



Office for
National Statistics

Driving Relative Regional Consumer Price Levels out of UK PPPs

UNECE-ILO meeting on Consumer
Price Indices – 30th May 2012

Introduction

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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

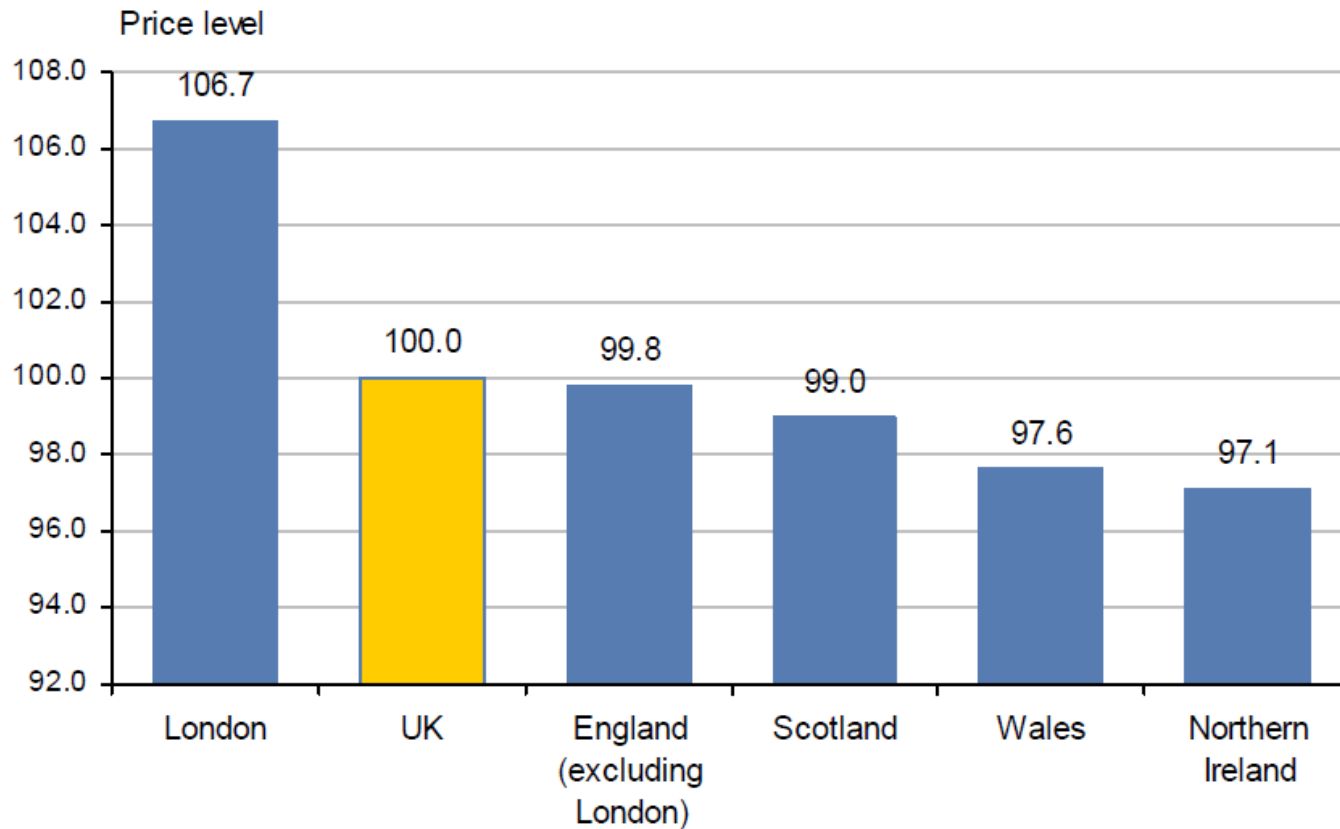
- Geometric mean of these two indices then calculated = Fisher-like RRCPL between two regions
- Produce a matrix of Fisher-like RRCPLs
- Applied method of transitivity on Fisher-like RRCPLs – used EKS method
- After applying EKS, left with a 5x5 matrix of bilateral EKS RRCPLs

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)



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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