REVISTA DE ESTATÍSTICA
3º QUADRIMESTRE DE 2001

SURVEY ON NATIONAL CONSUMER PRICE INDEXES

INQUÉRITO SOBRE ÍNDICES DE PREÇOS NO CONSUMIDOR

Autor: Rui Evangelista([22])
- Técnico Superior de Estatística no Departamento de Síntese Económica de Conjuntura - Núcleo de Estatísticas de Preços no Consumidor

ABSTRACT:

- This text presents the main findings of a survey, carried out by the prices division of the Portuguese National Statistical Institute, on national Consumer Price Indexes. The survey had two goals: firstly, it attempted to gather basic information on other countries' CPIs; secondly, it attempted to identify common preferences in relation to future developments and on the use of certain techniques such as new quality adjustment methods.

  The survey results enabled us to find out some interesting trends, particularly on the use of new data sources and on the use of quality adjustment methods. From the answers given, this latter issue is, and will continue to be, highly regarded in the next years.

KEY-WORDS:

- *Consumer Price Index, data sources, quality adjustment methods.*

***RESUMO*:**

- Este texto apresenta os principais resultados de um inquérito sobre Índices de Preços no Consumidor levado a cabo pelo Núcleo de Estatísticas de Preços no Consumidor do Instituto Nacional de Estatística. O inquérito teve dois objectivos: em primeiro lugar, reunir informação de base sobre Índices de Preços no Consumidor de outros países e, em segundo lugar, identificar 'preferências' comuns sobre futuros desenvolvimentos e sobre o uso de algumas técnicas como, por exemplo, novos métodos de ajustamento da qualidade.

  Os resultados obtidos permitem-nos identificar algumas tendências interessantes, especialmente em relação ao uso de novas fontes de informação e sobre o uso de métodos de ajustamento da qualidade. A partir das respostas obtidas, este último ponto é, e continuará a ser, altamente considerado nos próximos anos.

***PALAVRAS-CHAVE*:**

- *Índice de Preços no Consumidor, fontes de informação, métodos de ajustamento da qualidade.*

---

[22] This article is based on a text written for the benefit of the statistical agencies that have requested some feedback on the survey main findings. I would like to express my gratitude for the helpful suggestions given by colleagues of some of the contacted statistical offices. Thanks also to Ana Cabral, Cristina Fernandes and Daniel Santos for the comments provided.

1. INTRODUÇÃO

The prices division of the Portuguese National Statistical Institute is currently working on the revision of its Consumer Price Index. In this context, the department has decided to carry out a survey of national CPIs. This text presents and summarises the main findings of the survey.

The underlying idea of the survey is that, by gathering information on other countries' Consumer Price Indexes, additional guidance could be given on the present CPI revision process. Thus, the general objectives of the survey were twofold. Firstly, it attempted to gather basic information on other CPIs. Secondly, it attempted to identify common preferences (or trends) in relation to CPI developments and on the use of certain techniques/procedures such as new quality adjustment methods.

This text is organised as follows. Part two describes the scope and overall objectives of the survey. It provides information on the followed sampling strategy and survey response rates. Part three presents the main empirical results generated by the survey. Some data analysis is carried out in this section. Finally, a few considerations are made in part four of this text.

1. METHODOLOGY

2.1. SURVEY MEDIUM

This survey was sent out via e-mail only. However, respondents were given the option to send their answers to the questionnaire either by e-mail or post.

2.2. DESIGN OF THE QUESTIONNAIRE

Hill and Hill (1998) provided the initial theoretical and practical guidelines for the development of the survey instrument. In June/July, a small pilot was carried out with the objective of obtaining some feedback on the clarity of the questionnaire. This pilot helped introduce some changes to the original questionnaire. Appendix A shows the questionnaire used in this survey.

2.3. SAMPLING STRATEGY AND RESPONSE TO THE QUESTIONNAIRE

This survey uses non-probability sampling and therefore cannot ensure that participants are representative of all the statistical offices in the world. The sample was, however, predefined so that Europe, particularly the countries belonging to the European Union, would be well represented.

Countries were grouped into seven 'geographical areas', guidelines for the definition of which were provided in the 1997 United Nations statistical yearbook (UN, 1997). From all of the seven sample groups a total of 72 countries were chosen and sent an e-mail containing a questionnaire and a covering letter. The names of the surveyed countries are given in appendix B. Table one provides information on the chosen sample groups.

