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#### Group of Experts on Consumer Price Indices

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Item 2 of the provisional agenda

##### Update of the 2004 CPI Manual

### Issues paper on a possible update of the 2004 CPI Manual

Prepared by the Intersecretariat Working Group on Price Statistics  
(IWGPS)

*Summary:*

The paper discusses a possible update of the *Consumer Price Index Manual. Theory and Practice* published in 2004. The paper raises the question if there is a need for an update of the CPI Manual, what issues should be taken into account in a possible update, and how an update may be organised. Participants are invited to express their views on the need to initiate an update of the CPI Manual and provide comments and proposals for a possible update.

## I. Introduction

1. The *Consumer Price Index Manual: Theory and Practice*, published in 2004, provides detailed information on, and explanations of, the compilation methodology for a consumer price index (CPI) along with the associated conceptual and theoretical underpinnings. The manual was a major achievement in bringing together and consolidating knowledge and experience from research and producers alike.
2. Over the past decade the 2004 CPI Manual has been widely used in statistical offices and experiences have been made on the usefulness of the manual and the implementation of recommended methods and practices. In the same period new methods and techniques have emerged, new data sources and data collection methods have been developed and user demands have advanced. Against this background, the views of the participants of the 2014 meeting of the Expert Group on Consumer Price Indices are being sought on the need for and the nature of a possible update of the 2014 CPI Manual.
3. Section II provides some background information on the 2004 CPI Manual and related guidance. In section III, this is followed by a brief discussion of the need for an update and what issues should be taken into account in an update. Section IV provides a short outline of how the work to update the manual may be organised. The paper concludes, in section V, by listing some issues on which feedback is sought from the participants to the meeting.

## II. Background

4. The 2004 CPI Manual constituted a major revision of the preceding *Consumer Price Indices: An ILO Manual*, published 15 years before, in 1989. The 2004 CPI Manual is intended for use by both developed and developing countries. It offers extensive information about the underlying economic and statistical theory and brings together knowledge and experience in a well-reasoned and rigorous manner, and provides detailed practical guidance on CPI compilation procedures. The manual also addresses a number of areas that had not earlier been described, and clarified a number of core concepts. Examples are the detailed recommendations on quality adjustments and the guidance on index formulas introducing the Young and Lowe indices. The manual thus meant a big step forward for work on consumer price indices and paved the way for practical improvements and further research work.
5. In parallel with the final drafting of the 2004 CPI Manual, the draft Resolution of the International Conference of Labour Statisticians (ICLS) concerning consumer price indices was developed. The resolution was adopted by the Seventeenth ICLS in 2003<sup>1</sup>. The resolution and the manual are consistent and mutually supportive.
6. In 2009, the 2004 CPI Manual was supplemented with the *Practical Guide to Producing Consumer Price Indices*. The guide was produced as a supplementary handbook to the 2004 CPI Manual, focusing on more practical matters and the needs of compilers in developing countries. It was accompanied by a CD-ROM with illustrative calculations and a set of PowerPoint slides designed for local training.

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<sup>1</sup> [http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS\\_087521/lang--en/index.htm](http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS_087521/lang--en/index.htm).

7. The 2004 CPI Manual is consistent in style, structure, notation and methodology with the Manual on producer price index (PPI) (2004), and the one on export and import price index (XMPI) (2009). The 2004 CPI Manual is published in Arabic, Chinese, English, French, Japanese, Russian and Spanish, and the 2009 Practical Guide in English, French and Spanish.

8. The CPI, PPI, XMPI Manuals, the Practical Guide and, more recently, the *Handbook on Residential Property Price Indices* (RPPIs) (2013) were all produced under the auspices of the Intersecretariat Working Group on Price Statistics (IWGPS) established in 1998. The terms of reference of the IWGPS was endorsed by the United Nations Statistical Commission in 1999, with the overall aim to develop international standards and recommendations in price statistics, document best practice guidelines and support their implementation. Members of the IWGPS include Eurostat, the International Labour Office (ILO), International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), United Nations Economic Commission for Europe (UNECE), and the World Bank. Participation in the work of the Group is open by invitation to experts including those from statistical offices and academia.

