Import and Export Service
Producer Price Indices in the UK
National Accounts

John Jeremy
Office for National Statistics – United Kingdom
Topics for discussion

1. Current methods for producing Trade in Services Deflators
2. Issues with these methods
3. Services Export Price Index (SEPI) Development
4. Recent Improvements and Developments
5. Future Work and Developments
Current Methods for Producing Trade in Services Deflators

Broadly, our current practices can be split into three methodologies:

- **Use of GDP(O) Deflators**
  - Uses GDP(O) implied deflator
  - No adjustment for exchange rates
  - Same deflator for import and export

- **Use of Weight Modified CPIs (WMCPIs)**
  - Uses foreign CPIs
  - Adjusted for exchange rates
  - Weighted by trade volumes

- **Combination of GDP(O) deflator and a WMCPI**
  - Uses equally weighted average of GDP(O) and WMCPI
Issues With Current Methods

Review of current methods have raised following issues:

- **GDP(O) Deflators**
  - Do not represent trade prices
  - No adjustment for exchange rates
  - Same deflator for import and export

- **WMCPI Deflators**
  - Uses aggregate CPI
  - Exchange rate adjustment is imperfect
  - Inconsistent methods
  - No representation of sterling prices
  - Assume only one currency is used

- **GDP(O) & WMCPI Combined**
  - All of the issues above
  - Arbitrary weighting
### Issues With Current Methods

#### Figure 1: Proportion of import and export currency transaction by EU and Non-EU

<table>
<thead>
<tr>
<th></th>
<th>Imports from EU</th>
<th>Imports from Non-EU</th>
<th>Exports to EU</th>
<th>Exports to Non-EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterling</td>
<td>52.2</td>
<td>39.5</td>
<td>38.9</td>
<td>50.6</td>
</tr>
<tr>
<td>Euro</td>
<td>39.5</td>
<td>12.9</td>
<td>46.0</td>
<td>4.9</td>
</tr>
<tr>
<td>US Dollar</td>
<td>7.3</td>
<td>40.1</td>
<td>13.7</td>
<td>39.9</td>
</tr>
<tr>
<td>Other</td>
<td>1.0</td>
<td>7.5</td>
<td>1.4</td>
<td>4.6</td>
</tr>
</tbody>
</table>

It should be noted that:

The results of this analysis only represent the responses given to the IPI and EPI surveys and not necessarily trade of all goods.

The IPI only reflects imports of products and materials to be used for further processing in the manufacturing sector.
Issues With Current Methods

Review of current methods have raised following issues:

- **GDP(O) Deflators**
  - Do not represent trade prices
  - No effect from exchange rates
  - Same deflator for import and export

- **WMCPI Deflators**
  - Uses aggregate CPI
  - Exchange rate adjustment is imperfect
  - No representation of sterling prices
  - Inconsistent methods
  - Assume only one currency is used

- **GDP(O) & WMCPI Combined**
  - All of the issues above
  - Arbitrary weighting
Ideally, we would directly observe export prices. As such, we have begun development of SEPI.

- Designed as a service equivalent to Export Price Index (EPI)
- Builds on methods developed for EPI and Annual Survey Goods and Services (ASGS)
- Pilot survey to be dispatched in November
- If publishable data is gathered it could be released middle of 2020
- Aim of the pilot is to assess viability of extending the survey
Recent developments and improvements

As the benefits of the SEPI survey are yet to be realised, development work has begun to improve existing methods.

**Improvements to WMCPI deflators**

**Improvements to exchange rate adjustment**
- No longer adjust by local currencies
- Addition of Sterling transactions
- Adjust for Sterling, US Dollar and Euro transactions
- Model is split between trade with Europe and the Rest of the World
Recent improvements and Developments

As the benefits of the SEPI survey are yet to be realised, development work has begun to improve existing methods.

Improvements to WMCPI deflators

Updated export measure to use GDP(O) implied deflators
- Domestic deflators seem more appropriate than foreign CPIs
- Again, assumes transactions in Sterling, Euros and US Dollars
Example of Aggregation of Improved WMCPIs

Export Deflator

- Non-Sterling Transactions
  - EU Countries
    - Euro Transactions Index
      - GDPO
      - EUR/GBP
    - USD Transactions Index
      - GDPO
      - USD/GBP
  - Non EU Countries
    - Euro Transactions Index
      - GDPO
      - EUR/GBP
    - USD Transactions Index
      - GDPO
      - USD/GBP
- Sterling Transactions
  - GDPO
6. Future work and developments

Investigation of hedging activities
- Industry consultations suggest this could be important in some industries

Further improvement to exchange rate adjustments
- Where GDP(O) deflators are used, consider exchange rate adjustment

Consider more specific CPIs
- Where CPIs are available for specific services, use these instead of aggregate CPI

Improvement to TiS systems
- A new system that allows for better analysis and dissemination of the data