Outline

• Introduction
• Methods
• Terminology
• Methodological and practical challenges
• Towards a multipurpose price statistics data warehouse
• Results from pilot projects
• Future work
Introduction

- The shift towards evidence-based policy and sector/product market monitoring exercise call for a new approach to price statistics

  "structural approach to prices"

- Combination of temporal and spatial dimensions of consumer price collection and index compilation
- Extension to existing work of HICP/CPI and PPP by emphasising the synergies:

  "multipurpose price statistics"

- i.e. indicative price levels for specific groups of products
Why multipurpose price statistics?

- to develop further existing price index statistics
  - by increasing the level of detail of collected and released information
- to produce detailed average price levels
- to promote research on the modernisation of price collection processes
- to make best use of collected data for various statistics
- to promote further harmonisation of the various price statistics
Methods

Main idea:

• enhance the traditional collection of basic price data for the compilation of (harmonised) consumer price indices by combining it with key characteristics of the PPP basic price collection

• In practice a set of consumer product groups is:
  • identified on the basis of a reduced version of the PPP standard definitions and basic prices
  • complemented by related information
  • collected following a HICP/CPI oriented approach
Multipurpose price statistics

**HICP/CPI**
- Monthly
- A lot of observations
- Sample of representative products
- Flexibility in product description
- Choice of relevant prices in collection
- Country coverage

**PPP**
- Three yearly
- Few observations
- Products narrowly defined
- Strict product description
- Choice of representative products
- Limited geographical coverage

Mixed approach: "detailed" and harmonised product information of the PPP collection and "temporal richness" of price observation of HICP/CPI collection
Terminology

• Multipurpose price statistics
  • Basic price information (basic prices and related information) collected for different price statistics purposes.

• Detailed Average Price Levels (Indicative price levels)
  • averages of prices measured in the outlets selected for price observations
  • for the product offers as chosen by the price collectors, selected following the procedures of the statistical institute in each country
  • in many cases, but not always, for the most popular product types
  • often, but not always, prices at which the products are sold in the most popular outlets.
Measure of dispersion

Juices - detailed average prices

- Orange
- Apple
- Multivitamine
- Abricot
- Pear

PRICE
Max
Upper quartile
Lower quartile
Min

Weights

Weights

0
50
100
150
200
250
300

0
2
4
6
8
10
12

Eurostat
Methodological and practical challenges

- Combine the spatial (PPP) and temporal (HICP) dimensions
  - **HICP/CPI** is a measure of inflation (methodological framework proper to CPIs compilation – e.g. sampling, representativeness, quality adjustments, etc.)
  - **PPP** is the spatial elements (focus on comparability of products across countries - very precise product description)

- Multipurpose price statistics
  - design the collection of basic information to match the **PPP approach in a less detailed way** (selected list of group of products – no forced adherence to a very restrictive description of the product)
  - combine it with the **HICP methodological and practical collection instruments** (sampling, geographical coverage, quality adjustment, frequency)
Comparability across countries

- Representativeness for the whole market (EU)
- Different relevance for consumers
- Position of products in the countries
- Product descriptions vs. HICP/PPP practices
- Influence of market structure on prices
- Influence of outlet distribution on prices
- Coverage of brands
Comparability over time

- Changes in currencies and country comparison
- Products may differ over time
- Distribution of outlets over time
- More observations per product group and per collection period
Data warehouse approach
European collection system
## DAP pilot projects

### Number of products entered in the project, and results, by COICOP division

<table>
<thead>
<tr>
<th>COICOP Division</th>
<th>Requested</th>
<th>In publication</th>
<th>Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Food and non-alcoholic beverages</td>
<td>52</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>2 Alcoholic beverages and tobacco</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>3 Clothing and footwear</td>
<td>29</td>
<td>28</td>
<td>1</td>
</tr>
<tr>
<td>4 Housing, water, electricity, gas and other fuels</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5 Furnishing, household equipment and routine maintenance of the house</td>
<td>23</td>
<td>23</td>
<td></td>
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<tr>
<td>6 Health</td>
<td>0</td>
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</tr>
<tr>
<td>7 Transports</td>
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<td>2</td>
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</tr>
<tr>
<td>8 Communications</td>
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</tr>
<tr>
<td>9 Recreation and culture</td>
<td>23</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>10 Education</td>
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<td>0</td>
<td></td>
</tr>
<tr>
<td>11 Restaurants and hotels</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>12 Miscellaneous goods and services</td>
<td>15</td>
<td>15</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td>157</td>
<td>156</td>
<td>1</td>
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</tbody>
</table>
Problems encountered

- Large differences between samples in countries
- Harmonisation of product description
- Differences in the price collection processes
- Define the optimum level of specification in the product descriptions
- Thresholds for coefficients of variations
- Width of confidence intervals
- Use of "modern" sources (internet, scanner data)
Future work

- Develop a common classification for PPP and HICP (e.g. 300 products at COICOP 6 digit level)
- Set-up of PPP measures and HICP indices based on the restricted selected number of detailed products
- Common production process in part for both PPP and HICP
- Discuss data needs with users
- Macro data and micro data warehouses to re-structure basic price information

  - Project PRIX (PRIce statistics neXt generation) recently launched by Eurostat at EU level
Thank you for your attention!