

Comments on the SPPI Definition of Pricing Methods

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Is there confusion in the international Services Producer Price Index (SPPI) community about the definitions of some of the pricing methods? As an observation, component pricing is a pricing method that is identified fairly infrequently internationally. Did the definitional change in component pricing method between the 2005 Voorburg conference and the final SPPI Thesaurus presented for the 2006 Voorburg conference change the meaning of the term? Is there too much room for interpretation, even in the newer definition, between what constitutes both component pricing and model pricing?

Some discussion may be necessary concentrating on the change in the component pricing definition.

SPPI Thesaurus Definition

The definition presented at the Version 4.0 of the SPPI Thesaurus:

“Component pricing: a pricing method that divides the service into a number of key output components of which one or more are then priced separately as target of measurement. . . . The statistician enters all the prices on a worksheet or bill, resulting in an aggregate price. But this price is not (necessarily) an estimation of a transaction price. Component pricing thereby differs from model pricing, as in the latter a single price for an entire transaction is surveyed”.

The definition presented in the final SPPI Thesaurus for the 2006 Voorburg Conference:

“Component pricing: a pricing method that divides the service into a number of key output components of which one or more are then priced separately. . . . The statistician enters all the prices on a worksheet or bill, resulting in an aggregate price. This price is not (necessarily) an estimation of a transaction price as it can be the price of components which are never transacted separately. Component pricing uses only ‘hard’ company data and differs thereby from model pricing for which at least some subjective estimation is made.”

The distinct differences seen in these two definitions are: 1) the addition of the requirement that *only hard data* is used to price components which may or may not be transacted separately, 2) the addition of the requirement that no subjective estimation is made when pricing components and 3) the removal of the distinction that model pricing constitutes a *single price estimate* for an entire transaction where component pricing is multiple prices collected that may or may not constitute an estimation of a transaction price. Some questions arise, then, when asked to assign either component pricing or model pricing as the pricing method used in collecting a particular industry. The example below will help illustrate the subtle distinction between model and component pricing.

Example 1: An actual base period price is collected with multiple components that make up the actual transaction price representing the entire transaction. In subsequent months, all components are priced using hard data.

Using the final version of the Thesaurus, this would be recorded as a component price, because the transaction is made up of component prices and it meets the “hard data” repricing distinction in the definition. Using the definition as it was written from version 4.0, this would have also been recorded as a component pricing method because a single price estimate is not used. Therefore, in this example, the definitional change does not affect the pricing method decision.

Example 2: Same as Example 1 except that only a portion of the components are priced using hard data (suggesting that some components are estimated).

Again, using the final definition, this would probably be recorded as a model price because hard data is not used for all components, and some estimation is used. Using version 4.0 definition, this would still have been a component pricing method because a single price estimate is not used.

Example 3: *Hard unit value* data is used to price each of the components of a fully fictitious transaction. Wireless telecommunications is priced this way in the U.S.

This example has characteristics that are mentioned in three pricing method definitions. Would this example be recorded as the unit value, component, or model pricing method?

PPI Quality Assessment Framework Tool

The definition of component pricing that was presented at the 2005 Voorburg conference was consistent with the version 4.0 definition and was used in the development of the PPI Quality Assessment Framework tool. In reviewing the PPI Quality Assessment tool, model pricing is listed under category number 3, **Transaction Price** and receives 75 points. For the examples above, there are only two choices that could be made under this category. The first choice is a. The price is the real transaction price or e. The price is a model price. For component pricing, as defined by the 2006 definition, which of these is appropriate? Under Category 4.b. **Output Price**, a model price as defined by the most recent 2006 PPI Thesaurus definition, is given 75 points while c. and d. under the same category are component prices and receive only 50 points. Because of the lower values assigned to the choices appropriate for component pricing in this category, it seems as though a component price was interpreted as a price that is not representative of the entire transaction and one where only a few of the components are being priced. Using Example 2, a component price that represents an entire transaction in which the components are priced using hard data should be valued more highly than a model price where some estimation is used. This may suggest the need for some changes in the Quality Assessment Framework rather than a distinction that should be addressed in the pricing method definition, but that is left for discussion at this year’s conference. The point here is that if characteristics of both model and component prices appear for an industry, the Quality Assessment Tool would suggest that the model pricing method be reported more frequently than the component pricing method. So if the definitions of

these are not explicitly clear, the element of “choice” would lead to the reporting of more model pricing.

