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REPORT FROM THE COMMISSION TO THE COUNCIL

ON HARMONIZATION OF CONSUMER PRICE INDICES IN THE EUROPEAN UNION

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ABBREVIATIONS USED IN THE TEXT

A	Austria
B	Belgium
CC	Candidate Country
CEIES	Committee on Statistical Information in the Economic and Social Spheres
CET	Central European Time
CMQ	Compliance Monitoring Questionnaire
COICOP	Classification Of Individual COnsumption by Purpose
COLI	Cost of Living Index
CPIs	Consumer Price Indices
D	Germany
DK	Denmark
EA	Elementary Aggregates
EC	European Community
ECB	European Central Bank
EEA	European Economic Area
EEAICP	European Economic Area Index of Consumer Prices
EICP	European Index of Consumer Prices
EL	Greece
EMU	Economic and Monetary Union
ES	Spain
ESA	European System of Accounts
ESCB	European System of Central Banks
EU	European Union
F	France
FIN	Finland
FISIM	Financial Intermediation Services Indirectly Measured
GM	Geometric Mean
HBS	Household Budget Survey
HFCE	Household Final Consumption Expenditure
HFMCE	Household Final Monetary Consumption Expenditure
HICP	Harmonized Indices of Consumer Prices
I	Italy
IMF	International Monetary Fund
IQI	Implicit Quality Indices
IRL	Ireland
JO	Official Journal of the European Communities

L	Luxembourg
MS	Member State
MUICP	Monetary Union Index of Consumer Prices
N	Norway
NA	National Accounts
NL	Netherlands
NPISH	Non-Profit Institutions Serving Households
NSI	National Statistical Institute
OECD	Organisation for Economic Co-operation and Development
OOH	Owner-Occupied Houses
P	Portugal
PC	Personal Computer
Phare	Action plan for coordinated aid to Poland and Hungary (subsequently extended to the remainder of the Central and East European countries)
PPP	Purchasing Power Parities
PPS	Purchasing Power Standards
RAM	Ratio of Arithmetic Mean prices
S	Sweden
SDDS	Special Data Dissemination Standards
SPC	Statistical Programme Committee
TF	Task Force
TQM	Total Quality Management
TV	Television
UK	United Kingdom
UN	United Nations
UNSD	United Nations Statistics Division
US	United States of America
WP	Working Party

REPORT FROM THE COMMISSION
TO THE COUNCIL

ON HARMONIZATION OF CONSUMER PRICE INDICES
IN THE EUROPEAN UNION

1. EXECUTIVE SUMMARY

As required by Council Regulation (EC) No 2494/95[1], Harmonized Indices of Consumer Prices (HICPs) have been produced and published on a common reference base 1996=100, common coverage of consumer goods and services and a common classification since March 1997.

In February 1998 the Commission (Eurostat) reported to the Council [COM(1998)104 final] (hereinafter referred to as the Report) on the HICPs established and in particular on their reliability and compliance with the comparability requirements. The Report noted that these indices had been accepted by both the Commission and the European Monetary Institute as providing satisfactory measures for the assessment of convergence. Eurostat and the main users were, however, looking for further improvements in the quality and comparability of the HICPs for their use in monetary policy and the monitoring of inflation in the Economic and Monetary Union. The Report specifically mentioned concerns over the issues of quality adjustment, sampling methods and the coverage of goods and services. Over the two years since that Report the Commission (Eurostat) has, with National Statistical Institutes, focused on these issues together with the presentation of timely and comprehensive indices to the European Central Bank and other users.

The initial HICPs, although fairly comprehensive in coverage, were for the most part the common denominator of the national Consumer Price Indices (CPIs). Since then, with considerable effort and co-operation by Member States, coverage has been extended to almost all of consumers' expenditure. In particular the difficult areas of health, education and social protection services are now largely covered, as are insurance and financial services. These and the geographic and population coverage are included according to agreed definitions thus ensuring comparability despite major institutional differences.

Other improvements in comparability have come from agreements on the treatment of 'tariff' prices, such as electricity and telephones, and the willingness of Member States to update weights and to ensure that prices of new goods, such as mobile phones and PCs, are included. Although the Regulations imposed no requirements on Member States for an annual comprehensive updating of weights three Member States have moved to annual updating and others are either considering this or are planning an early updating. As a result HICPs have rather more up-to-date and relevant weights than was the case with CPIs before harmonization.

There is as yet no consensus as to whether owner-occupiers face inflation that should be covered by the HICPs, other than in the prices of repairs and maintenance. The possibility of constructing an index of the net acquisition expenditure of owner-occupied dwellings (house prices) has been examined and found to involve considerable practical difficulties for a number of Member States. Depending on one's point of view owner-occupiers' costs other than monetary expenditure are either not an issue of consumer inflation or they are an issue but with no practical solution.

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[1] OJ L 257, 27.10.1995, p. 1.

Perhaps not at all unexpectedly, the problem of quality adjustment has proved to be intractable. Nevertheless, some slow progress has been made, such as the introduction of implicit quality indices (IQIs) on an experimental basis as a practical monitoring instrument. Concern that CPIs were biased upwards on account of a failure to allow for quality change, particularly in high-tech goods such as PCs, increased following the 'Boskin Commission' Report in December 1996 on the US CPI, and the Hoffmann Report on the German CPI (1998). The Commission (Eurostat) considered the arguments of bias in some detail.

However, whilst recognising that quality change was a major issue, it concluded that a case of systematic bias in any CPI could not be supported in the absence of any agreement on what constituted quality change or on appropriate operational methods for allowing for such changes. The Boskin argument based on cost-of-living index theory, while interesting, did not apply to the HICP, which is a Laspeyres-type index aimed at measuring inflation, and the assumptions underlying the theory were not generally met. The Commission (Eurostat) is, nevertheless, closely following attempts by the US Bureau of Labour Statistics to develop quality adjustments for PCs and other consumer goods and services.

It continues to seek agreement with Member States on practical measures to improve quality adjustments. Comparisons between countries of actual adjustments made have highlighted sometimes large and unacceptable differences at sub-index level, and Member States have been made aware of these.

Work with Member States on sampling methods has made rather more progress, although here too there is a lack of an adequate theoretical framework. While statistical sampling theory is well developed its application to price indices, where price change must be measured in a dynamic economy, involves conceptual issues that have not been resolved. It is also the case that, for reasons of economy, most Member States take purposive rather than probability samples. The main thrust of regulation will be towards an adequate representation of currently available goods and services. The potential benefits of improved price information in the form of 'scanner data' from supermarket checkouts are also being considered by a number of Member States.

Since the start of Stage III of EMU in January 1999 there has been a shift of emphasis from national HICPs towards the Monetary Union Index of Consumer Prices (MUICP), which is the centre of interest for the ECB in its assessment of price stability in the euro zone. The Commission (Eurostat) now publishes the MUICP together with the monthly HICPs and a comprehensive range of sub-indices to a timetable some 18 days earlier than required by the framework Council Regulation. The indices are made available through the Commission's (Eurostat) NewCronos database and its website together with supporting explanatory data on methods of construction. Candidate Countries have, with expert help from the Commission (Eurostat) and Member States, made considerable progress in constructing consumer price indices following the HICP requirements and these are also available.

The Commission (Eurostat) believes that the HICPs represent a considerable co-operative achievement resulting in markedly improved measures of inflation not only for informing monetary policy for the Monetary Union but also for the Governments of Member States. Nevertheless, there still remains much to be done to ensure the overall reliability, relevance and comparability of the indices. The forward programme of work with Member States therefore seeks to consolidate and explicate (with practical guidelines) existing standards

and, where there remains potential for systematic differences such as in quality adjustment, to develop the necessary new standards. It also seeks to develop operational monitoring systems sufficient to assure users that all HICPs and the MUICP meet the established standards and those yet to be agreed.

2. INTRODUCTION

On 23 October 1995, the Council of Ministers adopted a Regulation[2] setting the legal basis for the establishment of a harmonized methodology for compiling consumer price indices (CPIs) in EU Member States.

HICPs served as a criterion for entering the Economic and Monetary Union (EMU) and are the basis for compiling the European Index of Consumer Prices (EICP) and the Monetary Union Index of Consumer Prices (MUICP) which latter provides the official measure of inflation in the euro-zone. Therefore, in the beginning of the harmonization project the most important use of the HICPs was in the application of the criterion of convergence for price stability in the context of the preparations for Stage III of EMU. In line with this, the harmonisation work during this period focused on measures to remove or reduce significant long-term effects (non-comparabilities), as those were most likely to distort the assessments of sustainable price stability. This approach followed the Treaty on European Union which said that 'inflation shall be measured by means of a consumer price index on a comparable basis taking into account differences in national definitions'.

The first of January 1999 was a historic date in the process of European economic integration. Stage III of Economic and Monetary Union began with 11 countries participating in the single currency. From that date, there is a single interest rate applied in the euro-zone, fixed by the European Central Bank (ECB). As required by the Treaty the maintenance of price stability is the primary objective of the European System of Central Banks (ESCB). Wim Duisenberg, the President of the ECB, announced in October 1998[3] that it would be operating a flexible monetary policy strategy, ensuring price stability in the euro-zone based on a monetary reference value and a mix of other indicators (*'price stability shall be defined as a year-on-year increase in the Harmonised Index of Consumer Prices for the euro area of below 2%'*)[4].

Council Regulation (EC) No 2494/95 concerning Harmonized Indices of Consumer Prices (HICPs) (hereinafter referred to as the framework Regulation) laid down a **stepwise approach**, each step requiring specific implementing measures which were legislated in the form of Commission Regulations. Regarding the process for implementing HICPs it should be stressed that the framework Regulation foresaw a procedure with the Statistical Programme Committee (SPC) acting as Regulatory Committee. (The SPC comprises the Directors-General of the National Statistical Institutes.)

Within this framework, rules as well as guidelines or non-obligatory statements of good practice have been drawn up in collaboration with Member States for the construction of HICPs. To date, ten detailed Regulations have been adopted establishing specific implementing measures governing the production of the HICP.

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2 Council Regulation (EC) No 2494/95 (OJ L 257, 27.10.1995, p. 1).
3 See text distributed at *ECB Press Conference*, Frankfurt, 13.10.1998.
4 Wim Duisenberg at *ECB Press Conference*, Frankfurt, 13.10.1998.

The first Commission Regulation (EC) No 1749/96 on initial implementing measures covered six technical areas: initial coverage, newly significant goods and services, elementary aggregates, and minimum standards for quality adjustment, sampling and prices. The second Commission Regulation (EC) No 2214/96 related to the HICP and its sub-indices that are transmitted to and disseminated by Eurostat. Commission Regulation (EC) No 2454/97, defined minimum standards for the quality of the weights used to construct the HICP.

Furthermore, two implementing Council Regulations (Council Regulations (EC) Nos 1687/98 and 1688/98) extend the HICP coverage by December 1999 and December 2000.

The fourth Commission Regulation (EC) No 2646/98 laid down minimum standards for the treatment of tariff prices, and Commission Regulation (EC) No 1617/1999 concerned the minimum standard for the treatment of insurance.

Commission Regulation (EC) No 1749/1999 updated the classification which was laid down in Commission Regulation (EC) No 2214/96. The most recent Regulation, Council Regulation (EC) No 2166/1999, laid down minimum standards for the treatment of products in the health, education and social protection sectors in the HICP. At the SPC meeting in May 2000, the SPC expressed a favourable opinion on two further draft Regulations (draft Regulation on the treatment of reduced prices in the HICP, and draft Regulation on the timing of entering purchaser prices into the HICP). The full set of HICP legal acts is listed in Annex I to this Report.

As already stressed in the first Report, the production of a consumer price index is an elaborate and sensitive operation. Many of the necessary changes were agreed in lengthy discussions and required substantial preparation before implementation.

The first Report reported on the state of HICPs as in the end of 1997 after the approval of the first three implementing Regulations.

This Report, building on the above, focuses on the improvements that have been achieved in the design of the index since then and elaborates further on quality aspects in the index. Furthermore, it gives an overview of the work programme forward to 2002.

3. BASIC CONCEPTS AND DEFINITIONS

3.1. Aim and Scope of the HICP

The HICP is produced in each Member State using a harmonized methodology developed by European price statisticians led by Eurostat. It is the main measure of price stability in the euro-zone. The HICP is used for the assessment of convergence in the EU, and financial markets value these indices since they provide comparable measures across EU Member States.

Following the Maastricht Treaty the aim of the HICP is to measure inflation <u>by means of the consumer price index on a comparable basis, taking into account differences in national definitions</u>. However, this did not allow for the fact that there is no operational definition of ‘inflation’. Definitions exist only on a general level, of which the most widely accepted is probably that ‘inflation is a persistent increase in the general level of prices’. With this definition in mind and having regard to the opinion and the needs of the main users, it was

decided to compute the HICP as a Laspeyres-type price index that is based on the prices of goods and services available for purchase in the economic territory of the Member State for the purpose of directly satisfying consumer needs. Based on this concept and by reference to the European System of Accounts (ESA 95) the coverage of the HICP was taken as 'household final monetary consumption expenditure'. This defines the goods and services, the population and the geographic territory to be covered as well as the prices and the weights to be used.

The HICP may thus be described as a Laspeyres-type 'consumer inflation' or 'pure price' index measuring average price change on the basis of the changed expenditure of maintaining the consumption pattern of households and the composition of the consumer population in the base or reference period. 'Pure' means that, strictly speaking, it is only the changes in prices that are reflected in the measure between the current and the base or reference period. The HICP is not a cost of living index. That is, it is not a measure of the change in the minimum cost for achieving the same 'standard of living' (i.e. constant utility) from two different consumption patterns realised in the two periods compared and where factors other than pure price changes may enter the index.

3.2. HICP Coverage, weights and prices

The 'coverage' of the HICP is defined as those goods and services which are included in household final monetary consumption expenditure. It is classified according to the four-digit categories and sub-categories of the COICOP/HICP (Classification Of Individual COnsumption by Purpose adapted to the needs of HICPs).

'Household final monetary consumption expenditure' is defined as that part of final consumption expenditure which is incurred:

– by households irrespective of nationality or residence status, and

– in monetary transactions, and

– on the economic territory of the Member State, and

– on goods and services that are used for the direct satisfaction of individual needs or wants, and

– in one or both of the time periods being compared.

The 'prices' used in the HICP are the prices paid by households to purchase individual goods and services in monetary transactions. The purchaser's price is the price for the products the purchaser actually pays at the time of purchase; including any taxes less subsidies on the products; after deductions for discounts for bulk or off-peak-purchases from standard prices or charges; excluding interest or services charges added under credit arrangements; excluding any extra charges incurred as a result of failing to pay within the period stated at the time the purchases were made.

The 'weights' of the HICP are the aggregate expenditures by households on any set of goods and services covered by the HICP expressed as a proportion of the total expenditure on all goods and services within coverage.

3.3. Computation of the HICP

The relative distribution of consumers' expenditure on individual products varies from country to country. Hence, there is no uniform basket applying to all Member States. Owner-occupiers' shelter costs, expressed as imputed rents or mortgage interest payments, are not regarded as part of the inflationary process and hence excluded.

The weights used in the compilation of HICPs may relate to a reference period up to seven years prior to the current year. However, adjustments must be made each year for especially large changes in the expenditure pattern. This minimises any disparity arising from different update frequencies.

In order to keep HICPs broadly in step with each other and up-to-date in terms of market developments, new products are to be included when they achieve a significant relative importance. HICPs must be shown to be based on appropriate sampling procedures, taking into account the national diversity of products and prices. The samples must be kept well up-to-date, in particular by banning the practice whereby missing prices are simply assumed to be equal to the last observed prices. In order to measure pure price changes, the prices included in HICPs need to be adjusted for changes in the quality. Certain inappropriate practices, such as automatic linking, have been ruled out in this context.

Furthermore, HICPs have to be compiled using specified formulae. The MUICP is calculated as a weighted average of the HICPs of the 11 countries of the euro-zone. The index is computed as an annual chain index allowing for country weights to change each year. The weight of a Member State is its share of household final monetary consumption expenditure in the EMU total. The country weights used in 2000 are national accounts data for 1998 updated to December 1999 prices. Weights in national currencies are converted into euros using the irrevocably locked conversion rates.

The European Index of Consumer Prices (EICP) is calculated as an annual chain index for the 15 EU Member States up until 1998. Starting in 1999, the EICP is calculated as an annual chain index for the euro-zone, Denmark, Greece, Sweden, and United Kingdom. The European Economic Area Index of Consumer Prices (EEAICP) further includes Iceland and Norway. Country weights for the EICP and EEAICP are derived from the value of household final monetary consumption expenditure in national currencies converted into purchasing power standards (PPS). The euro-zone country weight reflects its share in the EU and EEA totals.

Technical notes on the HICP and MUICP were given in Eurostat News Release 21/97 of 5 March 1997, memo 8/98 of 4 May 1998, and memo 2/00 of 18 February 2000 (which includes a full list of HICP Regulations). Further details can be obtained from the Commission Report to the Council on the harmonization of consumer price indices, COM(1998)104 final.

4. HICPS AS DISSEMINATED BY EUROSTAT

The analysis of sources of inflationary pressure requires a sub-division of HICPs into component parts relating to different product groups. The 100 or so sub-indices and weights published by Eurostat are based on COICOP/HICP, i.e. a version of the international Classification Of Individual COnsumption by Purpose adapted for HICPs.

The Commission (Eurostat) publishes each month:

- the all-items HICPs for all EU Member States plus Iceland and Norway,
- the European Index of Consumer Prices (EICP),
- the Monetary Union Index of Consumer Prices (MUICP),
- the European Economic Area Index of Consumer Prices (EEAICP),
- about 100 sub-indices, their corresponding weights and weighted averages (EICP, MUICP and EEAICP), and
- the country weights corresponding to household expenditure in the EU total, the EMU total and the EEA total.

Furthermore, the Commission (Eurostat) publishes a number of so-called 'special aggregates' that have been developed in collaboration with the Economic and Financial Affairs Directorate-General and the ECB. They measure inflation for groups of products, goods or services that normally are of particular interest to economic analysis. The special aggregates may be further developed in the future according to users' needs. Currently the following special aggregates are published:

- Goods (all-items excluding services),
- Industrial goods,
- Non-energy industrial goods,
- Non-energy industrial goods, durables only,
- Non-energy industrial goods, semi-durables only,
- Non-energy industrial goods, non-durables only,
- Energy,
- Food including alcohol and tobacco,
- Unprocessed food,
- Processed food including alcohol and tobacco,
- Services (all-items excluding goods),
- All-items excluding energy,
- All-items index excluding energy, food, alcohol and tobacco,
- All-items excluding energy and unprocessed food,
- Seasonal food,
- All-items excluding seasonal food,

– All-items excluding energy and seasonal food,

– Energy and seasonal food,

– Liquid fuels and fuels and lubricants for personal transport equipment,

– All-items excluding liquid fuels and fuels and lubricants for personal transport equipment,

– All-items excluding alcohol and tobacco,

– Energy and unprocessed food,

– All-items excluding housing, water, electricity, gas and other fuels,

– Electricity, gas, solid fuels and heat energy,

– Education, health and social protection,

– All-items excluding education, health and social protection.

For the HICPs and their sub-indices the following information is made available:

– the monthly index level,

– the monthly rate of change,

– the 12-month or annual rate of change,

– the annual average index, and

– the annual average rate of change.

The information is updated monthly and available to all users from the Eurostat database 'NewCronos'. Furthermore, the euro-indicators site on Eurostat's website contains topical rates of change. The information can also be obtained through Eurostat's Data Shop network.

5. IMPROVEMENTS IN THE DESIGN OF THE INDEX

Since the preparation of the last Report from the Commission to the Council further improvements have been achieved in the following areas:

5.1. Weights

The framework Council Regulation requires that HICP weights are sufficiently up-to-date to ensure comparability whilst avoiding the cost of Household Budget Surveys more frequently than every five years. Furthermore, it is required that implementing measures for maintaining the 'reliability and relevance' of the HICPs should be adopted. Commission Regulation (EC) No 2454/97 on minimum standards for the quality of HICP weights seeks to meet these needs whilst imposing a minimum burden on Member States and allowing maximum freedom in the methods used. The regulation aims at giving a minimum

guarantee of the quality of weights to construct the HICP and minimises disparities between HICPs arising from different update frequencies.

Consumer price indices are fairly insensitive to changes in weights. Imposing the cost of high precision for all weights by frequent and comprehensive updating would not have been an acceptable solution for the Regulation on weights. Nevertheless, it was necessary to give some assurance that large differences in the frequencies of updating do not lead to non-comparability. The regulation sets a minimum standard whereby the weights used can in general relate to a weight reference period up to seven years prior to the current year, but adjustments need to be made more frequently if there have been significant changes in the expenditure pattern. The requirement is therefore, each year, to check those weights which are judged to be most critical for reliability and relevance and, hence, for the comparability of the overall HICP. These are primarily the weights for sub-indices or their major components where significant market changes have accompanied 'divergent' price movements.

Divergent price developments are those which are markedly different from the overall average, and can be detected from prices collected for the index. Significant market developments can be detected through the normal intelligence gathering that is part of the process of index construction. The regulation does not require new surveys but seeks to make the best use of the statistical information available in Member States. It does not require Household Budget Surveys more than every five years but allows those Member States conducting small annual surveys to use the results of these to adjust weights where there is reliable evidence of a change. It also allows information from the National Accounts, market research and elsewhere to be taken into account. Member States are not obliged to take account of the very latest developments, i.e. developments in the two years prior to the review, although this would be desirable where major developments are known to have occurred.

Where a weight is identified as deficient, Member States should make an improved estimate and introduce an appropriate adjustment, from the following January index, where this would exceed the threshold effect of 0.1 % points on average for one year compared with the previous year. The aim is to ensure that the adjusted weights are the best estimates that can be made on the information available.

Further information on the quality of HICP weights and on the common reference periods of the HICPs can be found in sections 6.4.3 and 6.4.5. The full set of items and country weights are listed respectively in Annexes II and III to this Report.

5.2. Coverage of goods and services

Commission Regulation (EC) No 1749/96 defined the initial coverage of the HICPs from January 1997. Some difficult categories such as health and educational services, where there are major institutional differences between Member States, were not fully covered by the initial coverage of the HICP. Council Regulation (EC) No 1687/98 amended Commission Regulation (EC) 1749/96 with regard to the coverage of goods and services and laid down a staged procedure to extend the coverage of the HICP. The first stage of extended coverage entered into force in December 1999, taking effect with the index for January 2000. The next step is regulated in Commission Regulation (EC) No 2166/1999 and will take place with the publication of the January 2001 index. The following sub-

indices had to be implemented in December 2000 according to Commission Regulation (EC) No 2166/1999:

(a) Social protection services provided within the home, such as home cleaning, meals, transport for the disabled;

(b) Hospital services (part) (COICOP/HICP 06.3);

(c) Retirement homes, residences for the disabled.

With the concept of 'household final monetary consumption expenditure' Council Regulation (EC) No 1687/98 defines both the goods and services to be covered and the prices used in the HICP. The prices should be those which purchasers actually pay for a product net of reimbursements, subsidies, and discounts. The Regulation is based on the definitions laid down in the European System of Accounts (ESA 95).