Table 1. Sample groups

Geographical area identification label	Geographical area	Number of surveyed countries
G1	European Union	15
G2	Eastern Europe	6
G3	Other European Countries	11
G4	Africa	6
G5	Asia and Oceania	17
G6	Latin America and the Caribbean	14
G7	Northern America	3

A total of 43 responses were received, representing an overall response rate of almost 60%. However, two of these responses were not usable, since several parts of the questionnaire had not been completed. Table two details response rates by geographical area.

Table 2. Response rate by geographical area

Geographical area identification label[1]	No. of usable responses	Geographical area response rate (%)	Proportion of total usable answers (%)
G1	14	93.33	34.15
G2	6	100	14.63
G3	7	63.64	17.07
G4	2	33.33	4.88
G5	8	47.06	19.51
G6	3	21.43	7.32
G7	1	33.33	2.44
Total	*41*	-	*100*

Note: See table one for definitions of geographical areas.

Two preliminary remarks can be drawn from tables one and two. Firstly, it should be noted that our sample of respondents rests heavily on the answers given by countries belonging to the G1, G2 and G3 groups. While these areas account for 44% of total sampled countries, they represent almost 66% of total usable answers. Secondly, response rates seem to differ across areas, with the G1, G2 and G3 sample groups displaying higher response rates than other groups. In presence of such an outcome, the 'survey-generated' information should be interpreted with caution. In analysing the data, one should bear in mind that the overall results might be biased due to the influence that the G1, G2 and G3 groups have on the total sample.

3. SURVEY RESULTS

This is a presentation of some of the data from our survey on national CPIs. For a better understanding of the replies analysed below, please consult the questionnaire in appendix A. Below is a selection of results that seem worth mentioning.

3.1. OVERALL CPI CHARACTERISATION

- Only two of the respondents answered that their CPI is released on a quarterly basis. All other respondents opted for the 'monthly' option for defining their price index periodicity.
- 68.3% of all respondents considered that their national CPIs could be best defined as a fixed base index. The countries defining their CPIs as 'a chain index with annual links' belong to the G1, G2 and G3 geographical areas.
- 63.4% of all respondents declared that the cost-of-living index (COLI) concept does not provide the theoretical framework for their national CPI. This proportion climbs to 78.6% for the G1 geographical area (in the G1, G2 and G3 areas this figure reaches 74.1%).
- The total number of countries claiming to produce a seasonally adjusted CPI was 34.1%. In the G1 group, this percentage is 21.4%.

3.2. PRICE DATA SOURCES

The table below summarises the answers given in relation to the combination of data sources used for price collection.

Table 3. Used sources on prices

Sources / Areas	Percentage of respondents that use…				
	Agents/price collectors	Mail/telephone surveys	Internet	Mail catalogues/ Magazines	Other
G1	100%	93%	86%	79%	29%
G2	100%	50%	17%	-	17%
G3	71%	57%	43%	71%	29%
G5	88%	63%	25%	38%	38%
G4 + G6 + G7	83%	83%	50%	50%	-
All sample	90%	73%	51%	54%	24%

Note: n = 41.

The results shown in table three allow us to say that:

- By and large, the most used source of information on prices comes from the work developed by pricing agents. The percentage of respondents that use this source range from 71% (G3 group) to 100% (G1 and G2 groups). Furthermore, answers given to the Part B, question 2 of the questionnaire, show that this source is, without a doubt, the *main* source of price information for the compilation of national CPIs.
- The percentage of countries stating to use the internet for the collection of prices, is much higher in the G1 area than in any other group of countries.
- 'Other' quoted sources of information include scanner data and the purchase of private data sources/services by statistical offices. Contracting out the task of price collection seems to be a reality, at least for some areas of national CPIs.

