

Volume measurement of services

Discussant presentation

Agenda item 4

Mariagnese Branchi

Group of Experts on National Accounts
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Contributions: Market & Non-Market Services

- **On volume measures of retail and wholesale services in Canada**
- **On volume measures of general government education and health services and research and development in Slovenia.**
- **On volume measures of health care in Japan (background document).**
- **On using SPPIs to deflate market services in Norway**

Retail and wholesale services

- **Clear and simple description of the methods used with for both annual and monthly estimations**
- **Provides basic guidance for possible implementation with specific issues to be addressed**
- **e.g. industry based price indices to be applied to individual commodities**

Retail and wholesale services

- **Special considerations when collecting margin prices:**
 - **Zero or negative margins** excluded from the calculation:
 - New products → product group averages?
 - Clearance sales → use of quantities/transactions to moderate the volatility of margin prices ?
- **Quality of the service** provided (e.g. faster or more convenient service) by construction with margins is generally not take into account
 - any attempts to take quality into account?

Education results and comments

In Slovenia:

- **Most acceptable methods or acceptable alternatives**
- **Interesting comparison of input-output methods**
 - The results for education**
 - **Volume Growth 2001-2009 difference 4.3%**
 - **Volume growth of input measure more volatile?**
- **Treatment of quality changes: you might elaborate on how the quality criteria are applied (e.g. critical mass, proportional relationship)**

Healthcare services

- **Slovenia** - DRG system for most hospital services
 - other direct output measurement for medical practitioners.
 - No additional quality adjustment
- **Japan** - Cost-weighted Output Index
 - results affected by the stable number of treated patients
 - Use of a *survival rate* as indication of the quality of treatment (cancer): results give a 0.6% increase in the output index between 1999-2008

Comments

- **Strong assumptions difficult to justify and lack of information**
E.g. rate of change of quality equivalent to that of the number of patients or students per teacher
- **Simple output measures tend to be sticky**
Not so much variation in output measure make difficult the application of standard econometric techniques

Regulation influence

Indicators used to measure output or quality might be regulated: influence on output?

- **Higher education:**
 - **Advance to higher classes in education**
- **Healthcare: number of beds of hospitals**
 - **Relevance of budgetary restrictions (e.g. treatment in hospital or day hospital paid by national health insurance or privately)**

Quality adjustment of non-market services output measures

- **SNA2008: quality adjustment of output measure**
 - **ESA2010: for *comparability* output indicators *should not be quality adjusted* in core accounts**
 - **Homogeneous product**
 - **Quality/productivity aspects in the stratification / weighting**
 - **Sampling and quality adjustment should be tackled together**
- **No adjustment better than simple quality adjustment?**

Deflation indices and methods in Norway

- Interesting methodology for SPPI for business services based on **charge-out rates**
- Includes detail product specification and stratification by staff qualifications: is the service quality well captured?
- Difficult to judge without detailed information
- **Export and imports of services:** current price estimates using domestic price indices
- Import prices likely differ most from domestic market and most urgent

Discussion issues

- **Retail and wholesale**
 - Inclusion of changes in the quality of services
 - Zero and negative margins treatment
- **Education and health output – adjusted for quality changes? No adjustment for comparability?**
- **Regulation influence on non-market output?**
- **Services Price indices**
 - based on hourly charged out-rates
 - Import and export prices