SPPI Guide

On page 36 of the guide, component prices are described as follows:

“In the component pricing method, a service product or a base model of the service is agreed upon with the surveyed enterprise. Although the service as a whole may be a fictitious composite service, it is composed of elements for which actual prices can be observed or **estimated**. . . . The component pricing method differs from the direct of use of prices of repeated services insofar as the former involves computing a price from various components and no transactions are necessarily made at this price.”

The glossary definition of component prices states that “the price is made up of a number of subcomponent prices that can be of any kind (transaction prices, unit values list prices) except time-based prices (like hourly charge-out rates).

Neither of these descriptions relates to the use of *hard data* and seems to imply the opposite. From these definitions, it is unclear the distinction between component pricing method and the other methods. How does the component pricing method differ from the model pricing method? Is it the use of hard data versus estimated data? What is the definition of *hard data*? Or does the model pricing method represent an entire transaction and component pricing represent only a portion of the transaction? If unit value averages are used in the pricing, is this component pricing method or unit value pricing method? Is unit value data considered *hard data*? The example of component pricing in the manual uses unit value data and would appear to also be able to be characterized as the unit value pricing method. Should this example be updated to a more representative component pricing method example?

The fourth paragraph under telecommunication (4.8) on page 87 of the guide states:

“When the unit value method is applied, the lowest level of service product detail is dictated by the available revenue and quantity data. Where the component pricing method is applied the structure of the published service rates will dictate the level of service product detail.”

This paragraph suggests that there are different levels of detail in the two pricing methods and therefore, unit value would not be included as price in the component pricing method.

Additional Thesaurus Comments about Other Pricing Methods

Under the contract pricing method, should the limitation(s) of this method be expanded to specify that newer contracts are not being reflected in the index when this method is used? Does using this method create new item basis?

Under direct use of prices of repeated services, list price is listed as a possible type of price. However, if no transactions actually occur at the list price due to discounting etc., would this price still be included? If not, should that caveat be added?

Under the second paragraph of model pricing, should it state that the expert ‘provides’ a realistic transaction price instead of ‘estimates’? Also should the next sentence be, “In most cases, the resulting total price . . . is fully fictitious”? There are cases, where the model transaction is transacted in the current period and is therefore not estimated. Wouldn’t that still be the model pricing method?

Summary

In reality, certain characteristics of more than one type of pricing method can be present when prices are measured both at initial collection and during subsequent month pricing and it becomes very difficult to categorize pricing into just one method. Perhaps a list of characteristics for each pricing method that must be present to constitute a given pricing method might help.

For example, the following key characteristics must be present in order to be recorded as the component pricing method:

- 1) the price must be made up of more than one component that is priced separately on a worksheet
- 2) subsequent month estimation of prices of all components must be based on hard data (define hard data also)
- 3) the pricing method used in the reporting of each separate component (actual transaction, unit value, etc.) should not be considered when determining the overall pricing method used for the “total” price
- 4) the price is not an estimation of a entire transaction price

Also, it should be made clear in the Thesaurus that the pricing method should be determined based on the prices recorded monthly and not the prices that are collected during initial collection (establishing the base period transaction). Many times an actual transaction is collected and is recurring for a period of time and then the transaction becomes hypothetical (and therefore, must be estimated by the respondent) over time. It is also possible to have a price that is estimated in one month and the next month the transaction actually occurs, therefore, changing the pricing method. It is not clear, in the latter case, which pricing method is appropriate. These may be exceptions that even a further clarification in the definitions would not be able to accommodate.