Further analysis of the answers given in part B of the questionnaire shows that:

- 68.3% of all respondents revealed that the main source of information on prices is not collected throughout the whole month.
- 42.9% of all respondents declared to collect their prices within the first fifteen days of the month (main source of information only). The percentage of countries that collect their prices in the last fifteen days of the week is

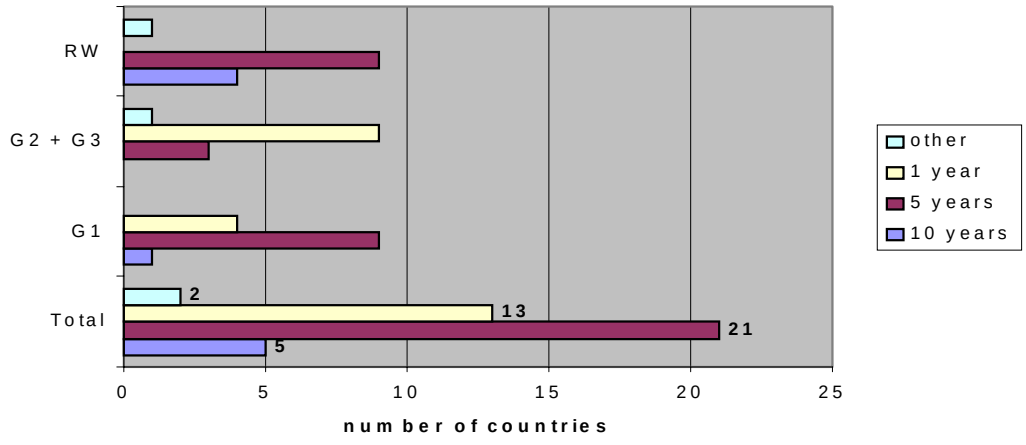
merely of 10.7%. The proportion of respondents declaring to collect prices in an overlapping period is 46.4%.

- Only 7.3% of all respondents (three countries) intend to change the frequency of their price collection. Of these three countries, two are planning to increase it and one to decrease it.
- The number of countries that is currently using scanner data for obtaining information on prices is very low. Only 4.9% of all respondents use this data source.
- However, it is worth noting that six countries declared that they are either studying the possibility of using scanner data or going to use it in the near future. Three of these countries belong to the G1 area.

3.3. WEIGHT DATA SOURCES

- Household Budget Surveys are the main source for CPI weight updating. National Accounts data account for a smaller proportion of the given answers on this question and are only regarded as the main source for weight updating in the G1 and G2 groups.
- 36.6% of all respondents stated that their main source for weight updating is available on an annual basis. In the G1 area, this figure is 57.1%.
- 51.2% of all respondents answered that, on average, weights are updated every five years. Graphic one splits the respondents into four groups according to the answers given to question three in part C of the questionnaire.

Grap. 1: Average CPI weight updating



- Weight updating is most frequently done on a five year basis. The RW([23]) group has the highest number of countries changing their weight structure on a ten year basis. Moreover, none of the respondents belonging to this group change their weights on an annual basis.
- 70.7% of all respondents are *not* planning to reduce the time lag between the introduction of different weight structures. This figure drops, however, to 64,3% in the G1 group. In the 'G2 and G3' group this figure is 76.9%.
- One year is the period which is most quoted by the respondents that are planning to reduce the time lag mentioned above: 58.3% of the statistical offices wishing to change it have quoted this period as the desired frequency.

Table four summarises the responses given on the 'mix' of weight updating data sources.

Table 4. Additional weight data sources

Sources / Areas	Percentage of respondents that use…					Percentage of countries that use 4 or mores sources
	Govern-mental Institutions	Mail/ telephone surveys	Internet	Magazines	Other	
G1	86%	57%	64%	50%	71%	57%
G2	67%	17%	17%	17%	67%	17%
G3	71%	57%	43%	43%	71%	43%
G5	50%	25%	13%	13%	13%	13%
G4 + G6 + G7	50%	33%	-	-	33%	-
All sample	68%	42%	34%	29%	54%	32%

Note: n = 41.

- Considered as a whole, the G1 area has the highest percentage of countries using four or more weight data sources (57%). The corresponding percentage is substantially lower in all the other groups, ranging from 13% to 43%.
- Countries having their CPIs chained annually tend to combine their National Accounts and Household Budget Surveys data for weight updating. While the former data source is used in the shaping of weights at higher levels, the latter is used for the more detailed level of aggregation.

[23] For the sake of simplicity, it was decided to include all non-European countries in the 'RW group'.

3.4. QUALITY ADJUSTMENT METHODS AND CPI BIAS MEASUREMENT

Part D of the questionnaire sought to assess the present use of quality adjustment methods used by statistical offices. It also aimed sought to obtain information on the introduction of new quality adjustment methods and CPI bias measurement.

