Market services – volume growth compilation

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Introduction

- Traditionally, most international harmonisation work of national accounts has focussed on current price estimates.
- For most users and compilers of national accounts, the volume growth of GDP is the most important figure.
- In Europe, the importance of harmonising also national account’s price and volume data was focussed when the European council in July 1997 agreed on the “Stability and Growth Pact”
  - Followed by a research programme and the “Handbook in prices and volume measures in the national accounts” (2001).
Statistics Norway and price indices....

• Statistics Norway initiated a project in 2003
  – The aim was to upgrade the price indices in general
  – However, the program covered mainly the development of new producer price indices for market services,
    – and in addition to improve price indices of certain types of capital goods

• The division of national accounts gave priorities for certain market services (especially lack of proper price indices for business services)

• The initiative has gradually given results
  – even though progress has been slow and expensive and more time consuming than initially thought
  – It turned out to be both data demanding and methodologically challenging to compile the new SPPIs
Why are volume figures for services important.....

- Volume growth rates important
- Often asked for
  - Changes in productivity
  - Comparisons of national accounts data with physical measures such as emissions to air or number of employees

- In Norway, in lack of proper prices, input-prices were used
  - Underestimate the real growth, as quality growth of the output is not taken into account
  - Underestimate productivity
…. and why are they so difficult to do?

• Hard to define the quantity units of services that would allow observations of a related price

• An observed price change may reflect changes both in characteristics of the service and pure price changes
  – The price index should reflect pure price changes only (Eurostat 2001, ch. 2.4)

• Challenging to measure the quality improvement of services (volume component) which is necessary for adjusting the price index

• Hedonic price indices were tested for several services
  – Results seemed to be of poor quality – and heavy response burden
The method of hourly charge-out rates

• When the traditional PPI way of compiling price indices failed, what then?

• The strategy chosen was to establish producer price indices based on charge-out rates of hours worked (eg. services from architects)
  – This is combined with rather detailed product specification,
  – and there may be a further stratification by type of staff (qualifications)

• Doubt has been raised as to how well price indices can represent quality and productivity growth
Coordination of SPPI and CPI

• The Norwegian national accounts use the consumer price index (CPI) to deflate household consumption.

• Some SPPI distinguish between services sold to establishments (business to business - b to b),

• and services sold to households as consumers (business to consumers - b to c).

• What if both a CPI and a SPPI (b to c) for a specific service
  – Can be a possible conflict between the two indices (even though the CPI is a purchaser price and SPPI is a basic price).
  – In Norway, inconsistencies showed up in some areas (e.g. air transport services),
  – and cooperation and coordination between the price index compilers was necessary.
Price indices for household consumption of passenger services by air. 2008-2011. CPI and SPPI (business to consumers). 2006=100
Deflation methods in Norway

- Deflation is from the supply side, and each product is deflated with appropriate price indices within the supply and use framework.
- Each of the products has the following price indices:
  - Domestic production (basic price)
  - Imports (CIF value)
  - Exports (FOB value)
- Generally, for each product, total domestic use at constant prices is calculated at basic value:
  - as total domestic supply plus imports minus exports
  - Constant price values for the various domestic uses are calculated by distributing total domestic use at constant prices proportionally with the domestic uses at current prices
  - However, if a specific price index (CPI) is available for household consumption, the other domestic uses are corrected (if possible only changes in stocks and statistical discrepancies), ensuring that supply and use of each product at constant prices will balance.
Limitations and challenges

• We have inadequate information on supply and use of specific service products
  – What services are produced and
  – Who are the users

• Regarding services, it is also a challenge to estimate exports and imports by type of service at current values,
  – and so far price observations are missing in most cases
  – Thus, for most services exports (and imports) are deflated using the relevant price index for domestic uses
Concluding remarks and questions

- The development of new producer price indices for services in Norway has been positive
  - To a large extent enabled us to switch the deflation of services from using input price indices to using producer price indices
  - But still there are challenges to be faced both
    - with regard to the quality of the service price indices and
    - with regard to service prices of exports and imports

- What is the situation in your country?
  - Do you have proper service price indices?
  - How are the challenges of compiling the SPPIs solved?
  - What about using charge-out rates of hours worked?
  - Regarding services, how do you compile export and import prices?
  - Have you faced inconsistencies between SPPI (b to c) and CPI?