

Preliminary ICP 2021 Cycle Results

**International Comparison Program (ICP)
Technical Advisory Group (TAG)**



International Comparison Program

**November 6-7, 2023
Washington, DC**

Outline

- **Revisiting global linking**
- **ICP 2021: Linking housing and linking CIS**
- **Historical perspective: Extrapolated ICP 2011 and ICP 2017 PPPs**
- **2017-2021 national accounts deflators and CPIs**
- **Preliminary draft ICP 2021 results**
 - Caveats (!)
 - 2017/2021 expenditure patterns
 - Extrapolated ICP 2017 and ICP 2021 PPPs



Revisiting Global Linking

Global Linking [1]: Background

- ❖ **ICP 2011/2017/2021 standard linking process is based on the global core list (GCL) approach:**
 - Countries price regional (region-specific) and global (common across regions) items
 - Regional and global item prices are used to calculate regional PPPs
 - Global item prices are used to calculate inter-regional linking factors (LFs)
 - LFs are used to link the regional PPPs into a global set of PPPs
- ❖ **In ICP 2011/2017 5 regions were involved in the global linking: AFR | ASI | EUO | LAT (note: not LAC) | WAS**
 - ICP 2021 introduces CIS as the 6th region to be linked via the GCL approach

Global Linking [2]: At the BH Level

- **STEP A1:** Regional BH PPPs are calculated using the weighted* and unweighted** CPD or weighted and unweighted GEKS methods + referencing (reference PPPs)
- **STEP A2:** GCL item prices in national currency are converted into a common regional numéraire using the country's regional BH PPPs from step A1
- **STEP A3:** Inter-regional LFs for each BH are estimated using the weighted* or unweighted** CPD method based on converted GCL prices from step 2
- **STEP A4:** Countries' regional BH PPP from step A1 are multiplied by the inter-regional LFs resulting from step A3 to arrive at linked BH global PPPs in world numéraire, with fixity

* Household consumption | ** Non-household consumption

Global Linking [3]: Above BH level

- **STEP B1:** Regional BH PPPs are aggregated using the GEKS method
- **STEP B2:** Countries' volume shares in regional comparisons are obtained for each level of aggregation from step B1
- **STEP B3:** Linked BH PPPs in world numéraire from step A4 are aggregated using the GEKS method
- **STEP B4:** Regional volume totals in global comparison are obtained by summing the volumes for individual countries in each region from step B3
- **STEP B5:** Regional volume totals for each region from step B4 are divided using the countries' shares in regional comparison from step B2
- **STEP B6:** PPPs in world numéraire for each country are derived indirectly by dividing countries' nominal expenditures by the volumes derived from step B5 for each level of aggregation up to GDP



ICP 2021: Linking Housing and Linking CIS

ICP 2021: Linking Housing

- ❖ **The Housing Task Force for the ICP 2017 developed the current housing linking approach, which was utilized for revised ICP 2011 and ICP 2017**
- ❖ **The approach uses both housing rental and volume data, as available:**
 1. Regional housing rental PPPs from ICP regions following the rental approach are linked as per the “standard” approach
 2. Housing volume index is computed for all ICP regions
 3. Linked global housing PPPs are estimated based on 1) and 2)
- ❖ **Asia and Pacific's move from a reference volume approach to a “hybrid” approach for regional results does not impact the global linking approach**