The table below provides information about which quality adjustment methods are currently being used by our sample of respondents.

Table 5. Used quality adjustment methods by commodities/group of commodities

Method / Group	Percentage of countries that reported the use of…					Percentage of countries that use more than one method
	Overlap pricing	Option pricing	Hedonic pricing	Other	None	
Food at home, fast food and restaurants	78%	2%	-	29%	17%	27%
Household appliances	78%	17%	5%	37%	10%	42%
Radio/TV, computers, furniture and telephone	80%	24%	5%	37%	2%	41%
Clothing and footwear	73%	5%	7%	39%	10%	34%
New and used cars	68%	34%	5%	34%	10%	46%
Health	49%	2%	-	27%	41%	21%
Entertainment	68%	10%	2%	34%	20%	32%

Note: n = 41.

The data allow us to say that:

- The overlapping pricing method accounts for the highest percentages in all commodities/group of commodities covered by the survey. This seems to be the most known used technique for the adjustment of quality change.
- The group ‘Radio/TV, computers, furniture and telephone’ has the lowest percentage of answers in the ‘none’ option. This is one of the groups that has the highest percentage of countries that use more than one method for the adjustment of quality changes. This supports the idea that sees this group of commodities as the one with the most frequent problems in terms of quality change.

- 'New and used cars' is the group that accounts for the highest percentage for the use of the option pricing method (34%). This seems to be the group in which this method is more readily accepted.
- From the responses given, it seems that the hedonic pricing method is, at present, not widely used. Only six countries use the hedonic regression method for the adjustment of quality change in the seven CPI areas covered by the survey. Table six presents the countries that are presently using hedonics in their CPI compilation.

Table 6. The use of the Hedonic Price Method in national CPI

Country	Group of commodities	Commodities on which this method is applied	Relevant literature
USA	· Household appliances · Clothing and footwear · Radio / TV, computers, furniture and telephone	Clothing, computers, televisions	Moulton (2001) Fixler et al. (1999) Moulton et al. (1998)
France	· Household appliances · Clothing and footwear · Entertainment	Dishwashers Man shirts with sleeves, Bestselers	Bascher and Lacroix (1999)
Colombia	· Radio / TV, computers, furniture and telephone · New and used cars	-	Delgado (1998)
Sweden	· Clothing and footwear	Clothing	Norberg and Ribe (2001)
Japan	· Radio / TV, computers, furniture and telephone	-	-
Finland	· New and used cars	New and used cars	Vartia (1997)

From the answers given to the questionnaire, there are some reasons to believe that the scenario on quality adjustment will change considerably in the near future. Thus:

- 60.0% of all respondents plan to introduce new quality adjustment methods in their CPIs (69.2% in the G1 area);
- 87.5% of those respondents planning to introduce new quality adjustment methods will introduce them during the next five years([24]).
- The hedonic regression method was referred to by 82.6% of the total number of respondents that answered to the open-ended question on which new quality adjustment methods were to be introduced in their national CPIs.

[24] 25.0% are planning to introduce new quality adjustment methods during the next year.

Somewhat surprisingly, the survey revealed that only a small proportion of statistical offices had tried to quantify the magnitude of their CPI bias. Thus:

- At the time of the survey, only 24.4% of the surveyed institutions had made (or had seen other institutions make) some sort of CPI bias estimation.
- CPI biases were last estimated between 1996-2000 (the most frequent year is 1999). It is interesting to note that all these estimations were made in the same year or subsequent to the release of the 'Boskin Report' (Boskin et al., 1996).

In the last question of the questionnaire, respondents were asked to rank, by order of importance, six possible CPI improvements. A total of 38 answers were received([25]). Table seven shows the results.

Table 7 CPI Improvements: obtained scores by geographical region

Area	Improvement (a)	Improvement (b)	Improvement (c)	Improvement (d)	Improvement (e)	Improvement (f)
G1	49 (3)	58 (4)	62 (5)	37 (1)	44 (2)	44 (2)
G2 + G3	28 (2)	46 (6)	39 (4)	31 (3)	42 (5)	24 (1)
RW	45 (4)	39 (3)	76 (6)	38 (2)	63 (5)	33 (1)

n = 38.