The following table illustrates the staged procedure of the extension of the product coverage of the HICP:

Table 1 Sub-indices fully implemented in December 1999

04.	**HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS**	
04.1.1. 04.1.2.	Actual rentals paid by tenants Other actual rentals	Extended in 1999 to achieve a harmonized treatment of subsidies
04.4.1. 04.4.2. 04.4.3.	Water supply Refuse collection Sewerage collection	Extended to cover also 'tax-like' charges; excluded only if financed out of general taxation
06.	**HEALTH**	
06.1.1.	Medical products, appliances and equipment	Extended to cover the net expenditure of consumers on health goods and services within the social security system
06.2.1.	Medical services	To be implemented in Dec. 1999 using the net/net concept
06.2.2.	Dental services	See 06.2.1.
06.2.3.	Paramedical services	See 06.2.1.
09.	**RECREATION AND CULTURE**	
09.5.1. 09.5.4.	Books Stationery and drawing materials	Extended to cover the net expenditure of a consumer on educational goods and services
10.	**EDUCATION**	
10.1.1.	Pre-primary and primary education	See 06.2.1.
10.1.2.	Secondary education	See 06.2.1.
10.1.3.	Tertiary education	See 06.2.1.
10.1.4.	Education not definable by level	Extended to cover the net expenditure of a consumer on computer, language, and other such courses

(cont.)

11.	**HOTELS AND RESTAURANTS**	
11.1.2.	Canteens	Extended to cover the net expenditure of consumers on canteens and accommodation of boarding schools, universities and other educational establishments
11.2.0.	Accommodation services	
12.	**MISCELLANEOUS GOODS AND SERVICES**	
12.4.0.	Social protection services (*)	See 06.2.1.
12.5.2.	Insurance connected with the dwelling	Extended to cover the service charge of all kinds of insurance taken out by tenants against fire, theft, etc. instead of just contents insurance.
12.5.3.	Insurance connected with health	Implemented in December 1999 to cover private sickness and accident insurance.
12.5.4.	Insurance connected with transport	Extended to cover also travel and luggage insurance.
12.5.5.	Other insurance	Implemented in December 1999 to cover insurance such as civil liability for injury and damage to third parties or their property not arising from personal transport equipment.
12.6.	Financial services n.e.c.	Extended to cover banking services and other financial services.
(*) Sub index will be partly implemented in December 2000.		

5.3. Geographic and population coverage

The framework Council Regulation requires that the HICP shall be based on the prices of goods and services available for purchase on the economic territory of the Member State for the purposes of directly satisfying consumer needs. As regards the economic territory and the consumers concerned, a harmonized definition of the geographic and population coverage of the HICP was necessary for the purpose of achieving comparability and also avoiding gaps or double counting when aggregating HICPs to the European Economic Area Index of Consumer Prices (EEAICP), the European Index of Consumer Prices (EICP) or the Monetary Union Index of Consumer Prices (MUICP).

Council Regulation (EC) No 1688/98 specifies that the HICP should cover all household final monetary consumption expenditure which takes place on the economic territory of a Member State. In particular, HICP coverage should include expenditure by foreign visitors ('domestic concept') and expenditure by individuals living in institutions, but exclude the expenditure by residents whilst in a foreign country. All private households should be included, irrespective of the area in which they live — urban or rural — or their position in the income distribution. Expenditure incurred for business purposes should be excluded.

The 'domestic concept' was chosen mainly because of the purpose of the MUICP to provide a measure for price stability in the euro-zone. The objective is to measure price changes in the euro-zone by aggregating price changes within each of the territories of the individual Member States. Expenditure and price changes which need to be measured within the economic territory of a Member State should include those affecting foreign visitors and exclude those affecting residents whilst in a foreign country.

The coverage of the HICP is defined as those goods and services which are included in household final monetary consumption expenditure. As the household sector includes people living in institutions, their expenditure should be covered by the HICP weights.

On the grounds of comparability, Council Regulation (EC) No 1688/98 requires adjustments to the geographic and population coverage. The Regulation states that HICPs compiled using sub-index weights which reflect final monetary consumption expenditure of a sub-set of households, rather than of all households, should be deemed comparable, where this difference in practice accounts for less than one part per thousand of the total expenditure covered by the HICP.

The requirements of the Regulation were implemented in December 1999.

5.4. Classification of goods and services

With the publication of the January 2000 index the classification of the HICP was updated. Commission Regulation (EC) No 1749/1999 defines the new COICOP/HICP in accordance with the final version of COICOP as defined by the UN in 1999 and replaces the one in Commission Regulation (EC) No 2214/96 which was based on a provisional version of COICOP. The new version adapted the list and the composition of the HICP sub-indices. For the purpose of the HICP, some COICOP sub-indices had to be omitted because they were not within the HICP coverage, e.g. narcotics or imputed rentals for owner-occupied housing. Furthermore, certain COICOP classes (four-digit level) have been combined in order to ensure that the weight was above one part per thousand in most of the Member States.

The following indices are those mainly affected by the change in the classification:

08.2.0	Telephone and telefax equipment
08.3.0	Telephone and telefax services
09.1	Audio-visual, photographic and information processing equipment
09.1.5	Repair of audio-visual, photographic and information processing equipment
09.2	Other major durables for recreation and culture
09.2.1/2	Major durables for indoor and outdoor recreation including musical instruments
09.2.3	Maintenance and repair of other major durables for recreation and culture
09.3	Other recreational items and equipment, gardens and pets
09.3.1	Games, toys and hobbies
09.3.2	Equipment for sport, camping and open-air recreation
09.3.3	Gardens, plants and flowers
09.3.4/5	Pets and related products including veterinary and other services for pets
09.4	Recreational and cultural services
09.4.1	Recreational and sporting services
09.4.2	Cultural services
09.5.1	Books
09.5.2	Newspapers and periodicals
09.5.3/4	Miscellaneous printed matter and stationery and drawing materials
12.3.1	Jewellery, clocks and watches
12.3.2	Other personal effects

Although it is not mandatory, some Member States were willing to provide 1999 data. Back series were not included in the official HICP series for 1999 since they are not part of the initial coverage. Nevertheless they may be used for the calculation of annual inflation rates for the newly introduced positions during the year 2000.

5.5. Tariff prices

A tariff is a list of pre-established prices and conditions for the purchase and consumption of one and the same good or service or of similar goods and services that have been centrally fixed by the supplier, by the government, or by agreement to exert influence on the consumption patterns. This happens by means of appropriately differentiated prices and conditions according to characteristics of consumers, the level, the structure or the timing of the consumption. Goods and services for which tariff prices exist account for a substantial proportion of the overall expenditure covered by the HICPs. Since there was significant scope for procedural differences in the construction of price indices for such goods and services, the treatment of tariffs was considered an important potential source of non-comparability. Commission Regulation (EC) No 2646/98 lays down minimum standards for the treatment of tariffs in the HICP.

‘Tariffs’ exist for items such as postage, telephones, gas, water, electricity, as well as national or local transport. They differ from other prices because they are centrally fixed, not negotiable, and differentiated. The tariff structure reflects different prices as between different types of consumers, and between different levels and different times of consumption. The main problem with the treatment of tariffs in the HICP is that suppliers can change the structure of the tariff or a single tariff price to the extent that consumers are persuaded or obliged to make new choices in their consumption. For example, a telephone supplier may introduce a low weekend tariff in order to reduce congestion during the busy weekdays.

The Regulation captures the legal aspect of accessing the required tariff data, some of which is commercially sensitive, as well as the statistical aspect of using these data to produce HICPs:

(a) It clarifies the obligation of suppliers to provide Member States with the necessary data. The legal basis is already given by Council Regulation (EC) No 2494/95.

(b) It defines the procedure to follow when constructing a price index in the case of changes in the tariff structure. The guiding principle is the Laspeyres fixed basket concept with consumption patterns as up-to-date as necessary to determine the immediate impact of the tariff change on the index population. The HICP should reflect the price change on the basis of the changed costs of maintaining the consumption pattern chosen by households prior to the given change in the tariff. The aim of this principle is to avoid showing the changes in the consumption pattern because of a change in a tariff.

The Regulation entered into force in December 1998.

5.6. Insurance

According to Commission Regulation (EC) No 1749/96, the HICPs have covered until December 1999 house-contents insurance and motor insurance. Since December 1999, taking effect with the index of January 2000, the HICPs cover all insurances connected with the dwelling typically paid by the tenant, not only contents insurance. Furthermore, the HICPs cover since December 1999 private health, civil liability, and travel insurance [extended coverage following Council Regulation (EC) No 1687/98]. Life insurance is excluded from the coverage of the HICP.

Commission Regulation (EC) No 2214/96 stated that ‘the weights and prices for insurance should be net of claims. However, a price index of gross premiums may be used as a proxy or estimate for changes in the net premiums’. As this definition left a significant scope for procedural differences a further Commission Regulation (EC) No 1617/1999 was adopted in 1999 to harmonize the treatment of insurance services in the HICP. Following the HFMCE concept, the Regulation retains in general the ‘net concept’ for insurance. The ‘net concept’ reflects the use of the HICP as measure of consumer price inflation in terms of prices actually charged. A consumer pays with an insurance policy the service by the insurance company of redistributing the risk. The consumer pays a fixed premium for the policy, the insurance company collects the premiums from all insured households, makes investments and reimburses claimants who are affected by damage or loss. Such payments by the insurance company for repairs or replacements become part of household income.

The household budget surveys cover all expenditure, including expenditure financed out of claims. Hence, the use of the 'net concept' avoids the possibility of double counting or gaps and ensures that the overall HICP measures the change in the price for the service of insurances, and the other sub-indices, in particular those for the purchase and the repair of vehicles, for major household appliances and other durables, measure the change in price for the repair and replacement of such products.

5.6.1. Weights for insurance

Following Commission Regulation (EC) No 1617/1999, weights should reflect the so-called 'service charge' which is implicitly calculated as:

Gross insurance premiums (net of insurance tax)

+/- Changes in the actuarial provisions other than for life-insurance risks

= Actual premiums earned

+ Premium supplements

- Claims due

+/- Changes in technical provisions against outstanding life insurance risks

= Implicit service charge (net of insurance tax)

(+ Insurance tax)

= Implicit service charge

Premium supplements take account of the investment income of the insurance company. Claims paid out and changes in the actuarial provisions need to be deducted from the gross premiums plus supplements to arrive at the service charge. Changes in the actuarial provisions consist of allocations by the insurance company to technical provisions for outstanding risks, e.g. forecasts in respect to age for health insurance. Technical provisions are important for insurances covering high risks.

The Regulation defines furthermore that the weights should be based on average expenditure over three years. This is aimed at using more stable estimates of the service charge and minimising the risk of negative weights, since changes in the quantity of reimbursements and repairs in circumstances following natural disasters or major accidents are often distributed over a longer period of time.

According to ESA 95 payments as a result of claims are treated as current transfers from the insurance companies to policyholders and other parties to the claim and, therefore, enter into households' disposable income. Commission Regulation (EC) No 1617/1999 on the treatment of insurance requires explicitly that the weights of other sub-indices (e.g. those for the purchase or repair of vehicles, for major household appliances and other durables) shall include all expenditure financed out of claims where it is incurred by or on behalf of the household sector. If for example a damaged car is repaired then the expenditure should be reflected in the weight for COICOP/HICP 07.2.3 'Maintenance and repairs'. The same

holds true if the repair is paid directly by the insurance company, since the insurance company is considered to be acting on the policyholder's behalf.

5.6.2. Prices for insurance

As the 'net concept' (i.e. the service charge) is not applicable at an individual level for pricing in practice, because the information is not available each month, gross premiums are followed. Gross premiums or the value of the insured good are often indexed by the CPI or by other price or cost indices. This effect should be reflected in the HICP; the gross insurance premiums should not be adjusted to exclude this indexation.

Commission Regulation (EC) No 1617/1999 entered into force in July 1999.

Eurostat has not yet asked Member States to report on the application of the insurance Regulation. Currently, draft supplementary guidelines on insurance are elaborated. The Guidelines will aim at providing practical guidance on some technically difficult areas.

5.7.Health, education and social protection services

Commission Regulation (EC) No 1749/96 as amended by Council Regulation (EC) No 1687/98 requires that extended coverage in the health, education and social protection sectors shall be implemented in December 1999, taking effect with the index for January 2000. Thereby, the methodological details of inclusion should be specified in accordance with the comitology-procedure. The timetable of inclusion for hospital services and social protection services provided within the home, retirement homes and residences for the disabled should be specified in accordance with the same procedure.

Council Regulation (EC) No 2166/1999 defines the methodological details of inclusion as well as the timetable for the above mentioned services. The Regulation restates that the purchaser prices of goods and services in the health, education and social protection sectors to be used in the HICP should, in accordance with set standards and ESA 95, be the amounts to be paid by consumers net of reimbursements. Reimbursements are defined as 'payments to households by government units, social security administrations or non-profit institutions serving households (NPISHs), that are made as direct consequences of purchases of individually specified goods and services, initially paid for by households. Payments of claims to households by insurance companies do not constitute reimbursements.'.

The HICP sub-indices concerned should be calculated using a formula consistent with the Laspeyres-type formula used for other sub-indices, i.e. they should reflect the price change on the basis of the changed expenditure of maintaining the consumption pattern of households and the composition of the consumer population in the base reference period. In consistency with the Laspeyres principle and the relevant provisions of Commission Regulation (EC) No 2646/98 on tariff prices, the Regulation states that changes in purchaser prices which reflect changes in the rules determining them should be shown as price changes in the HICP and that changes in the purchaser prices resulting from changes in purchasers' incomes shall also be shown as price changes in the HICP (so-called 'income-dependent prices').

Member States may use procedures that differ from those described. They are required to provide the Commission (Eurostat) with a description of the chosen procedures before they

are used. The provided information should be sufficient to assess the operation of those procedures. The results of this assessment are contained in this Report (see Section 6.4.).

The provisions of the Regulation were implemented by Member States in December 1999 and took effect with the index for January 2000, apart from the following, which were due to be implemented in December 2000 and should take effect with the index for January 2001:

(a) hospital services (part) (COICOP/HICP 06.3);

(b) social protection services provided within the home, such as home cleaning, meals, transport for the disabled (part of COICOP/HICP 12.4.0);

(c) retirement homes, residences for the disabled (part of COICOP/HICP 12.4.0).

5.8. Guidelines on implementing measures of the HICP

In a number of cases Eurostat and the NSIs agreed not to make use of legal acts for implementing the framework Council Regulation on HICPs but make use of Guidelines instead, as a rapid, non-bureaucratic, practical and flexible tool for maintaining and improving the comparability and quality of HICPs in the short term. Currently, there are four Guidelines on implementing measures of the HICP. Most of these Guidelines have been clearly considered as preparatory measures for Commission Regulations at a later point in time.

5.8.1. Guidelines regarding revisions to HICPs

Guidelines on the revision of HICP series were agreed by the SPC in December 1997. They lay down general principles. A common understanding in particular has been achieved on the most important aspects:

(a) Revisability: it is generally accepted that officially published HICP series may be revised. The extent of a revision to any HICP series shall be agreed with Eurostat.

(b) Correction of mistakes: if a mistake is discovered in the index calculation, the Member State concerned shall immediately and at its own initiative provide Eurostat with information at the level of detail necessary to assess the impact on the accuracy of the HICP and agree with Eurostat on the extent and the timing of the revision to be made. The Member State concerned shall notify Eurostat on the actions taken to prevent similar future occurrences.

(c) Changes in national rules: to the extent that revisions due to changes in the system of rules applied at the national level are judged by Member States to be required in order to improve the accuracy of an HICP, such revisions shall be implemented. The Member State concerned shall provide Eurostat with information at the level of detail necessary to assess the impact on the accuracy of the HICP and agree with Eurostat on the extent and timing of the revision to be made.

(d) New or improved information: to the extent that revisions due to new or improved information are required to improve the accuracy of an HICP, such revisions shall be implemented. The Member State concerned shall provide Eurostat with information at the level of detail necessary to assess the impact on the accuracy of

the HICP and agree with Eurostat on the extent and timing of the revision to be made.

(e) Changes due to stipulations in EU Regulations or Guidelines on HICPs: to the extent that revisions to HICPs are needed to meet the requirements laid down in present and future EU Regulations and in agreed Guidelines concerning the implementation of HICPs, such revisions shall be implemented in accordance with the given stipulations. Member States shall arrange that information is kept available at the level of detail necessary to demonstrate that the revisions are consistent with the requirements concerned.

Besides these general principles there is also a common agreement on more technical issues like timing, announcement of revisions, release of revisions, etc.

The amendment of these Guidelines is currently under discussion because it was felt that harmonized rules on revisions were needed especially when important changes in methodology or coverage were taking place. The discussion started because of experiences with the implementation of Regulations (e.g. on extended coverage with the January 2000 index).

5.8.2. Guidelines on the treatment of price reductions in the HICP

The Guidelines contain two 'regulating' articles and one article with practical examples of various price reduction schemes.

The Guidelines specify the kind of price reductions the HICPs should take account of. Reductions in prices of individual goods and services should be taken into account (i.e. deducted) if they are available to all potential consumers with no special conditions attached (non-discriminatory), and if they are claimable (a) at the time of purchase or (b) within such a time period from the actual purchase that they might be expected to have a significant influence on the quantities buyers are willing to buy. In particular, reductions in prices of individual goods and services which are likely or expected to be available again at standard prices or elsewhere available at standard prices should be taken into account in the HICP. In the case of specification changes the Guidelines refer to the requirements regarding quality adjustment following Commission Regulation (EC) No 1749/96. The requirements are supplemented by a description of how inducements should be treated.

Furthermore, the Guidelines give practical examples and general advice on how special kinds of price reductions should be treated.

5.8.3. Guidelines on the treatment of rejected price observations

The Guidelines on rejected price observations specify the procedures to follow for the validation and adjustment of price observations. The Guidelines require that in general the prices reported by the price collectors should be accepted. Rejection or adjustment of reported prices, for example the correction of an unusually high or low price change, should not be done by automatic validation procedures, but only by reference to specific information on the individual price observation, such as a repeated observation. If, as a result of the validation procedure, the reported price has to be rejected, the rejected price should be treated according to the rules for missing prices.

The Guidelines leave it to Member States also to use other than the specified methods. Where a Member State does not use the described methods, Eurostat may request it to show that the resulting HICP does not differ systematically from an HICP constructed in line with the described methods by more than 0.1 percentage points on average taking one year against the previous year.

5.8.4. Guidelines for the treatment of data processing equipment and notably personal computers in the HICPs

Experience during recent years shows that the development of prices for data processing equipment tends to differ very much from the development of the all items HICP at the same time as a considerable expansion of the relative importance of such equipment in total household consumption expenditure. In view of these circumstances and the significant national differences among existing HICP practices in the treatment of data processing equipment, there was an immediate need to establish a common framework within which national rules should be defined and applied in order to secure the comparability, reliability and relevance of the HICPs.

The Guidelines on data processing equipment aim at specifying how data processing equipment should be included in the HICP. Member States should cover personal computers and associated items in their HICPs. Where direct sellers are a significant source of supply, they should be covered in addition to other outlets. Prices may be obtained from magazines instead of or as well as direct observation in retail outlets.

Commission Regulation (EC) No 2454/97 defines the annual review of the weights at the review's sub-index level. The Guidelines on data processing equipment extend the check of the weights in this special area to the level of the major components of the sub-index for data processing equipment. Those major components should comprise a component index for personal computers.

6. QUALITY IN THE INDEX

Quality can be considered as 'fitness for purpose'. This can be understood as the ability of an HICP to serve the purpose for which it is designed, which is mainly to provide a relevant and comparable measure of inflation and convergence in the EU, and more particularly in the context of the monetary policy in the euro-zone. Fitness, or ability to serve this purpose, is determined by the totality of its properties and features; i.e. by the applied concepts, methods, definitions and practices and their consistence with the purpose concerned.

Considering that HICPs are supposed to measure consumer price inflation in the EU on a comparable basis, comparability can be seen as the major aspect of quality. Some further important aspects composing the overall HICP quality should be stressed, e. g. relevance, reliability, and timeliness of the index.

6.1. Relevance

Relevance refers to the purpose of the HICP. As noted in Section 3.1. above the aim of the HICP is to measure inflation as distinct from the cost of living. It is therefore inappropriate to criticise the HICP from the latter perspective. However, a great deal has been said over the years about bias in CPIs without recognition of the fact that there is a limit to what can be said with any degree of certainty. Unless the target has been precisely defined, it is

impossible to say by how much it has been missed. CPIs can be compared one with another, and it can be argued that certain differences should be removed, as has been done in the harmonization process, but there is no operational definition of the unbiased index by which to judge all other CPIs. Each CPI has been developed over a long period of time with the index compilers solving the operational problems in as consistent and coherent a way as possible. The actual conceptual framework for any CPI is thus embodied in its history. Meanwhile, efforts have been made to build alternative conceptual frameworks relying on economic and statistical theory. These ideas have influenced index design but have not, for the most part, determined actual operational practice.

The Treaty and the framework Council Regulation define the HICP. The Treaty required a consumer price inflation index; the Council Regulation required that it should be a Laspeyres-type index measuring the average change in the prices of goods and services available for purchase in the economic territory of the MSs. This definition was agreed, following the requirement of the Treaty, between Eurostat and the main users. As such, the definition constitutes a broad operational definition of 'inflation'.

There are many unresolved operational issues and, given the dynamic nature of European economies, there always will be. These issues give rise to a concern that there is potential for bias and probably actual bias.

Reduction of bias can only be achieved by progressive improvement of current practices within a developing conceptual framework. It is in the latter where economic and statistical theory can contribute.

As noted in the previous Report to the Council, the Boskin Report[5] on the US CPI challenged the question whether CPIs in general were of sufficient reliability in respect to possible bias[6]. It took the view that the US CPI was biased upwards, mainly because of a presumed failure to deal with the adjustment for quality change in goods and services (especially in hi-tech areas such as PCs and surgical operations). Whilst rejecting the suggestion that the size or the direction of any bias on this count can be determined without defining and constructing an actual index the Working Party on HICP has recognised from the outset that the treatment of quality change was the most likely source of bias as well as non-comparability.

There is however an important issue of terminology. As regards HICPs, 'validity bias' in Eurostat's vocabulary can be described as the systematic difference between the index as required by the HICP legal framework and the index as defined. That is the difference between 'concept' and 'definition', e.g. the difference between the ideal 'pure price HICP' and the particular HICPs defined by Eurostat and the MSs. On the contrary, bias in the vocabulary of the Boskin Commission takes a Cost Of Living Index (COLI) as the point of reference. Utility may be based on costs that do not necessarily involve expenditure or purchaser prices faced by consumers. They can be opportunity costs or physical consumption valued at imaginary prices and may never result to actual expenditure. These costs do not involve monetary transactions and are not relevant in the measure of inflation required for monetary policy. Utility theory further involves assumptions about the nature of the consumer and the hidden mechanisms by which prices are established. While the Laspeyres index approach makes no such assumptions it is, nevertheless, accepted that

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5 Boskin, M. J. et al., *Towards a more accurate measure of the cost of living*, December 1996.