ICP 2021: CIS

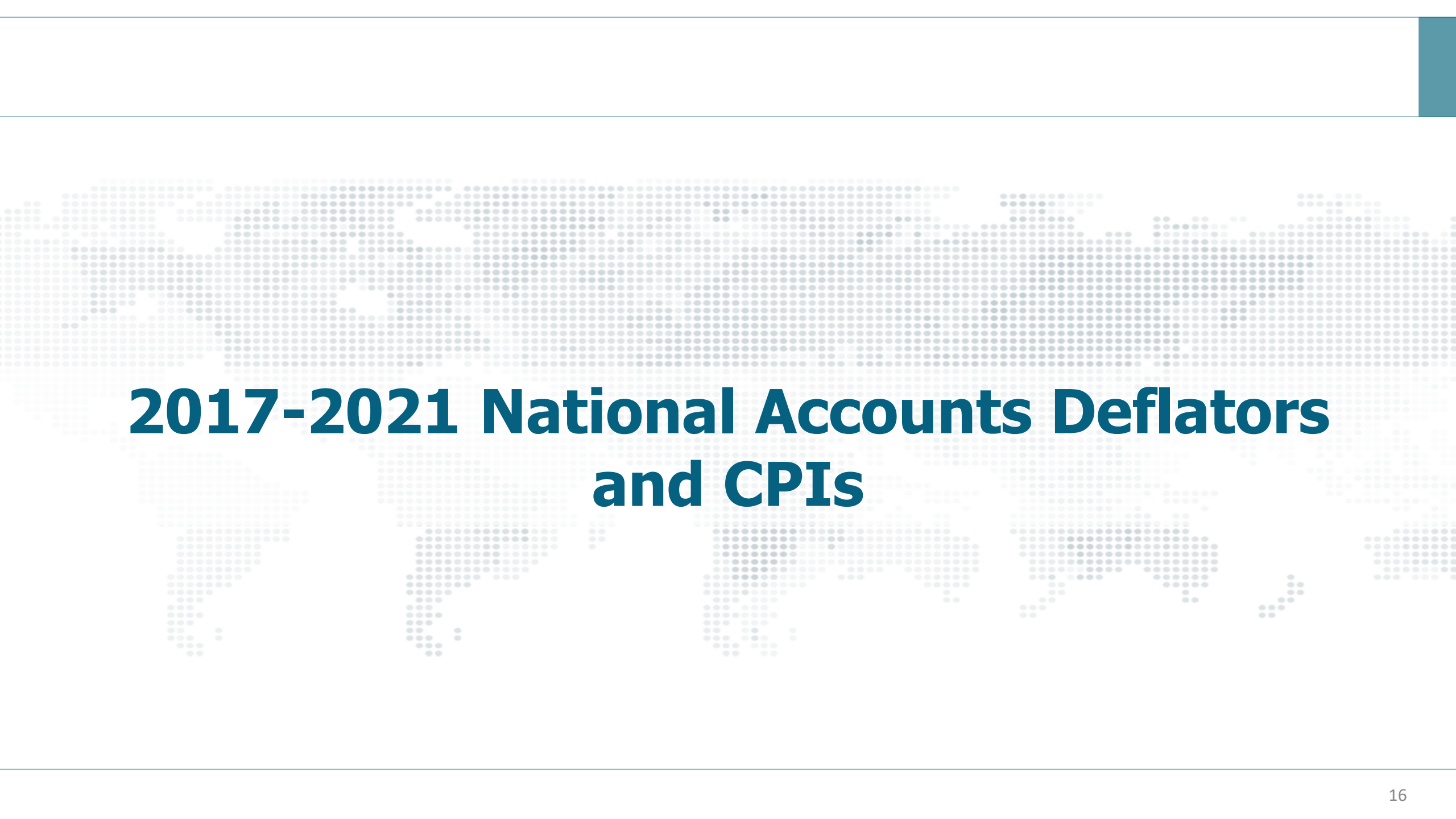
- ❖ **Previous ICP cycles linked the CIS region through OECD-Russia**
- ❖ **The ICP 2021 cycle will link the CIS region through the “standard” GCL approach**
 - Regional results are calculated without productivity adjustment (...for now)
 - Global results are calculated reflecting the “standard” productivity adjustment
- ❖ **2022 ICP TAG meeting reviewed the simulated impact of the GCL approach based on the ICP 2017 data**
 - Inclusion of the CIS as the 6th region had a minimal impact on “other regions”
 - **Actual individual consumption** and **household consumption** results showcased a modest impact | **GDP** level results showcased a higher impact due to the gross fixed capital formation component

A faint, dotted world map is visible in the background of the slide. The map is composed of small, light blue dots that form the outlines of the continents. The text is centered over this map.