### III. Is there a need for an update of the 2004 CPI Manual?

9. In this section, we first summarise the feedback received on the usefulness of the 2004 CPI Manual. Subsequently, the main motivations for initiating an update are presented.

#### A. Feedback on the 2004 CPI Manual

10. The IWGPS in 2007 requested ILO and UNECE to conduct a survey among CPI compilers in national statistical offices (NSOs) and a limited number of main CPI users on the usefulness and completeness of the 2004 CPI Manual. To this end, a global questionnaire was sent out in June 2007. A total of 104 responses covering 92 countries were received, 86 of which came from the compiling offices<sup>2</sup>.

11. Overall compilers found the 2004 CPI Manual to be very useful. 94% found the practical chapters 1–13 “useful” or “very useful”. 87% found the theoretical chapters 15–23 “useful” or “very useful. Compilers were asked explicitly about the balance between theory and practice: 35% found the balance to be good, while 65% responded that more space should be given to practical issues. Chapter-by-chapter results are summarized in Annex 1, together with received proposals for issues that should be incorporated in future revisions of the manual or be dealt with in supplementary handbooks.

12. As a response to the need for more practical issues, the 2009 Practical Guide to Producing Consumer Price Indices was published.

#### B. The motivation for an update

13. The majority of the material for the 2004 CPI Manual was prepared in the period 1999-2003. Since then, useful experience on the methods presented in the 2004 CPI Manual

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<sup>2</sup> The results of the survey are included in the *Report on the 2007 International Survey on the Usefulness of the Consumer Price Index Manual*, presented to the joint UNECE/ILO CPI Meeting in May 2008. Available at: <http://www.unece.org/stats/documents/2008.05.cpi.html>.

has been made in statistical offices and the research community, and new methods and techniques have emerged. Data sources have developed remarkably since the late 1990s: Today, a much larger share of prices is collected from electronic sources and/or by electronic means, including collecting prices from Internet and the growing use of scanner data. The new data sources influence not only sampling practices but also the way CPIs are compiled. User needs have also continued to develop, resulting in growing demands for detailed and high-quality CPI series, improved timeliness, better international comparability, documentation and dissemination.

14. In view of the IWGPS an update of the 2004 CPI Manual would be an opportunity to review and take into account the experiences gained from the use of the manual as well as developments in calculation methods, data sources and user demands. An update would also be an opportunity to provide clearer and in some cases more prescriptive recommendations and practical guidance, where this may be found useful.

15. On this background an update of the 2004 CPI could take the following issues into account:

(a) Provision of clearer and in some cases more prescriptive recommendations where research, methodological development and practical experience now warrant it; for example on calculation of lower-level and higher-level indices, treatment of seasonal products, the use of unit values and further insights into methods of including owner-occupied housing in the CPI;

(b) Some tightening of material found by experience to be out-of-proportion to its analytical and practical use;

(c) New requirements for high-frequency and timely economic indicators, especially in the course of the economic and financial crisis calling for further considerations on compilation and data issues in relation to flash CPI estimates and more up-to-date weights, including more practical recommendations on the process of rebasing;

(d) Availability of electronic data sources for monthly, or even higher-frequency, price data, including scanner data and web-scraping, and consideration of the developments in associated methodological research and, given the variety of methods employed by statistical offices, guidance on their use for compilation;

(e) Changing information environment related to web-based dissemination and what is to be regarded as good practice in documentation and transparency.

16. Recommendations and practical guidance should be based on sound methods agreed to internationally and which are known to provide good results. An updated manual should give less prominence to the detail of the theoretical chapters of the 2004 CPI Manual. It should aim at including such detail only when necessary, though expositions, explanations, concepts and methods must be grounded in theory as necessary.

