

Electronic Data Collection Methods

The Use of Transaction Data for PPI

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Overview

- Economic outline
- Historical background of the Icelandic PPI
- Electronic data collection
- Superlative index compilation

The Icelandic Economy

- Small and open
- Independent currency
 - *Icelandic Krona (ISK)*
- Floating exchange rates
- Oligopolistic production and retail markets

The Icelandic PPI

- Rapid development
- First published in 2004 (quarterly index)
- A monthly index since January 2007

PPIs measure the rate of change in prices of goods and services bought and sold by producers

Electronic Data Collection

(Methods)

Electronic methods – Common features

- Prices
- Quantities
- Products
- Total Values

Accounting records – Additional features

- Customer identifiers
- Business terms
- Discounts

Electronic Data Collection

(Benefits)

- Effective for both parties
- Greatly expands the available and useable data
- Increases quality in compilation

Electronic Data Collection

(Hindrances)

- Participation reluctance due to data confidentiality
- Unfamiliarity of the statistical importance of the PPI
- Incapability to deliver data due to poor stock inventory

A Superlative Index

(Elementary Level – The Fisher formula)

- The Fisher ideal index formula is applied at the elementary level
- Quantity information is available for every transaction

A superlative index is an index that is weighted with quantity vectors from two non-overlapping time periods

A Superlative Index

(Elementary Level – The customer factor)

- Price changes are linked to customers
- Risk of measuring price changes, where there are none is reduced.
- Fewer transactions in the compilation

A Superlative Index

(Aggregate Level)

- Base weights originate from PRODCOM surveys
- Weights are extrapolated to the evaluation month with the firms' monthly production values

Conclusion

The optimal solution to use superlative approaches on all compilation levels is reached through adopting electronic data collection directly from the firms' accounting records.