6 See also previous Report [COM(1998) 104 final], p. 30.

agreement on how to treat quality change will necessarily involve a conceptual elaboration of the consumer valuation of product difference and how it is to be measured.

Suitability of a CPI as an appropriate measure of inflation in this vocabulary means in fact suitability of a CPI to approximate as close as possible an undefined COLI. This approach does not seem applicable to HICPs as it suggests, contrary to the spirit and the letter of the HICP legal framework, that there would be by concept and definition a validity bias in the HICP.

6.2. Reliability

6.2.1. Representativity

Errors and biases may result also from the difference between the index as defined and the index as designed ('procedural biases'). This will depend on the extent to which the methods chosen can in practice meet the required definition. It seems intuitively plausible that certain procedures will give systematically different results from alternatives in most contexts. On the other hand a particular procedure may give biased results in particular contexts, e.g. quarterly price collection may give a downward bias relative to a monthly index when prices are rising.

The difference between the index as designed and that actually produced in practice will rather result in random errors. Errors resulting from a persistent failure to follow set procedures may result in systematic errors in the HICP but by their nature operational errors are more likely to have variable effects which may be expected to be random, e.g. transcription or recording errors by price collectors.

The Boskin Commission gave the example in their Report that the indices for PCs are likely to be biased upwards. But it is also likely that the indices for clothing are biased downward while the weight for clothing far exceeds the weight for PCs. The view of the Commission (Eurostat) is that there are in any CPI certainly biases at work, but they are of different types, they have different effects according to product type, and they are unlikely to be in the same direction. What the Commission (Eurostat) does not accept is to put a concrete figure to any sort of bias.

Hill[7] has attempted to clarify the relationships between CPIs intended to measure consumer price inflation and those intended to measure changes in the cost of living (COL). He concluded 'that both objectives lead to the same kind of index formula in practice, provided that 'best practice' is followed. Indexes that are 'biased' as measures of the cost of living indexes can equally well be regarded as 'biased' measures of inflation. On the other hand, in the second part of the paper it is shown that there could be significant differences between the coverage, or domain, of indexes intended to measure price inflation and those measuring changes in the COL and these could lead to significantly different results, especially over the longer term. No consensus may yet exist over what should be the

[7] *Inflation, the Cost of Living and the Domain of a Consumer Price Index*, invited paper submitted by Peter Hill to the Conference of European Statisticians, joint ECE/ILO Meeting on Consumer Price Indices, Geneva, 3-5 November 1999.

domain of a CPI.'. [Diewert[8] reached a similar conclusion on the matter of formula in his paper to the 1999 meeting of the Ottawa Group].

The domain of the HICP is, however, agreed, as is its form. The scope of the index was set in the Council Regulation and the present coverage is close to that requirement. Steps are being taken to ensure that actual samples of price observations fully represent the universe of transactions within coverage. The model of the fixed basket of goods and services has been accepted as the measure of inflation rather than the notion of constant utility. Inflation is a monetary phenomenon, which involves only monetary transactions and actual purchaser prices.

6.2.2. Precision

Sampling theory provides a basis for calculating errors for given sample designs. The last Report from the Commission to the Council provided an overview of sampling methods used in each Member State. The Report stated that most of the Member States followed some form of purposive sampling rather than random or probability sampling and pointed out that the theory has not been well developed for CPIs partly because of the difficulty of defining a universe and partly because purposive rather than probability sample designs are the norm.

However, the HICP minimum standard for sampling (Article 8 of Commission Regulation (EC) No 1749/96) does not expressly deal with 'sampling errors' in the standard sense of statistical theory, that is, uncertainty due to random or corresponding variation in the sampling procedure.

Such sampling errors were, especially at the outset of the harmonisation project, considered to be of secondary importance only, compared to possible bias due to misrepresentation. The standard requires therefore more generally that HICP target samples shall 'have sufficient elementary aggregates to represent the diversity of items within the category and sufficient prices within each elementary aggregate to take account for the variation of price movements in the population'.

In order to analyse the different procedures in the Member States and to harmonize sampling methods a specialised Task Force (TF) on sampling was set up in 1999. The TF has taken the view that a more positive attitude to simulating sampling errors should be developed, especially in the light of positive experiences in France, Sweden and the United Kingdom, which were approximating or had simulated sampling variances for their national CPIs. These exercises were appreciated by the public.

The TF presented a first draft for a Regulation on sampling which was discussed at the HICP WP meeting in spring 2000. The draft suggested that the tenets of sampling theory should provide some basis for minimum standards in HICP sampling. It advocated the computation of sampling errors. However, given that such estimates lack validity under purposive sample designs it is judged more appropriate for Eurostat to seek less comprehensive and costly evidence on precision. The aim will therefore be to target

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[8] Diewert, Erwin, *The consumer price index and index number purpose*, paper presented at the Fifth meeting of the International Working Group on Price Indices (The Ottawa Group), Reykjavik, Iceland, August 1999, revised: December 1999.

requests for control data whilst continuing to explore more sophisticated measures of precision.

The TF is currently elaborating its final Report to be submitted to the WP meeting in October 2000. The Report is expected to elaborate further the precision issue.

6.3. Comparability

6.3.1. Comparability of use of different formulae

The framework Council Regulation requires that the HICPs shall be a Laspeyres-type index. Though the HICPs and CPIs produced by Member States may differ in detail, they can be broadly described as Laspeyres-type indices. The HICPs produced by Member States differ in the frequency of updating weights. As already mentioned in Chapter 5, most countries apply a 'fixed base index formula', updating the weights in three to five-year intervals. France, Italy, Austria, Sweden, the United Kingdom, and Norway compute a chain-index with annual weight updating.

In order to obtain a consistent set of HICPs with sub-indices allowing for aggregations of several sub-indices, groups of countries, the EMU, the EU or the EEA as a whole, it was necessary to present the HICPs as if they were all computed in the same way. Hence, it was necessary to apply a common index reference period and a common weight reference period. The framework Council Regulation sets the index reference period to 1996=100. In order to receive a common weight reference period, the item weights for all Member States need to be expressed at the same prices. This is done by price updating the weights in January of the current year to prices referring to the December of the preceding year.

With the implementation of the two Council Regulations on extended coverage in January 2000, the index reference periods of the new sub-indices introduced at this time were set to December 1999 = 100 in comparison to the index reference period of the already existing sub-indices which is 1996 = 100. Hence the index figure published in January 2000 for those sub-indices reflect the change in price levels since December 1999. Since HICPs are aggregated using a chain index formula, the extended coverage was integrated into the HICP without any computational problems. Higher level indices are aggregated in the year 2000 by linking weighted averages of lower level indices since December 1999 with the level of the corresponding aggregate in December 1999. This means that the annual rate of change for the all-items index in, for example, April 2000 is the change from April 1999 to December 1999 (using the old coverage) combined with the change from December 1999 to April 2000 (using new coverage).

6.3.2. Comparability between Member States

Comparability is a relative concept of systematic differences between HICPs on account of differences in definitions, methods and practices which can turn to bias where the relative difference is referred to the known ideal or correct definition, method or practice.

The regulatory framework is designed to ensure comparability, reliability and relevance of HICPs by a process whereby the practices followed in the construction of any one index are judged against alternative practices followed in the construction of HICPs generally. In order that such judgements are neither ad hoc nor arbitrary it was necessary to have a decision process that gives some guarantee of improving the quality of HICPs. This involves an assessment of the effects of different practices on the HICP, a threshold for

determining when action is necessary and a process for choosing the preferred or acceptable practices.

The HICP Working Party has to a large extent been proven as an effective platform where consensus is reached on which practices are to be preferred and why or, where this is not feasible, decisions are taken on which practices should be taken as reference ('standard reference practice' or 'minimum standards').

This approach also suggests a way by which to assess compliance not only with the comparability requirement but to some extent also with the reliability requirement. It is clear that for operational purposes some criterion is necessary in order to distinguish between comparable and non-comparable practices; no such rule was established in the framework Council Regulation (EC) No 2494/95.

The HICPs must be given with an appropriate precision for both the indices themselves and the harmonised inflation rates based on them are expressed to one decimal place. It is appropriate that the threshold for accepting non-comparable practices be 0.1% point on the average annual HICP. A difference of 0.1% point on the annual rate of measured inflation has been agreed in practice for specific implementing measures on a case by case basis and the one per thousand weights rule on the HICP has been established in respect to coverage. Appropriate statistics and tests for establishing the actual effects of differences in current practices on the HICPs have or are being developed such as the test for 'critical weights' and the 'standard reference indices'.

However, it should be stressed that the absence of quantitative estimates of reliability is due to the considerable difficulties involved. There is no way of consistently aggregating systematic differences deriving from different sources to a single figure, as there is little or no evidence on whether these effects may inter-relate. The theoretical framework supporting actual index construction is incomplete and the considerable resources necessary to implement ideal practices are not warranted in the absence of actual evidence of bias. Nevertheless, there is no reason to be complacent, and even some small evidence would be better than none. Comparisons of HICPs one with another in the depth achieved under harmonization are an efficient way to produce this evidence. Standard reference practices are specified where existing practices can result in effects above the 0.1% threshold and are those practices which by consensus among national CPI experts are the least biased or the best among available practices.

6.4. The operation of the HICP standards

At the outset of the harmonization project Eurostat's approach was to first set up a list of possible differences according to the sources of non-comparability that have been identified. As a result of the on-going discussions in the WP other sources of non-comparability were added. Based on those sources, several regulations have been adopted and new Guidelines agreed.

Table 2 summarises the main identified potential sources of differences.

The harmonization project has already focused on most of these issues within the regulatory framework which has been established. It has so far achieved a ban on practices considered the most likely sources of potential bias.

Eurostat sent a ‘Compliance Monitoring Questionnaire’ (CMQ) to the Member States in mid 1999. This questionnaire covered all Regulations so far adopted and asked Member States to give detailed information on their compliance. The questions were directly related to the requirements as stated in the Regulations. The questionnaire was split into five phases taking account of the workload put on Member States. The timetable was scheduled for the period between the end of May 1999 and the end of January 2000.

Some information, e.g. the replies to the questions on ‘newly significant goods and services’, was not strictly comparable for different reasons, misunderstandings as well as non-availability of the data, and therefore not usable in this Report. It was furthermore not possible for all Member States to reply to the questionnaire in time. Some replies to phase III that should have ended in October 1999 are still missing. The replies to all phases of the questionnaire will be used to develop test statistics in the near future.

The following paragraphs give an overview of the operation of the standards in the Member States as well as the current discussion in the Working Party and specialised Task Forces.

Following Article 2 of Council Regulation (EC) No 1687/98 on extended product coverage and Article 2 of Council Regulation (EC) No 1688/98 on extended geographic and population coverage, the Commission (Eurostat) should assess the operation of these provisions and Report to the Council within two years after the date of entry into force of the two Regulations (August 1998). The Report should in particular assess the operation of the concept of household final monetary consumption expenditure in relation to relevant alternative concepts. Furthermore, the Commission (Eurostat) should assess the operation of the procedures laid down in Council Regulation (EC) No 2166/1999 concerning the treatment health, education and social protection services.

The result of this assessment is included in Section 6.4.4.

Table 2 Main identified potential sources of differences

Source	*Long-term effects*	*Short-term effects*	*Minimum standard*	
Quality adjustment	(+++)	(+)	Yes	Regulation
Formula for elementary aggregates	(++)	(+)	Yes	Regulation
Age of item group weights	(++)	(+)	Yes	Regulation
Missing observations, substitutions	(++)	(+)	Yes	Regulation
Basic index construction	(++)	(0)	Partly	Regulation
Editing - data preparation	(+)	(+)	Yes	Guideline
Inclusion/exclusion of item groups	(+)	(0)	Yes	Regulation
Price re-basing of weights	(+)	(0)	Yes	Regulation
Number of elementary aggregates	(0)	(++)	Partly	Regulation
Repres. items vs random sampling	(0)	(++)	No	Pending
Regional differences	(0)	(++)	Indirectly	Regulation
Types of outlets	(0)	(++)	Indirectly	Regulation
Sampling error	(0)	(++)	No	Pending
Discounts (*)	(0)	(0)	yes	Guideline

(*) This result is valid as long as the rates of discounts do not vary over time. The HICP Working Party has taken the view that such rates may vary considerably and that national practices concerning the treatment of discounts should be harmonized.

(0) = unlikely

(+)= possible

(++) = likely

(+++) = very likely

6.4.1. Conceptual problems for technically 'difficult' item groups

Some difficult categories such as health and educational services, where there are major institutional differences between Member States, will be fully covered by the HICP with the index for January 2001 at the latest.

A specific Commission Regulation concerning the treatment of insurance services established a harmonized methodology for insurance that is necessary to ensure that the resulting HICPs meet the comparability requirement and the treatment of insurance is consistent with the definitions laid down in ESA 95. A Task Force on insurance services is about to put to the WP a proposal for Guidelines complementing the Insurance Regulation.

As a result of empirical studies carried out by specialised HICP Task Forces, Guidelines concerning the treatment of clothing, durables and cars have been drafted. These Guidelines could not be followed up any further because of their strong interaction with quality change, sampling and seasonality issues. They remain pending until the satisfactory settlement of the general aspects involved.

Through the initial exclusion of certain items relating to Owner-Occupied Housing (OOH), such as imputed rents, mortgage payments or major maintenance and repairs, EU statisticians have removed a significant source of 'non-comparability' between HICPs. The question of whether and how to include it in form of prices for new owner-occupied dwellings on net acquisition basis in the HICP has been investigated by another HICP Task Force. The TF on OOH has already put to the WP its proposals concerning the treatment of OOH in the HICP, and a decision is being sought from the SPC.

The treatment of financial services directly charged is the only one among these conceptually and technically difficult item groups which remains to be solved. In view of considerable differences in banking practices, price movements and weights, specific measures in form of a draft Commission Regulation are currently being discussed at the HICP Working Party.

6.4.2. Newly significant goods and services

The requirement in the framework Council Regulation to 'maintain the relevance of HICPs' means that steps must be taken to ensure that HICPs keep broadly in step with each other and are up-to-date in terms of market developments. The corresponding minimum standard is aimed at ensuring that new products are incorporated in the HICP as soon they achieve a sales volume of over one part per thousand of total consumers' expenditure in the Member State. Eurostat is acting as an information exchange, informing each MS of products newly included in other Member States' HICPs.

In the context of the compliance monitoring exercise MSs reported on the procedures they had put in place in order to systematically seek identifying newly significant goods and services.

Typically, it is the price collectors which are supplying information on new goods and services (whether genuinely new or replacement products). Head offices observe centrally market developments and assess their observations together with the information supplied by price collectors.

In addition, Member States use information from National Accounts, the Household Budget Surveys or other surveys like food surveys or import statistics. Furthermore, they examine magazines and periodicals (trade and consumer journals, commodity publications) and review newspapers and television advertisements. They collect information from industry, trade organisations, and trade representative bodies, institutional users, and associations of retailers and producers and consumer associations.

In Member States with fixed base indices the search for newly significant goods and services is ongoing but particular focus is paid at each re-basing period when target samples are reviewed and new replacements or additional items are taken into the HICP. In Denmark each month one of the twelve main COICOP/HICP groups is checked, so that over one year all groups are checked. This may be seen as the most systematic procedure reported by a Member State and might be recommended as such.

The definition of 'newly significant goods and services' was subject to discussion, as it was meant to leave space for different interpretations. The sentence 'their estimated consumer expenditure has become at least one part per thousand of the expenditure covered by that HICP' was interpreted in mainly two ways:

(a) Each product that was reported by a Member State had reached a significant level of consumption and counted for more than one part in a thousand in the Member State or

(b) A certain group of products had reached a significant level of consumption which counted for more than one part in a thousand and the Member State had reported some new representative items.

The list as published in the last Report to the Council (Section 12.5, table 9) reflected the discussion on the interpretation of the standard by containing the reported goods and services which were grouped to product groups.

Member States were asked to report the approximate weight of those products or product groups on the list which they had not explicitly included in their HICP. Although a significant number of newly significant items were added to the HICPs, not all Member States were able to provide the required information due to practical reasons as well as due to misinterpretation. Results given by Member States were not comparable and therefore not contained in this Report.

In the Compliance Monitoring exercise, Member States were asked to update the newly significant product list. The resulting summary list of products was presented to the Member States in autumn 1999 (see the finalised version in tables 4 and 5). The discussion on this list showed that the term 'newly significant' was generally interpreted as 'being new in the index'.

Following HICP standards, there are two different cases by which new products are implemented into the index if they have gained a significant part of consumption:

(1) Replacement: either the new product replaces an already existing product that has lost importance; in other words a more up-to-date representative for a need or purpose already covered by the index is brought into the sample (e.g. a special variety of car tyres is replaced by a more representative one),

or

(2) **Addition:** the new product is brought into the index in addition to the already covered products as representative for a newly significant or modified need or purpose.

Those additions can have several reasons:

(a) either a new product that had not been represented in the index and would not normally be considered as a replacement because it was radically different from the existing variety (e.g. mobile phones). It would be added as a new category within an existing category,

or

(b) a product that was available but not explicitly represented because its consumption was too low. Inclusion was not a replacement within a category but a new category within a category (e.g. spaghetti in Denmark or lamb meat in the Netherlands).

In case (1) (Replacement), the weight of the COICOP/HICP category to which the replacement belongs should not be changed.

In case (2) (Addition), the price of the new product is collected in addition to the already observed product, the minimum standard in Commission Regulation (EC) No 1749/96 offers one of the following treatments:

(a) either adjusting the weights of the relevant category of COICOP/HICP or

(b) adjusting the weights within the relevant category of COICOP/HICP or

(c) assigning part of the weight specifically to the new product [underneath the 4-digit level of COICOP].

Replacements are not affected by this standard because they do not have an effect on the weights.

The differences between newly significant products and replacements may be summarised as follows:

Table 3 Newly significant goods and services versus replacements

Additions (newly significant products)	Replacements
New type of product (not yet existing or implicitly covered) but not necessarily (technically) new (e.g. lamb meat)	Same type of existing product
For the first time consumed to a significant extent (one part per thousand)	Not applicable
Can consist of different variants (brands, models): one or many products are introduced (serving the same purpose)	One to one replacement: one existing price representative is exchanged into another more representative product
The weight is either not yet existing **or** needs to be adjusted in order to account for the newly significant product	No impact on weights

As a result of the discussion the minimum standard in the regulation was split into its components as follows:

– there used to be a certain expenditure group which was not explicitly covered by the Member State's HICP because its weight was lower than one part per thousand;

– this expenditure group is now explicitly covered because it has reached one part per thousand of the expenditure covered by this HICP;

– this group is represented by a certain newly significant good or service which itself does not have to have a weight of at least one part per thousand of the expenditure of this HICP.

Following the standard, Member States were asked to check the reported products as potential price representatives for a certain expenditure group not yet or implicitly covered in their indices.

It was agreed that Member States need to check

(a) whether the proposed products represent an expenditure group that is not yet explicitly covered by the index and

(b) whether this expenditure group has reached one part per thousand of the expenditure represented in the index,

(c) how this expenditure group should be explicitly implemented into the HICP and

(d) whether it could be represented by more appropriate price representatives than those proposed (some appropriate representatives might be contained in the list as reported by other Member States).

Two lists with newly significant goods and services were agreed, one with the products proposed by Member States, one with product groups suggested by Eurostat (see Tables 4 and 5).

Both tables with newly significant goods and services take account of the distinction between newly significant goods and services and replacements as made above. Therefore, products reported by MSs that were obviously results of replacements are not contained in the tables.

In case of exclusion Member States should provide evidence that the maximum expenditure that could be represented by each of the proposed products was below one part per thousand of the expenditure covered by their HICP. Where appropriate, products should be grouped to higher-level expenditure groups (e.g. ecological/organic carrots and potatoes belong to the same COICOP sub-index and might therefore represent the same expenditure group).

Table 5 is meant to be a basis for considering whether the HICP covers expenditure groups which in Eurostat's view could have gained on importance over the last few years. The list is not exhaustive.

Compliance monitoring provided some rough indication — see also Tables 10 and 11 on the number of elementary aggregates and prices for selected expenditure groups as reported my MSs — that there may be more products which should be considered beyond those currently reported by Member States. The number of elementary aggregates or the number of price representatives to be added to HICPs should be sufficient to represent the diversity of newly significant items and the variation of their price movements.

The operation of the standard has shown that MSs are making considerable progress in monitoring consumers' expenditure on newly significant products and significant parts of consumers' expenditure are added to the HICP. The formulation of the standard seemed interpretable in different ways and this gave scope for further clarification. Subject to its strong interaction with sampling rules the standard may need formal amendment.

Table 4 Newly significant goods and services proposed by Member States

Goods/services	Coicop
Breakfast muesli mixture	1.1.1
Buckwheat paste, ecological	1.1.1
Frozen pizza	1.1.1
Tortellini (pasta with meat)	1.1.1
Corn Flakes	1.1.1
Vegetarian burgers	1.1.2
Lamb meat	1.1.2
Ecological eggs	1.1.4
Ecological carrots	1.1.7
Ecological potatoes	1.1.7
Dietetic biscuits	1.1.9.
Ice tea (in cans or bottles)	1.2.2
Champagne	2.1.2
Micro-fibers anorak	3.1.2
Computer desk	5.1.1
Cooking appliance for the table (raclette, pierrade)	5.3.1
Air conditioner	5.3.1
Steam-cleaning machine	5.3.1
Energy-saving bulb	5.5.1/2
Halogen bulb	5.5.1/2
Disposable plates	5.6.1
Ginseng extract	6.1.1
Malt extract	6.1.1
One-day contact lens	6.1.2/3
Liquid Petroleum Gas (LPG)	7.2.2

Goods/services	Coicop
Annual car examination	7.2.3
Eurostar / Le Shuttle rail fares	7.3.1
Decoder for digital TV	9.1.1
Midi stereo system	9.1.1
Personal CD player	9.1.1
Knowlegde game (e.g. trivial pursuit)	9.3.1
Garlands of paper	9.3.1
Chinese lanterns	9.3.1
Body-building equipment	9.3.2
Underwater equipment	9.3.2
Inline-Skates	9.3.2
Knapsack	9.3.2 or 12.3.2
Veterinary	9.3.4/5
Dog grooming	9.3.4/5
Annual fee for gymnasium	9.4.1
Dancing lessons	9.4.1
Amusement park ticket	9.4.1
Ski-lifts and similar	9.4.1
Access to cross-country skiing piste	9.4.1
Entry fee for discotheque	11.1.1
Fast-food meal	11.1.1
Meals delivered to the customer's home (e.g. pizza)	11.1.1
Thalassotherapy sessions	12.1.1
Solarium sessions	12.1.1
Car seat for children	12.3.2

Table 5 Newly significant goods and services suggested by Eurostat

PC work place (incl. accessories and games)	
a) Hardware	
Zip-drive	9.1.3
DVD-drive	9.1.3
Disk writer	9.1.3
Scanner	9.1.3
Joystick/gamepad/racing wheel for computers	9.1.3
Personal digital assistant	9.1.3
Internet video camera	9.1.3
b) Software	
Language course software	9.1.3
Voice recognition software	9.1.3
CD-ROM or diskette with encyclopedia	9.1.4
Computer game software, e.g. Tomb Raider III, Age of empires	9.3.1
Video games	
a) Hardware	
Joystick/gamepad/racing wheel for video consoles	9.3.1
Video consoles	9.3.1
b) Software for e.g. Dreamcast/Game Boy/Nintendo 64/Playstation	9.3.1
Other accessories for the house	
Battery recharger	05.3.1/2
Rechargeable batteries	05.5.1/2
Telephone equipment	
ISDN telephone, cordless	8.2./3.0
ISDN telephone/fax combination	8.2./3.0
Handsfree facility for mobile phone (in the car)	8.2./3.0

6.4.3. Quality of weights

As described in Chapter 5, a specific Commission Regulation requires where necessary a minimum action of review and adjustment.

