Industry vs. Product Based SPPI

Susanna Tåg, 21 September 2015
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The choice between an industry and a product based services producer price index (SPPI) has been pointed out, see for example:

“SPPIs should measure change in the prices of products, rather than industries”

-Eurostat-OECD SPPI Guide, 2nd edition-
The aim of this presentation is to highlight a number of aspects when considering the composition of industry and/or product based SPPIs.

The emphasis is on the practical side, and the thoughts presented are based on some international guides and manuals as well as on the experiences of Statistics Finland’s (S)PPI team.
## Definition of Industry and Product Based SPPI

<table>
<thead>
<tr>
<th>Sample</th>
<th>Industry based index</th>
<th>Product based index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business enterprises classified under specific industry</td>
<td>Products classified under specific industry</td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>All of the output of the sampled units can be represented in the index, even secondary activity output</td>
<td>Secondary activity output excluded, but all of the output of certain types of services irrespective of the main industry of the enterprise included</td>
</tr>
</tbody>
</table>
Choice between Industry and Product Based 
SPPI - Some Aspects

Primary objectives:

1. to deflate national accounts data (or data on service production for volume indicator → product based SPPI would be preferred

2. to serve primarily as a short-term indicator → industry based SPPI would be preferred

This is, however, subject to the composition of data on production, i.e. value index, which is deflated by a price index. The structure of the value index and the price index should be comparable

\[
\frac{V}{P} = Q
\]
How Is the Industry vs. Product Based ApproachHandled in Various SPPIs

In practice, SPPI may be an industry based or even a mixture of industry and product based.

Statistics in general are less developed for service industries than for goods industries (e.g. product based statistics on outputs).

Choice between industry and product based SPPIs may be less important for services than for goods while the share of secondary production tends to be smaller in service than in goods industries.

- However, this is not true for some service industries with relatively high share of secondary production. So, this should be studied by industry (more next).
In What Industries Is the Choice between Industry vs. Product Based Approaches Especially Prevalent? (1/2)

- Product based SPPI is recommended, especially, in the case of high share of industry turnover stemming from the production of secondary activities
  - Although, if the industry based survey should be rather extensive, this would not necessarily be the case

- Share of secondary activities can be studied using different kinds of data sources available, for example business services surveys, structural business surveys and input-output tables

- Situation may vary between countries and over the time
In What Industries Is the Choice between Industry vs. Product Based Approaches Especially Prevalent? (2/2)

According to the Finnish data the issue might be especially prevalent in the following industries:

<table>
<thead>
<tr>
<th>NACE Division/Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I55</td>
<td>Accommodation</td>
</tr>
<tr>
<td>J58</td>
<td>Publishing activities</td>
</tr>
<tr>
<td>J59</td>
<td>Motion picture, video and television programme production; sound recording and music publishing activities</td>
</tr>
<tr>
<td>J62</td>
<td>Computer programming, consultancy and related activities</td>
</tr>
<tr>
<td>M70.2</td>
<td>Management consultancy activities</td>
</tr>
<tr>
<td>N82</td>
<td>Office administrative, office support and other business support activities</td>
</tr>
</tbody>
</table>
Challenges Industry vs. Product Based Approach Present to Product Classifications

- Classification should fit to the activities undertaken in service sector

- In order to compile product based SPPIs, a product classification should be **detailed enough** to constitute relatively homogeneous group of service products

- More detailed level of groups (which may also be more suitable) can be defined for the use of SPPI. These groups can be defined, for example, by specific survey, or they may also be based on the advice of the relevant industry representative organisations
Possible Impacts on the National Accounts’ Calculation of Volume of Services Outputs?

- If only industry based SPPIs are available, special attention need to be paid to the weighting of price indices. The weights should be updated frequently to match with the industry output in national accounts.

- The availability and the level of detail of the data on industry output by product groups are subject to product based statistics on outputs which can be rather limited in the case of services.

- **Detailed turnover** data at as disaggregated a level as possible would be required.
  - otherwise industry based SPPIs can be common.

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Thank you for your attention!

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