INTERNATIONAL COMPARISON PROGRAM
TERMS OF REFERENCE
COMPUTATION TASK TEAM

May 2019

Contents

1. Background

The 47th Session of the United Nations Statistical Commission (UNSC), held in March 2016, instituted the International Comparison Program (ICP) as a permanent element of the global statistical work program. Starting from 2017, the program will be conducted at more frequent intervals. Subsequently, the ICP Governing Board, in its inaugural meeting in November 2016, adopted the ICP Governance Framework and established a Technical Advisory Group (TAG) to guide the program's research and methodological developments.

The ICP TAG is a technical body, which (i) assures methodological soundness and overall quality of the purchasing power parity (PPP) estimates; (ii) ensures transparency of the PPP estimation process; and (iii) facilitates the establishment of a permanent and more frequent ICP rounds.

The ICP TAG identified a need to establish a dedicated Computation Task Team to produce ICP results in a reliable, transparent and reproducible manner.

This document outlines the terms of reference of the Computation Task Team, including its scope of work, membership, work modality and deliverables.

2. Scope of Work

The Computation Task Team works towards completing the following tasks:
  − Computation of the ICP 2017 results (reference year: 2017);
  − Computation of the revised ICP 2011 results (reference year: 2011);
  − Computation of the PPP-timeseries for the intermediate years (reference years: 2012-2016); and
  − Computation of the productivity adjustment factor timeseries (reference years: 2011-2017).

The main objective is to ensure the reliability, transparency and reproducibility of the ICP results. All results are to be produced based on the methodologies agreed by the ICP TAG.

Completing the above-noted tasks entail implementing a series of steps, as outlined in Section 4 "Work Modality and specific roles" below.

3. Membership

The Task Team on PPP Compilation is formed of experts and/or practitioners in the field of index numbers, PPPs, price statistics and national accounts, as follows:
  − Alan Heston, University of Pennsylvania
  − Francette Koechlin, Organisation for Economic Co-operation and Development (OECD)
  − Paulus Konijn, Statistical Office of the European Union (Eurostat)
  − Prasada Rao, University of Queensland
  − Robert Hill, University of Graz
  − Robert Inklaar, University of Groningen
  − Miriam Steurer, University of Graz
  − Sergey Sergeev, Statistics Austria
  − Yuri Dikhanov, World Bank

In addition, the staff of the ICP Global Office will support the work of the Task Team.

4. Work Modality and Specific Roles

The Task Team works predominantly virtually; however, Task Team members can also meet physically, as needed. Task Team members may join the meetings of the IACG and TAG to present their findings and results. Specific roles of the Task Team sub-groups are listed below.

Parallel computation of the ICP 2017 and revised ICP 2011 results:
 − Robert Inklaar
 − Sergey Sergeev
 − Yuri Dikhanov

Step-by-step guidance on the computation of the inter-regional linking factors for Housing for 2017 (and 2011, if needed):
 − Alan Heston
 − Paul Konijn

Step-by-step guidance on the computation of the inter-regional linking factors for Health for 2017 (and 2011, if needed):
 − Francette Koechlin
 − Paul Konijn

Step-by-step guidance on the computation of the inter-regional linking factors for Education for 2017 (and 2011, if needed):
 − Francette Koechlin
 − Paul Konijn

Computation of the productivity adjustment factor timeseries (2011-2017):
 − Robert Inklaar

Computation of the PPP-timeseries for the intermediate years (2012-2016):
 − Prasada Rao
 − Robert Inklaar

Quasi-parallel computation of the ICP 2017 results and provision of related code in R-programming-language:
 − Robert Hill
 − Miriam Steurer

The ICP Global Office will support the above-mentioned tasks in order to move all computations in-house. It will provide access to necessary data and materials to facilitate the work of the Task Team. Data will be shared with Computation Task Team members in a secure cloud-based environment, and data sharing formats will be jointly agreed with the various members. Standard ICP confidentiality provisions apply.

Each sub-group is expected to: (i) provide the results of the computations undertaken; (ii) prepare a short methodological note on the computations undertaken that clearly states the inputs, processes and outputs; and (iii) provide the tools and code used for undertaking the computations.