Eurostat asked Member States compiling fixed base indices for the results of their 1998/1999 reviews. In none of the responding Member States any weight had shown a change to the extent that it had to be altered.

Eurostat made some test comparisons in order to check roughly the plausibility of the results. Eight sub-indices were sampled which had shown for six chain-index countries extraordinary development in the weights between 1996 and 1999. The eight sub-indices showed totally different developments over the chosen period in each country. None of the indices showed a systematic development such as to allow projection to fixed base countries. Eurostat also checked for the reference period of certain lower level weights. The 13 MSs which responded did not report reference periods older that those allowed from the HICP standard on weightings.

To complete the picture, replies are being sought from those MSs which could not report their results in time for this Report. However, there is evidence that the quality of weights has improved with harmonization. Table 8 in Section 6.4.5. shows that weights are generally more up-to-date since 1996 than was previously the case. Italy, Luxembourg and Austria now update annually and other Member States have updated or plan to update weights shortly.

6.4.4. Household Final Monetary Consumption Expenditure (HFMCE)

The definition of coverage is aimed at ensuring that goods and services according to COICOP/HICP are incorporated in the HICP and sub-indices with appropriate weights are transmitted to Eurostat. It extends, by reference to the European System of Accounts (ESA 95), HICP coverage to all goods and services falling within the scope of 'household final monetary consumption expenditure' (HFMCE) where they achieve a sales volume of over one part per thousand of consumers' expenditure.

The operation of the one per thousand rule has shown that its formulation may be problematic to the extent that Member States could, by too strict application of this rule, exclude in principle an important part of the relevant consumption expenditure. Although there was no such evidence, under certain circumstances this could lead to significant differences in the measured rates of inflation. As a preventive measure, Eurostat intends to propose formal amendment to the formulation.

The extension of HICP coverage along the concept of HFMCE was controversially discussed until its adoption by the Council in 1998. There were arguments about the relevance of the concept of HFMCE for the purpose of inflation measurement and its practical implications.

One argument was that 'household actual final consumption' instead of 'household final consumption expenditure' was the correct concept to follow. Social transfers in kind constitute the main difference between the two concepts. Actual final consumption includes them while HFMCE excludes them. This is consistent with view that consumer inflation is a monetary phenomenon, manifest only in actual monetary transactions and prices actually

faced by consumers. HFMCE is seen as the appropriate operational expression of the scope of the HICP defined in the framework Council Regulation as 'the prices of goods and services available for purchase in the economic territory of the Member State for the purpose of directly satisfying consumer needs.'.

Most of the arguments against the HFMCE concept were mainly founded on the theoretical appropriateness or the practical preference of measuring 'gross prices' (i.e. the total price of the product whether it is actually paid by consumers in full or in part) instead of 'purchaser prices' (i.e. net prices actually paid by consumers). The understanding of inflation as purely monetary phenomenon and the HFMCE concept are both conclusive in that purchaser prices should be used in a consumer inflation index. The difficulty to obtain purchaser prices on a monthly basis was nevertheless addressed expressly in cases where it actually mattered, notably in measuring in 'gross' terms the service charge in insurance services.

It was also argued that for reasons of comparability, the government sector and in consequence most of social protection, health and education services should have been excluded given the widely varying institutional arrangements in different Member States. The Commission (Eurostat) maintains that for the purposes of a consumer inflation index there is no danger of introducing non-comparability by such services, as long as prices are taken 'net', i.e. the index measures the change in the prices actually paid by consumers in exchange for the services concerned. It was notably argued that changes in social protection policy and particularly in reimbursements financed, for instance, through changes in direct taxation and vice versa could distort the picture of inflation provided by an HICP including health, education and social protection services. A similar argument may apply to newly introduced charging schemes for goods or services previously available to consumers free of charge, to the extent that the additional charges are compensated by reductions elsewhere in the financing circuit. The argument is that in a global context the net inflationary effect might be zero, contrary to what would be reflected in the HICP. The Commission (Eurostat) recognises that changes in reimbursements and the effect of newly introduced charging schemes might not have an impact on measures of inflation in a broader context but they do form an essential part of the inflationary process affecting consumers, either residents or foreigners, and therefore need to be reflected in the HICP.

Particular concerns were raised regarding the implications of measuring changes in the so-called 'income dependent prices', which are predominant in the health, education and social protection sectors in most of the Member States, in the context of a Laspeyres-type index. The adoption of this standard by the Council in 1999 was a milestone in the harmonization process as it actually enabled the implementation of extended coverage to the extent that it provided technical solutions to previously unresolved problems.

Doubts were also raised about the implementation of the domestic concept which was felt as being correct in theory but difficult to apply accurately in practice. Cross-border purchases of petrol, alcohol and tobacco were in some cases a particular concern. The Commission (Eurostat) although it acknowledges the difficulty in obtaining accurate weights, is of the opinion that the application of the domestic concept removed an important source of inconsistency, particularly with a view to providing meaningful and consistent aggregate indices for the euro-zone.

With the index for January 2000, the HFMCE concept is applied in the Member States. Imputed rents for owner-occupiers and life insurance are two areas falling within the ESA 95 definition of HFMCE that are not covered by the HICP. As stated in Section 6.4.1,

the inclusion of Owner-Occupied Housing (OOH) following the net-acquisition concept is currently under discussion in the HICP Working Party. A final decision is expected in 2000.

Three Member States have reported so far some specific difficulties with the implementation of the HFMCE concept.

The United Kingdom reported that the main impact the HFMCE concept had on the HICP was the need to switch to using National Accounts data as the source of the weights. As the NA data were not classified to 4-digit COICOP level, this was a time-consuming task. The extension of product coverage did not have too much impact as many of the new price indicators needed already existed, although new data had to be collected for a few new indices. There were only two areas where price indicators had to be included where funding was partially government and partially household: university tuition fees and prescription charges. For both, existing price indices could be used.

France stressed that the extension of coverage was a heavy work burden, especially the design of 'net' indices for health (goods and services) and social protection services, including the estimation of 'net' weights. Furthermore, the modification of the data processing software for the new HICP, according to the extension of product coverage and the change in weights used as well as the provision of retrospective data one year backward in order to get the best estimates for comparable annual rates of change were resource-intensive.

Austria reported difficulties with modelling and getting timely information on income distribution in order to reflect income dependent prices in the social protection area.

Member States reported on the changes they made with the January 2000 index (X indicates changes, C indicates compliance already before January 2000) in implementing extended coverage according to HFMCE as follows:

Table 6 Changes in coverage made with January 2000 index

	Increase of total expenditure covered by HICP (%)	Geographic coverage (including domestic expenditure by non-residents, excluding expenditure by residents abroad)	Population coverage (individuals living in institutional households, poor and rich, urban and rural)
Belgium		X	X
Denmark		C	C
Germany		C	X (*)
Greece		X	X
Spain	7	X	X
France	4.5 (due to product coverage)	C	C
Ireland	12.1 (5.2 due to product coverage, 6.9 due to domestic concept)	X	X (*)
Italy		C	C
Luxembourg		X	C
The Netherlands	5.8 (due to extension of geographic and population coverage)	C	X
Austria		X (**)	C
Portugal	7.3 (due to extension of geographic and population coverage)	X	C
Finland	3.8 (due to extension of geographic and population coverage)	X	X
Sweden		C	C
United Kingdom	10 (3.5 due to inclusion of tourists, 1.5 due to product coverage, 1 due to institutional households, 3.5 in 2001 due to product coverage)	X	X
Iceland	6.7 (3.4 due to geographic coverage, 3.3 due to population coverage)	X	X
Norway		X	

(*) Individuals living in institutional households are not covered because of their small relative importance

(**) From 1996 to 1999 the Austrian HICP related to the domestic concept but included not only household consumption expenditure but also all foreign consumption expenditure. In order to adjust this concept the weight of division 07 (traffic) was reduced by 0.7 percentage-points and the weight of division 11 (hotels and restaurants) was reduced by 1.0 percentage points, both figures relating to 1998 expenditure.

The extension of coverage has an impact on the annual rates of change of the HICPs because of differences in coverage between 1999 and 2000. Recognising this inconvenience, stated by the Commission (Eurostat) and the ECB in the minutes of the Council meeting in 1998, Denmark, Finland, Germany, Ireland, Italy, the Netherlands, Spain, Sweden and the United Kingdom tabled a joint declaration that with the first release of the extended index they would seek to provide, in a cost effective way, their best estimates of comparable data for at least the twelve preceding months. Six Member States have provided data one year backward for the newly implemented sub-indices and the re-defined sub-indices.

Another, though less accurate, way of assessing the impact of extended coverage on the all-items HICP is to look at the difference in the annual inflation rates by comparing the official HICP (based on full coverage from January 2000) with an HICP excluding health, education and social protection as in Table 7. This provides a first but rough idea of the impact, to the extent that it excludes somewhat more than the extended coverage has added to the index.

Table 7 **Annual rates of change (difference in % points between the HICP including and excluding extended coverage)**

	Apr-00 / Apr-99	Mar-00 / Mar-99	Feb-00 / Feb-99	Jan-00 / Jan-99
Belgium	0.0	-0.1	0.0	-0.1
Germany	0.0	0.0	0.1	0.1
Spain	-0.1	0.0	-0.1	0.0
France	0.1	0.1	0.1	0.0
Ireland	-0.1	0.1	0.1	0.0
Italy	0.1	0.1	0.1	0.0
Luxembourg	0.0	-0.1	-0.2	0.0
Netherlands	0.0	0.0	0.0	0.0
Austria	0.1	0.1	0.1	0.1
Portugal	0.0	0.1	0.0	0.0
Finland	0.1	0.0	0.1	0.2
Euro-zone (MUICP)	-0.1	-0.1	-0.1	-0.1
Denmark	0.0	-0.1	-0.1	-0.1
Greece	-0.1	0.0	0.1	0.1
Sweden	0.2	0.2	0.1	0.1
United Kingdom	0.2	0.2	0.2	0.1
EU15 (EICP)	0.0	-0.1	0.0	0.0
Iceland	0.1	0.2	0.2	0.2
Norway	0.0	-0.1	-0.1	0.0
EEA (EEAICP)	0.0	-0.1	0.0	0.0

With the index for January 2001, the coverage of the HICP will be extended a second time. With a view to the implementation of changes in HICP methodology more generally, the question of a harmonized revisions policy has been raised by Germany and Sweden. The discussion on a general revisions policy has already started in the HICP Working Party but the results are not expected to affect the indices to be published in 2000. This means that the same inconvenience will appear again, although to a lesser extent, with the annual rates of change for 2001.

It should be noted that the extension of HICP coverage with the index for January 2000 was the largest and heaviest HICP operation since the launch of the index in 1997. Despite the above mentioned concerns, and thanks to the constructive co-operation of all Member States involved, the operation ran rather smoothly and the results were available on time.

On one hand, the Commission (Eurostat) acknowledges that certain concerns may still persist, particularly among those Member States which on different grounds opposed the agreed measures. A conclusive and more in-depth assessment of the operation of the HFMCE concept, and in particular of measuring changes in 'income-dependent-prices' is not possible earlier than a year after the next wave of extended coverage in January 2001, i.e. in the year 2003. The Commission (Eurostat) intends to revisit its assessment and report again in due course.

On the other hand, the Commission (Eurostat) is of the opinion that going through this difficult consensus-building process was a highly beneficial exercise. The implementation of these concepts later than initially foreseen delayed the whole harmonization project but it finally allowed a much more comprehensive coverage for the HICP and helped to narrow the views on a number of technically difficult and divisive issues on the harmonization agenda. Nothing would have been achieved without the constructive co-operation of all parties involved.

6.4.5. Macro index formula (common reference period)

Article 9 of Council Regulation (EC) No 2494/95 requires that the HICP shall be a Laspeyres-type index. Though HICPs and CPIs produced by Member States may differ in detail, they can be broadly described as Laspeyres-type indices. That is, indices in which the month to month movements in prices are measured as an average of price indices using expenditure weights which are an appropriate reflection of the pattern of consumption of, and the structure of prices paid by, the index population in the weight reference period.

In practice, there are three types of base period used in the construction of CPIs: the period from which the expenditures for weights are obtained ('weight reference period'); the period in which base prices are valued ('price reference period'); and the period in which the index base is set to 100 ('index reference period').

Since HICPs are derived from national CPIs there were, and still are, differences between national CPIs in all these reference periods. Luxembourg was the first Member State that had replaced its national CPI with the HICP. With the publication of the January 2000 index and the related extensions in the coverage, Luxembourg re-introduced a national CPI which differs in coverage from the Luxemburgish HICP.

The HICP is according to the macro-formula chosen for its computation — potentially — a chain index. It should be stressed that this is the equivalent chain form of the fixed index which simply allows chained and fixed indices to be expressed by a common formula. The chaining becomes effective if and only if there would be changes to the weights, for instance on the grounds of the review as required by the Commission Regulation on the quality of HICP weightings.

In regard to comparability of HICPs, the choice of the macro-formula in conjunction with the solutions given to the question of updating HICP weights shall be considered as one of the major harmonization achievements as the issue of 'chain' versus. 'fixed index' was shown to be a non-productive and very divisive issue.

Most Member States compile a fixed base index, while France, Italy, Luxembourg, Austria, Sweden, the United Kingdom (and Norway) compute a 'chain index' with annual weight updating. In order to obtain a set of HICPs with sub-indices allowing for consistent aggregations it was necessary to present the HICPs as if they were all computed with the same formula. Hence, it was necessary to apply a common index reference period and a common weight reference period. The framework Council Regulation defines the common index reference period with 1996 = 100. In order to obtain also a common weight reference period, Eurostat price updates the weights as delivered by Member States to each December.

Table 8 gives an overview of the current situation and the future plans in Member States.

Table 8 Weight reference periods

	Weight reference period in the HICP in Jan-1999		Planned next weight reference period			Annual updating ('chain index') from … onwards (X = chain index)
			Quantity reference	Price reference	To be introduced in …/starting with the index for January …	
	Quantity reference	Price reference				
	A	**B**	**C**	**D**	**E**	**F**
B	1995-1996	1995-1996	1997-1998	Dec-1999	2000	-
DK	1994	1994	1996	1996	2000	-
D	1995	1995	2000	2000	2003	-
EL	1994	1994	1999	1999	2001	-
E	1990-1991	1990-1991	1999-2000	2000 or 2001	Jan-2001 or Jan-2002	Jan-2001 or Jan-2002
F	1997	Dec-98	-	-	-	X
IRL	1996	1996	2001	2001	Jan-2002	-
I	1997	Dec-98	-	-	-	X (Jan-1999)
L	1995	Dec 1998	1996	Dec 1999	2000	X (Jan-1999)
NL	1995	1995	2000	2000	2003	Not before 2003
A	1993/ 1994-1995	1996	1999/ 2000	2000	2001	X (2000)
P	1995	1997	2000	2002	Jan-2003	Jan-2004
FIN	1998	1998	2000	2000	Jan-2002	
S	1998	1998	-	-	-	X
UK	Jul-97-Jun-98	Jul-97-Jun-98	-	-	-	X
IS	1995	1995	2000	2000	2002	2003
N	1995-1997	1995-1997	1996-1998	1996-1998	Jan-2000	X (since Sept-82)

6.4.6. Elementary aggregates

Commission Regulation (EC) No 1749/96 defines elementary aggregates referring to the expenditure or consumption covered by the most detailed level of stratification of the HICP and within which reliable expenditure information is not available for weighting purposes. An 'elementary aggregate index' is a price index for an elementary aggregate comprising only price data. Compliance Monitoring has shown that most Member States define 'elementary aggregate' on a regional level. Prices are collected in all or selected regions. Regional prices are combined to the lowest level of aggregation within which reliable expenditure information is available for weighting purposes. After this the indices are combined to expenditure groups at country level. The 'elementary aggregate' level of a minority of products is defined by the outlet-type.

On the contrary, two Member States define 'elementary aggregate' at the product/variety-level. Prices, which are observed in certain regions and in certain outlet-types, are combined to the elementary aggregate level. After this those elementary aggregates are combined directly to the country level.

The ratios of geometric or arithmetic means of prices are the two formulae which should be used in elementary aggregations. The arithmetic mean of price relatives may be applied in exceptional cases where it can be shown that it meets the comparability requirement. Table 9 provides up to date information about formulae currently used in the Member States.

Table 9 Formulae applied for the computation of the Elementary Aggregates

	For the computation of the HICP the formula for EA was changed	Formula used in the HICP is the ratio of arithmetic mean prices (RAM) or geometric mean (GM)	New formula was introduced in the HICP starting with the index for:	Estimated effect on the HICP over a period of twelve month (in percentage points)	New formula was/will be introduced in the CPI
B	No	RAM	-	-	-
DK	January 1997	GM in general. RAM for products where substitution is not possible	January 1997	-0.3 to -0.4	January 2000
D	No	RAM GM for certain items such as package holidays, books	Jan-95	No estimate available	Yes, starting with index for Jan-95 (in Feb-99)
EL	Yes	GM	Jan-95	-0.1	Yes, starting with index for Jan-94
E	No	RAM	-	-	-
F	Yes, progressively for heterogeneous products	RAM for homogenous products ($^1/_3$), GM for heterogeneous products ($^1/_3$), other formula for fresh products, complex prices and tariffs ($^1/_3$)	Jan-97: half of the changes to the GM were done; 18% of the index is calculated using GM; Jan-98, Jan-99: further changes to GM	-0.1	Yes
IRL	No	RAM	-	-	-
I	Yes	GM	Jan-99	-0.06	Yes, starting with index for Jan-99

(cont.)

	For the computation of the HICP the formula for EA was changed	Formula used in the HICP is the ratio of arithmetic mean prices (RAM) or geometric mean (GM)	New formula was introduced in the HICP starting with the index for:	Estimated effect on the HICP over a period of twelve month (in percentage points)	New formula was/will be introduced in the CPI
L	Yes	GM	Jan-95	No estimate available	HICP and national CPI are identical
NL	No	RAM	-	-	-
A	Yes	GM; RAM for certain items such as fruit, vegetables and rents	Jan-95	-0.1	GM starting with Jan 2001
P	Yes	GM	Jan-98	No estimate available	Yes, starting with index for Jan-98
FIN	Yes	GM	Jan-96	-0.1	Yes, staring with index for Jan-98
S	No	Variant of GM (ratio of standardised mean prices)	-	-	-
UK	Yes	GM	1988 (backwards calculation)	1997-1999: -0.5 since then raised to: -0.65	No
IS	Yes	GM	Mar-97	No estimate available	Yes, starting with index for Mar-97
N	No	RAM	GM will be used from Aug-99	No estimate available	Yes, starting with index for Aug-99

6.4.7. Minimum standards for sampling

HICPs should be constructed from target samples which take into account the weight of each COICOP/HICP category, have sufficient elementary aggregates to represent the diversity of items within the category and sufficient prices within each elementary aggregate to take account of the variation of price movements in the population shall be deemed reliable and comparable. Tables 10 and 11 at the end of this section give an overview of the number of elementary aggregates and the number of price quotations per elementary aggregate for a number of sub-indices and certain product groups therein in each of the Member States.

In its last Report the Commission (Eurostat) noted that most Member States did not take probability samples when observing prices and there was therefore no theoretical framework for assessing the reliability (bias and precision) of HICPs so constructed. The Regulations therefore required checks to be made on the adequacy of samples and for adjustment to practices to be made as necessary.

Purposive sampling may even with a small number of prices and elementary aggregates give a representative and accurate picture of average price change in a given universe. Simulations run on scanner data (by Statistics Netherlands) seem to secure this expectation in a number of cases. This however cannot hold in markets with changing price dynamics or in the case of other, non-price changes.

A number of markets for consumer goods and notably durables can be assumed as being fairly similar in Europe. The numbers of elementary aggregates and prices reported by MSs in the compliance monitoring exercise demonstrate large diversity of actual practice by reference to weights and the likely diversity of available items and variation of their price movements. The finding seems to confirm that some HICPs or HICP sub-indices are equipped with sampling designs which can cope better with unexpected changes in the diversity of items or in the variation in their price movements than others do. Strong a priori emphasis on the regional component may, on the other hand, distort the picture given in Tables 10 and 11 to the extent that regional stratification does not necessarily guarantee gains in precision and representativity.

It is most unlikely that the markets in different Member States can explain the differences found in the tables. At best the differences have negligible effect on HICPs but in this case some Member States may be making a rather inefficient use of resources. Because many samples are unnecessarily large the potential inadequacy of purposive sampling has been ignored by Member States. It is also the case that probability sampling, for which there is established theory, would be expensive. Since there is no actual evidence of bias and no way of showing bias no objections have been raised. This complacency is hardly acceptable. The ‘comparability criterion’, which requires that different practices between countries should not per se produce different results, offers a way forward. The task for the Commission (Eurostat) is to define an efficient and cost effective analysis strategy.

There have been two successive Task Forces (TF) established in order to develop the legal and conceptual framework for good sampling practice. The first TF looked at the sources of errors and problems of comparability due to differences in sample design and practice. It established the key operational differences between Member States and reviewed the few attempts that had been made to compute sampling errors. On the latter it noted the technical difficulties of computations but also the potential benefits in terms of improved allocation of

the considerable price collection resources used in CPI construction. Otherwise the TF's main recommendation was that focus on the problems producing an unbiased measure of price change in a dynamic economic context, where the range of products available is continually changing, was the critical issue for harmonization. This led to the remit of the second TF which was to:

(i) examine the operational issues arising from the requirements of 'Representativity' and 'Precision' for HICP samples considering both dynamic and static aspects;

(ii) develop specific Guidelines for implementing the rules set out in Commission Regulation (EC) No 1749/96 concerning the various aspects of sampling and representativity.

This Task Force first sought to develop a theoretical framework for HICP sampling on the basis of the framework of regulations, which defined the objectives, and the well-established tenets of sampling theory.

If a precise statement of the index that should be computed for a given and observable universe can be made then the operational requirements of sample estimates can be determined. Finally the findings can be used to say how the potential for bias in current sampling practice might be reduced.