17. The general aim of the update would be to provide clear recommendations and practical guidance for CPI compilers in national statistical offices to support improvements in the quality and reliability of CPIs and promote international comparability. National headline indicators for CPI across countries are compiled according to a variety of definitions and methodologies. Having a more prescriptive, internationally aligned definition and methodology for compiling CPI, would help improving the quality and enhance international comparability of national CPIs, which would meet user needs and enhance compilation of area aggregates.

18. The proposal for an update is not for fundamental nor comprehensive changes, which could potentially impede progress made based on the 2004 CPI Manual. Yet there seems to be a need to elaborate on points that have benefited from more recent analytical

attention; to utilise lessons learnt by NSOs and international organisations that provide Technical Assistance and training on the omissions, strengths and weaknesses of some compilation practices outlined in the manual; to take into account the changing information environment and new data sources; and to agree on more prescriptive standards where possible and appropriate.

19. An update of the 2004 CPI Manual will require substantial resources at national and international level. The following section outlines a proposal of how this work could be organised.

#### **IV. Organisation of work to update the 2004 CPI Manual**

20. An update of the 2004 CPI Manual should take the current version as the conceptual, methodological and practical starting point, following the procedures and practices used in the updates of other major statistical manuals, such as the *System of National Accounts* and the *Balance of Payments* manuals.

21. The IWGPS, under its terms of reference, is responsible for overseeing arrangements for updating of manuals on price statistics. If it is agreed to initiate an update of the 2004 CPI Manual, the IWGPS proposes to establish a technical expert group (TEG-CPI) to update the manual. The TEG-CPI should work under the auspice of the IWGPS to which it will report. The group should consist of recognised experts from countries, organisations and academia and members of the IWGPS. This corresponds to the organisation of work when the 1989 ILO CPI Manual was updated to the current version of the CPI Manual.

22. The TEG-CPI would appoint authors to be responsible for reviewing and, where appropriate, redrafting existing chapters to, as necessary, condense and expand existing text; to introduce new areas; to drop redundant parts; and to adopt a more prescriptive tone, where possible and appropriate. The draft update version will be circulated to NSOs and interested users and experts for comments, using a dedicated website. Furthermore, various presentations would be made at international conferences. Amendments will be made based on comments received.

23. A formal consultation procedure for the approval of the revised CPI Manual still needs further consideration and discussion.

#### **V. Feedback required**

24. The IWGPS would like to receive feedback from participants to the 2014 meeting of the Expert Group on Consumer Price Indices on the following issues:

(a) Is there a need for an update of the CPI Manual? An update of the Manual will require significant resources, and the IWGPS would not wish to pursue this course unless there is broad consensus on the desirability of an update.

(b) Should an update look for more prescriptive recommendations, where possible and appropriate? Which areas would be suitable for more prescriptive recommendations?

(c) Are there particular topics that should be addressed in an update? This may be topics already dealt with in the manual, but where explanations should be improved, or topics not included in the 2004 version.

(d) How much theory should be included in an updated version of the manual, and how should theory be dealt with? The 2004 CPI Manual includes some mainly practical

chapters (chapters 4-13) and some mainly theoretical chapters (chapters 15-23). Should this structure be maintained, or should theory e.g. be included in the relevant chapters?

(e) If an update would be agreed upon, would you agree that the IWGPS organises the update by establishing a CPI-TEG?

