Electronic Data Collection Experiences in Finnish PPI

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Statistics Finland
Content

What are the data used for?
From whom are data collected?
Collection of PPI price data in Statistics Finland
Data collection process in PPI
Data collection
Web questionnaire
Goals with the new PPI web collection system
How to reach the goals?
The web questionnaire, Xcola
Future actions
What are the data used for?

Inclusion of domestic, export and import goods in different indices

- **Export goods**
  - Export Price Index

- **Domestic goods**
  - Producer Price Index for Manufactured Products
  - Basic Price Index for Domestic Supply/
    Basic Price Index for Domestic Supply,
    Including Taxes

- **Import goods**
  - Import Price Index
From whom are data collected?

- The data collection covers enterprises that have production, imports or exports in the main groups A to F of the CPA2008 product classification.
- The Statistics Act (280/2004) obliges Statistics Finland to treat the collected data as confidential. In the published statistics the data are reported at a level from which the data on an individual enterprise cannot be identified.
The price data for the producer price indices (including export and import prices) are collected monthly from the enterprises, a few exceptions

- Totally ~ 2500 prices are collected monthly from about 2000 data suppliers.
- 82% of the prices are collected via Internet query
- non-response 2-3%, 50-100 prices

The collection is also performed by the PPI team
Collection of PPI price data in Statistics Finland 2/2

<table>
<thead>
<tr>
<th>Index</th>
<th>No. of data suppliers</th>
<th>No. of CPA product categories</th>
<th>No. of price data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producer Price Index for Manufactured Products</td>
<td>960</td>
<td>600</td>
<td>2.700</td>
</tr>
<tr>
<td>Export Price Index</td>
<td>440</td>
<td>350</td>
<td>1.000</td>
</tr>
<tr>
<td>Import Price Index</td>
<td>910</td>
<td>600</td>
<td>2.400</td>
</tr>
<tr>
<td>Basic Price Index for Domestic Supply/Basic Price</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index for Domestic Supply, Including Taxes</td>
<td>1.580</td>
<td>850</td>
<td>4.150</td>
</tr>
</tbody>
</table>
Data collection process in PPI

Date

24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

- Web and email inquiries (mass emailer)
- Validation of incoming data (big price changes, quality changes etc.)
- SMS & Phone reminders
- E-mail reminders for non-respondents
- Index calculation
- Publication
- Previous release date

Validation of incoming data (big price changes, quality changes etc.)
Data collection; important things to consider 1/2

- It is important that collecting prices and processing the data is done well in order to have a good quality of price information and to calculate reliable indices.
- Changes in the price index must not result from changes in quality – the index should represent pure price changes only without quality change.
- To be able to measure the development of prices and to quality adjust if necessary, the staff of the statistical office should know about the reasons of price changes.
Price change (versus quality change)

\[ \Delta p = \Delta pp + \Delta pq \]

Where

- \( \Delta p \) = observed/reported price change between two periods
- \( \Delta pp \) = pure price change between two periods with comparable price-determining characteristics
- \( \Delta pq \) = quality change, price change caused by a quality change between two periods
Data collection; selecting a method 1/2

When deciding on the ways to collect data three main aspects have to be considered:

1) **Security.** Because sales prices are often sensitive for reasons of competition, it is important to find a genuinely secure way to transmit data from the reporting unit to the statistical office.

2) **Cost.** Because prices are generally collected each and every month the collection should be not too cost-intensive, neither from the perspective of the statistical office nor the reporting unit.