Table 10 Number of elementary aggregates on average per month for the 12 most recent subsequent month

Part of COICOP code	Heading	Number of elementary aggregates on average per month for the 12 most recent subsequent months															
		DK	**D**	**EL**	**ES**	**F**	**IRL**	**I**	**L**	**NL**	**A**	**P**	**FIN**	**S**	**UK**	**IS**	**N**
01.1.5.	Oils and fats	5	102	138	208	218	30	474	5	12	120	7	36	10	48	7	56
	1) Butter	2	17	23	52	75	10	79	1	1	20	2	6	2	24	5	16
02.1.3.	Beer	3	34	46	52	105	20	158	1	8	20	2	6	4	48	4	24
	1) Lager beer	1	17	46	52	105	10	-	1	5	20	2	6	0	24	3	8
03.1.2.	Garments	31	905	255	2 236	2 196	255	2 686	29	98	600	43	228	23	144	37	440
	1) Men’s shirts	1	42	9	52	69	15	79	1	2	20	2	6	1	6	1	24
	2) Women’s dresses	1	42	9	52	59	5	79	1	2	20	2	6	1	12	3	16
03.1.4.	Dry cleaning, repair and hire of clothing	2	51	92	52	40	30	132	1	2	80	2	6	1	24	1	40
	1) Dry-cleaning of men’s trousers	1	17	23	52	8	5	79	1	1	20	1	6	0	12	1	8
04.1.	Actual rentals for housing	1	119	2	52	192	2	26	3	917	20	9	12	1	24	1	2
05.1.1.	Furniture and furnishings	11	385	55	832	663	45	316	6	32	220	9	66	22	36	6	192
	1) Sofas	1	21	1	52	82	5	79	1	5	20	2	6	2	6	1	16
05.3.1./2.	Major household appliances whether electric or not and small electric household appliances	15	361	120	572	466	100	263	7	40	280	20	78	20	101	7	176

(cont.)		DK	D	EL	ES	F	IRL	I	L	NL	A	P	FIN	S	UK	IS	N
	1) Washing machines	1	21	12	52	54	5	79	1	6	20	2	6	2	12	1	24
05.6.1	Non-durable household goods	15	359	599	572	456	85	1 396	2	34	180	21	96	12	108	31	232
	1) Washing powder for washing machines (no liquids)	1	34	46	52	55	5	79	1	11	20	4	6	2	12	2	40
07.1.1.	New and second-hand motor cars	9	69	3	104	192	2	13	6	55	1 380	29	186	2	37	34	48
	1) New cars	9	69	3	52	96	1	13	5	36	900	23	180	1	19	34	40
09.1.1.	Equipment for reception, recording and reproduction of sound and pictures	7	163	30	260	284	45	184	2	22	100	6	24	14	14	2	56
	1) TVs	1	19	6	52	49	10	79	1	8	20	1	6	4	4	1	16
09.1.2.	Photographic and cinematographic equipment and optical instruments	2	126	47	52	78	10	53	1	5	60	2	12	5	4	2	32
	1) Video cameras and cam-coders	1	21	17	0	21	0	26	1	2	20	1	6	2	2	1	8
09.1.3.	Data processing equipment	2	92	25	104	32	6	27	3	11	40	2	6	4	26	1	32
	1) PCs	1	19	1	52	14	1	1	1	5	20	1	6	1	24	1	16
09.1.5	Games, toys and hobbies, equipment for sport, camping and open-air recreation	6	363	106	260	418	40	474	2	16	220	10	54	15	25	3	128
	1) Video-game software	0		1	1	0	30	5	0	1	0	1	6	3	1	0	8

NB: Data material as supplied by the *Ministère des Affaires économiques, Administration de la Politique Commerciale, Service de l'Indice (Belgium),* could not be converted in time in order to be presented in a comparable way to the above data.

Table 11 Price observations per elementary aggregate on average per month

Part of COICOP code	Heading	Price observations per elementary aggregate on average per month															
		DK	D	EL	ES	F	IRL	I	L	NL	A	P	FIN	S	UK	IS	N
01.1.5.	Oils and fats	87	45	2	5	6	26	11	17	70	6	155	27	51	13	23	12
	1) Butter	208	71	2	5	7	25	11	20	61	6	155	27	29	12	12	13
02.1.3.	Beer	204	52	2	5	6	24	7	49	66	6	153	54	104	12	54	16
	1) Lager beer	203	55	2	5	6	22		49	65	6	153	54		13	20	
03.1.2.	Garments	82	26	4	3	7	12	5	9	95	7	48	22	74	115	9	5
	1) Men’s shirts	155	31	4	5	8	14	7	17	145	10	50	24	99	143	12	
	2) Women’s dresses	105	25	4	3	11	14	6	4	76	10	38	23	82	84	11	
03.1.4.	Dry cleaning, repair and hire of clothing	13	26	2	2	7	11	3	19	35	4	48	7	5	22	6	3
	1) Dry-cleaning of men’s trousers	25	33	2	2	7	16	2	6	35	5	47	7		23	1	
04.1.	Actual rentals for housing	4 200	161	85	32	14	188	137	33	1	267	64	6	801	52	60	63
05.1.1.	Furniture and furnishings	7	17	3	2	7	11	4	27	33	2	48	16	40	124	9	5
	1) Sofas	65	25	8	2	8	13	1	8	29	2	50	22	96	116	18	

(cont.)		DK	D	EL	ES	F	IRL	I	L	NL	A	P	FIN	S	UK	IS	N
05.3.1./2.	Major household appliances whether electric or not and small electric household appliances	34	13	3	2	6	12	5	23	32	6	48	20	9	18	9	3
	1) Washing machines	48	14	4	2	6	14	2	17	27	9	50	25	9	15	15	5
05.6.1	Non-durable household goods	13	35	2	4	5	22	6	61	66	5	119	19	64	11	41	9
	1) Washing powder for washing machines (no liquids)	14	68	2	4	5	24	8	23	58	9	136	30	36	13	83	
07.1.1.	New and second-hand motor cars	4	1	8	0.58	2	28	5	17	401	0.03	5	31		5	1	7
	1) New cars	4	1	8	0.6	2	28	5	15	1	0.05	5	30	60	3	1	
09.1.1.	Equipment for reception, recording and reproduction of sound and pictures	95	15	3	2	7	12	4	44	36	7	47	23	10	103	9	5
	1) TVs	189	16	6	2	13	14	2	25	31	9	49	20	11	108	6	
09.1.2.	Photographic and cinematographic equipment and optical instruments	84	13	3	2	5	13	3	32	43	1	47	23	15	84	6	2
	1) Video cameras and cam-coders	28	13	3		6		2	13	38	1	46	22	13	81	7	
09.1.3.	Data processing equipment	18	12	2	2	6	16	2	19	13	1	47	20	8	9	6	3
	1) PCs	1	11	8	2	9	41	4	6	6	1	46	20	11	1	6	

(cont.)		DK	D	EL	ES	F	IRL	I	L	NL	A	P	FIN	S	UK	IS	N
09.1.5	Games, toys and hobbies, equipment for sport, camping and open-air recreation	18	10	3	4	5	8	4	46	59	1	39	21	17	74	12	4
	1) Video-game software	0		12		5	10		2		3	26	20	13	120	0	

NB: Data material as supplied by the *Ministère des Affaires économiques, Administration de la Politique Commerciale, Service de l'Indice (Belgium),* could not be converted in time in order to be presented in a comparable way to the above data.

Comments on Table 11:

One would expect to see at least one price observation per elementary aggregate. For Spain and Austria this assumption does not hold for some sub-indices. This deviation can be explained by the treatment of centrally observed prices:

(a) A centrally observed price is used for the calculation of average prices in each region. This results in a number of elementary aggregates corresponding to the number of regions in each country. In this case the price is counted as a single price quotation for the whole country. The ratio between the number of price quotations and the number of elementary aggregates might thus fall below zero as in the cases of Spain and Austria.

(b) A centrally observed price is used for the calculation of one elementary aggregate which is directly used for the aggregation in each region. Also in this case the price is counted as a single price quotation for the whole country.

The project was informed by a corresponding exercise by Statistics Netherlands where alternative price indices were constructed for what are in effect almost complete data for a known, if limited, universe of scanner data. The central problem is how to deal with non-price change, changes through time in the products available and in the actual consumer choices. The standard practice in these situations is to say what should be done if the universe were static. However, since this involves a hypothetical situation it is difficult to reach a consensus. Hence the diversity of actual practice in essentially identical situations.

Although the TF made considerable progress in elaborating the issues in new ways a full resolution of the problems remains intractable. Nevertheless, the proposal will further extend the minimum standards on sampling to ensure that current HICP samples do not fail to adequately represent new or current models or varieties of products on the European markets. The TF will also suggest how scanner data may be exploited both as a source of prices for inclusion in HICPs (their use is not without problems) and as a basis for simulating alternative sampling procedures.

There is no room for complacency on the reliability of HICPs. The aim is therefore to develop quantitative indicators to supplement the ad hoc qualitative assurances currently given to users and to demonstrate that all HICPs and the MUICP meet the required standards.

6.4.8. The level at which macro aggregation changes into elementary aggregation

The Commission (Eurostat) recognises that the level of elementary aggregation interacts with other design features such as sampling and availability of weighting information. As shown in Tables 10 and 11, depending on the sources of weights used, elementary aggregation may start at higher or lower levels in the product, geographic and outlet hierarchies. Although it is also recognised that differences as a result of national practices can in theory affect the resulting HICP differences, the issue was in the first instance not considered as a priority matter for the harmonization work. It is the only important item on the harmonization agenda on which no action has been undertaken up until now. With a view to the ever increasing importance of the HICP the issue needs to be addressed.

6.4.9. Minimum standards for prices and quality adjustment

'"Quality change" occurs whenever the Member State judges that a change in specification has resulted in a significant difference in utility to the consumer between a new variety or model of a good or service and a good or service previously selected for pricing in the HICP for which it is substituted. A quality change does not arise when there is a comprehensive revision of the HICP sample.'. Quality adjustment is defined as 'the procedure of making an allowance for a quality change by increasing or decreasing the observed current or reference prices by a factor or an amount equivalent to the value of that quality change.'.

The kind of substitution described in the above definition might be called 'new for old replacement' because it deals just with the significant difference 'between a new variety or model of a good or service and a good or service previously selected for pricing in the HICP for which it is substituted'. It has been shown that MSs were not in position to distinguish between new for old and old for old replacements in the compilation of their HICPs. This also implies that the incidence of quality changes and

the adjustments made is not monitored in accordance with the HICP legal framework. Nevertheless a few MSs supplied in time the experimental implicit quality indices requested by Eurostat while others are in process of compilation. (see also Section 6.4.11 on implicit quality indices).

In its last Report the Commission (Eurostat) noted that 'quality adjustment' was widely accepted among experts to be one of the most, if not the most, intractable problems in CPI construction. The HICP minimum standard requires that Member States did not make the automatic assumption that price differences between successive models was wholly attributably to quality. Otherwise Member States were permitted to continue to follow a number of standard procedures, either explicit or implicit, to adjust for quality change. However, it was accepted that work was needed to assess the underlying assumptions and validity of each procedure before comparable practices could be established and applied consistently. The setting up of a central database of actual adjustments and research into quality change in the most important areas of product development were seen as a way forward.

The Commission (Eurostat) has engaged with Member States in both general and conceptual discussions of methods and in the examination of the results of empirical studies of quality change and adjustment both within Europe and in the wider International Working Group on Price Indices (the Ottawa Group). The latter forum allows European experts to examine the ideas and research of the US price statisticians who have been particularly active following criticisms of the Boskin Commission. However, little or no progress has been made. Efforts by working groups to produce Guidelines for the treatment of quality change in either motor vehicles or clothing were inconclusive.

The Working Party failed to agree proposals for distinguishing products where quality was assumed to be important from those where it was not despite evidence suggesting unacceptable wide variations in particular adjustments between countries. Some Member States preferred a cautionary position resisting change before a comprehensive solution had been agreed. Others supported a rather more pragmatic approach to harmonization given the unsatisfactory conclusions on current practices.

A number of Member States have explored the use of hedonic regression techniques for allowing for quality change with mixed results. The availability of scanner data has facilitated experimental work of a high standard. However, there is no general agreement that the approach is practicable on a wide scale and the technique does not address the problem of allowing for major innovation such as digital TV or Windows 2000. Nevertheless, some countries argue that it can be successfully used to allow for changes in the quality of clothing when comparing the prices of one season's clothes with those of the following season replacements. Such adjustments involve a heavy burden of data collection and analysis. Work on PCs done in the US and elsewhere has produced figures of significant quality improvement. Whilst this accords with common expectations the results are not without their critics. Ultimately the approach either rests on the acceptance of purely statistical regularities as consumer valuations or on untested assumptions about consumer behaviour and about unobservable market processes in the setting of prices. Notwithstanding these objections, the Commission (Eurostat) leaves open the possibility of agreeing with Member States that such methods may be preferable to many of the current practices.

However, it seems rather unlikely that further progress can be made before the sampling TF has formulated clear ideas on the sampling part of the quality change problem (e.g.: representativity by reference to a changing universe, tight vs. loose specification of representative items, re-sampling versus replacements).

6.4.10. Quality adjustment database

Article 5 of Commission Regulation (EC) No 1749/96 also states that in the absence of national estimates [for the quality changes] Member States shall use estimates based on information provided by the Commission (Eurostat) where these are available and relevant. In order to meet this requirement Eurostat has launched a pilot quality adjustment database on an experimental basis. The database was designed following specifications proposed by Statistics Netherlands which has supplied the first data. Member States were asked to supply more estimates for individual products with a view to other priorities. There is slow progress to be noted due to the lack of resources in both Member States and Eurostat.

6.4.11. Implicit Quality Indices (IQIs)

The IQI is a measure of the effect of operational adjustments that have been made to the raw price data in order to obtain the price index. That is the aggregate effect of adjustments to remove non-price effects and arrive at the true price change. Where the only adjustments to the raw price observations are allowances for quality change the IQIs provide an index of quality change. The power of the IQI concept is that it can be subjected to a number of controls that can reveal biases or other problems in HICP computation. Two basic control questions are:

(a) do the IQIs for different items move as expected according to generally accepted views of what is going on in the consumer markets? Such generally accepted views may be that, for example, quality for PCs increases faster than for cars whose quality in turn increases faster than for clothing and meat;

(b) do the IQIs for the same items move similarly in different Member States? Since markets for consumer products in Europe, especially for durables, are fairly similar, the true quality change may be expected to be broadly similar.

During the discussions on IQIs the perception of the Member States has changed. Member States agreed to provide Eurostat with IQIs for some areas on an experimental basis. So far, Eurostat has received only IQIs from some, but not all, Member States (and Candidate Countries). These early results already demonstrate the usefulness of the IQI approach for analysing whether the implied quality changes appear reasonable for the products concerned, and for giving indications of possible non-comparability between countries.

When most countries have delivered the experimental IQIs it should be possible to take this issue forward. At this stage of the IQI project no firm conclusions can be drawn.

6.4.12. Handling of missing observations

In order to ban practices which can lead to serious biases, Member States are asked to maintain and provide a statement of their target sample from month to month; where prices are not observed they must be estimated by an appropriate procedure. Article 6 of Commission Regulation (EC) No 1749/96 deals with the minimum standards for prices. It is said that 'where the target sample requires monthly observation, but observation fails due to non-availability of an item or for any other reason, estimated prices may be used for the first or second month but replacement prices shall be used from the third month'. In its last Report the Commission (Eurostat) provided a first insight into the operation of this standard. MSs are in process of supplying additional information requested by Eurostat on the actual frequency they are observing or replacing prices and the procedures used for estimating missing observations. The HICP standard may be said that it leaves the following questions to be answered: What are 'non-appropriate estimates' for missing (non-observed prices) and what limit should be set on the number of estimates used (missing prices) to ensure comparability? Both questions are discussed within the framework of sampling and quality change (see page 59 and following). At this stage no conclusion can be drawn.

6.4.13. Seasonal items

The treatment of seasonal items in the HICP was in the first instance not considered as a priority matter for the harmonization work, to the extent that differences in national practices should in theory not affect the measured rates of change in the resulting HICPs. Because of a strong interaction with sampling and the treatment of quality changes and with a view to the ever increasing importance of the HICP, Eurostat believes that the issue needs to be addressed expressly. In the same context, several members of the HICP Working Party have pointed out significant differences in the frequency of price collection among Member States and their potential impact on the comparability of HICPs. However, it is on the grounds of yet missing empirical evidence that Eurostat has not considered it as a priority issue for harmonization work. A small-scale study has been commissioned within the framework of the HICP WP. Results are expected in 2001.

6.4.14. Price measurement and processing

a) Tariff prices

Member States have provided information on the operation of the Regulation on tariffs. Ten of the responding Member States reported no changes in their calculation methods because they already were compliant with the Regulation. One of those Member States reported that it is planning to further improve its sample for tariff prices. One Member State reported a change in the calculation of the telecommunication index in order to comply with the standard.

In general, Member States considered the Regulation on tariff prices as particularly helpful because it provided a clear legal basis for collecting information from suppliers on their tariff prices and structure. This increased the accuracy of their HICPs.

b) Price reductions

Guidelines on the inclusion of sales prices (price reductions more generally) the HICP were put in place in 1997. These Guidelines have been implemented in most, but not in all, Member States. Luxembourg has entered sales prices into its index in January 1999. As yet, the indices for Belgium, Germany, Spain, and Italy do not show the expected seasonal pattern. Belgium and Spain are currently collecting sales prices with a view to implementing the Guidelines in 2001 and will at the same time revise the 2000 data.

The cases for Germany and Italy are slightly different. Germany supports in principle the Guidelines but the price collection period in Germany (around the 15th of each month) does not coincide with the legally regulated sales periods. Italy does not support the idea to cover sales prices in the HICP. The Italian position can be considered as a policy of the Italian Statistical Office.

When Luxembourg first included reduced prices in its HICP in January 1999, the annual rate of change was significantly influenced because of winter sales in January. This phenomenon appeared again in July 1999 with the summer sales. In reaction to this, the HICP WP agreed to revise index series appropriately for a period of twelve months before the actual date of first entering reduced prices into the HICP if the current annual rates are influenced by more than one-tenth of one percentage point.

Given that the Guidelines on price reductions have failed, a new Regulation has been put to the SPC. The new Regulation is expected to enter into force in December 2000 and take effect with the index for January 2001 or January 2002.

c) Timing of entering purchaser prices into the HICP

There is considerable scope for procedural differences between Member States in the timing of entering purchaser prices into the HICP. The effects of these differences are especially visible in the treatment of products where there is a significant time difference between the time of purchase, payment, or delivery and the time of consumption.

A Regulation is being prepared that aims at harmonizing current practices and improving the comparability and the relevance of the HICP. The interpretation of index changes in the affected sub-indices will be facilitated.

The draft Regulation has used the European System of Accounts 1995 (ESA 95) as conceptual source and is consistent with the ESA 95 definitions in as so far as they are consistent with the purposes of the HICP. In particular, ESA 95 states that goods and services should in general be recorded when the payables are created, that is, when the purchaser incurs a liability to the seller. This implies for the purposes of the HICP that prices for goods shall be entered into the HICP for the month in which they are observed and that prices for services shall be entered into the HICP for the month in which the consumption of the service at the observed prices can commence. The application of the draft Regulation is explained by examples in an attached explanatory note.

The provisions of this draft Regulation are proposed to be implemented by Member States in December 2000 and take effect with the index for January 2001.

d) Revisions policy

As mentioned in Section 5.8.1, the Guidelines on revisions are currently under discussion. In view of the important number of consecutive methodological changes in the compilation of the HICP, which mainly result from the complexity and the importance of the issues to be dealt with, the stage-approach to harmonization, the length of the harmonization process itself and the fact that agreed sets of rules were in some cases not followed by all Member States, there is large consensus at the HICP WP that existing rules need to be completed and converted into a binding Commission Regulation. Such a Regulation is planned for 2001.

6.5. Coherence

6.5.1. Classification

The Classification Of Individual COnsumption by Purpose adapted to the needs of the HICPs (COICOP/HICP)[9] is based on the final version of the COICOP classification as of October 1998, established by the OECD after consultation with Eurostat, UNSD and the national statistical agencies of its Member countries. The COICOP provides a world-wide classification common across several statistical domains such as HICPs, CPIs, Purchasing Power Parities, Household Budget Surveys and National Accounts. The extension to HICP coverage from the index for January 2000 offered an excellent opportunity to bring COICOP/HICP up to date with the latest version of the standard COICOP. COICOP/HICP is however a self-containing derivative established by EU law and it cannot be assumed that COICOP/HICP will be automatically up dated for any future revision of COICOP. It should be stressed that revisions of the classification usually affect sub-indices and index weights. To the extent that sub-indices are regrouped or re-defined such revisions require costly revisions in historic data.

6.5.2. Coherent definitions with the National Accounts (NA)

The concept of HFMCE not only specified the coverage, the prices and the weights for the HICP, it established moreover a coherent link between HICPs and ESA 95 that is most useful to analysts and policy makers inside and outside the EU.

This also implies that derivative HICP definitions follow ESA 95 in as far as the latter are consistent with the purposes of the HICP.

The most important departures from ESA 95 definitions are the following:

– the HICP covers only the part of HFCE that is relevant to inflation measurement. That is only the part which involves actual financial transactions, i.e.: HFMCE. Imputed expenditure, in particular imputed rents for the cost of the service provided by owner-occupied shelters are thus excluded from the HICP.

– HICP coverage excludes on various grounds, life insurance, narcotics, gambling, prostitution, and financial intermediation services indirectly measured (FISIM).

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[9] See Commission Regulation (EC) No 1749/1999 (OJ L 214, 13.8.1999, p. 1).

– Both in HICPs and ESA 95 volumes are generally valued at purchaser prices following the acquisition principle. However, expenditure on services in ESA 95 is recorded when the delivery of the service is completed, whilst service prices are recorded in the HICP in the month for which consumption at the observed prices can commence. It should be stressed that each month in a Laspeyres-type price index the base or reference period basket is valued at current month's prices.

6.6. Timeliness and punctuality

The MUICP is a key statistic for informing monetary policy in the euro-zone and is widely used by policy makers, economic and financial analysts. Timeliness in the publication of the HICPs has been ever since the launch of the first HICPs a key issue for the HICP WP aiming at reducing release deadlines towards 15 calendar days after the end of the reference month. The deadline for releasing monthly data was initially set by the framework Regulation to an average of about 36 calendar days from the end of the reference month.

Already in 1998, the Member States agreed to reduce the deadline for the monthly data transmissions to Eurostat from 30 to 25 days. At he same time Eurostat agreed to reduce its release deadline from five to four working days. These reduction were gradually implemented during the first half of 1998.

The Council of the EU endorsed on 18 January 1999 a Report from the Economic and Financial Committee on statistical requirements in stage three of the EMU. This Report drew particular attention to timeliness in publication of statistical data for the euro-zone at pre-determined release dates.

For the first half of 1999, release deadlines were reduced to between the 19th and 22nd and for the second half of the year they were further reduced to between the 16th and the 18th after the end of the reference month.

For the year 2000, the transmission deadline of the HICP has been set between the 13th and 15th day after the end of the reference month. For the same period, Eurostat agreed to reduce its publication deadline from five to two working days. Thereby allowance was made in January and February 2000 for the so-called 'millennium bug', the standard weights updating exercise and the implementation of extended coverage with index for January 2000.

Apart these exceptions, this results in a publication schedule for the year 2000 with releases between the 17th and 19th day after the end of the reference month. In comparison, the US CPI is published between the 16th and 19th of the month for the same period.

