

Integration between CPI and PPPs

Training Workshop on Price Statistics for the Production of Purchasing Power Parities and the Integration between CPI and PPPs in the Arab Region

07-08 June 2021



Similarities and Differences between CPI and PPPs



Similarities between CPI and PPPs

1. Data Requirements

PPPs

- Prices for a basket of goods and services
- Expenditure weights



CPI

- Prices for a basket of goods and services
- Expenditure weights

2. Classification

PPPs

- COICOP



CPI

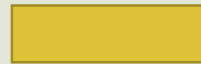
- COICOP

Similarities between CPI and PPPs (cont'd)

3. Some Common Uses

PPPs

- Research on poverty
- Sub-national price comparisons
- Compensation indices and salary scales



CPI

- Research on poverty
- Sub-national price comparisons
- Compensation indices and salary scales

Differences between CPI and PPPs

1. Purpose

PPPs

- Spatial comparison between countries in the same year
- Computation of real economy sizes



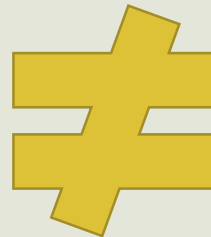
CPI

- Temporal comparison between years in the same country
- Computation of inflation

2. Data Requirements

PPPs

- Prices for a basket of household and non-household consumption items
- Expenditure weights estimated using MORES updated annually



CPI

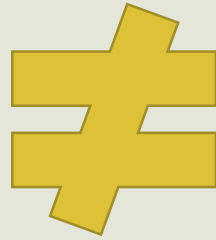
- Prices for a basket of household consumption items only
- Weights obtained from the household budget survey updated every 5 years (approx)

Differences between ICP and CPI (cont'd)

3. Basket of goods and services

PPPs

- Comparable items
- Updated for each round



CPI

- Representative items
- Updated with new HBS and base year

4. Computation Methodology

PPPs

- Base country
- CPD at elementary aggregate level
- EKS at higher aggregate level



CPI

- Base year
- Jevons at elementary aggregate level
- Laspeyres at higher aggregate level



Integration Initiatives

1. Use of CPI in PPP Computation

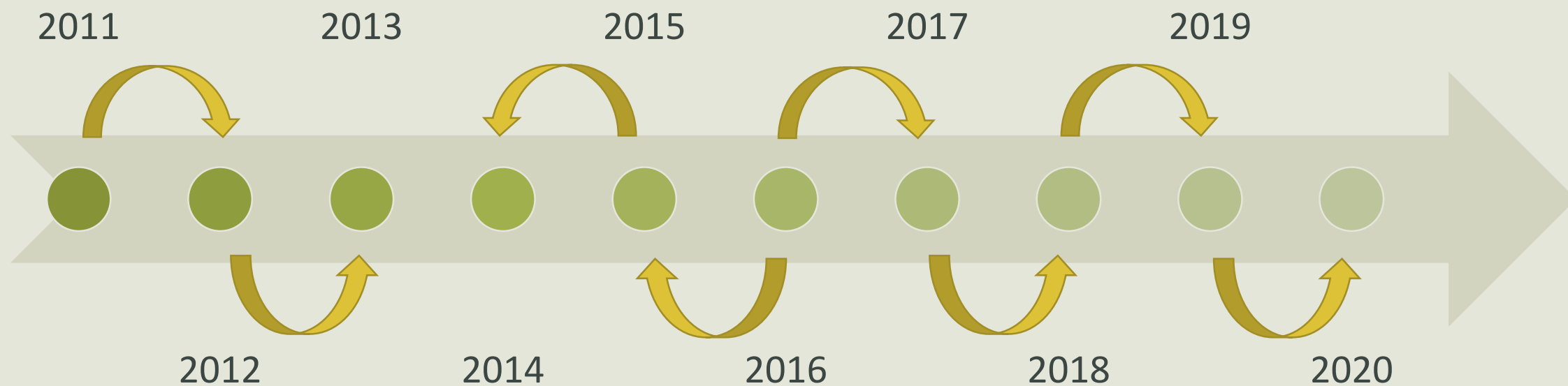
In order to build an annual PPP time-series, detailed CPI data was used to extrapolate/retrapolate HHC price data from reference years to interim years

| | | |
|--|--|--|
| Extrapolation from 2011 to 2012 and 2013 | Retrapolation from 2016 to 2015 and 2014 | Extrapolation from 2016 to 2017, 2018, 2019 and 2020 |
|--|--|--|




This initiative integrating between CPI and PPPs allowed the production of an annual time-series of PPPs without gaps between reference years.