Notes: (a) Implementation of new Statistical and sampling techniques.
(b) More frequent weight updates.
(c) Estimation of the size of various CPI bias.
(d) Implementation of new technologies for obtaining readily available information on prices and consumed quantities of goods.
(e) Introduction and/or expanded use of the hedonic pricing method.
(f) Introduction/development of new sources of information for collecting prices.
The ranking of each improvement within each geographical group is shown in brackets.

From table seven we see that:

- The introduction and/or development of the hedonic pricing method – improvement (e) -, is given more importance in the G1 group than in the rest of the other considered groups.
- The importance of more frequent weight updates – improvement (b) - seems to be more highly regarded in the RW group than in European countries (as mentioned earlier, this sample group shows the highest number of countries with a weight updating of ten years and the lowest number of countries (i.e. zero) with an average weight updating of one year).

[25] Three countries did not answer this question arguing that were unable to differentiate between the six provided improvements.

3.5. CPI METHODOLOGIES

The survey provided the opportunity to gather information on other countries' CPIs. Thus, we have decided to include, at the end of the questionnaire, a request for publications on CPIs methodologies.

Table eight provides an overview of the publications that have been sent to our national statistical office.

Table 8. Methodologies

Institution	Publication
Australian Bureau of Statistics	Guide to the Consumer Price Index: 14th Series
Central Statistics Office (Ireland)	CPI: Introduction of updated Series (base: mid-November 1996 as 100)
DANE (Colombia)	(a) Metodologia Indice de Precios al Consumidor (IPC - 98); (b) Guia de Uso del IPC (97 - 98).
Ministere des Affaires Economiques (Belgium)	L'indice des Prix a la Consommation: base 96
National Statistical Service of Greece	Revised CPI (1994 = 100)
State Institute of Statistics (Turkey)	Urban Places CPI (1994 = 100)
Statistics Finland	The CPI 1995 = 100: Handbook for Users

It should be borne in mind that table eight only covers the publications which have been sent to us by mail. Some additional information could also be extracted from the internet because some countries have given their CPI website addresses. Moreover, in the absence of a written methodology in English, some other countries have chosen to send us papers and recent CPI press releases.

4. CONCLUDING REMARKS

This survey has highlighted some points that seem worth mentioning. Firstly, it is interesting to note that the countries having their CPIs chained annually tend to use and combine their National Accounts and Household Budget Surveys data for the purposes of weight updating. The availability and quality of these two data sources seems to be an important point to take into account if one wants to build a CPI with annual links.

Secondly, the COLI concept does not provide the theoretical framework for national CPIs. Although this seems to be best applied for Europe as a whole, almost

64% of the sample do not base the building of the CPI on the cost of living concept. This, of course, raises the question of whether or not theoretical constructs – such as the COLI concept - are important in CPI design.

Thirdly, the survey has disclosed 'unusual' price data sources which use may be promising in the near future. Prices gathered and/or collected by private companies and scanner data are examples of 'uncommon price data sources' that were referred in the survey. As the complexity of an economy grows, the more difficult the collection of prices will become. In order to tackle this problem, some extra attention should be devoted to the use of alternative means of price collection.

Finally, the issue of quality adjustment is, especially in Europe, highly regarded. More than half of all respondents plan to introduce new quality adjustment methods in the next five years. In this context, the introduction and development of explicit quality adjustment methods – such as hedonics – assume particular importance.

However, it is somewhat surprising that, despite this interest on quality adjustment methods, only a few countries have attempted to quantify quality and other possible CPI bias. Only 10 out of the 41 surveyed countries have taken such an empirical approach to this important issue.

REFERENCES

BASHER J. and LACROIX, T. (1999). Dish-washers and PCs in the French CPI: Hedonic Modeling, From Design to Practice, Paper presented at the fifth meeting of the International Working Group on Price Indices, Reykjavik, Iceland, August, Institut National de la Statistique et des Études Économiques.

BOSKIN, M.J, DULBERGER, E.R., GORDON, R.J., GRILICHES, Z. and JORGENSON, D. (1996). Toward a more Accurate Measure of the Cost of Living, Final Report to the Senate Finance Committee from the Advisory Commission to Study the Consumer Price Index.

DELGADO, E. E. (1998). Metolodologia Indice de Precios al Consumidor IPC-98, DANE - Departamento Administrativo Nacional de Estadística, Colombia.