Historical Perspective: Extrapolated ICP 2011 and ICP 2017 PPPs

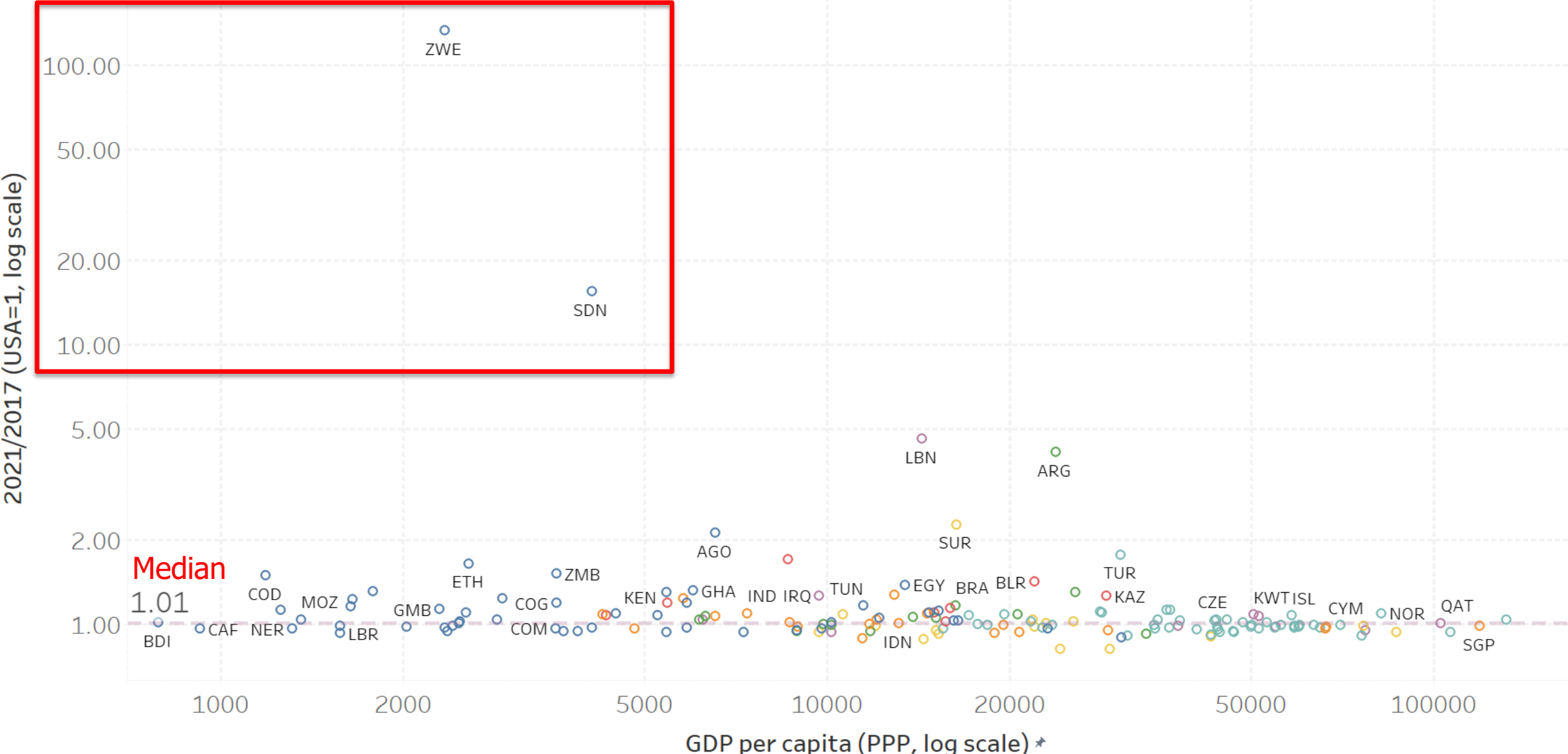
Disclaimer

- ❖ **There are several reasons why extrapolated results from previous benchmarks do not necessarily reflect well new ICP benchmark results**
 - **ICP Book, Chapter 18**: Extrapolating PPPs and Comparing ICP Benchmark Results (by Paul Mccarthy)
- ❖ **Aside from ICP results, extrapolation indices (GDP deflator and CPIs) may, in certain cases, play a role in potential discrepancies**
- ❖ **However, it is beneficial to review the results between the benchmark for any systematic discrepancies**
 - *For reference:* ICP 2005 vs. ICP 1993 and ICP 2017

