Comments on draft SNA chapter:
Chapter 16: Price and volume measures

Deadline for comments: 5 October 2007
Send comments to: sna@un.org

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This three-part template allows you to record your comments on draft chapter 16 easily and, at the same time, makes it easy for us to use your comments in considering revisions to the draft chapter. You may complete any one, any two, or all of the three parts of the template.

There is no file comparing existing text with draft text for this chapter due to the large amount of new text in this chapter.

Save this template and send it as an attachment to the following e-mail address: sna@un.org

Part I: General comments

In the space below, please provide any general comments, such as about the clarity with which the new recommendations were incorporated (30 words or less).

Comment:

> If this chapter should be revised instead of writing a manual we have some comments.
> In general the document provides a good overlook of the different aspects of calculating GDP. However, there are parts which are in need of improvements and elucidation. This is especially true for 16.B.5 where there is a lack of information regarding the contemporary methods for quality adjustments. We also find it surprising that the recent methodology advances regarding service price indices are almost totally left out of chapter 16.

Part II: Comments on specific draft paragraphs or passages

In your review of draft chapter 16, you may wish to devote particular attention to the passages listed below. For ease of reference, we have identified the relevant paragraphs. Please use the space provided to the right of the paragraph number to make your comment.

Index number theory
Section B presents an overview of index number theory as applied in the System. It has been updated to reflect work during the last decade embodied in the new manuals on consumer price indices, producer price indices, and export and import price indices (available in draft).

1. Paragraphs 16.10 - 16.88 present this overview. Are these paragraphs clear and appropriate to the SNA?

General comment	Click here and start typing.
16.27	Odd formalization. We suggest using standard brackets and a multiplication sign.
16.29	Error in notation in equation (9). In the equation for the Törnqvist volume index it is written $T_P = \prod_{i=1}^{n} \left(\dfrac{q_i^t}{q_i^0} \right)^{(s_i^0 + s_i^t)/2}$ whereas it should be $T_Q = \prod_{i=1}^{n} \left(\dfrac{q_i^t}{q_i^0} \right)^{(s_i^0 + s_i^t)/2}$.
16.73	In our view the comment on carry-forward is misplaced. The method should be described among the other methods for imputation and not in the introduction to the chapter. SNA dismisses this method without explaining to the reader why. We suggest the following to replace 16.73 with: *"A common procedure to deal with missing values is to carry forward the price from the previous period into the current period. This could introduce undue stability to the index number and the method should be used with care and only for temporarily imputing and not for volatile markets such as the markets for agricultural products, oil and metal etc."*
16.75- 16.81	These parts deal with quality adjustment. The authors choose the distinction Direct and Indirect to categorize quality adjustment methods. A way more common terminology is to divide the different methods into Explicit and Implicit (used in the CPI, PPI and XMPI manuals). In order to avoid confusion of ideas we strongly advice the authors to use the terminology from these official manuals. We also advice the authors to refer to each method by their name (given in the CPI, PPI and XMPI manuals) and not just vaguely describing them. This would help the

	interested reader to find further information on them. The methods have previously on a few occurrences been categorized as Direct and Indirect. The authors of chapter 16 choose to categorize the production cost method as indirect whereas this method in other documents has been referred to as a direct method. The opposite is true for the overlap method which in chapter 16 is referred to as a direct method while it in previous literature have been referred to as an indirect method. Our recommendation is that the methods should be categorized as Explicit and Implicit and that these names should be used as headings in the chapter. Our suggestion is that the following methods should be explained under implicit methods: Overlap, Overall-mean/Targeted mean imputation, Class-mean imputation, Comparable replacement, Linked to show no price change, Carry-forward. In the sections on "Link to show no price change" and "Carry-forward" it should be clear that those methods are not recommended. Our suggestion is that the following methods should be explained under explicit methods: Expert judgement, Quantity adjustment, Production costs/Option costs, Hedonic approach In order for deflation to be reliable, the methods of quality adjustment deserve to be treated in a more consistent manner than in the current version of chapter 16. We also recommend that a section regarding the theoretical approach dealing with price indices divided as input- and output price indices should be inserted. This due to the fact that what is perceived as changes in quality, and the value of these, is different between the theoretical output- and input price indices. For more information see the PPI-manual chapter 7.B.2 "Conceptual Issues". The manual can be downloaded at http://www.imf.org/external/np/sta/tegppi/ch7.pdf
16.76-16.77	In part 16.76, in case it should be kept in the document, economic terminology should be used (*the law of one price* and *price discrimination*) instead of vaguely describing these well established economic concepts. This also holds for part 16.67. We thus suggest that the second sentence in part 16.76 should be replaced by: *"The implicit assumption is that the difference in prices at the time of the overlap link is a good valuation of the difference in quality. Hence, the*