FIXLER, D., FORTUNA, C., GREENLEES and LANE, W. (1999). The Use of Hedonic Regressions to Handle Quality Change: The Experience in the U.S. CPI, Paper presented at the fifth meeting of the International Working Group on Price Indices, Reykjavik, Iceland, August, Bureau of Labour Statistics.

HILL, M. M. and HILL, A. (1998). A Construção de um Questionário, Working Paper n.º 98/11, Dinâmica – Centro de Estudos Sobre a Mudança Sócio-económica, Instituto Superior de Ciência do Trabalho e da Empresa, Universidade Técnica de Lisboa.

MOULTON, B. R. (2001). The Expanding Role of Hedonic Methods in the Official Statistics of the United States, Bureau of Economic Analysis, http://www.bea.doc.gov/bea/about/expand3.pdf.

MOULTON, B. R., LAFLEUR, T. J. and MOSES, K. E. (1998). Research on Improved Quality Adjustment in the CPI: The Case of Televisions, Bureau of Labour Statistics, http://www4.statcan.ca/secure/english/ottawagroup/pdf/18moul98.pdf.

NORBERG, A. and RIBE, M. (2001). Hedonic Methods in Price Statistics: Swedish Applications, Paper presented at the Deutsche Bundesbank Symposium on Hedonic Methods in Price Statistics, Wiesbaden, Germany, 21-22 June, Statistics Sweden.

UNITED NATIONS (1997). Statistical Yearbook, Department of Economic and Social Affairs, Statistics Division, New York.

VARTIA, Y. (1997). Quality Differences and Prices of New Cars: Price per Quality Unity Approach, Preliminary Version of a paper for a planning meeting at Statistics Finland, February 1997, University of Helsinki.

APPENDIX A: CONSUMER PRICE INDEX QUESTIONNAIRE

Please fill in the questionnaire and send it back to the following e-mail address: rui.evangelista@ine.pt. Alternatively, your answers can be sent to:

Gabinete de Estudos e Conjuntura do Instituto Nacional de Estatística
C/O: Rui Evangelista
Av. António José de Almeida; n.º 5
1000 – 043 Lisboa
Portugal

If you prefer to send us the questionnaire by e-mail, please replace the relevant box '❒' with a cross ('x').

Part A) Overall CPI characterisation

1. Periodicity

❒ monthly

❒ quarterly

❒ other

2. Which one of the following formulas is used for the aggregation of prices in your national CPI?

❒ arithmetic mean

❒ geometric mean

❒ harmonic mean

❒ other
(please specify below)

_____
_____

3. Which formula is used in the compilation of higher level indexes?

❒ Laspeyres

❒ Paasche

❒ other
(please specify below)

_____

4. Your national CPI can be best defined as:

❒ a fixed base index

❒ a chain index with annual links

❒ other (please specify below)

_____

5. What is the *price* reference period for your national CPI?

❒ a whole year

❒ a single month

❒ other

6. What is the *weight* reference period for your national CPI?

❒ a whole year

❒ a single month

❒ other (please specify below)

_____

7. Does the concept of the cost-of-living index provide the theoretical framework for your national CPI?

❒ yes ❒ no

8. Does your institution produce a seasonally adjusted CPI?

❒ yes ❒ no

Part B) Price data sources

1. Which data sources does your institution use for collecting prices?

❒ Agents/price collectors

❒ Mail/telephone surveys

❒ Internet

❒ Mail catalogues/Magazines

❒ other (please specify below)

_____

2. Please state, which is the main source of information for collecting prices

_____

3. For the main source of information only (as stated in the Part B, Q2):

a) When are prices collected?

❒ throughout the whole month ❒ on a() specific day(s)/week(s) of the relevant month

b) If you have marked 'on a() specific day(s)/week(s) of the relevant month' please identify the month period in which they are collected.

❒ within the first fifteen days of the month ❒ within the last fifteen days of the month

c) Is your Statistical Office planning to change the frequency of price collection?

❒ yes ❒ no

If '*yes*', will it be....

❒ increased

❒ decreased

4. Does your institution use scanner data for obtaining information on prices?

❒ yes ❒ no

Part C) Weight data sources

1. Which is the main source of information for your national CPI weights?

❒ Household Budget Surveys

❒ National Accounts

❒ Other
(please specify below)

_____

2. Availability of the above mentioned main source

❒ quinquennial

❒ biennial

❒ annual

❒ other
(please specify below)

_____

3. On average, CPI weights are updated on…

❒ a ten-year basis

❒ a five-year basis

❒ a two-year basis

❒ an annual basis

4. Are you planning to reduce the time lag between the introduction of two different weight structures?

❒ yes ❒ no

If '*yes*', what will be the desired frequency?