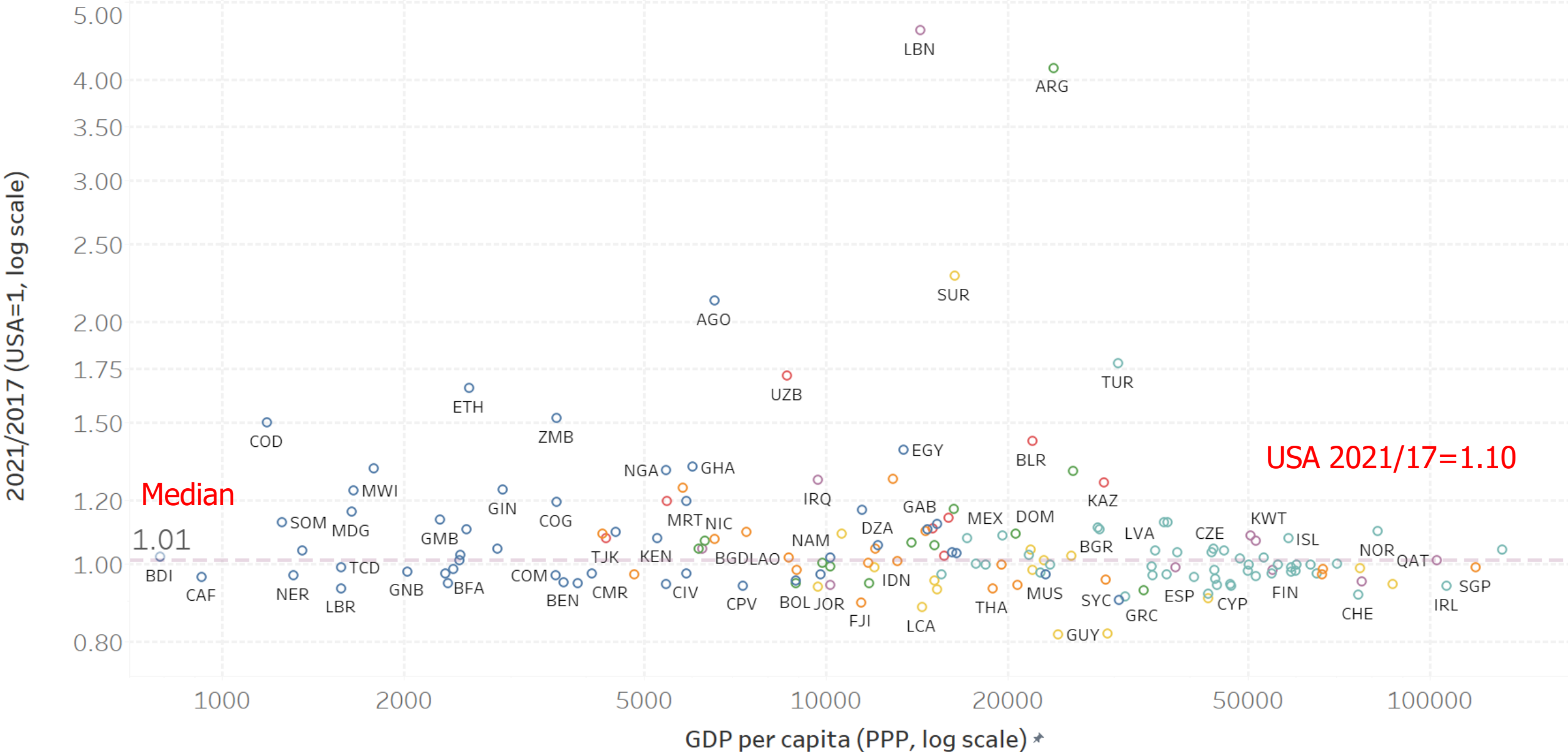


2017-2021 National Accounts Deflators and CPIs

