regional ICP 2011 results and to devise implementation plans accordingly.

Productivity adjustment for government

Robert Inklaar, University of Groningen, presented on the impact of relying on new data sources for estimating productivity adjustment factors. The related presentation is available [here](#) and document [here](#).

Agreements and conclusions:

- The Task Force took note of the impact of relying on new data sources for estimating productivity adjustment factors and recommended to utilize the factors estimated based on the current data sources for ICP purposes, including the revised results for ICP 2011 and the ICP 2017 results.

Substitution bias in the CPD results

Robert Hill, University of Graz, presented on checking for a substitution bias in the CPD results. The related presentation is available [here](#).

Agreements and conclusions:

- The Task Force took note on the results, made recommendations for further steps, and noted that the work could fit under the [Quality and Reliability of PPPs](#) item under the ICP research agenda.

Conclusions and recommendations

Agreements and conclusions:

- The Global, Regional and National Implementing Agencies will continue the efforts to validate the ICP 2017 cycle data.
- The Task Force will continue to assess the proposed method for building global PPP timeseries, based on the updated datasets that will be submitted by Regional Implementing Agencies in January 2019, then will present the method and findings to the TAG at their May 2019 meeting.
- The Global and Regional Implementing Agencies will develop a timeline for recalculating ICP 2011 results, and work with the Task Force to conduct preliminary calculations, which should also be presented to the TAG at their May 2019 meeting.

Annex 1: Meeting Agenda

Thursday, September 27, 2018

14:00 – 14:15 Introductory remarks

- Recommendations from the 2nd Meeting of the ICP Technical Advisory Group, *Erwin Diewert, University of British Columbia*

14:15 – 16:00 Review of the ICP 2017, interim and extrapolation data submitted to date

- Submission status, coverage and quality, *Global ICP Unit, World Bank*

16:00 – 17:00 Building PPP timeseries for the interim period

- Refined proposal for producing “interpolated” PPP time-series for the years between reference year comparisons, *Prasada Rao, University of Queensland and Hitotsubashi Institute for Advanced Study*

Friday, September 28, 2018

09:00 – 10:00 Recalculating ICP 2011 results

- Eurostat PPP revision exercise, *Paulus Konijn, Eurostat*
- Process and requirements, *Yuri Dikhanov, Global ICP Unit, World Bank*

10:00 – 11:00 Productivity adjustment for government

- Impact of relying on new data sources for estimating productivity adjustment factors, *Robert Inklaar, University of Groningen*

11:00 – 11:30 Substitution bias in the CPD results

- Checking for substitution bias in the CPD results, *Robert Hill, University of Graz*

11:30 – 12:00 Conclusions and recommendations, *Erwin Diewert, University of British Columbia*

Annex 2: List of Participants

Task Force Members

- Erwin Diewert, University of British Columbia [Task Force Coordinator]
- Paulus Konijn, Eurostat
- Francette Koechlin, OECD
- Vasily Kuznetsov, ROSSTAT
- Sergey Sergeev, Statistics Austria
- Robert Hill, University of Graz
- Robert Inklaar, University of Groningen
- Prasada Rao, University of Queensland and Hitotsubashi Institute for Advanced Study
- Marko Olavi Rissanen, World Bank
- Yuri Dikhanov, World Bank

Global ICP Unit

- Nada Hamadeh, World Bank
- Mizuki Yamanaka, World Bank
- Maurice Nsabimana, World Bank
- Inyoung Song, World Bank
- William Vigil Oliver, World Bank
- Elisabeth Purdie, World Bank

Regional Implementing Agencies

- Ben Paul Mungyereza, African Development Bank
- Gregoire Mboya Deloubassou, African Development Bank
- Rees Mpofo, African Development Bank
- Michel Mouyelo-Katoula, African Development Bank
- Kaushal Joshi, Asian Development Bank
- Stefan Schipper, Asian Development Bank
- Andrey Kosarev, CIS-STAT
- Valerica Accibas, CIS-STAT
- Giovanni Savio, UN Economic Commission for Latin America and the Caribbean
- Bruno Lana, UN Economic Commission for Latin America and the Caribbean
- Maria Paz Collinao, UN Economic Commission for Latin America and the Caribbean
- Majed Skaini, UN Economic and Social Commission for Western Asia

Other Participants

- Sunil Jain, India Ministry of Statistics and Program Implementation
- Gregory Max Henri Legoff, International Monetary Fund
- Robert J. Dippelsman, International Monetary Fund
- Vanda Guerreiro, International Monetary Fund

- Niall O’Hanlon, International Monetary Fund
- Alan Heston, University of Pennsylvania
- David Roberts, World Bank consultant