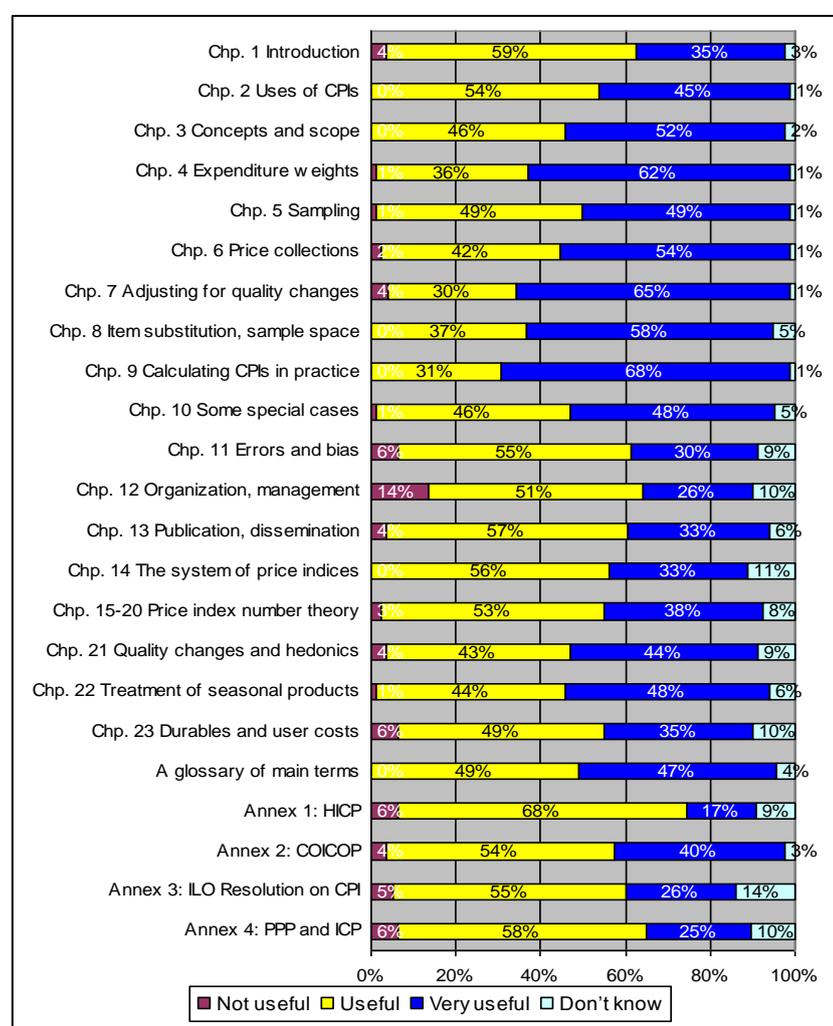
25. Feedback on other issues is, of course, equally welcome and encouraged.

26. Written comments and proposals should be send to [STDPricesForEver@oecd.org](mailto:STDPricesForEver@oecd.org)

## Annex I

Figure 1

## How useful do you consider the chapters of the manual?



1. Respondents were also asked to propose issues that should be incorporated in future revisions of the manual and/or be dealt with in supplementary handbooks. The following proposals were provided:

- (a) Net price indices;
- (b) Core inflation measures;
- (c) Housing indices;
- (d) Insurance;
- (e) CPI precision and related sampling/statistical issues;
- (f) Compiling expenditure weights and their quality;
- (g) HBS using diaries;

- (h) Quality adjustment methods using hedonics which are feasible to use;
  - (i) Method of aggregation, choice of formula for calculating elementary indices;
  - (j) Indicators of quality of CPI;
  - (k) Integration of ICP and CPI;
  - (l) Overview of necessary steps to compile a CPI;
  - (m) A more detailed discussion on how to organize the price initiation and how to obtain relevant price observations that are based on detailed specifications;
  - (n) Implication of the main use of the index on the coverage – as a deflator and short-term indicator;
  - (o) Circumstances under which non-random sampling could be useful;
  - (p) Example on determining optimum sample size and sampling variance estimation;
  - (q) Links between sampling and quality adjustment;
  - (r) Fixed and variable weights;
- examples on treatment of specific products such as mobile phones and services;
- (s) New methods of data collection, scanner data and organizational and management considerations relating to these new methods;
  - (t) Further detail on the differences between time of acquisition, time of payment and time of consumption of services;
  - (u) Treatment of price cuts (e.g. buy 2 get 1 free, discount coupons, special price discounts during non-peak hours);
  - (v) Examples on the change in prices of goods and services previously provided for free;
  - (w) Monitoring price movements in parallel markets (legal and illegal), controlled or subsidized prices;
  - (x) More details on linking time series.
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