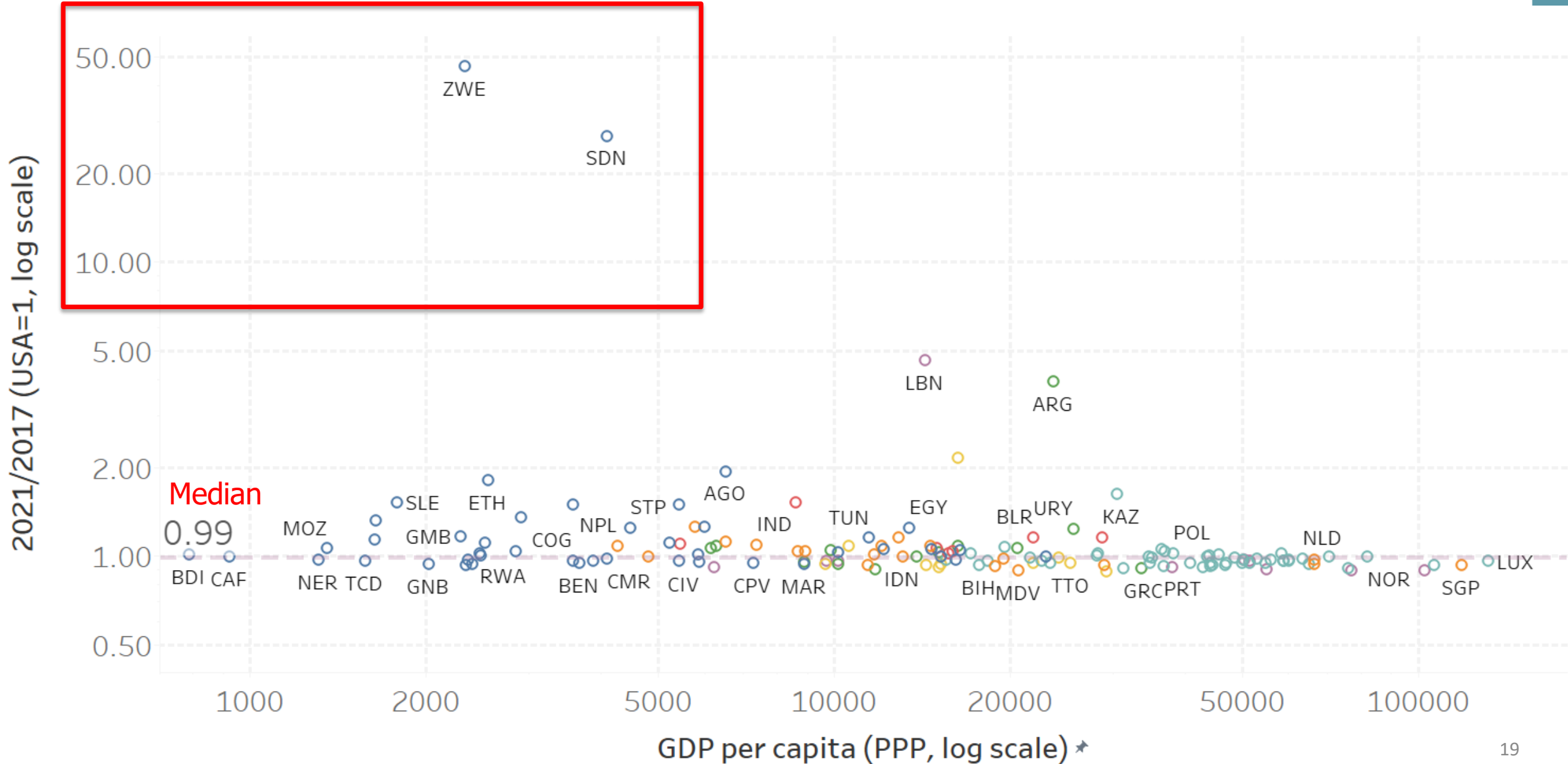
2017-2021 NA Deflators (2021/2017, USA=1)



