

Methodological guide for developing Services PPIs (SPPI)

Chapters 1 and 2

Joint OECD/Eurostat Task Force

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Methodological guide for the compilation of SPPIs

Structure of the guide:

- **General aspects of SPPI compilation**
 - Scope of SPPIs, timing for the collection of the price, weight system and updating of weights, etc.
- **Main pricing methods for SPPIs**
 - Pricing model pricing, unit values, charge-out rates, contract pricing, component pricing
- **Practical aspects of the development process**
 - Identification of products, ranking of products, contacts to be established, preparatory work, aggregation of the index
- **Compilation of SPPI for specific service industries**

Chapters 1 and 2

- Aim was not to develop methodology but rather utilise methodological work of the Voorburg Group
- References to principles laid out in the SNA93/ESA95
- Complementary to the PPI Manual
 - The PPI Manual was often seen more appropriate to be referred rather than rewrite guidelines
 - Focus on service specific issues – in the PPI Manual, PPIs for services are directly addressed only in Chapter 10 (descriptions on practices for some service activities)
- Clarification of concepts
- In general, methodological textbooks on price indices are largely written by referring to goods. Services are largely assumed similar to goods, which is not necessarily the case.

Chapter 1

1. General aspects of SPPI compilation
 - 1.1 Definition and scope of SPPI
 - 1.1.1 Coverage of SPPIs
 - 1.1.2 Goals of SPPIs
 - 1.2 **Statistical units**
 - 1.2.1 General principles
 - 1.2.2 Output of statistical units in special cases
 - 1.3 Product and industry SPPIs
 - 1.4 Price concept
 - 1.5 **Identification of service products**
 - 1.5.1 General guidelines
 - 1.5.2 Duration of service-provision as a service-determining factor
 - 1.6 Timing of price collection
 - 1.6.1 **Accrual principle**
 - 1.6.2 Frequency of price collection
 - 1.7 Treatment of quality change
 - 1.8 Classifications
 - 1.9 Sample frame and weights
 - 1.10 Relationship of the SPPI to other major price indices

Statistical units

As a main rule establishment/LKAU, flexibility in practice

Special cases:

- **Sub-contracts** appear in output twice, as such and via main contracts. For consistency, gross treatment should in principle be applied also for SPPIs. However,
 - Sub-contracts should be excluded when applying time-based methods
 - Gross approach might be inappropriate also in general for pragmatic reasons. Depends on the use of SPPI.
- **Intra-enterprise services** included
 - In practice no need to collect prices
- **Temporary employment agencies**
 - In ESA95, temporal workers belong to employment agency rather than to the client enterprise – output of agencies, and corresponding SPPI, should cover workers' salaries and fees received by the agency. However,
 - Treatment of agencies as margin industry might be more appropriate for economic analysis

Identification of service product

- In general, guidelines provided by the SNA/ESA to identify different services are not very clear or easily applicable.
 - According to economic theory, price differences in the same location) imply differences in the qualities of products when full information is available – this requirement is rarely met.
 - Secondly, price discrimination, price differences resulting from lack of information or existence of parallel markets do not constitute a case of different qualities of products.
- Duration of service production often an important price determining factor.

Accrual principle

- Main principle: price should be recorded at the time when a service is ***actually provided***
- Sometimes difficult to implement in practice:
 - Services paid in advance (air transport)
 - Contracts that cover several periods

Chapter 2

Concepts:

- Pricing mechanism
 - Prices used in transactions
- Pricing method
 - Techniques applied by price statisticians to validate price observations to be entered in an index