_____ year(s).

5. Which other data sources do you use for updating the index weight structure?

❒ Information gathered by governmental regulatory institutions

❒ Mail/telephone surveys

❒ Data available on the Internet

❒ Magazines

❒ other (please specify below)

_____

Part D) Quality adjustment methods and CPI bias measurement

1. Which methods are currently used for the adjustment of quality changes of the following commodities/group of commodities?

Food at home, fast food and restaurants

❒ Overlap pricing ❒ Option pricing ❒ hedonic pricing ❒ other ❒ none

Household appliances ([26])

❒ Overlap pricing ❒ Option pricing ❒ hedonic pricing ❒ other ❒ none

Radio / TV, computers, furniture and telephone

❒ Overlap pricing ❒ Option pricing ❒ hedonic pricing ❒ other ❒ none

Clothing and footwear

❒ Overlap pricing ❒ Option pricing ❒ hedonic pricing ❒ other ❒ none

New and used cars

❒ Overlap pricing ❒ Option pricing ❒ hedonic pricing ❒ other ❒ none

[26] This group includes commodities such as refrigerators, freezers, washing machines, dishwashers, stoves, microwave ovens, toasters, etc.

Health ([27])

❒ Overlap pricing ❒ Option pricing ❒ hedonic pricing ❒ other ❒ none

Entertainment ([28])

❒ Overlap pricing ❒ Option pricing ❒ hedonic pricing ❒ other ❒ none

2. Are you planning to introduce new quality adjustment methods in your CPI?

❒ yes ❒ no

If '*yes*', which ones?

1._____
2._____
3._____
4._____

When?

❒ During the next year

❒ During the next five years

❒ In more than five years

3. Has your institution ever made any CPI bias estimation?

❒ yes ❒ no

4. Has the size of your national CPI bias ever been estimated by other institution?

❒ yes ❒ no

If marked '*yes*' in at least one of the two above questions (that is, either in Q3 or Q4 or both), please mention when it was last estimated

_____

[27] This group includes commodities like pharmaceuticals, dental services, hospital treatments, etc.

[28] This group includes commodities such as newspapers, books, sporting equipment, package holidays etc.

5. Taken into account your national CPI present structure, how would you rank, by order of importance, the following improvements?

(Please give 1 to the most important item; 2 to the item which is, in your opinion, the next important, and continue in this fashion up until you give 6 as the least important item.)

Improvement	**Importance**
(a)Implementation of new statistical and sampling techniques	___
(b)More frequent weight updates	___
(c) Estimation of the size of various CPI bias	___
(d) Implementation of new technologies for obtaining readily information on prices and consumed quantities of goods	___
(e) Introduction and/or expanded use of the hedonic pricing method	___
(f) Introduction/development of new sources of information for collecting prices	___

We would be very grateful if you could send us recent methodological publications on your CPI together with this questionnaire.

Thank you very much for answering this questionnaire

APPENDIX B: SURVEYED COUNTRIES

European community

Austria	Netherlands	Germany
Italy	Finland	Sweden
Belgium	Portugal	Greece
Luxembourg	France	UK
Denmark	Spain	Ireland

Eastern Europe

Belarus	Czech Republic	Poland
Bulgaria	Hungary	Slovakia

Other European Countries

Croatia	Faeroe Islands	Latvia
Malta	Slovenia	Turkey
Estonia	Iceland	Lithuania
Norway	Switzerland	

Africa

Benin	Botswana	Malawi
South Africa	Seychelles	Tunisia

Asia and Oceania

Australia	Mongolia	Indonesia
Jordan	Hong Kong Special Administrative Region of China	Singapore
Armenia		Israel
Korea	New Zealand	Thailand
China	India	Japan
Malaysia	Philippines	
Cyrus		

Latin America and the Caribbean

Argentina	Jamaica	Colombia
El Salvador	Brazil	Saint Lucia
Aruba	Mexico	Dominican Republic
Ecuador	Chile	Uruguay
Bolivia	Peru	

Northern America

Canada	Greenland	USA