Quality adjustment for service industries producer price indexes

- Remove compositional mix and quality changes in services product prices to yield constant quality price indexes.

- Accurate National Accounts volume estimates and industry productivity statistics depend on this, but ...

- As PPIs for service industries evolve (and coverage expands), effective quality adjustment methods need to become a key focus.

Key pricing problems in service industries

- Services are often tailored to individual clients and thus 'one off' in nature. Characteristics of a service may rarely be constant over time.

- A service is often a bundle of smaller services with the same generic heading (e.g. consultancy) and these bundled services undergo frequent compositional change

- Service product prices may be highly dependent on factors loosely related to the actual service quality.

Common pricing methodologies used in service industries

(1) Specification pricing - desirable but need continuity

(2) Model pricing

(3) Price large ongoing contracts

(4) Average unit values

(5) Charge-out rates

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Input versus output approaches

- PPIs for service industries are output price indexes, so quality change should be assessed by production cost changes assuming constant inputs.

- Can we proxy with 'user value' judgements of quality change? Assuming a perfect market.

- In reality we probably will make this assumption and use whatever information we can get. More information will lead to better decisions (from understanding the characteristics of the service to performing hedonics).

Case study - Technological change

Operating lease (e.g.. motor vehicles, computers), where the object is the main driver of service quality.

- Economic decision to lease rather than purchase.

- Use techniques from goods indexes (manufacturer information, hedonics, overlap pricing etc.) when object is upgraded.

- Need to estimate maintenance component of price and ensure this service component is unchanged.

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Case study - Productivity change

- Often driven by deregulation leading to price falls. Also indirect impacts of technological change.

- Should pick up appropriate price change if using techniques (1), (2), (3) or (4); but (5) could be a problem.

- Charge-out rates can be a common pricing method in some industries where labour is a significant component e.g.., accounting, legal, computer consultancy services.

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Case study - Productivity change

- Respondent review program may allow micro level adjustment to be made, but this could be difficult and subjective.

- McKenzie study on the New Zealand Legal Services industry PPI - results were reassuring.

- Be careful in what industries you use charge-out rates for - avoid those with high historical labour productivity rates?

Case study - Bundling

- Changes to the bundle of services included with the aggregate service being priced e.g.. in ongoing contract or representative model specification.

- More detailed the original pricing specification the more chance of identifying the change and making a production cost adjustment with respondent assistance.

- Annual review of model prices through personal interview can be an effective method.

Conclusion

- The more information of service product characteristics you can obtain the better.

- Need to be pragmatic in our methods, but with a sound methodological basis.

- More thought is needed from forums such as the Voorburg Group. Perhaps we need to 'think outside the square' i.e. the approach embedded in our minds from years of experience with PPIs for goods.

Issues for discussion

What are the experiences of other countries with:

- making productivity adjustments to labour charge-out rates;

- pricing bundled services, and obtaining production cost information for components;

- model pricing: obtaining market prices.

Other ideas on quality adjustment techniques.