Driving Relative Regional Consumer Price Levels out of UK PPPs
UNECE-ILO meeting on Consumer Price Indices – 30th May 2012
Introduction

• Paper submitted:

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Introduction

- Long standing user need for regional price data in the UK
- This was highlighted in a recent assessment of the UK CPI by the UK Statistics Authority
- The production of Relative Regional Consumer Price Levels (RRCPLs) goes some way to addressing these needs
Background

- UK required to participate in Purchasing Power Parities (PPP) programme
- PPP data collected in London but requirement is for national PPPs
- Therefore, required (every 6 years) to produce Spatial Adjustment Factors (SAF)
- To produce SAF, UK completed additional UK wide data collection
- ONS recognised the potential of this additional dataset and potential to calculate RRCPLs
Producing RRCPLs

- ONS published RRCPLs in July 2011, presenting price levels for 5 regions of UK (for 10 COICOP divisions)
- The dataset collected for SAF was used for RRCPLs
- Data sourced from three areas
  - Price data from the UK CPI
  - Central price collection by UK ONS
  - Local price collection by external contractor
Producing RRCPLs

• CPI data only used where comparable quality across regions could be ensured
• This was achieved by mapping UK CPI item list to PPP item list and making assessment on quality
RRCPL Methodology

- Methodology adopted was consistent with calculation of PPPs
- Basic approach is to measure the cost of purchasing a common basket of goods & services in each region
- Express this cost relative to the UK average for the basket
- At the elementary aggregate level, price relatives for each pair of regions calculated (5 regions)
RRCPL Methodology

- Equally weighted indices calculated at EA level (geometric mean)
- Regional weights then used to aggregate EAs to COICOP levels:
  - For each pair of regions:
    - EAs weighted, summed and averaged first using expenditure of first region as weights
    - Then repeated using expenditure of second region as weights
- This gave two indices – a Laspeyres like index and Paasche-like index
RRCPL Methodology

• Geometric mean of these two indices then calculated = Fisher-like RRCPL between two regions
• Produce a matrix of Fisher-like RRCPLs
• Applied method of transitivity on Fisher-like RRCPLs – used EKS method
• After applying EKS, left with a 5x5 matrix of bilateral EKS RRCPLs
RRCPL Methodology

• Standardisation of EKS RRCPLs then carried out to obtain set of RRCPLs with UK as base
• Done by dividing each RRCPL by geometric mean of RRCPL in its column of matrix
• Results in 5 EKS RRCPLs – (one for each region in the exercise) with the UK as a base
High level results

Regional price level relative to national price level (UK=100)

<table>
<thead>
<tr>
<th>Region</th>
<th>Price Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>106.7</td>
</tr>
<tr>
<td>UK</td>
<td>100.0</td>
</tr>
<tr>
<td>England (excluding London)</td>
<td>99.8</td>
</tr>
<tr>
<td>Scotland</td>
<td>99.0</td>
</tr>
<tr>
<td>Wales</td>
<td>97.6</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>97.1</td>
</tr>
</tbody>
</table>
Limitations

- Absence of housing costs, which users felt should be addressed
- Frequency – users keen for annual updates
- More detailed COICOP coverage
Conclusions

• Consultation with users has identified a need for regional price data
• Currently produced by UK as a by-product of SAF project (every 6 years)
• ONS will develop a programme in 2012 to investigate feasibility of producing further COICOP divisions
• Ultimate aim is to produce more detailed and frequent RRCPLs
• But, likely to be a large cost associated with this work
Thank you

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