



**MINUTES OF THE INTERNATIONAL COMPARISON PROGRAM**  
**TECHNICAL ADVISORY GROUP**  
**FEBRUARY 20-21, 2023**  
**Online meeting**

**Welcome and meeting objectives**

The Technical Advisory Group (TAG) of the International Comparison Program (ICP) held an online meeting on February 20-21, 2024.

The main objectives of the meeting were to update the Group on the progress of the current ICP 2021 cycle, discuss the preliminary results of the 2021 cycle, and the plans for the release of the results, as per the meeting agenda provided in Annex 1. In attendance were the TAG Chair, members and observers, representatives from the Regional Implementing Agencies (RIAs), and staff from the World Bank ICP Global Office, which serves as TAG secretariat, and other World Bank staff, as listed in Annex 2. The public meeting documents and presentations are available on the [ICP website](#).

Paul Schreyer, TAG Chair, welcomed all participants and introduced three new members to the TAG: Nada Hamadeh, former ICP Global Manager; Robert Inklaar, Professor, Economics of Productivity and Welfare, at the University of Groningen and Director of the Groningen Growth and Development Centre; and Paul Konijn, Head of Unit: Price Statistics, Purchasing Power Parities, and Housing Statistics at Eurostat. The Chair also thanked the ICP Global Office and ICP RIAs for their efforts in concluding this ICP cycle.

**Session I: Brief update on the ICP 2021 cycle**

Marko Rissanen, World Bank, presented the status of the 2021 cycle, covering the overall timeline, program participation, price survey status, data submission status, quality assurance, and risk assessment. It was noted that:

- The number of participating economies for the ICP 2021 cycle is consistent with previous cycles.
- The regions faced various challenges arising from COVID-19, the war in Ukraine, and the crisis in the Middle East. These challenges resulted in delays to surveys, data submissions, processing, quality assurance, and calculations.
- The last remaining draft price and expenditure data, as well as auxiliary data, had been received. The share of Global Core List items priced by countries for household consumption was generally high. Data validation is still ongoing in selected regions, with frequent bilateral exchanges between the RIAs and the ICP Global Office to finalize these issues.

- The initial risk assessment at the start of the ICP 2021 cycle included country participation risks and comparability of results. These risks have now been mitigated. However, some risks remain, namely on data quality, where enhanced validation efforts were adopted, and on the timeliness of results, where close cooperation between the regional and global implementing agencies is crucial to follow the outlined production schedule.

In the discussion, it was noted that the finalization of the 2021 cycle results was likely to be towards the end of March 2024, as the regions were in the process of finalizing their respective results. On quality assurance, further validation actions are still required in selected ICP regions.

In conclusion, the TAG welcomed the mitigation of risks associated with participation and comparability of results, given the uncertainty faced at the beginning of this cycle due to economic and geopolitical challenges. The Chair also noted the good progress at the final stages of the ICP 2021 cycle.

### **Session III: Draft ICP 2021 Cycle Results**

#### **Draft ICP 2021 Cycle Results**

Marko Rissanen, World Bank, presented the draft ICP 2021 cycle results. The presentation was divided into two parts: the first discussed various simulations, and the second focused on the preliminary ICP 2021 benchmark results.

In the first part of this session, it was highlighted that the ICP 2021 methodology is the same as the ICP 2017 methodology, with two exceptions: (i) linking the Commonwealth of Independent States (CIS) region as the 6<sup>th</sup> core ICP region to estimate global PPPs; and (ii) a new approach for calculating the regional Housing PPPs in the Asia and Pacific region. The impact of both changes was simulated to the extent possible. Subsequently, a simulation on the impact of expenditure weight changes on the ICP 2021 results was also presented and discussed.

- Regarding the first change, since the Russian Federation was suspended from the OECD in 2022, it is no longer possible to link the CIS region with the Eurostat-OECD (EUO) comparison via the dual participation of the Russian Federation. It was noted that the linking approach for CIS in previous ICP cycles was an exception to the standard ICP methodology and that the new approach for the current cycle removes that exception. Based on the simulations, the impact of introducing CIS as the 6<sup>th</sup> region had negligible impact on the other regions' results. For the countries within the CIS region, the impact can be considered to fall under typical differences between extrapolated and benchmark results, although the average difference was not close or equal to one.
- Regarding the second change, the Asian Development Bank (ADB) has developed a hybrid approach for housing services, which combines both rental and volume housing data, as well as quality adjustments, to account for differentials in the quality of housing services between rich and poor economies. Based on the simulation, adopting this approach in the Asia and Pacific region has a negligible impact on other regions' results. For countries within the Asia and Pacific region, the impact reflects the regional results due to the fixity.
- Lastly, since the COVID-19 pandemic caused untypical changes to weight structures, the TAG tasked the ICP Global Office to conduct a simulation on the impact of expenditure weight changes on the ICP 2021 results. The simulation compared the results using 2021 expenditure

weights with revised 2017 expenditure weights. The results of this simulation revealed a modest, yet mixed, impact at the aggregate levels.