3) **Response burden** for reporting units delivering price information over a long period of time: this should be kept as low as reasonably possible.
Data collection; selecting a method 2/2

- Web questionnaire
- Excel sheet
- Postal questionnaire
- Phone collection
- Internet collection (stock prices, list prices?)
- Register/administrative data (i.e. customs)
Web questionnaire

- Online reports may contribute to a reduction of costs and perceived burden for the reporting unit as well as for the statistical office
  - When the reporting units provide their prices online, those may be transferred automatically for processing (without further data entry)
- One problem that has to be solved is to ensure the confidentiality of data that are sent via internet
- When using an online method the reporting units are normally reminded by e-mail when to submit the prices
- A significant advantage of using online questionnaires is the possibility to integrate price and quality checks in the questionnaire
Goals with the new PPI web collection system

- Good usability
- Collect more (and more relevant) information
- Information with better quality
- Efficiency
  - Reduce the time used in the whole data collecting process - answering the query, validating the price data etc.
  - Automate the validation process and the treatment of the observations
How to reach the goals?

- Gather more information
  - The most important new variable: the previous price of the substitute product
- Guide the user to give relevant information
  - Less validation phone calls or emails, the data collected has a higher quality than before
  - Less manual editing, the editing is based on an information with higher quality
- Automation of the validation process
  - Combine variables and make new derived variables from the raw data
  - Include the previous price of the substitute product into the index calculation process
The new web questionnaire, XCola
The price inquiry on producer price indices for manufactured products collects data on products and their prices from enterprises. The data inquired pertain to enterprises’ import, export or domestic market prices. Five separately calculated indices that measure the price development of products from enterprises’ viewpoint are produced monthly for the producer price indices. These indices are:

- Producer Price Index for Manufactured Products
- Price Index
- Import Price Index
- Basic Price Index for Domestic Supply
- Basic Price Index for Domestic Supply, Including Taxes (former Wholesale Price index)

The data supply obligation of enterprises is based on the Finnish Statistics Act (280/2004, amended 381/2013). All the price data collected for the producer price indices from enterprises and the enterprises which supply the data are confidential. The data are released as confidential so the data of a single enterprise cannot be deduced on the basis of the results.

Further information on the monthly data collection and producer price indices is available from:

- Anni Hauskonen 029 551 2992
- Mervi Nyfors 029 551 3480
- Marja Pokola 029 551 3283
- Anna Rinilinna Pihlajamäki 029 551 3486

Service email address

- thi.tilastokeskus@tilastokeskus.fi

Further information about the inquiry

Home page of Producer price indices
Help pages for Producer price indices in the StatFin service
Enterprise’s information

Producer price indices

Enterprise data

Please check that all the data are up-to-date. If necessary, comment on the changes under Additional information.

Data supplier

* Mandatory data

* Enterprise/establishment

* Postal address

* Postal code and post office

* Enterprise’s switchboard

Contact person’s data

* Name

* Telephone number

* Email

Deputy contact person

Name

Telephone number

Mobile/telephone

E-mail address

Additional information

Save

Save and go to price collection
Price collection

- Fill in the price data for the month inquired on the form. In price information for inquiry month.
- Comment on exceptional price changes under Additional information. The drop-down menus on the form also help in reporting price and product changes.
- If the imports/exports or production of the product have ceased altogether or are about to cease, select a new product in its place. This is done by selecting Edit data on the form.
- If the product has not been imported/exported or sold in the survey month, enter the same price as previously reported as price for the survey month.
- More detailed information in the Filling-in instructions.

**Product 1 / 2 - Product data**

<table>
<thead>
<tr>
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<th>CPA</th>
<th>Product group</th>
</tr>
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<tbody>
<tr>
<td>Export price</td>
<td>26516200</td>
<td>Machines and appliances for testing the mechanical properties of materials</td>
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</table>

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<th>Unit</th>
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<th>The main reason for the price change</th>
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<tbody>
<tr>
<td>Analysaattori</td>
<td>KPL</td>
<td>JPN</td>
<td>EUR</td>
<td>180000</td>
<td></td>
<td>Select if the price is exceptional</td>
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Additional information

Data on the product changed, a new product in its place or the product removed
Producer price indices

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Edit the data
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To edit the data, click the "Edit data" button.