5. Timeline and Expected Deliverables

The Task Team is expected the complete the dedicated tasks, per the detailed timetable provided in the Annex, and complete the following deliverables:
- Semi-final results with related methodological notes/tools/code: October 2019
- Final results with related methodological notes/tools/code: February 2020

Annex: Detailed Timetable

Roadmap to the Publication of ICP 2017 Cycle Results	Responsibility	2019											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Preliminary Results													
Circulation of Phase I data to Computation Task Force to set up their tools/codes - ICP 2017 prices, expenditures and regional PPPs - Revised ICP 2011 expenditures and regional PPPs [and prices, where applicable] - Regional PPP timeseries, expenditures and auxiliary data	GO						X						
Data submissions - ICP 2017 prices, expenditures and regional PPPs - Revised ICP 2011 prices, expenditures and regional PPPs, where applicable - Regional PPP timeseries, expenditures and auxiliary data	RIAs							X					
Data validation	GO; RIAs							X	X				
Circulation of Phase II data to Computation Task Force - ICP 2017 prices, expenditures and regional PPPs - Revised ICP 2011 expenditures and regional PPPs [and prices, where applicable] - Regional PPP timeseries, expenditures and auxiliary data	GO								X				
Provision of preliminary productivity adjustment factor timeseries	Inklaar												
Calculation of preliminary housing linking factors for 2017 [and 2011, if needed]	Heston; Konijn; GO												
Calculation of preliminary health linking factors for 2017 [and 2011, if needed]	Koechlin; Konijn; GO												
Calculation of preliminary education linking factors for 2017 [and 2011, if needed]	Koechlin; Konijn; GO												
Calculation of preliminary global 2017 GDP PPPs and real expenditures	Dikhanov; Sergeev, Inklaar, Hill; GO									X	X		
Calculation of preliminary revised global 2011 GDP PPPs and real expenditures	Dikhanov; Sergeev, Inklaar; GO									X	X		
Calculation of preliminary interpolated GDP PPP timeseries	Inklaar; Rao; GO									X	X		
Estimation of preliminary global 2017 GDP and HHC PPPs for non-benchmark economies	GO									X	X		
8th IACG meeting - Q/A 2017 data, revised 2011 data, time series and auxiliary data - Q/A of preliminary 2017 GDP results and revised 2011 GDP results - Decide on level of publication	IACG												
4th TAG meeting & 5th TF01, TF02 and TF03 meetings - Q/A of preliminary 2017 GDP results, revised 2011 GDP results, and GDP time series - Review Task Force methodological proposals impacting result calculation - Review level of publication	TAG and TFs										X		
5th GB meeting - Endorse interpolation methodology - Endorse data access policy - Endorse revision policy	GB											X	

Roadmap to the Publication of ICP 2017 Cycle Results	Responsibility	2019			2020			
		Oct	Nov	Dec	Jan	Feb	Mar	Apr
Final Results								
Data submissions - Final regional 2017 PPPs and expenditures [and data updates, if any] - Final regional 2011 PPPs and expenditures - Final regional PPP timeseries, expenditures and auxiliary data	RIAs			■				
Data validation	GO; RIAs				■			
Circulation of Phase III data to Computation Task Force - ICP 2017 prices, expenditures and regional PPPs - Revised ICP 2011 expenditures and regional PPPs [and prices, where applicable] - Regional PPP timeseries, expenditures and auxiliary data	GO			■				
Provision of final productivity adjustment factor timeseries	Inklaar				■			
Calculation of final housing linking factors for 2017 [and 2011, if needed]	Heston; Konijn; GO				■			
Calculation of final health linking factors for 2017 [and 2011, if needed]	Koechlin; Konijn; GO				■			
Calculation of final education linking factors for 2017 [and 2011, if needed]	Koechlin; Konijn; GO				■			
Calculation of final global 2017 GDP PPPs and real expenditures	Dikhanov; Sergeev, Inklaar, Hill; GO					■		
Calculation of final revised global 2011 GDP PPPs and real expenditures	Dikhanov; Sergeev, Inklaar; GO					■		
Calculation of final interpolated GDP PPP timeseries	Inklaar; Rao; GO					■		
Estimation of final global 2017 GDP and HHC PPPs for non-benchmark economies	GO					■		
Final Review and Publication								
TAG final results review - Review and endorse final results	TAG					■		
Final report finalization	GO; TBD						■	
6th GB meeting - Review release plans	GB						■	
51st UNSC session - Inform on upcoming release	GO						■	
Official release	GO							■