The second part of this session focused on the ICP 2021 preliminary results. It was noted that ICP RIAs are in different states of finalizing their results, with some regional results nearly finalized while, for some countries, final price and expenditure data are still pending, and validation efforts are ongoing. It was also noted that the preliminary results were estimated by three experts, as a Computation Task Team (COTT), working independently on a common data set. The work of the COTT ensures the transparency and replicability of the ICP results.

The draft ICP 2021 cycle PPPs were compared against the extrapolated ICP 2017 PPPs, both at the GDP and household consumption (HHC) levels, for each ICP region and the world. The differences were shown to be, on average, at the same levels, or less, as the ICP 2017 PPPs relative to extrapolated ICP 2011 PPPs for most regions.

The relationship between Price Level Indexes (PLIs) and GDP per capita in USD was also shown, following an expected pattern, where higher-income economies tend to have higher PLIs. The GDP expenditure shares in PPP terms, the country rankings measured in total GDP in PPP terms, and per capita GDP in PPP terms, generally align with the extrapolated ICP 2017 PPPs, albeit with a few exceptions.

The TAG is expected to review the final set of ICP 2021 cycle results, including ICP 2021 results, revised ICP 2017 results, and PPP time series, at its next meeting. In conclusion, the preliminary results were deemed reasonable and reassuring, but selected cases require additional analysis. Furthermore, the TAG suggested developing clear narratives for the cycle's key results. Lastly, it was recommended that the ICP 2021 cycle results should also include nowcasted/forecasted global PPPs, at least until the current year, 2024.

### **Draft revised ICP 2017 results**

Marko Rissanen, World Bank, presented a recap of the approach to produce revised benchmark results and a review of the currently available regional results, which included revised 2017 regional PPPs for all ICP regions, except for the Latin America and the Caribbean region. Previously, revised 2011 regional results were produced based on revised national accounts expenditures, while global 2011 results were revised based on revised regional PPPs, national accounts expenditures, and finetuning of the linking approach. For the 2021 cycle, the TAG supported recalculating linking factors when the previous ICP benchmark year results are revised as best practice, allowing for updating the housing linking factors. However, it was stressed that, in principle, any underlying price data should not be revised. Additionally, it was noted that the Asia and the Pacific 2017 regional PPPs include the new “hybrid” approach to housing, as was agreed by the TAG in the last meeting.

The presentation demonstrated the percentage changes between the original and revised 2017 data for expenditures, regional PPPs, and population estimates. The TAG also noted that the 2017 Productivity Adjustment Factors (PAFs) are an additional factor in the revised 2017 global PPPs, since the underlying Penn World Table (PWT) data has been updated, as well as the regional PPPs, which are used in the calculation of PAFs. The TAG noted that all these factors must be considered when presenting the revised ICP 2017 results narrative.

### **Draft ICP 2017 – 2021 PPP time series**

Giovanni Tonutti, World Bank, presented an overview of the approach to be adopted for the current cycle for producing PPP time series estimates for the years 2017 to 2021, as well as the preliminary results for selected countries. The approach follows the methodology developed by Inklaar and Rao (2019) and was adopted to estimate the global PPP time series for 2011 to 2017 during the ICP 2017 cycle results calculation.

Two main challenges specific to the current cycle were noted, namely, the change in methodology for linking the CIS region in the global comparison and the implications of the impact of COVID-19 on expenditures for interpolating missing information. Regarding the first challenge, in the last TAG meeting, it was decided to compute the weighted, geometric average between (i) the PPPs estimates, including CIS as one of the core regions, and (ii) those obtained by linking CIS via Eurostat-OECD. Regarding the second challenge, the TAG agreed to apply the expenditure structure as reported in the benchmark year 2017 to the interim years 2018 and 2019 and to apply the expenditure structure as reported in the benchmark year 2021 to the interim year 2020.

Following these methodological considerations, results were presented comparing the extrapolated PPPs, currently available in the World Development Indicators (WDI) database, with the estimation of interpolated PPPs based on the latest ICP 2021 data submission. The countries selected for this demonstration were some of the largest countries in PPP-based GDP terms in each region. Particular attention was devoted to the CIS region, given the changes in the linking methodology. The TAG acknowledged these results, highlighting the need for further analysis, especially for the years 2020 and 2021, as the impact of the COVID-19 pandemic affected most countries.

### **Draft ICP 2021 cycle non-benchmark country estimates**

Mizuki Yamanaka, World Bank, presented the approach for PPP estimates for non-benchmark countries. The PPP estimates for non-benchmark countries involve the varying status of participation over ICP cycles and can generally be divided into four categories: (i) ICP benchmark data exists for 2021, but not for 2017; (ii) benchmark data exists for 2017 but not for 2021; (iii) ICP benchmark data exists for 2011, but not for 2017 or 2021; and (iv) no benchmark data from any recent cycles. The goal is to publish PPP estimates for non-benchmark countries at the GDP, HHC, and Actual Individual Consumption (AIC) levels.