With the index for April 1998 and for the first time at Eurostat, HICP release dates are announced three months in advance. Announced dates are regularly met. The impressive increase in timeliness is based on negotiated agreement and is the result of collaborative efforts by Eurostat and national statistical institutes. It should be noted that nothing could have been achieved without conscientious discipline of all parties involved.

The deadlines set for 2000 and 2001 are fairly close to what can be achieved without harmonizing the price collection periods in MSs. Based on the experience gained in the past three years, the transmission and release dates for the years to come should, subject to agreement by the HICP WP, be aiming at the following:

– The transmission deadline for the December index is set to the first Eurostat working day following the 17th of January and the publication date two Eurostat working days later.

– For the January index, the publication date is set to be the last Eurostat working day in February and transmission deadline is set to be the fourth working day prior to publication date (thus the January index is published on the last working day of February).

– The transmission deadlines for all other months are defined as the first Eurostat working day following the 13th and the publication date as being two Eurostat working days later.

In order to meet deadlines, a number of Member States transmit provisional data to Eurostat. It is suggested that this practice should continue to the extent that it does not impact on the MUICP. Final national data should be published together with the index for the following month.

In case of missing data (i.e. a MS has missed a deadline), Eurostat is publishing estimates for EMU, EU and EEA aggregates. Estimates for individual MS are not published as such.

In the longer term, Member States (and Eurostat) should work towards reducing provisional data in the monthly releases, and providing reliable estimates one to two days before the release dates.

6.7. Accessibility and clarity

The MUICP, the EICP, the EEAICP and the HICPs are released simultaneously to all interested parties at noon (CET) on the pre-announced date and are posted on Eurostat’s website.

Consumer price index data are disseminated through Eurostat's database NewCronos (Theme 2 — Domain ‘Price’ — http://europa.eu.int/comm/eurostat). Following data are available: harmonized monthly, annual and annual average indices and inflation rates for the EMU, the EU, the EEA and each of their Member States, by COICOP/HICP categories together with the corresponding weights. HICPs on NewCronos are documented by means of meta-data following the IMF Special Data Dissemination Standard (SDDS).

Some monthly and annual series are also published in the monthly HICP ‘News Release’ and the monthly ‘Statistics in Focus — Economy and Finance — Theme 2’, which latter includes annual inflation rates at two-digit COICOP/HICP level.

Furthermore, the euro-indicators site on Eurostat’s website contains topical rates of change.

To a large extent HICPs are compiled on the basis of legislated methodology. HICP legal acts offer an excellent though particularly dense documentation of harmonized standards and arguments underpinning them.

In addition, the legal acts listed in annex I to this Report are published in the 'Official Journal of the European Communities' (in order to receive more information, please contact Celex@opoce.cec.be).

Technical notes on HICPs have been published in Eurostat News Releases and Memos:

– Eurostat News Release 21/97 of 5 March 1997, 'Harmonizing the way EU measures inflation'.

– Eurostat Memo 8/98, 4 May 1998, 'New Monetary Union Index of Consumer prices (MUICP)'.

– Eurostat Memo 2/2000 of 18 February 2000, 'Extended Coverage and Earlier Release Dates for the HICP'.

Further details can be obtained from the first 'Commission Report to the Council on the harmonization of consumer price indices', COM(1998) 104 final, catalogue number CB-CO-98-133-EN-C. The Report is available in the 11 EU languages through the Eurostat Data Shop network or the Commission's sales agents. The full set of HICP legal acts is listed in Annex I to this Report.

Information on rounding rules and computation formulae for European HICP aggregates can be made available on request through the Eurostat Data Shop network.

Some Member States have published manuals on their CPIs or HICPs which give an overview of the methods used in these countries. So far, Eurostat is aware of the following manuals published after the start of the harmonization project in 1993:

Finland: 'The consumer price index 1995=100, Handbook for Users', Statistics Finland, October 1998.

France: 'Pour comprendre l'indice des prix', Institut national de la statistique et des études économique (INSEE), edition 1998.

United Kingdom: 'The Retail Prices Index, Technical Manual', Office for National Statistics (ONS), 1998.

Spain: 'Indice de Precios de Consumo. Base 1992. Metodología.', Instituto Nacional de Estadística, Madrid, January 1994.

Norway: 'Konsumprisindeksen (The Consumer Price Index). Rapporter 91/8.', Statistics Norway, 1991.

Greece: '"Revised Consumer Price Index", Base Year 1994=100,0', Statistics Greece, 1998.

Belgium: 'L'Indice des Prix à la Consommation, Base 1996', Ministère des Affaires Économiques, Administration de la Politique commerciale, Service de l'Indice, Dépôt légal: D/1999/2295/20.

7. QUALITY ASSURANCE IN THE HICP

7.1. Compliance Monitoring

A guiding principle in the Compliance Monitoring strategy has been to fit quality control and quality assurance into a broader context of total quality of the HICP.

The harmonisation work could well be described as a continuing process of gradual HICP quality improvements. The objective of the legal and other requirements that have been laid down during this process is not to provide comprehensive instructions for the calculation of an HICP. Instead, the objective has been to establish common rules for dealing with those areas of CPI construction that most significantly have contributed to the non-comparability of the national CPIs. For other areas, HICPs are still based on national CPI practices.

The main ingredients of the organisation of Eurostat's compliance monitoring may be seen as a cyclic process of continuing improvement:

- Identify key quality targets on the basis of existing legal rules, agreements, user requirements and CPI quality standards in the Member State concerned (initial plan);
- Review of requirements and monitoring of compliance (action to test the initial plan);
- Evaluation of compliance and performance (reflection on what more needs to be done);
- Co-operative development of improved methodology and practice (conclusion on what should be done);
- Identify new or improved quality targets on the basis of new developments of the situation concerning legal rules, agreements and user requirements (new plan based on user and producer feed-back);
- Further monitoring (repeat the cycle).

Corrective actions following this approach can be of two kinds: firstly, corrective actions for deviations from existing and already fully specified standards and secondly, corrective actions that will necessitate development and implementation of further standards and, very likely, of further legislation.

Cost effectiveness of the monitoring process will be of paramount importance and every effort will be made to minimise the burden on NSIs. A sequential procedure is envisaged, where detailed checks are made only when initial checks indicate that there is a cause for concern. The quality of the indices and the process of harmonisation are further advanced by using well targeted statistical quality control data and research

findings, measures of performance and NSI investigation under Eurostat's auspices, to establish potential sources of bias or non-comparability and ways of eliminating these.

Eurostat has run two rounds of compliance assessments. A first assessment was based mainly on the information provided for the first Report to the Council. A second, follow up assessment took place towards the end of 1998. Two pilot compliance visits were carried out in 1998. Furthermore, Eurostat initiated checks on Member States' compliance and to assess it in this Report by sending a 'Compliance Monitoring Questionnaire' (CMQ) to the Member States in 1999.

Where the initial checks that can be done with the data available from the questionnaire indicate that there is a cause of concern, this will be followed up bilaterally. In some cases it became already apparent that the current minimum standard was not sufficient as it could be interpreted in different, possibly not comparable ways, e.g. the minimum standard on newly significant goods and services. The wording of such minimum standard will be re-considered and improved.

In May 1999 within its 'Qualistat' initiative, Eurostat submitted for formal opinion to the SPC an outline to a strategy for compliance monitoring in a total quality perspective (TQM). Eurostat endorsed that in order to become operational the envisaged total quality perspective would need to be co-ordinated with existing CPI Quality Assurance elements, as applied in Member States. The Members of the SPC were invited to indicate their interest in securing that the CPI/HICP quality work at national level would be brought in line with the total quality approach as presented in the strategy outline.

The SPC recognised the importance of quality assurance in the HICP; several delegations expressed their concerns about the resource implications of the TQM-type approach. It was concluded that the HICP Working Party should discuss how to further implement the quality strategy in a step by step approach. The Working Party should give special emphasis to the points raised in discussion, such as the need for comparable documentation standards, an increase in the coverage, current practices in national quality work, cost-effectiveness, burden on the NSIs. The Working Party was also asked to discuss alternative proposals to ensure the quality of the HICP.

Although compliance monitoring remains high on the list of HICP priorities, and significant resources have been invested in the control of the quality of the HICPs, emerging priorities in conjunction with resource limitation at Eurostat and the NSIs are slowing down progress in implementing formal quality assurance standards. It should be noted that Eurostat was not in a position to submit to the SPC as foreseen an update of the proposal in its May 2000 meeting.

7.2. Advisory body

In spring 1999, Eurostat proposed to the SPC to establish an Advisory body on HICPs. This approach followed the common national practice where National Advisory Committees usually oversee national CPIs. Those national committees might differ between member States, a common ambition seemed nevertheless to be to promote transparency and independence.

The main objective was to ensure integrity and public acceptance of the harmonised indices in the context of the ESCB's/ECB's management of the monetary policy for the euro-zone. The proposed strategy was an active one (i.e. an independent body to be appointed to advise Eurostat in matters related to the harmonised indices). In Eurostat's view, special efforts could be made to increase transparency. The advisory body could help to secure the general acceptance and credibility of the HICPs.

Most members of the SPC agreed that the unique importance of the EMU necessitated a strategy to ensure a high degree of integrity and public acceptance of the harmonised indices. Nevertheless, different opinions existed on how to achieve those aims in the best way. There was only little support for the Advisory body proposal. It was argued that such a body might result not only in duplication of work but also in conflicting opinions in relation to the existing institutional structure. Any such conflicts could have a negative effect on the credibility of the harmonised indices.

The majority of the SPC was in favour of strengthening and confirming the credibility of the HICP by combined approaches. The following options were mentioned: the strengthening of existing bodies like the HICP Working Party, involvement of the European Advisory Committee on Statistical Information in the Economic and Social Spheres (CEIES), improving transparency by production of meta-data, the drafting of a manual, the creation of a website and the organisation of special seminars and conferences.

Following a request by the SPC, the CEIES formed a study group to explore ways in which the CEIES might be able to assist Eurostat in this matter. The recommendations of the study group will be put to the CEIES meeting due in September 2000.

8. ENLARGEMENT OF THE EU

8.1. Introduction

Under the procedure of the 'acquis communautaire' Candidate Countries (CCs) are — on entering EU membership — required to compile and release monthly HICPs in accordance with the set standards.

The process of harmonizing CPIs in CCs was started in autumn 1997 when it became clear that for the preparing of enlargement negotiations required comparable data for CCs. Since the beginning of 1998 CCs have been regularly attending the HICP Working Party meetings as observers, and the special back to back meetings put in place by Eurostat to discuss specific issues referring to implementation of HICPs in CCs.

Eurostat has sent two detailed questionnaires to CCs in 1997 and 1998 to assess how close the applied methods and practices were to the HICP standards. On the basis of the resulting inventory detailed work programmes were developed for the implementation of the HICP standards in each CC.

8.2. Implementation strategy

The approach taken in view to harmonizing consumer price indices in CCs was inspired by the harmonization project in the EU. It goes through the following four stages.

Stage 1: In the period between January and December 1999 CCs have been compiling so-called proxy-HICPs, similar to the interim indices published in EU before the launch of the HICPs. These are mainly national CPIs corrected to the extent possible for differences in coverage. The COICOP/HICP main headings are applied as closely as possible. These indices are more comparable than national CPIs and are disseminated through Eurostat's database NewCronos.

Stage 2: CCs agreed to start compiling with the index for January 2000 interim HICPs based on initial HICP coverage and the corresponding set of HICP standards. The aim is that these indices will be comparable to the HICPs compiled by MSs up to the extension of coverage in December 1999. All CCs are supplying interim HICPs on schedule with the index from January 2000. Also these indices are disseminated through Eurostat's database NewCronos. The aim of the operation however is not to achieve strict comparability from the very beginning but gradual improvement with appropriate allowance for variable speed.

Stage 3: From December 2000 and with the index for January 2001 CCs have agreed to extend the coverage of their interim HICPs and implement the corresponding set of HICP standards as implemented by MSs in December 2000.

Stage 4: From January 2002 CCs should be compiling HICPs comparable to those in the EU and be in a position to keep step with further HICP developments.

It should be acknowledged that despite all problems and difficulties CCs have made substantial efforts to implement HICP standards and have already achieved by far more than could have been initially expected. The back to back meeting with CCs following the standard HICP WP meetings has been shown to be efficient and effective for the purposes of harmonizing inflation measurement in CCs. Eurostat is grateful for the smooth, collaborative and open-minded working atmosphere.

8.3. Phare project

8.3.1. Pilot project on price statistics

Within the Phare framework programme, a multi-country project on price statistics was established (as in other fields of statistics) in order to provide financial support and technical assistance for the implementation of HICP in those CCs which are covered by the Phare programme (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia). There is no financial support for Cyprus, Malta and Turkey under the Phare pilot project.

The Pilot Project is devoted to a variety of different means for delivering technical know-how:

– Technical assistance missions of EU price experts

– Attendance at HICP working parties and the special back to back meetings for CCs

– Organisation of workshops and seminars on specific HICP topics.

Various actions planned within the Pilot Project have already been achieved since its start in November 1998. The first round of technical assistance missions to CCs took place during 1999 where individual working schedules for the implementation of HICP were agreed with each CC. Since November 1999 four price statistics experts have been advising CCs on practical implementation issues and adapting the bilateral co-operation agreements with CCs.

Furthermore, under the Phare pilot project on price statistics, workshops are organised in 2000 and 2001. These workshops are aim at improving contacts between Eurostat and the CCs as well as on practical familiarisation with methods of implementing particular methodological approaches for compilation purposes.

8.3.2. Training programme

Under the Phare training programme, secondments of CC staff to the EU of 5.5 months are financed in order to familiarise CC staff with the HICP-related work of Eurostat. Statisticians from the CCs can gain better knowledge about formulating detailed methodological rules and the procedures for creating legislative forms to be executed in the future by MSs. Secondments of price statisticians from Romania, the Czech Republic, the Slovak Republic, Poland and Hungary to Eurostat have already taken place and further secondments are planned.

Such secondments for statisticians from the CCs are also possible to MSs' Statistical Offices, where CC staff can gain practical knowledge on how methodological rules laid down under particular legal acts is applied in the Member States. One such secondment (from Latvia to Finland) has already occurred.

9. OPERATION OF THE REGULATORY COMMITTEE

The comitology procedure to be followed for adopting implementing measures for the HICPs laid down by the framework Council Regulation was described in the first Report by the Commission to the EU Council. In the period covered by this second Report the Commission (Eurostat) in three cases needed to refer implementing measures to the Council because the SPC had not delivered an opinion on the Commission proposals. The Council acted in all three cases within the period of three months foreseen by the procedure and adopted with the agreement of the Commission the following implementing measures in amended form:

– Council Regulation (EC) No 1687/98 of 20 July 1998 amending Commission Regulation (EC) No 1749/96 concerning the coverage of goods and services in the HICP,

– Council Regulation (EC) No 1688/98 of 20 July 1998 amending Commission Regulation (EC) No 1749/96 concerning the geographic and population coverage of the HICP,

– Council Regulation (EC) No 2166/1999 of 8 October 1999 laying down detailed rules as regards minimum standards for the treatment of products in the health, education and social protection sectors in the HICP.

The above resulted in significant delays in respect to the timetable for the implementation of the measures concerned and the overall harmonization project on the one hand but to wider consensus and better understanding of technically difficult issues, essential to the solid foundation of the HICP, on the other. All in all the procedure proved to be effective thanks to the co-operation of all parties involved and the support of the main users, notably the Economic and Financial Affairs Directorate-General and the ECB.

On 28 June 1999, the Council adopted Decision 1999/468/EC laying down the procedures for the exercise of implementing powers conferred on the Commission[10], better known as the 'Comitology Decision', which replaces old Council Decision 87/373/EEC. The new 'Comitology Decision' has reduced the number of possible procedures to be used from five (I, IIa, IIb, IIIa, IIIb) to three (advisory, management, regulatory). Current procedure IIIa is turned into the new regulatory procedure. However, as long as the Council will not take a formal decision adapting the procedural provisions of pre-existing legal acts not yet modified, currrent procedure IIIa will continue to apply. The Commission is already preparing a proposal to be put before the Council to this end.

Compared to old procedure IIIa, the new regulatory procedure will not change anything as far as the intended measures are not submitted to the Council, due to the absence of opinion or the negative opinion delivered by the committee.

If the said measures must be submitted to the Council, the main change is that, in addition to the options it had under procedure IIIa, the Council may now simply oppose the proposal by qualified majority, in which case the Commission shall re-examine its proposal with a view to either:

– submitting an amended proposal to the Council ;

– re-submitting its proposal to the Council;

– preparing a legislative proposal according to the Treaty (normal co-decision procedure, in the case of statistics).

So far, as it is not yet applicable in the domain of HICPs, no experience has been made with this new procedure.

[10] OJ L 184, 17.7.1999, p. 1.

10. REACTIONS FROM THE USERS AND THE MEDIA

10.1. Opinion of the European Central Bank

As a key user, the ECB (and its predecessor, the EMI) has been closely involved in the preparatory and development work of the HICPs through the consultation procedures laid down in Article 5(3) of the Council Regulation on HICPs and through the participation of ECB/EMI technical experts in Eurostat's Working Party.

Against the background of the differing objectives, concepts and methods underlying the national CPIs, the ECB regards the harmonisation efforts as essential for the assessment of price stability in the euro area, the achievement of which is its main task. The Governing Council of the ECB has defined price stability as a year-on-year increase in the HICP for the euro area of below 2% over the medium term. Therefore, the HICP has been a key indicator for the single monetary policy strategy of the Eurosystem since the start of Stage Three of Monetary Union.

In addition, the HICP continues to play an important role for the assessment of convergence towards price stability in the non-euro area EU Member States, in accordance with the Treaty on European Union.

The harmonisation so far achieved appears in general satisfactory. The common coverage and classification as well as the detailed publication of sub-indices are an important achievement for analytical purposes. A comparable basic formula has been established and first measures introduced to improve the comparability of methodological issues (approaches concerning quality adjustment and sampling). In the last two years four regulations concerning the harmonisation of the geographic and population coverage and the extension of the product coverage of the HICP have been approved and implemented, improving not only the comparability between countries, but also the coverage of the household consumption expenditure in the HICP. The lack of backdata compiled on the revised coverage for at least a 12-month period, as requested in the Opinion of the ECB on the draft regulation, is however, a drawback for the analysis of the results during the year 2000. At the same time, the use of the MUICP for the purposes of monetary policy analysis has increased the importance of the timeliness of the data which, as a response to this requirement, has recently been further improved.

ECB closely follows the further harmonization and improvement of the HICP. In this respect the treatment of the difficult item of owner-occupied housing and the improvement of the minimum standards for quality adjustment procedures are very important. Many of the issues discussed in the context of the HICP work improve comparability *and* reliability of the measurement of inflation and are therefore particularly welcome.

Finally, the ECB appreciates the efforts to develop harmonized consumer price indices for the pre-accession countries, which will facilitate the analysis of inflation in these countries and their comparison with the euro area.

10.2. Opinion of the Economic and Financial Affairs Directorate-General of the European Commission

The Economic and Financial Affairs Directorate-General welcomes the further improvements which have been made to the timeliness and quality of the HICPs since the 1998 Commission Report to the Council on the Harmonisation of Consumer Price Indices in the EU. The Economic and Financial Affairs Directorate-General is of the opinion that the HICPs provide high-quality, reliable and comparable measures of inflation which are well suited to the purposes for which they are used, notably the assessment of sustainable convergence in inflation of non-euro-zone EU Member States, for the conduct of the ECB's monetary policy, and for the monitoring and assessment of inflation developments in the EU Member States for the purposes of economic policy co-ordination. Even so, further improvements to the HICPs are desirable and Economic and Financial Affairs Directorate Genaral encourages Eurostat and the HICP Working Group to pursue vigorously their efforts in this area.

As for timeliness, the publication schedule for 2000 foresees publication of the indices for a given month on the 17th to 19th day of the subsequent month (except for the months of December and January due to the annual change of weights). This performance represents a significant improvement and it is similar to that of other large currency areas, notably the United States where publication occurs on the 16th to 19th day of the subsequent month. Even so, further shortening of the publication lag seems desirable and feasible, and Economic and Financial Affairs Directorate-General encourages Eurostat and the Member States to work in this direction.

With respect to comparability across countries and the quality of inflation measurement, basic progress was achieved already by the time of the 1998 Report to the Council, notably with respect to the harmonisation of coverage, the establishment of a comparable basic formula and first measures to improve comparability of methods for quality adjustment, sampling, weight updating etc. Subsequently, progress was made with the regulations extending the product coverage to include additional goods and services (health, education and social protection items, more insurance services, etc.) and the harmonisation of the population and the geographical coverage. As a result, the HICPs cover virtually 100% of household final monetary consumption expenditure (not including expenditure on owner-occupied housing).

The construction of the HICPs has followed a principle of 'best practice' and in most respects the HICPs are of equal or superior quality to the national CPIs. For instance, the choice of basic formula has minimised the potential upward bias in inflation measurement due to so-called 'formula bias', and there are minimum standards for the frequency of weight updating. However, further progress is desirable. In particular, owner-occupied housing represents a sizeable fraction of consumer expenditure which should be included in the HICPs, and more work is needed to improve the methodologies used for assessing changes in product quality. Furthermore, it would seem desirable if more Member States would shift to annual updating of the item weights, as this would reduce potential upward biases in inflation measurement.

Economic and Financial Affairs Directorate-General recognises that revisions of historical data should remain possible if and when new and superior information becomes available or there are methodological changes. However, it would seem desirable that updating of item weights follows a pre-announced schedule and that they should generally occur at the beginning of the year rather than during a year. In

connection with future methodological improvements to the HICP, information should be made available which will allow an assessment of the implications for the measured inflation rate.

10.3. HICP in the press

HICPs are released each month at pre-announced dates by the Commission (Eurostat) in a monthly press release — in English, French and German. Eurostat needs to be particularly strict concerning, both the embargoing of the data and the exact timing of the data release.

The normal production of the MUICP and EICP at Eurostat has a tight schedule over two working days. It consists of the following phases (hours are given in CET):

(a) The initial processing and validation is done within the HICP section in Eurostat.

(b) In the morning, the day before the release, the all-items index and the 12 COICOP/HICP main headings are sent to Member States for validation. It is only those data which are not under embargo that are copied to all Member States.

(c) The day before the release, Eurostat's Press Office receives a first draft of the HICP press release in English. The exact time depends on the number of problems encountered in the production environment. Based on this version it produces the French and German drafts. All three are finalised by Eurostat's Press Office together with the HICP section in the late afternoon or early evening. The final press release is sent by Eurostat’s press office in three languages to the Cabinet of the Commissioner for Economic and Monetary Affairs and his Spokesman around 19:00.

(d) Early in the morning of the release day, the all-items index and the 12 COICOP/HICP main headings for the MUICP, EICP, EEAICP, and all Member States are sent by the HICP section to the National Statistical Institutes of the Member States via e-mail, normally before 9:00. Furthermore, a specific data file is prepared for the ECB which is sent to the person responsible at the General Economics Statistics Division at the ECB at 10:00 and remains under strict embargo until 12:00 when Eurostat publishes the data.

