Eurostat’s experience with estimating rental equivalence

Paul Konijn
TAG-Housing TF
3 May 2019
Owner-occupied dwellings in national accounts

- *In EU: principles for estimating owner-occupied dwelling services in national accounts regulated by Commission Regulation 1722/2005*

- *First preferred option: estimate rents for owner-occupied dwellings on the basis of actual rentals for equivalent privately rented dwellings*
  - Needs a functioning rental market for equivalent dwellings

- *Second option: user-cost method*
  - To be used when privately rented dwelling < 10% of dwelling stock and
  - Disparity private rents / other rents > 3
Imputed rents – basic methods

- **Stratification method**: stratify in detail the rental stock and the o-o stock by rent-determining characteristics and apply average actual rentals per stratum to the o-o strata
  - **Alternative**: hedonic regression
- **User-cost method**: sum of
  - intermediate consumption
  - consumption of fixed capital
  - other taxes less subsidies on production
  - net operating surplus (rate of return 2.5%)
Rents in PPP

- **Countries are split in two groups:**
  - Those that apply rental equivalence in NA: *price approach*
  - Those that apply user costs in NA: *quantity approach*
- **Three countries (AT, FR, FI) are in both groups and provide the link**
Four basic headings

• A.04.1.0.0 Actual rentals for housing (in HFCE)
• A.04.2.0.0 Imputed rentals for housing (in HFCE)
• B.01.0.0.0 Housing – NPISH
• C.01.0.0.0 Housing – General Government

PPPs for A.04.1.0.0 are used as reference PPP for B.01.0.0.0 and C.01.0.0.0
Price approach

- Actual and imputed monthly rentals per m² are reported for the same 8 dwelling types:
  - Flat, 1-2 rooms, no central heating
  - Flat, 1-2 rooms, with central heating
  - Flat, 3 rooms, no central heating
  - Flat, 3 rooms, with central heating
  - Flat, 4+ rooms, no central heating
  - Flat, 4+ rooms, with central heating
  - House, all sizes, no central heating
  - House, all sizes, with central heating

- Data are to be used from same sources as used in national accounts

- Expenditure-weighted EKS used to calculate PPPs for the two BHs
Quantity approach

- *Countries report:*
  - Quantity indicators: number of dwellings and total surface in m² for flats and houses broken down by number of rooms (finally only total m² is used)
  - Quality indicators: shares of dwellings with electricity, running water, inside toilet and central heating

- *Volume measure =*
  
  \[(\text{m²/capita}) \times \text{(simple average of quality indicators)}\]

- *PPP = \text{expenditure/volume}*

  - For total housing! (no breakdown rented vs o-o)
  - Expenditure includes NPISH and GG!
Linking price and quantity approaches

• *Three bridge countries*
• *Linking factor* =

\[
\frac{\text{geomean PPPs price approach}}{\text{geomean PPPs quantity approach}}
\]

• *Quantity approach scaled to level of price approach*
• *Same PPPs from quantity approach are used for actual and imputed rentals*
Differences with ICP

- *Different stratification of dwellings in price approach*
- *Collection of imputed rents per stratum*
- *Collection of total m2 and number of dwellings per stratum – for weighting of strata*
- *Use of expenditure-weighted EKS instead of unweighted CPD*
Options for ICP BH Imputed rents

1. Use direct PPPs calculated for actual rents for all countries within regions

2. Use quantity approach (indirect PPPs) for all countries, based on quality-adjusted number of dwellings or number of rooms, if possible

3. Mix: use direct PPPs from actual rents when sufficiently representative, otherwise indirect PPPs (need bridge countries)

Note: imputed rents is 60-70% of expenditure on average
Reminder on ICP 2011

• No BH breakdown of actual and imputed rents
• Most regions thus used the direct PPPs implicitly for imputed rents (cf option 1 of previous slide)
• Exceptions:
  • Asia that used reference volume approach
  • Eurostat/OECD with mixed approach
References

- *Eurostat-OECD Methodological Manual on Purchasing Power Parities, chapter 6*