1. Use of CPI in PPP Computation (cont'd)



2. Use of National CPI Lists in Regional HHC Item List Construction

In each PPP computation round, the regional HHC item list is updated



Outdated items are removed



New items are added

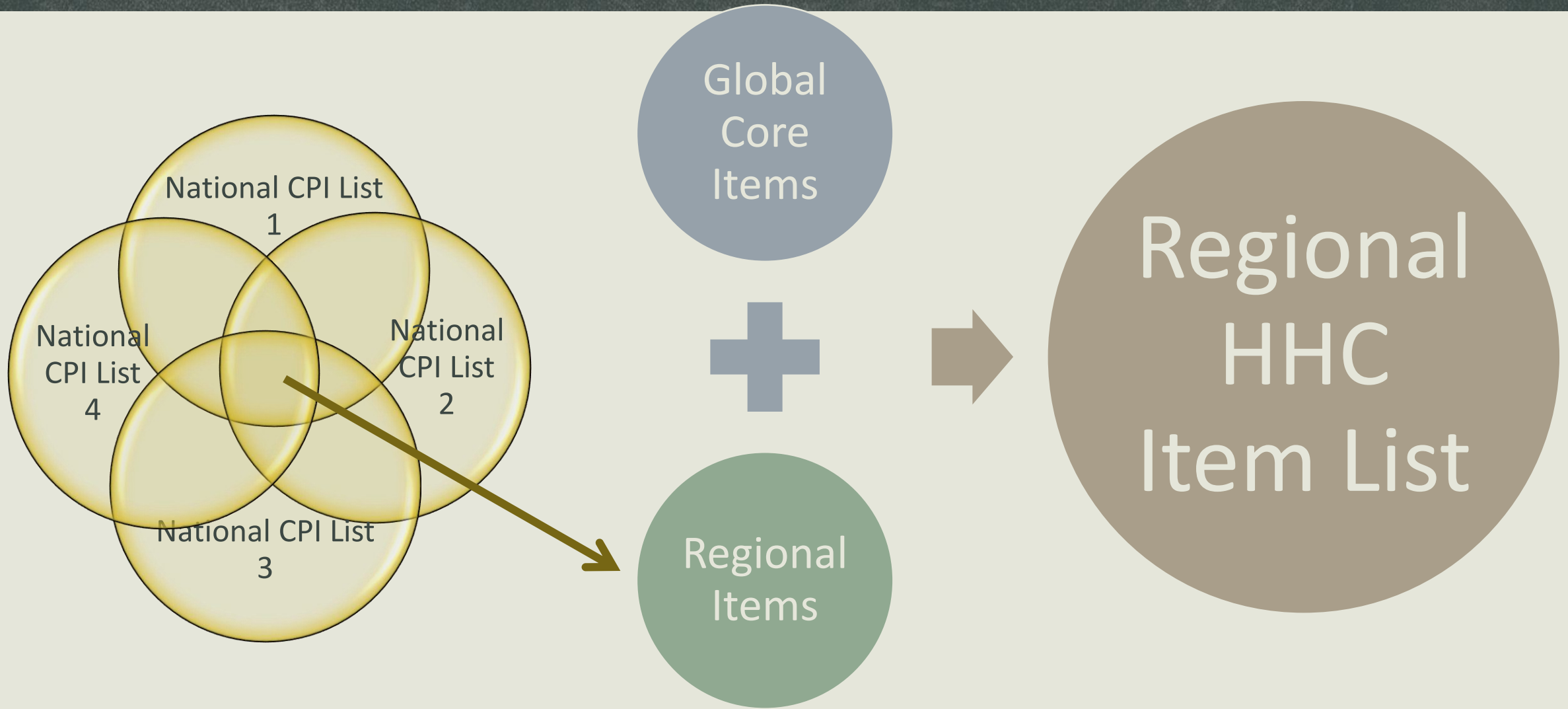


Specifications are updated



We take this opportunity in every round to increase the integration between the regional item list and national CPI lists

2. Use of National CPI Lists in Regional HHC Item List Construction (cont'd)



3. Sub-National PPP Computation

For the computation of sub-national PPPs, the CPI list is used as HHC item list

This is to ensure representativity of the priced items as well as comparability between sub-national regions

However, national CPI lists have to be developed similarly to the regional HHC list, through the inclusion of SPDs

4. Development of the Harmonized Consumer Price Index

CPI Elements

- Computation of a consumer price index
- Measure of inflation
- Representative items
- Temporal price changes