(e) Eurostat’s press office sends the press release to the press offices of the National Statistical Institutes of the Member States between 9:00 and 10:00. The press release is printed on paper by Eurostat in Brussels between 9:00 and 10:00 in order to be ready for journalists. Finally, the press release is made available to a limited number of press agencies at 11:00 under strict embargo conditions. The agencies may use this to prepare their articles for dissemination at 12:00. The press release is distributed at 12:00 to the journalists present at the daily Commission briefing. At the same time Eurostat disseminates it to the journalists registered on its own list.

(f) At 12:00 the main indicators are released on the Eurostat website. NewCronos is updated around 13:00 with all detailed data.

It is evident that the tight production schedule of the MUICP and EICP has the positive effect that only a limited number of people have access to the embargoed data before the publication date. On the other hand it is important that all National Statistical Institutes are informed about the results in the morning of the Eurostat release because several make use of those data in their national press releases.

The ever increasing importance of the HICP and the MUICP is particular is also reflected in the media, with the HICP leading the list of the most quoted euro-zone indicators. At the time of the HICP release large number of visitors are registered at Eurostat's Internet site.

The extension to HICP coverage which took mostly place with the index for January 2000 was a major step forward in terms of reliability and relevance of the HICPs. Coverage together with timeliness and the treatment of owner-occupied housing have been the most frequent grounds in the media for criticism of the HICP. As a result of extended coverage and improved timeliness its intrinsic quality has been henceforth widely recognised in the media and it is hoped that appreciation will grow even further.

11. COSTS

Further to the 3.670.000,- € that had been allocated to Member States in the period covered in the first Report, Commission Decision (C(1999) 4428) allocated additional 675.000,-€ to MSs in order to account for additional costs arising from the implementation of the extended coverage and the change in the COCICOP/HICP classification. This amount should be spent until the end of the second year of implementation, that is until the end of the year 2001.

Although the Commission (Eurostat) took greatest account of cost-effectiveness and made full use of all possible budgetary resources to finance the HICP project, the funding might not have covered two-thirds of the actual additional costs to MSs as required in Article 13 of the framework HICP Regulation.

It should also be noted that future implementation measures, notably on quality adjustment, sampling and owner-occupied housing might require substantial resources to be made available for the harmonization project.

12. OUTLOOK

12.1. Future work with Member States

Eurostat believes that in its work with Member States on developing the HICPs, most of major causes of bias and non-comparability have been identified and are being dealt with. In addition, efforts are continuing to make further improvements to the underlying national concepts, methods and practices which will improve the quality, reliability and relevance of the HICP yet further in the years ahead.

Article 5(3) of Council Regulation (EC) No 2494/95 on HICPs states that implementing measures for this Regulation which are necessary for ensuring the comparability of HICPs and for maintaining and improving their reliability and relevance should be adopted in accordance with the Regulatory Committee procedure.

In a number of cases Eurostat and the NSIs agreed not to make use of legal acts for implementing the framework Council Regulation on HICPs but make use of Guidelines instead, as a rapid, non-bureaucratic, practical and flexible tool for maintaining and improving the comparability and quality of HICPs in the short term. Most of these Guidelines have been clearly considered as preparatory measures for Commission Regulations at a later point in time.

Recent experiences with the implementation of certain Guidelines suggest that a 'conversion' of them into binding legal acts in order to secure the comparability, reliability and relevance of the HICP was desirable. Two of them, the Guidelines on price reductions and on revisions, are in process of conversion.

Moreover, with the adoption of the latest three Regulations (insurance, sub-indices, and social protection) the HICP legal framework has reached a complexity such that the consolidation of implementing measures into a single act becomes even more imperative.

Eurostat has on several occasions expressed its intention to consolidate as soon as possible legislated and agreed implementing measures and also to provide comprehensive documentation and guidance by means of a 'HICP manual'. Consolidation and elaboration of the HICP Manual are highly interdependent projects, as consistency is an issue of major importance, and should therefore go hand in hand.

The review of the harmonization project provided in this Report shows an impressive picture of how much has been achieved but it also makes clear that important work remains to be done. The issue is that, in contrast to the importance of the project, the resources available to the project are extremely limited, the list of tasks is rather long and user requirements become increasingly demanding. Priority setting is certainly of paramount importance to efficacy, but it is also the interaction between the issues to be resolved and the current state of debate which together dictate the speed of progress. Particular attention is thereby to be paid to those actions and measures which need yet to be addressed in the form of implementing Regulations. Currently, the situation may be summarised as follows:

Table 12 Status quo and future work

Subject	*Importance*	*State of preparation*
Quality adjustment	(+++)	ideas developed but far from agreement
Owner-occupiers	(+++)	proposal by TF in Feb 2000
Sampling	(+++)	proposal by TF in Apr 2000
Timing of purchaser prices	(++)	for vote at the May SPC
Treatment of price reductions	(++)	for vote at the May SPC
Other financial services nec	(++)	virtually ready
Guideline on revisions policy	(++)	redrafting existing Guideline
Treatment of seasonal items	(++)	slow progress
Level of elementary aggregation	(++)	not started yet
Consolidated Regulation	(++)	not started yet
Exclusion of item groups (sub-indices)	(+)	quite developed
Exclusion of item groups (newly significant products)	(+)	quite developed

In the light of the above Eurostat has submitted for opinion to the May 2000 meeting of the SPC the following programme of measures to the year 2002:

– **Items on the initial harmonization agenda that remain to be fixed**

1. Treatment of other financial services nec in the HICP
2. Treatment of owner-occupied housing in the HICP
3. Further minimum standards for sampling
4. Treatment of seasonal items in the HICP
5. Further Minimum standards on quality adjustment procedures.

– **Conversion of existing Guidelines into Regulations**

6. Revisions policy to HICP.

– **Preparatory measures leading to consolidation of the HICP legal framework**

7. Improving the minimum standard for sub-indices of the HICP;

8. Improving the treatment of newly significant goods and services in the HICP.

– **Consolidated Commission Regulation**

9. Consolidation of implementing measures for Regulation (EC) 2494/95 on HICPs.

The SPC largely agreed on the importance of the proposed programme, but it still expressed divergent views on various points of the programme and on the procedure to be followed. It was generally felt that the work programme was too ambitious, and that priorities had to be reassessed. The SPC in its advisory capacity suggested that following an ECB proposal this could be achieved by paying particular attention to owner-occupied housing, adjustment for quality change, treatment of new products, and keeping the weights in the index up to date. The SPC proposed that issues of little impact on the HICP and issues that have not yet been considered in depth should be withdrawn from the priority list. Furthermore, a revisions policy for the HICP would have to be developed soon. The Commission (Eurostat) will take utmost consideration of the advice given by the SPC and the opinion of the ECB with a view to maintaining and improving the reliability and relevance of the HICPs as provided for in the HICP framework Council Regulation.

ANNEX I

List of Regulations in June 2000

Council Regulation (EC) No 2494/95 of 23 October 1995 sets the legal basis for establishing a harmonized methodology for the compilation of the HICPs, the MUICP, the EICP and EEAICP. Following implementing EC Regulations on the methodology of HICPs have been adopted within this 'framework' Regulation:

- Commission Regulation (EC) No 1749/96 of 9 September 1996 on initial implementing measures concerning harmonized indices of consumer prices (OJ L 229, 10.9.1996, p. 3).

- Commission Regulation (EC) No 2214/96 of 20 November 1996 on the transmission and dissemination of sub-indices of the HICP (OJ L 296, 21.11.1996, p. 8).

- Commission Regulation (EC) No 2454/97 of 10 December 1997 laying down detailed rules as regards minimum standards for the quality of HICP weightings (OJ L 340, 11.12.1997, p. 24).

- Council Regulation (EC) No 1687/98 of 20 July 1998 amending Commission Regulation (EC) No 1749/96 concerning the coverage of goods and services in the HICP (OJ L 214, 31.7.1998, p. 12).

- Council Regulation (EC) No 1688/98 of 20 July 1998 amending Commission Regulation (EC) No 1749/96 concerning the geographic and population coverage of the HICP (OJ L 214, 31.7.1998, p. 23).

- Commission Regulation (EC) No 2646/98 of 9 December 1998 laying down detailed rules as regards to minimum standards for the treatment of tariffs in the HICP (OJ L 335, 10.12.1998, p. 30).

- Commission Regulation (EC) No 1617/1999 of 23 July 1999 laying down detailed rules with regard to minimum standards for the treatment of insurance in the HICP and modifying Commission Regulation (EC) No 2214/96 (OJ L 192, 24.7.1999, p. 9).

- Commission Regulation (EC) No 1749/1999 of 23 July 1999 amending Regulation (EC) No 2214/96, concerning the sub-indices of the harmonized indices of consumer prices (OJ L 214, 13.8.1999, p. 1).

- Council Regulation (EC) No 2166/1999 of 8 October 1999 laying down detailed rules as regards minimum standards for the treatment of products in the health, education and social protection sectors in the HICP (OJ L 266, 14.10.1999, p. 1).

ANNEX II

Country weights by item and country

		EICP	MUICP	BE	DK	D	EL	E	F	IRL	I
01.	Food and non-alcoholic beverages	135.6	166.8	183.3	161.7	140.3	210.9	243.7	170.0	189.8	174.0
01.1.	Food	123.1	151.8	165.3	142.4	121.1	201.5	232.6	157.0	175.2	162.5
01.1.1.	Bread and cereals	20.4	26.9	32.2	23.2	24.2	25.0	32.3	24.0	35.4	30.3
01.1.2.	Meat	30.2	42.5	51.1	37.6	31.8	48.9	65.8	52.0	47.3	41.8
01.1.3.	Fish and seafood	6.2	12.0	11.0	6.2	6.2	13.5	35.9	13.0	4.7	12.0
01.1.4.	Milk, cheese and eggs	17.5	22.5	21.7	21.1	17.6	35.1	30.4	24.0	26.6	24.7
01.1.5.	Oils and fats	3.5	6.1	5.2	4.7	3.7	13.0	11.4	5.0	7.1	9.4
01.1.6.	Fruit	9.8	11.7	11.5	7.0	10.1	15.3	22.8	10.0	9.4	11.5
01.1.7.	Vegetables	18.5	15.8	14.9	15.9	12.1	27.8	24.3	15.0	22.2	20.2
01.1.8.	Sugar, jam, honey, chocolate and confectionery	13.5	10.4	12.5	21.4	10.4	17.4	7.2	10.0	16.8	12.0
01.1.9.	Food products n.e.c.	3.4	3.9	5.1	5.4	4.9	5.5	2.5	4.0	5.8	0.5
01.2.	Non-alcoholic beverages	12.5	15.0	18.0	19.3	19.2	9.3	11.1	13.0	14.6	11.5
01.2.1.	Coffee, tea and cocoa	3.5	5.5	4.5	6.2	6.9	3.2	5.4	6.0	5.1	2.7
01.2.2.	Mineral waters, soft drinks, fruit and vegetable juices	9.0	9.5	13.5	13.1	12.3	6.1	5.7	7.0	9.5	8.8
02.	Alcoholic beverages and tobacco	56.2	41.7	33.6	59.8	47.8	50.3	34.1	41.0	90.4	29.0
02.1	Alcoholic beverages	25.1	18.9	21.2	31.4	23.3	9.1	11.2	20.0	30.1	9.0
02.1.1.	Spirits	6.7	3.8	2.7	3.7	3.0	4.0	2.0	6.0	11.7	1.6
02.1.2.	Wine	11.0	8.2	12.8	11.9	7.0	1.7	6.3	12.0	8.7	6.0
02.1.3.	Beer	7.4	6.9	5.7	15.9	13.4	3.5	2.8	2.0	9.6	1.4
02.2.	Tobacco	31.1	22.8	12.4	28.4	24.5	41.2	23.0	21.0	60.3	20.0
03.	Clothing and footwear	75.1	80.3	77.8	63.0	74.9	122.8	106.5	59.0	52.8	110.9
03.1.	Clothing	63.5	64.7	63.8	51.0	62.5	98.9	85.7	46.0	39.4	86.4
03.1.1.	Clothing materials	0.6	0.7	0.8	0.7	0.5	0.5	3.0	0.0	0.4	0.2
03.1.2.	Garments	59.2	59.7	59.2	46.7	59.2	93.3	78.2	40.0	35.8	80.5
03.1.3.	Other articles of clothing and clothing accessories	2.3	2.5	2.4	2.4	1.9	4.1	3.5	4.0	0.6	1.7
03.1.4.	Cleaning, repair and hire of clothing	1.8	1.8	1.3	1.1	1.0	1.1	1.0	2.0	2.6	4.0
03.2.	Footwear including repair	11.6	15.7	14.0	12.1	12.3	23.8	20.9	13.0	13.4	24.5
04.	Housing, water, electricity, gas and other fuels	126.4	157.8	150.0	182.6	207.9	98.9	104.7	151.0	80.4	101.3
04.1.	Actual rentals for housing	57.85~ei	63.0	47.7	73.8	89.3	36.9	14.7	69.0	19.4	30.2

(cont.)

L	NL	A	P	FI	S	UK	EEAICP	IS	NO		
120.2	157.6	131.1	215.5	173.2	156.9	121.0	136.0	192.7	140.5	Food and non-alcoholic beverages	01.
110.8	142.2	118.4	207.9	155.7	141.4	109.0	123.4	169.6	125.2	Food	01.1.
19.6	27.2	23.8	35.1	31.1	25.8	19.0	20.4	31.5	17.6	Bread and cereals	01.1.1.
34.9	34.0	33.4	54.8	32.2	31.1	27.0	30.3	37.2	30.9	Meat	01.1.2.
6.8	4.0	3.1	44.0	5.7	8.0	5.0	6.3	9.7	7.9	Fish and seafood	01.1.3.
16.0	24.7	20.4	26.3	31.1	25.6	14.0	17.8	34.3	23.8	Milk, cheese and eggs	01.1.4.
4.6	4.3	5.0	12.2	5.2	4.6	2.0	3.5	4.5	3.1	Oils and fats	01.1.5.
8.7	12.0	8.7	17.4	10.7	12.4	9.0	9.8	11.7	9.1	Fruit	01.1.6.
9.6	17.2	10.6	10.5	16.8	13.8	18.0	18.2	14.5	11.8	Vegetables	01.1.7.
7.4	10.0	9.3	5.9	17.8	16.8	12.0	13.6	18.1	13.8	Sugar, jam, honey, chocolate and confectionery	01.1.8.
3.2	8.9	4.2	1.7	5.1	3.4	3.0	3.6	8.1	7.2	Food products n.e.c.	01.1.9.
9.4	15.4	12.7	7.6	17.5	15.5	12.0	12.6	23.2	15.3	Non-alcoholic beverages	01.2.
3.6	6.3	5.2	3.0	5.9	6.7	3.0	3.6	5.1	4.5	Coffee, tea and cocoa	01.2.1.
5.8	9.1	7.5	4.6	11.7	8.8	9.0	9.1	18.1	10.8	Mineral waters, soft drinks, fruit and vegetable juices	01.2.2.
101.3	50.2	39.8	32.6	72.8	53.0	57.0	55.1	36.8	29.6	Alcoholic beverages and tobacco	02.
30.5	22.9	18.8	13.0	45.9	31.4	26.0	24.7	17.8	15.9	Alcoholic beverages	02.1
13.1	7.3	2.8	1.4	14.6	9.4	7.0	6.6	7.3	4.7	Spirits	02.1.1.
9.7	7.1	9.1	9.4	10.8	12.5	12.0	10.7	3.5	4.5	Wine	02.1.2.
7.7	8.5	6.9	2.2	20.4	9.5	7.0	7.4	7.0	6.7	Beer	02.1.3.
70.8	27.3	21.1	19.6	26.9	21.6	31.0	30.4	19.0	13.7	Tobacco	02.2.
75.6	67.5	82.7	69.9	54.5	72.7	70.0	74.9	70.2	68.7	Clothing and footwear	03.
59.8	54.5	69.8	51.7	44.8	61.8	60.0	63.3	57.7	58.3	Clothing	03.1.
0.2	1.2	1.6	0.5	1.5	0.6	0.0	0.6	1.5	0.8	Clothing materials	03.1.1.
56.8	50.3	62.2	48.3	39.7	56.6	56.0	59.0	48.3	54.1	Garments	03.1.2.
0.7	2.2	3.5	2.1	2.9	3.0	2.0	2.4	5.2	2.8	Other articles of clothing and clothing accessories	03.1.3.
2.1	0.9	2.6	0.7	0.7	1.5	2.0	1.8	2.8	0.6	Cleaning, repair and hire of clothing	03.1.4.
15.8	12.9	12.8	18.2	9.7	10.9	10.0	11.6	12.4	10.4	Footwear including repair	03.2.
109.5	194.3	139.3	93.3	158.3	194.5	118.0	127.8	91.3	164.0	Housing, water, electricity, gas and other fuels	04.
49.5	101.0	62.6	16.5	52.1	116.00~ei	53.0	57.32~ei	28.7	47.1	Actual rentals for housing	04.1.

		EICP	MUICP	BE	DK	D	EL	E	F	IRL	I
04.3.	Maintenance and repair of the dwelling	17.5	18.3	21.9	15.3	16.4	14.5	38.2	15.0	11.8	14.1
04.3.1.	Materials for the maintenance and repair of the dwelling	8.6	8.7	17.2	7.6	9.1	5.4	25.2	2.0	11.8	3.4
04.3.2.	Services for the maintenance and repair of the dwelling	9.7	9.7	4.7	7.6	7.2	9.1	13.0	13.0	0.0	10.8
04.4.	Water supply and miscellaneous services relating to the dwelling	12.8	26.7	13.0	20.3	40.4	16.1	24.3	21.0	0.8	16.6
04.4.1.	Water supply	5.54~ei	9.0	10.4	4.9	13.9	4.2	:	7.0	0.2	4.1
04.4.2.	Refuse collection	5.36~i	7.1	2.7	9.1	9.6	4.8	:	5.0	0.2	7.0
04.4.3.	Sewerage collection	5.22~ei	6.0	0.0	4.3	10.7	1.4	:	4.0	0.2	1.2
04.4.4.	Other services relating to the dwelling n.e.c.	3.2	5.3	0.0	2.0	6.2	5.8	:	5.0	0.1	4.3
04.5.	Electricity, gas and other fuels	38.2	49.7	67.3	73.2	61.9	31.4	27.5	46.0	48.5	40.4
04.5.1.	Electricity	19.8	21.9	33.0	27.7	26.3	16.5	15.9	24.0	19.4	12.2
04.5.2.	Gas	10.5	13.4	14.7	8.0	11.8	1.1	6.9	11.0	7.2	20.0
04.5.3.	Liquid fuels	4.2	8.7	18.6	13.1	9.5	13.1	4.7	8.0	8.4	8.2
04.5.4.	Solid fuels	1.0	1.8	1.1	1.6	1.7	0.8	0.0	1.0	13.5	0.0
04.5.5.	Heat energy	18.63~ei	8.6	0.0	22.8	12.6	0.0	0.0	2.0	0.0	0.0
05.	Furnishings, household equipment and routine maintenance of the house	76.2	81.1	81.3	70.8	76.9	80.8	59.1	72.0	45.4	109.7
05.1.	Furniture and furnishings, carpets and other floor coverings	30.8	33.2	25.2	27.4	39.9	19.9	15.4	21.0	9.1	44.7
05.1.1.	Furniture and furnishings	25.5	29.1	23.0	23.9	34.2	16.7	14.1	19.0	6.2	41.3
05.1.2.	Carpets and other floor coverings	5.3	3.2	2.2	3.0	5.7	3.2	0.4	1.0	2.8	0.9
05.1.3.	Repair of furniture, furnishings and floor coverings	0.5	0.6	0.0	0.5	0.1	0.0	0.9	1.0	0.0	2.5
05.2.	Household textiles	8.6	6.9	8.5	6.6	6.9	15.2	5.1	7.0	3.7	6.0
05.3.	Household appliances	11.1	11.9	12.1	10.5	11.1	8.5	9.4	13.0	7.6	13.1
05.3.1./ 05.3.2.	Major household appliances whether electric or not and small electric household appliances	10.1	10.8	9.9	9.5	10.8	7.0	8.0	12.0	7.1	11.0

L	NL	A	P	FI	S	UK	EEAICP	IS	NO		
16.2	20.1	21.1	23.7	14.3	0.4	20.0	18.8	13.1	51.0	Maintenance and repair of the dwelling	04.3.
10.2	14.3	11.6	9.0	6.2	0.4	10.0	9.5	10.8	31.8	Materials for the maintenance and repair of the dwelling	04.3.1.
6.0	5.8	9.5	14.7	8.2	0.0	10.0	10.1	2.3	19.2	Services for the maintenance and repair of the dwelling	04.3.2.
7.8	24.6	10.5	14.8	38.0	10.8	12.0	12.9	11.8	14.6	Water supply and miscellaneous services relating to the dwelling	04.4.
4.0	8.8	2.5	9.1	1.8	3.40~ei	6.0	5.48~ei	4.8	4.2	Water supply	04.4.1.
3.0	9.6	2.4	1.0	2.0	3.20~i	0.0	5.13~i	2.5	4.0	Refuse collection	04.4.2.
0.8	4.1	3.5	4.7	2.6	3.40~ei	6.0	5.24~ei	4.5	5.9	Sewerage collection	04.4.3.
0.0	2.1	2.1	0.0	31.6	0.9	0.0	2.8	0.0	0.5	Other services relating to the dwelling n.e.c.	04.4.4.
36.0	48.6	45.0	38.3	53.9	67.2	33.0	38.7	37.8	51.3	Electricity, gas and other fuels	04.5.
17.1	19.2	20.3	26.9	29.1	43.8	17.0	20.7	18.2	42.3	Electricity	04.5.1.
7.3	29.4	6.6	9.2	0.2	0.6	13.0	10.5	0.0	0.0	Gas	04.5.2.
11.2	0.0	7.0	0.0	7.7	7.3	2.0	4.3	0.0	4.7	Liquid fuels	04.5.3.
0.4	0.0	5.6	2.2	1.7	0.0	1.0	1.2	0.0	4.2	Solid fuels	04.5.4.
0.0	0.0	5.5	0.0	15.3	15.50~ei	0.0	14.62~ei	19.6	0.1	Heat energy	04.5.5.
107.7	92.2	90.0	78.7	51.3	58.0	78.0	76.1	61.1	75.2	Furnishings, household equipment and routine maintenance of the house	05.
44.3	40.0	39.8	29.0	18.0	26.0	33.0	30.7	26.0	29.2	Furniture and furnishings, carpets and other floor coverings	05.1.
41.7	28.9	37.3	24.4	15.2	23.3	27.0	25.5	24.1	27.2	Furniture and furnishings	05.1.1.
2.6	10.2	2.5	3.1	1.4	2.6	6.0	5.1	0.2	2.0	Carpets and other floor coverings	05.1.2.
0.0	0.9	0.0	1.5	1.3	0.0	0.0	0.6	1.7	0.0	Repair of furniture, furnishings and floor coverings	05.1.3.
7.2	10.5	8.3	9.3	5.3	7.4	8.0	8.5	7.0	6.1	Household textiles	05.2.
12.2	9.5	19.4	12.0	10.1	6.1	12.0	11.2	9.2	14.9	Household appliances	05.3.
11.9	8.9	17.0	8.9	8.9	5.9	11.0	10.2	8.5	14.1	Major household appliances whether electric or not and small electric household appliances	05.3.1./ 05.3.2.