Data on the product changed, a new product in its place or the product removed
# Producer price indices

## Price collection

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**Data on the product changed, a new product in its place or the product removed**

[Edit the data]
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<td>180000</td>
<td>160000</td>
</tr>
</tbody>
</table>

- Additional information:
  - Data on the product changed, a new product in its place or the product name has been changed.
  - Other reason: comment in the Additional information field.

Select if the price is exceptional:
- Change in the number of orders or the customer
- Product attributes changed
- Price change due to world market prices
- Price change due to production costs
- Discount/Camping price
- Other reason: comment in the Additional information field.
Producer price indices

Price collection

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<td>EUR</td>
<td>180000</td>
<td>160000</td>
<td>Change in the number of orders</td>
</tr>
</tbody>
</table>

Additional information

Estimate which share of the price change describes the general change in the price level in the product group in question.

Data on the product changed, a new product in its place or the product removed

Edit the data
Producer price indices

Price collection

- Fill in the price data for the month inquired on the form, in price information for inquiry month.
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<td>EUR</td>
<td>180000</td>
<td></td>
<td>Select if the price is exceptional</td>
</tr>
</tbody>
</table>

Additional information

Data on the product changed, a new product in its place or the product removed
The price collection page, Edit data 2/5

**Price collection**

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**Product 1 / 2 - Data on changed product**

You selected that you wish to change the product's data or attributes. Update here the data for the changed product.

The main reason for the product change:

- **Select**
- **Price concept**
- **CPA**
- **Product group**

Export price: 26516200 Machines and appliances for testing the mechanical properties of materials

Product:

- Unit
- Country
- Currency
- Price in the previous month
- August / 2014

Additional information:
The price collection page, Edit data 3/5
The price collection page, Edit data 4/5

Producer price indices

Price collection

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Data on the product changed, a new product in its place or the product removed

Product 1 / 2 - Data on changed product

You selected that you wish to change the product's data or attributes. Update here the data for the changed product.

The main reason for the product change

Select

- Country, currency or unit changed
- Updating of the product description, the product corresponding to the previous one
- A new product, does not correspond to the previous one in its attributes, the old product run out
- A new product, does not correspond to the previous one in its attributes, the old product no longer representative
- Other reasons, comment in the Additional information field

Analytical properties of materials

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Price in the previous month</th>
<th>August / 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analýsaaltori</td>
<td>KPL</td>
<td>Japani</td>
</tr>
<tr>
<td>Additional information</td>
<td></td>
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The price collection page, Edit data 5/5

Price collection

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Product 1 / 2 - Data on changed product

You selected that you wish to change the product’s data or attributes. Update here the data for the changed product.

The main reason for the product change:

- A new product does not correspond

Price concept |
---
Export price

CPA |
---
26516200

Product group |
---
Machines and appliances for testing the mechanical properties of materials

Product | Unit | Country | Currency | Price in the previous month | August / 2014 |
--- | --- | --- | --- | --- | --- |
Analysaation 223 | | | | |

Additional information

Data on the product changed, a new product in its place or the product removed | Cancel
The price collection page, Save data 2/4
The price collection page, Save data 3/4

Data missing from the form. Fill in the missing data and save the form again.

- If the previous price is not known, estimate the previous price in the Additional information field. [Go]

Product 1 / 2 - Data on changed product

You selected that you wish to change the product's data or attributes. Update here the data for the changed product.

The main reason for the product change
- A new product, does not corres

Price concept 1
- Export price
  - Analysaattori: KPL, Japani, Euro, 62000
- Additional information
The data are saved successfully.

- Fill in the price data for the month inquired on the form, in price information for inquiry month.
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Product: Analysaattori
Unit: KPL, JPN, EUR
Price in the previous month: 180000
August / 2014: 180000
The main reason for the price change: Select if the price is exceptional

Data on the product changed, a new product in its place or the product removed: Edit the data
Future actions

- The new price collection system is now in use in PPI (including also Export and Import prices) and in Building cost index
- Next: Cost and Agricultural indices and SPPI
Thank you!

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