For the first two categories, where benchmark data exists for either 2017 or 2021, PPP estimates will be based on extrapolation from or to the missing benchmark year at a detailed level as much as possible. For the third category, where benchmark data does not exist for 2017 or 2021, PPPs are extrapolated from the previous benchmark at higher aggregate levels. For the fourth category, PPPs will be imputed using a regression model based on benchmark results of participating countries and other macroeconomic and social indicators sourced from institutional sources such as the World Development Indicators (WDI), International Financial Statistics (IFS), and World Economic Outlook (WEO). This imputation can possibly be employed for some countries in the third category in cases where detailed extrapolation factors are unavailable, or those data are not sufficiently reliable.

It was noted that the first estimates of non-benchmark imputation for 2021 were calculated for GDP, HHC, and AIC based on the preliminary results for 2021, and the imputation results for GDP, HHC, and AIC are consistent as expected. However, for countries with data availability or data reliability issues, the viability

of PPP estimates is still under assessment. The imputation results will be shared with TAG, along with the final computation of the ICP 2021 results.

The TAG welcomed the inclusion of AIC estimates for non-benchmark countries, noting their usefulness in assessing the material well-being of households. The TAG also acknowledged the difficulty in some of these estimates due to concerns about availability or data reliability. Lastly, the ICP Global Office noted that work is ongoing to incorporate Eurostat's partial results for Kosovo, Timor-Leste is likely to participate in the next ICP cycle under the Asian Development Bank program, and the Pacific Island Community countries are also willing to participate in the ICP 2024 cycle. The TAG welcomed the efforts to extend ICP country participation.

### **Next steps, any other business, and closing remarks**

In the last session of the TAG meeting, it was highlighted that data finalization efforts are still ongoing, and the ICP Global Office is working closely with the ICP RIAs to have the final ICP 2021 results available close to or by the end of March.

The Chair suggested a follow-up meeting once the results are near finalized so that the TAG may analyze them and discuss their interpretation. This proposal was consensually agreed upon. The TAG also acknowledged the need to discuss the release plans, including communication strategies across different institutions, WDI time series update, and overall narrative.

Lastly, it was noted that methodological issues ought to be discussed with a Task Force that will be established for the ICP 2024 cycle.



**International Comparison Program (ICP)  
TECHNICAL ADVISORY GROUP (TAG)**

**Online Meeting**

**February 20-21, 2024**

**Draft Agenda**

**Day 1: Tuesday, February 20, 2024**

09:00 – 09:15 Welcome and opening remarks

**SESSION I: Update on the ICP 2021 cycle**

09:15 – 09:30 Brief update on the ICP 2021 cycle

**SESSION II: Preliminary ICP 2021 cycle results**

09:30 – 10:30 Draft ICP 2021 results

10:30 – 10:45 Break

10:45 – 12:00 Draft ICP 2021 results (Cont'd)

**Day 2: Wednesday, February 21, 2024**

**SESSION II: Preliminary ICP 2021 cycle results (Cont'd)**

09:00 – 09:30 Draft revised ICP 2017 results

09:30 – 10:00 Draft ICP 2017 – 2021 PPP time series

10:00 – 10:30 Draft ICP 2021 cycle non-benchmark country estimates

**SESSION III: Closing**

10:30 – 11:00 Next steps, any other business, and closing remarks

## **Annex 2: List of Participants**

### **ICP Technical Advisory Group members**

- Paul Schreyer, Organization for Economic Co-operation and Development (OECD) (Chair)
- Alan Heston, University of Pennsylvania
- Dr. Prasada Rao, University of Queensland
- Mary O’Mahony, King's Business School
- Xianchun Xu, Tsinghua University
- Robert Feenstra, University of California, Davis
- Nada Hamadeh, former ICP Global Lead
- Paul Konijn, Statistical Office of the European Union (Eurostat)

### **ICP experts, guest speakers, and observers**

- Bettina Aten, United States Bureau of Economic Analysis (BEA)
- Brian Graf, International Monetary Fund
- Sergey Sergeev, Independent Expert
- Yang Wang, Tsinghua University

### **ICP Inter-Agency Coordination Group (IACG)**

- African Development Bank (AfDB): Gregoire Mboya De Loubassou
- Asian Development Bank (ADB): Kaushal Joshi
- Interstate Statistical Committee of the Commonwealth of Independent States (CIS-STAT):  
Andrey Kosarev, Valerica Accibas
- Statistical Office of the European Union (Eurostat): Mihai Iulian Gheorghe
- Organization for Economic Co-operation and Development (OECD): Jarmila Botev
- United Nations Economic Commission for Latin America and the Caribbean (UN-ECLAC): Alfonso Zeron, Claudia Andrea De Camino Ferrario, Ernestina Brigida Perez Ardiles, Giannina Lopez, Lady Infante

### **World Bank**

- Evis Rucaj, World Bank Group
- Marko Rissanen, World Bank Group
- Yan Bai, World Bank Group
- Rui Costa, World Bank Group
- Yuri Dikhanov, World Bank Group
- Nancy Kebe, World Bank Group
- Maurice Nsabimana, World Bank Group
- Edie Purdie, World Bank Group
- Inyoung Song, World Bank Group
- Giovanni Tonutti, World Bank Group
- Mizuki Yamanaka, World Bank Group