Coverage and quality of the ICP 2017, revised ICP 2011 and PPP timeseries input data

ICP Global Office

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Content

ICP 2017, 2011 and timeseries data coverage and quality

- Introduction
- ICP 2017: Household consumption
- ICP 2017: Other datasets
- PPP timeseries: required datasets
Introduction
1. **Price observation coefficient of variation (obs. CV):**
   Measures variation in price observations for an item within a country

2. **Item coefficient of variation (item CV):**
   Measures variation among price indices for an item

3. **Country coefficient of variation (country CV):**
   Measures variation among a country's price indices for a basic heading (or another grouping of items)

4. **Basic Heading coefficient of variation (BH CV):**
   Measures variation among all the price indices for a basic heading (or another grouping of items)
### CV Example

**BH: 1101111 Rice**

<table>
<thead>
<tr>
<th>Country</th>
<th>XR</th>
<th>BH PPP</th>
<th>BH PLI</th>
<th>Priced items</th>
<th>Country CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>165.9</td>
<td>275.3</td>
<td>166</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>C2</td>
<td>1729.1</td>
<td>1527.1</td>
<td>88</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>C3</td>
<td>582.1</td>
<td>397.2</td>
<td>68</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

**Item: 110111102 Long-grain rice, not parboiled**

<table>
<thead>
<tr>
<th>Country</th>
<th>LCU price</th>
<th>Obs.</th>
<th>Obs. CV</th>
<th>XR-price</th>
<th>XR-index</th>
<th>PPP-price</th>
<th>PPP-index</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>330.6</td>
<td>20</td>
<td>20</td>
<td>2.0</td>
<td>145</td>
<td>1.2</td>
<td>87</td>
</tr>
<tr>
<td>C2</td>
<td>2619.2</td>
<td>15</td>
<td>14</td>
<td>1.5</td>
<td>110</td>
<td>1.7</td>
<td>124</td>
</tr>
<tr>
<td>C3</td>
<td>504.5</td>
<td>1</td>
<td>0</td>
<td>0.9</td>
<td>63</td>
<td>1.3</td>
<td>92</td>
</tr>
</tbody>
</table>

**PPP-index = Difference between expected price and reported price**
**HHC Global Core List (GCL) Item Overlap**

<table>
<thead>
<tr>
<th>Total # of GCL items</th>
<th># of priced GCL items*</th>
</tr>
</thead>
<tbody>
<tr>
<td>631</td>
<td>623 (99%) [+1]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th># of items priced by all 5 regions*</th>
<th># of items priced by at least 2 regions*</th>
</tr>
</thead>
<tbody>
<tr>
<td>165 (26%) [+7]</td>
<td>581 (93%) [-3]</td>
</tr>
</tbody>
</table>

42 (7%) items priced by 1 region only

8 (1%) non-priced items

*Excluding CIS*
# Priced GCL Items per Region

![Chart showing the number of priced GCL items per region. The chart includes box plots for different regions with a y-axis representing the number of items ranging from 150 to 500. Each region is represented by a different color and abbreviation.](chart_image)
ICP 2017: Household Consumption Quality
## GCL BH and Item CVs

<table>
<thead>
<tr>
<th>Total # of countries (^1)</th>
<th>Total # of priced HHC BHs</th>
<th>Total # of priced HHC GCL items (^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>178</td>
<td>87</td>
<td>628</td>
</tr>
</tbody>
</table>

\(^1\) Including CIS and dual-participation countries EGY, SDN, MAR and RUS

\(^2\) Including CIS-priced items

<table>
<thead>
<tr>
<th></th>
<th># of BHs with CV &gt; 40</th>
<th># of items with CV &gt; 40</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APR-2019</strong></td>
<td>13 (14%)</td>
<td>151 (23%)</td>
</tr>
<tr>
<td><strong>OCT-2018</strong></td>
<td>31 (36%)</td>
<td>252 (40%)</td>
</tr>
<tr>
<td></td>
<td>39 (45%)</td>
<td>270 (43%)</td>
</tr>
</tbody>
</table>
# 13 Problematic BHs (BH CV>40)

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Cultural services</th>
<th>Fresh or chilled fruit</th>
<th>Recording media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical products</td>
<td>Gardens and pets</td>
<td>Cultural services</td>
<td>Fresh or chilled fruit</td>
<td>Recording media</td>
</tr>
<tr>
<td>Other fuels</td>
<td>Gas</td>
<td>Fresh or chilled vegetables, other than potatoes and other tuber vegetables</td>
<td>Recreational and sporting services</td>
<td></td>
</tr>
<tr>
<td>Maintenance and repair of personal transport equipment</td>
<td>Telephone and telefax services</td>
<td>Furniture and furnishings</td>
<td>41</td>
<td>40</td>
</tr>
</tbody>
</table>
APRIL: Shares of Potential Outliers*

* PPP-Indices <50 or >200
* CPD residuals <−0.7 or >3.0
TODAY: Shares of Potential Outliers*

* PPP-Indices <50 or >200
* CPD residuals < -0.7 or > 3.0
ICP 2017: Other Datasets
ICP 2017: Other Datasets (1)

HOUSING RENTALS (13 global items) and VOLUME DATA
- Both datasets are almost complete; any remaining missing countries will submit data in December
- Quality of data improved a lot
  - Volume data is good
  - Rental data needs more fine-tuning for selected countries

PRIVATE EDUCATION (7 global items)
- “Comparison resistant area” – comparability of education establishments across countries difficult to ensure
ICP 2017: Other Datasets (2)

GOVERNMENT COMPENSATION (34 global items)
- Overall quality of compensation data acceptable; further validation needed for selected occupations

MACHINERY AND EQUIPMENT (196 global items)
- Quality review supported by a private sector expert
- A few remaining outliers are being reviewed

CONSTRUCTION AND CIVIL ENGINEERING (55 global items)
- Prices are collected for Materials; Equipment hire; labor
- Quality review supported by a private sector expert
- Equipment hire and Labor data quality sufficient; Materials data require further review
Datasets for PPP Timeseries
Datasets for PPP Timeseries [1]

**EXPENDITURES**
- Quality of expenditure weights for 2017 and 2011 has improved since April
- Weight structures for selected countries is under further review, especially for 2011 and interim years (2012-2016)

**Population and Market Exchange Rates (XR)**
- The currency choice for countries with currency change/redenomination between 2011 and 2017 posed a challenge
- XR for selected countries, including Sudan, is under review
Datasets for PPP Timeseries [2]

Consumer Price Indices (CPIs)

- Completeness and quality of region-reported CPI series has improved considerably.
  - Headline CPI and COICOP-12 CPI series are now reported by almost all countries for all years
  - Given that regional-submissions of CPI have improved in terms of completeness and quality, the need for the ICP GO to augment the data has diminished considerably

- The approach to estimate the 2011-2017 PPP time-series would benefit from having CPI series below the COICOP-12 level
  - As of now, Eurostat-OECD and Western Asia have been able to provide detailed CPI series
Datasets for PPP Timeseries [3]

National Accounts Deflators

- GDP level deflators mostly available for all countries
- Deflators for aggregate level (including main aggregates) remains sparse across most regions
- Availability and quality of deflators continues to be an issue for extrapolation below main aggregates
THANK YOU