		EICP	MUICP	BE	DK	D	EL	E	F	IRL	I
05.3.3.	Repair of household appliances	1.0	1.1	2.2	1.0	0.3	1.5	1.4	1.0	0.5	2.1
05.4.	Glassware, tableware and household utensils	6.9	5.8	4.5	7.0	4.0	8.4	3.7	6.0	3.9	10.7
05.5.	Tools and equipment for house and garden	5.5	5.1	6.6	6.0	6.9	1.1	1.8	4.0	5.0	5.0
05.6.	Goods and services for routine household maintenance	13.3	18.3	24.4	13.2	8.1	27.7	23.8	21.0	16.2	30.4
05.6.1.	Non-durable household goods	8.6	9.9	13.0	8.5	6.9	21.1	14.1	9.0	12.6	14.2
05.6.2.	Domestic services and household services	5.2	8.3	11.4	4.8	1.2	6.6	9.7	12.0	3.6	16.2
06.	Health	19.5	31.9	32.2	26.1	34.2	47.9	22.9	32.0	20.1	34.0
06.1.	Medical products, appliances and equipment	10.3	14.6	22.7	14.1	15.0	6.0	8.8	16.0	9.8	19.8
06.1.1.	Pharmaceutical products	7.1	10.5	15.5	8.8	12.0	5.0	5.3	11.0	1.6	17.1
06.1.2./ 06.1.3.	Other medical products; therapeutic appliances and equipment	3.1	4.1	7.2	5.2	3.0	1.0	3.5	5.0	8.3	2.6
06.2.	Out-patient services	9.2	16.8	9.5	12.1	19.2	41.9	14.1	16.0	10.3	14.3
06.2.1./ 06.2.3.	Medical services; paramedical services	4.1	9.7	8.3	3.4	10.6	20.1	5.0	10.0	6.9	8.5
06.2.2.	Dental services	5.1	7.2	1.2	8.6	8.6	21.8	9.1	6.0	3.4	5.8
06.3.	Hospital services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
07.	Transport	157.6	156.5	148.8	164.7	154.3	128.3	136.8	180.0	118.1	150.3
07.1.	Purchase of vehicles	53.5	48.9	59.8	71.6	46.1	31.1	52.3	48.0	39.6	48.9
07.1.1.	Motor cars	50.5	44.6	56.7	66.9	40.3	30.4	49.2	45.0	38.0	45.5
07.2.	Operation of personal transport equipment	73.7	85.8	77.5	73.0	85.5	66.3	68.8	106.0	60.6	81.3
07.2.1.	Spares parts and accessories for personal transport equipment	7.5	9.7	4.6	10.2	3.7	10.2	3.8	30.0	4.9	3.7
07.2.2.	Fuels and lubricants for personal transport equipment	39.0	40.1	50.6	32.3	41.7	40.5	42.7	44.0	45.0	29.5
07.2.3.	Maintenance and repair of personal transport equipment	19.7	24.7	18.3	21.1	24.4	10.4	17.4	22.0	7.0	35.5
07.2.4.	Other services in respect of personal transport equipment	7.6	11.3	3.9	9.4	15.8	5.2	5.0	10.0	3.8	12.6
07.3.	Transport services	30.4	21.8	11.4	20.0	22.7	30.9	15.7	26.0	17.9	20.1
07.3.1.	Passenger transport by railway	6.8	4.7	3.3	6.7	6.6	0.5	1.9	5.0	2.2	2.7

L	NL	A	P	FI	S	UK	EEAICP	IS	NO		
0.3	0.6	2.5	3.1	1.3	0.2	1.0	1.0	0.7	0.8	Repair of household appliances	05.3.3.
3.7	5.7	5.4	6.1	3.2	4.4	7.0	6.8	5.1	4.8	Glassware, tableware and household utensils	05.4.
6.0	5.4	3.9	1.0	3.5	6.4	6.0	5.6	3.1	7.1	Tools and equipment for house and garden	05.5.
34.3	21.0	13.2	21.4	11.3	7.8	12.0	13.3	10.7	13.1	Goods and services for routine household maintenance	05.6.
17.0	9.3	9.2	11.0	9.2	7.8	7.0	8.6	9.4	9.0	Non-durable household goods	05.6.1.
17.3	11.7	4.0	10.4	2.1	0.0	5.0	5.1	1.4	4.1	Domestic services and household services	05.6.2.
14.2	21.7	19.1	56.7	45.3	29.9	14.0	19.8	33.5	27.1	Health	06.
9.8	7.3	10.3	25.6	24.8	15.0	10.0	10.3	12.1	11.6	Medical products, appliances and equipment	06.1.
4.0	2.5	5.5	21.5	17.7	9.6	7.0	7.1	8.6	7.0	Pharmaceutical products	06.1.1.
5.8	4.8	4.9	4.1	7.1	5.4	3.0	3.2	3.5	4.6	Other medical products; therapeutic appliances and equipment	06.1.2./ 06.1.3.
4.4	14.4	8.8	31.2	20.5	14.8	4.0	9.5	21.4	15.5	Out-patient services	06.2.
2.5	9.9	3.4	23.0	12.2	4.1	2.0	4.2	6.8	5.7	Medical services; paramedical services	06.2.1./ 06.2.3.
1.9	4.6	5.4	8.1	8.3	10.7	2.0	5.4	14.6	9.8	Dental services	06.2.2.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Hospital services	06.3.
192.2	134.5	145.2	205.2	162.6	157.5	161.0	160.4	201.3	222.7	Transport	07.
59.5	44.1	47.6	95.2	48.6	53.3	55.0	56.1	97.4	114.3	Purchase of vehicles	07.1.
58.1	37.9	41.3	91.9	46.6	49.3	52.0	53.0	95.6	107.9	Motor cars	07.1.1.
117.7	67.5	78.2	94.9	75.2	81.1	74.0	73.7	79.6	72.4	Operation of personal transport equipment	07.2.
5.9	8.4	4.4	9.2	10.0	6.6	7.0	7.5	12.8	8.3	Spares parts and accessories for personal transport equipment	07.2.1.
84.8	37.0	32.8	40.8	53.3	50.9	38.0	39.1	51.3	41.8	Fuels and lubricants for personal transport equipment	07.2.2.
23.7	17.1	30.8	38.8	9.2	18.6	21.0	19.6	12.5	16.5	Maintenance and repair of personal transport equipment	07.2.3.
3.3	5.1	10.2	6.0	2.7	5.0	8.0	7.5	3.1	5.8	Other services in respect of personal transport equipment	07.2.4.
15.0	22.9	19.4	15.1	38.8	23.1	32.0	30.6	24.3	36.0	Transport services	07.3.
1.3	6.9	3.4	1.0	4.8	4.0	8.0	6.8	0.0	5.8	Passenger transport by railway	07.3.1.

		EICP	MUICP	BE	DK	D	EL	E	F	IRL	I
07.3.2.	Passenger transport by road	12.7	5.6	5.4	4.6	2.1	15.9	12.1	9.0	11.5	3.2
07.3.3.	Passenger transport by air	7.9	4.0	1.4	2.5	1.6	5.1	1.6	7.0	1.7	6.0
07.3.4.	Passenger transport by sea and inland waterway	1.5	0.9	0.0	2.3	1.3	4.2	0.2	0.0	0.3	1.3
07.3.5.	Combined passenger transport	5.71	6.79	1.2	3.2	10.4	4.1	0.0	4.0	1.9	5.4
07.3.6.	Other purchased transport services	0.79	0.88	0.0	0.7	0.8	1.2	0.0	1.0	0.3	1.3
08.	Communications	25.7	23.3	22.6	19.0	21.1	26.8	14.1	27.0	16.2	28.2
08.1.	Postal services	1.9	2.4	1.3	1.2	4.0	0.6	0.5	2.0	1.3	1.6
08.2./ 08.3.	Telephone and telefax equipment and services	23.8	20.9	21.3	17.0	17.1	26.2	13.6	25.0	14.9	26.6
08.2.	Telephone and telefax equipment	17.8	2.6	0.9	17.8	0.4	:	:	1.0	0.0	9.4
08.3.	Telephone and telefax services	0.8	19.4	20.4	0.8	16.7	:	:	24.0	0.0	17.2
09.	Recreation and culture	133.6	96.9	111.3	118.7	114.6	43.2	64.6	93.0	114.3	73.5
09.1.	Audio-visual, photographic and information processing equipment	19.8	16.5	16.5	29.1	18.8	10.3	13.3	21.0	6.0	9.7
09.1.1.	Equipment for the reception, recording and reproduction of sound and pictures	7.0	6.3	4.7	10.9	7.1	2.0	3.6	8.0	2.6	4.7
09.1.2.	Photographic and cinematographic equipment and optical instruments	2.9	1.6	1.0	1.9	1.9	4.4	0.6	2.0	0.5	1.7
09.1.3.	Information processing equipment	3.2	3.6	4.3	9.9	5.4	0.4	4.3	3.0	0.2	1.3
09.1.4.	Recording media	5.7	4.1	5.0	4.7	3.6	2.9	3.3	7.0	2.7	1.8
09.1.5.	Repair of audio-visual, photographic and information processing equipment	1.0	0.9	1.5	1.8	0.9	0.6	1.7	1.0	0.0	0.3
09.2.	Other major durables for recreation and culture	6.0	2.5	1.5	5.1	1.5	0.4	0.0	2.0	1.3	4.8
09.2.1. / 09.2.2.	Major durables for indoor and outdoor recreation including musical instruments	6.0	2.4	1.5	5.1	1.5	0.4	0.0	2.0	1.3	4.8
09.2.3.	Maintenance and repair of other major durables for recreation and culture	:	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

L	NL	A	P	FI	S	UK	EEAICP	IS	NO		
2.9	8.5	6.1	3.7	19.7	2.4	14.0	12.6	12.2	11.4	Passenger transport by road	07.3.2.
6.0	6.2	5.1	1.6	9.1	5.1	9.0	8.0	11.2	9.7	Passenger transport by air	07.3.3.
0.0	0.8	0.0	0.0	4.8	1.6	1.0	1.5	0.8	3.6	Passenger transport by sea and inland waterway	07.3.4.
4.4	0.0	4.8	7.77	0.4	9.6	0.0	5.68	0.0	5.5	Combined passenger transport	07.3.5.
0.4	0.5	0.1	1.01	0.1	0.4	0.0	0.79	0.0	0.0	Other purchased transport services	07.3.6.
13.3	20.4	32.1	20.6	23.9	35.8	25.0	25.5	18.0	20.6	Communications	08.
1.1	1.6	1.2	0.1	2.5	2.7	2.0	1.8	1.5	1.1	Postal services	08.1.
12.2	18.8	30.8	20.5	21.5	33.1	23.0	22.8	16.5	0.7	Telephone and telefax equipment and services	08.2./ 08.3.
0.5	:	0.9	0.1	1.5	:	:	10.6	0.8	0.7	Telephone and telefax equipment	08.2.
11.7	:	30.0	20.4	20.0	:	:	8.2	15.8	18.8	Telephone and telefax services	08.3.
110.0	120.6	116.3	39.2	115.1	114.4	149.0	133.7	130.1	136.1	Recreation and culture	09.
17.1	16.2	17.0	11.6	15.0	22.5	20.0	20.2	13.1	30.7	Audio-visual, photographic and information processing equipment	09.1.
5.7	5.9	7.5	3.9	5.9	9.9	7.0	7.3	3.8	15.0	Equipment for the reception, recording and reproduction of sound and pictures	09.1.1.
1.9	1.7	1.4	0.4	1.5	1.2	3.0	2.9	1.4	2.8	Photographic and cinematographic equipment and optical instruments	09.1.2.
5.5	1.7	3.1	1.5	3.4	3.4	3.0	3.3	1.5	6.5	Information processing equipment	09.1.3.
2.9	5.8	3.5	3.6	3.6	7.0	6.0	5.7	4.7	5.9	Recording media	09.1.4.
1.1	1.1	1.5	2.1	0.7	1.0	1.0	1.0	1.8	0.5	Repair of audio-visual, photographic and information processing equipment	09.1.5.
4.8	4.1	1.3	0.2	5.3	4.3	7.0	6.1	1.3	7.9	Other major durables for recreation and culture	09.2.
4.0	3.2	1.3	0.1	5.3	4.3	7.0	6.1	1.3	7.9	Major durables for indoor and outdoor recreation including musical instruments	09.2.1./ 09.2.2.
0.8	0.8	0.0	0.0	0.0	0.0	0.0	:	0.0	0.0	Maintenance and repair of other major durables for recreation and culture	09.2.3.

		EICP	MUICP	BE	DK	D	EL	E	F	IRL	I
09.3.	Other recreational items and equipment, gardens and pets	29.0	18.7	23.1	24.8	21.4	6.1	7.5	20.0	13.5	14.3
09.3.1.	Games, toys and hobbies	12.4	4.2	5.0	6.4	3.7	3.0	4.6	5.0	3.3	3.6
09.3.2.	Equipment for sport, camping and open-air recreation	4.4	3.1	1.7	2.9	3.7	0.7	0.7	4.0	1.5	2.4
09.3.3.	Gardens, plants and flowers	5.1	7.1	8.8	8.8	9.5	0.3	1.1	6.0	5.4	5.4
09.3.4./ 09.3.5.	Pets and related products; veterinary and other services for pets	7.05~i	4.3	7.6	6.7	4.5	2.2	1.1	5.0	3.3	2.9
09.4.	Recreational and cultural services	32.3	26.0	27.2	26.6	28.2	10.9	16.2	30.0	38.3	19.7
09.4.1.	Recreational and sporting services	12.2	10.8	5.0	8.2	7.9	2.0	10.2	13.0	12.0	14.1
09.4.2.	Cultural services	20.2	15.2	22.2	18.4	20.3	8.9	6.0	17.0	26.4	5.6
09.5.	Newspapers, books and stationery	23.3	21.6	19.5	23.1	25.1	13.2	18.3	17.0	25.4	22.0
09.5.1.	Books	4.2	7.6	6.9	5.5	9.6	4.2	8.8	4.0	5.8	8.2
09.5.2.	Newspapers and periodicals	10.4	10.4	9.6	14.7	11.2	8.5	6.3	9.0	16.0	11.3
09.5.3./ 09.5.4.	Miscellaneous printed matter; stationery and drawing materials	8.7	3.7	3.0	2.9	4.4	0.6	3.1	4.0	3.6	2.6
09.6.	Package holidays	23.2	12.0	23.5	10.1	19.6	2.4	9.3	3.0	29.8	3.0
10.	Education	12.8	8.8	4.7	8.8	7.1	21.7	15.8	5.0	19.8	10.8
11.	Restaurants and hotels	123.2	85.3	83.2	54.0	51.4	111.8	151.6	84.0	196.9	101.9
11.1.	Catering services	105.6	70.1	65.0	50.5	43.2	103.2	143.4	69.0	180.1	76.7
11.1.1.	Restaurants, cafés and the like	99.0	62.3	61.7	46.0	38.4	98.7	139.7	54.0	171.5	68.9
11.1.2.	Canteens	6.6	7.8	3.4	4.5	4.8	4.5	3.7	15.0	8.7	7.8
11.2.	Accommodation services	17.6	15.2	18.1	3.5	8.2	8.7	8.2	15.0	16.8	25.3
12.	Miscellaneous goods and services	58.1	69.8	71.3	70.8	69.6	56.6	46.4	86.0	55.8	76.3
12.1.	Personal care	27.8	28.6	26.5	27.0	29.5	23.5	26.8	32.0	28.1	26.8
12.1.1.	Hairdressing salons and personal grooming establishments	8.0	11.9	11.0	9.4	14.0	5.0	10.0	10.0	13.3	13.2
12.1.2./ 12.1.3.	Electrical appliances for personal care; other appliances, articles and products for personal care	19.8	16.7	15.5	17.6	15.6	18.4	16.9	22.0	14.8	13.7
12.3.	Personal effects n.e.c.	9.3	10.6	7.0	7.5	7.8	14.4	5.8	14.0	6.1	16.8
12.3.1.	Jewellery, clocks and watches	7.0	5.6	4.1	2.9	5.5	10.7	3.7	7.0	5.0	6.4
12.3.2.	Other personal effects	2.4	5.0	2.9	4.6	2.3	3.7	2.1	7.0	1.1	10.5

L	NL	A	P	FI	S	UK	EEAICP	IS	NO		
22.2	26.1	26.1	4.4	23.2	23.0	33.0	28.7	18.7	23.1	Other recreational items and equipment, gardens and pets	09.3.
5.5	5.6	6.0	0.9	4.3	5.1	15.0	12.1	6.2	4.3	Games, toys and hobbies	09.3.1.
1.6	2.7	5.2	0.3	5.1	4.3	5.0	4.4	4.4	4.8	Equipment for sport, camping and open-air recreation	09.3.2.
7.8	10.3	9.4	1.5	8.3	9.0	5.0	5.2	6.2	8.2	Gardens, plants and flowers	09.3.3.
7.3	7.4	5.6	1.6	5.5	4.60~i	8.0	6.98~i	2.0	5.8	Pets and related products; veterinary and other services for pets	09.3.4./ 09.3.5.
24.0	34.0	31.7	7.8	24.2	29.4	36.0	32.4	45.3	32.8	Recreational and cultural services	09.4.
8.7	14.2	16.6	3.2	9.6	10.7	14.0	12.2	15.6	12.5	Recreational and sporting services	09.4.1.
15.3	19.8	15.1	4.6	14.7	18.7	22.0	20.2	29.7	20.3	Cultural services	09.4.2.
20.2	25.5	18.2	10.9	27.2	20.0	25.0	23.3	31.4	21.8	Newspapers, books and stationery	09.5.
9.0	7.0	6.4	5.5	5.3	5.6	4.0	4.4	14.3	7.0	Books	09.5.1.
8.7	14.6	8.2	3.9	19.4	13.1	10.0	10.5	13.1	13.2	Newspapers and periodicals	09.5.2.
2.5	3.9	3.6	1.5	2.5	1.4	11.0	8.4	4.0	1.6	Miscellaneous printed matter; stationery and drawing materials	09.5.3./ 09.5.4.
21.7	14.8	22.0	4.5	20.2	15.1	28.0	23.1	20.4	19.8	Package holidays	09.6.
1.1	15.9	7.4	18.2	2.1	3.5	13.0	12.9	14.4	14.3	Education	10.
96.1	71.7	143.3	130.9	93.9	63.5	137.0	120.0	83.5	45.0	Restaurants and hotels	11.
81.4	57.4	99.4	100.2	77.9	55.1	116.0	102.9	64.5	41.0	Catering services	11.1.
77.9	48.2	95.1	91.5	63.0	48.1	109.0	96.4	56.6	37.4	Restaurants, cafés and the like	11.1.1.
3.5	9.3	4.3	8.7	14.9	6.9	7.0	6.5	7.8	3.6	Canteens	11.1.2.
14.7	14.2	43.9	30.6	16.0	8.4	21.0	17.1	19.0	4.0	Accommodation services	11.2.
58.8	53.4	53.8	39.4	46.9	60.3	57.0	58.1	67.2	56.2	Miscellaneous goods and services	12.
24.1	23.9	28.6	23.8	21.1	23.2	29.0	27.6	29.5	22.5	Personal care	12.1.
10.5	8.9	10.0	10.3	7.4	11.1	8.0	8.1	14.3	9.3	Hairdressing salons and personal grooming establishments	12.1.1.
13.6	14.9	18.6	13.5	13.7	12.1	21.0	19.5	15.3	13.2	Electrical appliances for personal care; other appliances, articles and products for personal care	12.1.2./ 12.1.3.
11.6	8.8	10.9	4.9	6.2	7.3	9.0	9.2	5.7	6.3	Personal effects n.e.c.	12.3.
7.5	4.6	6.4	2.9	3.9	5.1	7.0	6.8	3.1	3.2	Jewellery, clocks and watches	12.3.1.
4.1	4.2	4.5	2.0	2.4	2.2	2.0	2.4	2.5	3.1	Other personal effects	12.3.2.

		EICP	MUICP	BE	DK	D	EL	E	F	IRL	I
12.4.	Social protection	6.9	1.9	2.5	16.7	1.1	0.0	0.5	3.0	4.1	3.7
12.5.	Insurance	6.7	16.1	20.2	12.0	23.5	7.1	4.8	18.0	13.1	8.6
12.5.2.	Insurance connected with the dwelling	2.0	3.0	5.4	3.5	2.4	0.2	0.5	5.0	1.7	0.0
12.5.3.	Insurance connected with health	2.5	5.8	6.3	5.1	6.4	4.8	1.8	8.0	9.0	0.0
12.5.4.	Insurance connected with transport	2.2	6.5	7.5	3.4	8.1	2.1	2.5	5.0	2.3	8.6
12.5.5.	Other insurance	0.0	5.0	1.1	0.0	6.5	0.0	0.0	0.0	0.1	0.0
12.6.	Financial services n.e.c.	2.6	3.9	2.9	5.6	3.4	4.8	0.2	5.0	1.0	7.8
12.7.	Other services n.e.c.	5.6	8.4	12.1	2.1	4.2	6.8	8.3	14.0	3.4	12.6

~e = estimated
~i = definition differs
: = not available

L	NL	A	P	FI	S	UK	EEAICP	IS	NO		
3.5	3.9	0.6	2.6	5.7	7.3	6.0	7.3	12.5	16.0	Social protection	12.4.
14.1	12.5	8.9	6.7	7.9	8.1	6.0	6.7	8.3	7.0	Insurance	12.5.
1.5	3.3	2.5	1.0	1.6	3.1	2.0	2.0	2.9	2.0	Insurance connected with the dwelling	12.5.2.
1.4	4.0	3.0	0.1	1.3	2.0	2.0	2.5	0.0	0.0	Insurance connected with health	12.5.3.
10.0	4.2	3.4	4.7	5.0	3.0	2.0	2.3	5.4	5.0	Insurance connected with transport	12.5.4.
1.2	1.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	Other insurance	12.5.5.
0.3	0.4	2.3	0.1	1.2	11.7	1.0	2.5	4.1	0.8	Financial services n.e.c.	12.6.
5.2	3.9	2.6	1.5	4.7	2.6	6.0	5.5	7.1	3.6	Other services n.e.c.	12.7.

ANNEX III

Country weights for 2000, price updated to December 1999 prices

	MUICP	EICP	EEAICP
Belgium	39.90		
Germany	346.51		
Spain	90.83		
France	209.07		
Ireland	9.80		
Italy	183.08		
Luxembourg	1.99		
Netherlands	56.54		
Austria	29.10		
Portugal	18.13		
Finland	15.07		
Euro-zone (MUICP)	**1000.00(*)**	783.49	775.92
Denmark		13.50	13.37
Greece		21.87	21.66
Sweden		17.80	17.63
United Kingdom		163.34	161.76
EU15 (EICP)		**1000.00(*)**	
Iceland			0.82
Norway			8.84
EEA (EEAICP)			**1000.00(*)**

(*) Due to rounding effects, the weights may not add up exactly to 1000.