Pricing mechanisms

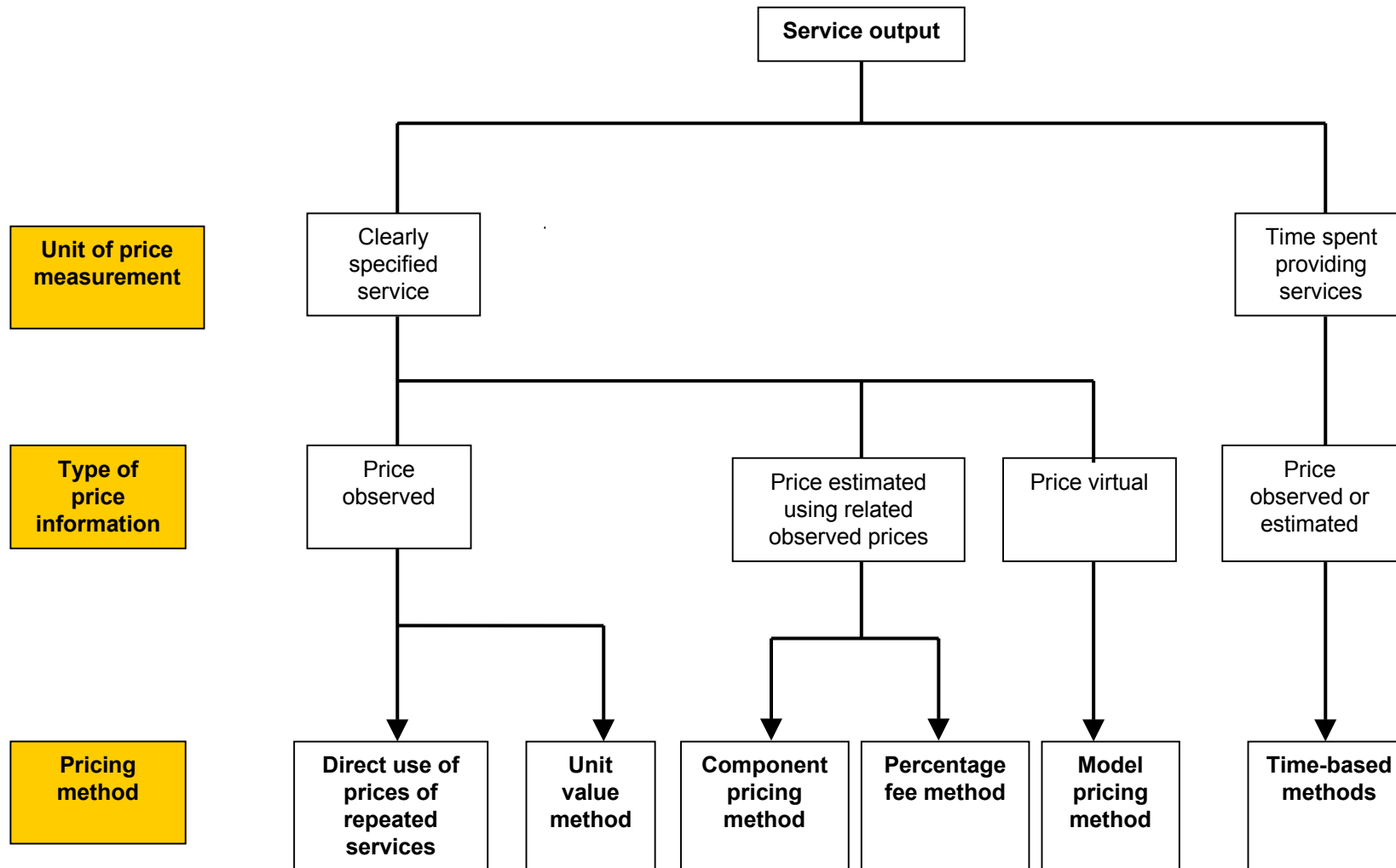
Examples:

- price of a clearly specified service
- charge-out rate
- ad valorem price
- contract price
- ...

Pricing methods

- Direct use of prices of repeated services
 - “Standard” case (use or real transaction price of the same service products in successive survey periods)
 - Contract pricing (repeated delivery of the same service to the same client in successive survey periods)
- Unit value method
- Component pricing method
- Percentage fee method
- Model pricing
- Time-based methods

Figure 1: Main pricing methods



Contract pricing

- Use of prices of contracts that cover 2 or more periods and of which **contents are the same in different periods**
 - example: cleaning contracts
 - for contracts where the contents of services are not the same in consecutive periods, ideally, model pricing should be used
- The method should be used with caution because:
 - contracts that cover several periods are consistent with output data but they do not necessarily represent the evolution of market situation
 - contract prices (and output) remain often flat and, consequently, the resulting price index would be sensitive to the lengths of contracts in the sample and timing of their signature.

Unit value method

- Service output is sub-divided into homogeneous sub-sets for which value and quantity data are available
- The homogeneity requirement is rarely fully met but the method is still often the least bad option

Component pricing

- Use of existing bills or contracts to draw up a user profile.
- Estimation of price as a sum of sub-component prices by using output or consumption weights

Note:

- Sub-components should be based on transaction prices
- Sub-components should not include time-based components (e.g. 2 hours work)

Percentage fee method

- In use when a service is a commission fee that is calculated as a percentage of the value of contracts, assets etc.
- Price change of the service is the change of contract (or asset) price multiplied by the change of percentage fee.
- The method is equivalent to using the change of fees of the same contract (asset) in successive periods

Model pricing

- The price is fully virtual (expert evaluation)
- If the service product was really provided in the previous period, estimation is easier and the resulting price probably more reliable.
- Although the final price is virtual, estimation of various cost components might be based on real data. Estimate on profit margin should be representative in the current competitive business climate.

Time-based methods

- Hourly charge-out rates
- Hourly list rates
- Wage rates
- Other direct measures of prices of working time
- Methods predominantly based on prices of working time
 - "component price" where prices of sub-components are based on prices of working time
 - "Model price" where required labour input is straight away assumed unchanged

Future work

- Particularly:
 - General principles laid out in Chapter 1 should be gradually improved and elaborated by using accumulating experiences on practices applied in various service activities.
 - Borderlines between pricing methods should be drawn as clearly as possible. Aim: detailed guidelines are available when launching the 2006 survey on country practices in the compilation of services PPIs.

Particular discussion points

- Is the proposed classification of pricing methods meaningful?
- Any other observations?