	overlap method relies on the law of one price and as so on the assumption of no price discrimination." Furthermore, part 16.77 is brought forward as a recommendation to the reader to consider *explicit* methods whenever *Overlap* is not an option. Since overlapping is doable only when the assumptions above are fulfilled, it is practically undesirable to use overlapping above explicit valuation if the latter is available. For example, if the product which no longer is available and its successor are traded under a contract of fixed price during the whole period of the products length of life, then it is not possible to capture the price differences due to the true quality adjustment without relying on an explicit valuation. Hence, the first sentence of part 16.77 should be replaced by: *"When the assumptions necessary for the overlap method are violated or when the replacing product are not sold on the market at the same time as the outgoing, it becomes necessary to resort to explicit methods to quantify the change in quality. In such […]"*
16.81	Part 16.81 has subheading *Buildings*. In our point of view this subheading is rather odd and not consistent with the rest of the chapter. 16.81 describe the problems of measurement associated with buildings but the problems portrayed are not unique for buildings. There are innumerable unique products with the same type of measurement problems, i.e. that there are no repeated sales. The same holds for services. The method described is called *model pricing* and we suggest that, first, the heading for this part should be *model pricing*, second, the term *model pricing* should be mentioned in the text in order for interested readers to find further literature about the method, third, in line with how the other methods are dealt with, disadvantages of the model should be described such that it is hard to estimate the uncertainty by how the valuation is carried out during the repeated periods of measurements, and fourth, this method is a heavy burden for the informant, hence information could be hard to collect. An alternative formulation for 16.81 could be, here divided into two parts; 1. *"There are products and services where there are no repeated sale. Unique and bespoke products need special treatment as matching models are not found over time. One common practice to deal with this is to use a method called model pricing where a product or a service is hypothetically re-priced by the respondent (or some other expert). The base period product (that is to be re-priced) could either be an actual transaction or a hypothetical transaction."*

	2. *"The characteristics of buildings and other structures are so variable that it may be almost impossible to find identical buildings and structures being produced in successive periods of time. In these circumstances, a small number of hypothetical and relatively simple standard buildings and structures may be specified and their prices estimated in each of the periods. The specifications of these standard buildings or structures are chosen on the advice of construction experts who are also asked to estimate what their prices would be each of the periods."*

* Insert rows in this Word table for each paragraph on which you wish to comment.

Derivation of volume measures in the national accounts
Section C is considerably expanded from its counterparts in the *SNA 1993*. The ISWGNA agreed that this expansion was needed and that the new price manuals provided useful input for the expansion.

2. Paragraphs 16.89 - 16.183 cover price deflation vs. quantity revaluation, volume measures of the output estimate of GDP, volume measures of the expenditure estimate of GDP, volumes and prices for stocks of non-financial assets and consumption of fixed capital, components of value added, measures of real income for the total economy, and other aspects of price and volume measurement. Are these paragraphs clear and appropriate to the SNA?

General comment	We would have appreciated writing out the equations instead of only explaining in text what they are made up of, e.g. part 16.161 would have been easier to follow if equations were given.
	The summary recommendations in part 8 highlight the relevant parts of the section and are greatly appreciated from a reader's point of view.
16.103	If the abbreviation NPISH has not been used in previous chapters, it should be spelled out the first time.
	.
16.119	After describing double deflation as a calculating method it would have been appreciated with an explanation why this is the preferred method and also to present problems that can occur when using double deflation in practice.
16.122	In the first sentence it is not mentioned what is actually meant by

	"…good quality data…".
16.128	A more comprehensive explanation of how government expenditure is calculated in practice, e.g. what constitutes as incidental sales?
16.170	Equation missing.
16.182	We suggest that the following recommendation is added to part (b) in the Summary recommendations: *"It is desirable to try to find deflators at the most detailed level."*

* Insert rows in this Word table for each paragraph on which you wish to comment.

International price and volume comparisons
Section D presents the theory and practical aspects of international comparisons of prices and volumes. It draws on the most recent round of the International Comparison Program, which involved 107 countries.

3. Paragraphs 16.184-16.225 present this material. Are these paragraphs clear and appropriate for the SNA?

General comment	Click here and start typing.
16.184	Click here and start typing.

Part III. Other specific comments

You are welcome to make other comments. Please do so by using Adobe Acrobat Version 6 or 7 to comment directly on the PDF of the draft chapter.

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