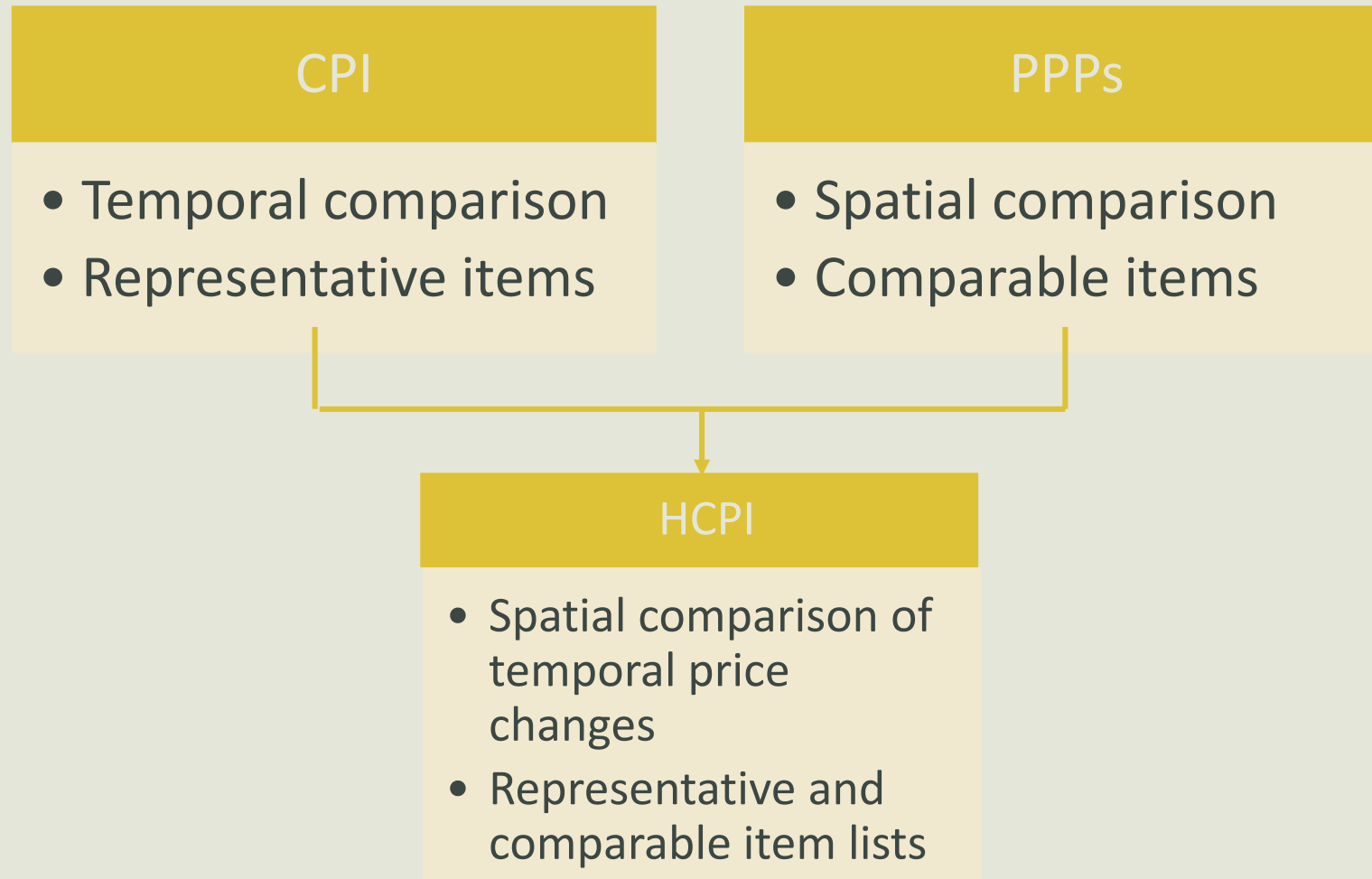
PPP Elements

- Use of Basic Headings
- Comparable items
- Spatial comparison



The HCPI is an integration initiative between CPI and PPPs and achieves synchronization between the two indicators

4. Development of the Harmonized Consumer Price Index (cont'd)



Importance of CPI-PPP integration

- All the mentioned initiatives achieve bilateral integration between CPI and PPPs using elements of the 2 indicators and improving one through the adoption of elements from the other.
- The 4 mentioned initiatives also build the statistical capacities of member countries and enable them to employ the gained knowledge and lessons learned for the improvement of their own statistical output.
- The integration of CPI and PPP activities also guarantees the sustainability of PPP production on an annual basis.



CPI-PPP Integration Initiatives at the National Level



National Integration between CPI and PPPs

- Member countries have introduced a subset of new items from the regional HHC item list to their national CPI lists, hence reducing data collection efforts and costs in the next PPP production rounds.
- Other countries are doing additional effort and synchronizing data collection for CPI with the entire regional HHC list.
- The collection of prices for these items takes place quarterly but does not enter in the calculation of the CPI, thus maintaining the CPI's national representativity.
- Countries are also including items for the private education and rentals surveys in their own CPI item list.
- As a result, regular PPP production will be more accurate as it will rely less on extrapolation.

National Integration between CPI and PPPs (cont'd)

Integration does not only occur at the level of item lists or data collection, but could also include data validation

For example, Palestine has invested the capacities built from participation in the regional PPP production rounds for improving the national CPI and reducing the efforts needed for PPP-related data collection through:

- Development of a single common database divided into common CPI and PPP items, CPI-specific items, and PPP-specific items
- The same team performing data collection for CPI and PPP purposes
- The use of the same equipment for data collection for CPI and PPP purposes
- Construction of an illustrated catalogue for national CPI items
- Application of PPP data validation rules on the national CPI

The background is a dark green chalkboard with various white chalk sketches. On the left, there is a globe showing continents. Above it are a pair of scissors and a ruler. In the top left corner, there are two circular diagrams, possibly representing atoms or molecules. On the right side, there is a detailed drawing of a microscope. At the bottom, there are several rectangular shapes, possibly representing books or papers. The overall theme is educational and scientific.

Thank You