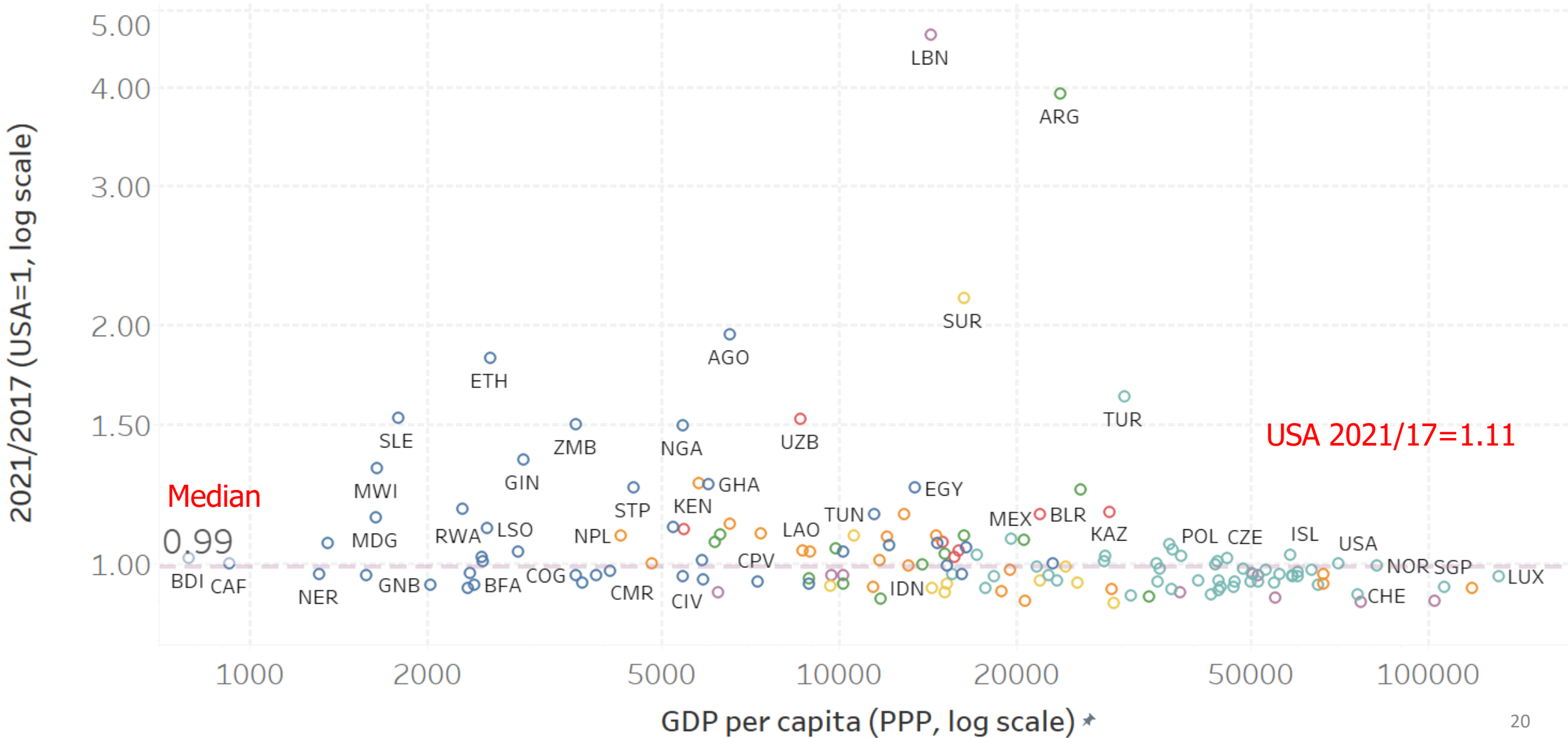
2017-2021 NA Deflators (2021/2017, USA=1)



2017-2021 CPIs (2021/2017, USA=1)



2017-2021 CPIs (2021/2017, USA=1)



A world map composed of a grid of small dots, rendered in a light blue color, serving as a background for the slide. The dots are more densely packed in some areas, creating a subtle shading effect.

Preliminary Draft ICP 2021 Results

Caveats (!)

❖ Current results are very preliminary

- All ICP regions are in the process of validating and assessing regional data
 - Some regions are at a more advanced stage
- The IACG meeting data review identified several points to be addressed

❖ Full parallel calculations will be done for the next phase of calculations

- G. Tonutti | S. Sergeev | Y. Dikhanov | Based on common set of data
- **For now:** 2017 productivity adjustment factors utilized | CAR-region not included (does not impact the other regions) | Otherwise, ICP 2017 approach



The goal is to provide first insights into the ICP 2021 cycle results

Next Steps

- ❖ **Continuous “rolling” regional submissions and regional/global validation**
 - Final regional data expected by end-2023
- ❖ **Setting up complete parallel calculations**
 - G. Tonutti | S. Sergeev | Y. Dikhanov | Based on common set of data
- ❖ **Draft results expected in early 2023**
 - ❖ More comprehensive CIS review (CIS impact on other regions + CIS’s results)
 - ❖ Asia review (“Reference Volume” and “Hybrid Approach” comparison)

