eurostat D5

METHODOLOGY

FOR THE CALCULATION OF INTRA-EU CORRECTION COEFFICIENTS

Version July 2006

C o n t e n t

I - INTRODUCTION

According to Annex XI of the Staff Regulations the adjustment of salaries of EU officials is determined by the following factors:

- changes in the purchasing power of salaries of national civil servants in central government (Specific Indicator);
- changes in the cost of living in Brussels (Brussels International Index);
- economic parities between Brussels and the other duty stations in the Member States (Correction Coefficients).

The **Brussels International Index (BII)** is a Laspeyres index. Its aim, as stated in Annex XI of the Staff Regulation, is "*to measure changes in the cost of living for officials of the Communities in Brussels*" (Article 1.2 of Annex XI). The methodology used to calculate the BII is described in chapter II.

Changes in the cost of living in places of employment other than Brussels and Luxembourg are derived indirectly from the value of the adjustment for Brussels and changes in the economic parities between Brussels and those other places. The object of the economic parities is to compare the relative costs of living of European institution officials in Brussels (reference city) and in each of the capitals and other duty stations where EU staff are serving.

The method used is to compare the price of a basket of goods and services purchased by the average official in Brussels with the price of the equivalent basket in each of the other duty stations. For this purpose, National Statistical Institutes (NSI) in co-operation with Eurostat carry out a number of **price surveys** (see chapter III). Since the collection of prices is time-consuming and expensive, the pricing of the full list of products is spread over a 3-year period with two surveys per year covering each one a broad category. Housing costs are treated differently from other prices for two reasons:

a) They are the largest single item of expenditure (at least 20–25% of total spending).

b) Housing is different from any other type of good or service because of its uniqueness. No two dwellings are alike, especially when one takes account of all the secondary attributes which affect the price, such as the quality of the district, access to shops, transport, schools and so on.

For these reasons and in view of the rapid fluctuations in the housing market**, housing surveys** are conducted every year and not every three years, as with the other items (see chapter IV and V).

The total range of goods and services constituting the consumption of the average EU official is grouped into **80 basic headings** for which a price ratio between Brussels and the duty station is calculated. The average of all the price ratios is called "economic parity" or Purchasing Power Parity (PPP). The overall economic parities, used for salary adjustment in duty stations other than Brussels and Luxembourg, are based on 80 elementary parities aggregated together using consumption weights.

For each place, the weights are estimated for each of the 80 basic headings and are expressed as percentages of total expenditure, according to their relative importance in the consumption basket. The weights normally reflect the expenditure pattern of the average EC official in each duty station.

To estimate expenditure patterns for EC officials, every five to seven years Eurostat carries out **Family Budget Surveys** (FBS) in the different duty stations among the staff serving at that time; the average result is established as the consumption pattern of the duty station until the next survey. The purpose of these FBS is to determine the relative amounts of expenditure on different items of consumption. The methodology of the FBS is presented in chapter VI.

The ratio between the economic parity and the exchange rate (where applicable) used to pay the remuneration is called a **correction coefficient.** It operates as a percentage adjustment to salaries to take account of the cost differences between Brussels and the duty stations. The method of calculation is shown in chapter VII.

Since 2004, Staff Regulations also require the estimation of country economic parities to "*establish the equivalence of purchasing power of the pensions of officials paid in the Member States between each Member States with reference to Belgium*". The methodology is basically the same applied for the salaries; differences are explained in chapter VIII.

II - BRUSSELS INTERNATIONAL INDEX

1. Introduction

The Brussels International Index (BII) is a Laspeyres index. Its aim, as stated in the Staff Regulations, is "*to measure changes in the cost of living for officials of the Communities in Brussels*" (Article 1.2 of Annex XI). As such, the BII is not a part of the correction coefficient methodology, but the underlying statistical work is related to prices rather than salaries. Therefore all the statistical problems concerning the establishment of the BII are examined by the Working Party on Article 64 of the Staff Regulations, as laid down in Article 13 of Annex XI.

As with any other temporal price index, the main components of the Brussels International Index are:

i) a set of detailed price indices, and

ii) a set of corresponding weights relating to detailed expenditure headings.

The price indices are - with the sole exception of those for housing - sub-indices of the Belgian Harmonized Index for Consumer Prices (HICP) or the Brussels Consumer Price Index (Brussels CPI). This information is directly received by the Belgian authorities. The housing indices are directly calculated by Eurostat, on the basis of the Staff Housing Survey (SHS), carried out annually among EC staff employed in Brussels. The weights are derived from the Family Budget Survey (FBS) held periodically amongst EC and International staff families in Brussels.

The BII is calculated twice per year:

i) for the annual adjustment of the remuneration (change June t / June t-1) and

ii) for the intermediate adjustment (change December t / June t).

2. Detailed price indices

The BII basket contains 80 basic headings[1] all of them, except the two related to housing, are updated with the information provided to Eurostat by the Belgian authorities (Service public fédéral Economie, P.M.E.).

Sixty-nine of the 80 basic headings are derived from the Belgian harmonized index of consumer prices (HICP)[2]. According to the Service public fédéral Economie, those 69 basic headings are a good estimation of the Brussels prices because there are no regional price differences. For the other nine basic headings (see table 1) the Brussels capital component of the Belgian CPI is used, as there are price differences between Brussels and the rest of the country.

---

[1] This level of 80 basic headings is the same used to compare the relative cost of living of European institution officials in Brussels and in each of the capitals and other places of employment.

[2] The basket of goods and services considered by the HICP is composed of 93 basic headings.

Table 1: Nine basic headings for which the Brussels CPI is taken[3]

Number of BH	COICOP[4] Code	Description
24	04.4.1	WATER SUPPLY
26	04.5.1	ELECTRICITY
27	04.5.2	GAS
45	07.2.4	OTHER SERVICES IN RESPECT OF PERSONAL TRANSPORT EQUIPMENT
47	07.3.2	PASSENGER TRANSPORT BY ROAD
50	07.3.5	COMBINED PASSENGER TRANSPORT
72	11.1.1	RESTAURANTS, CAFES AND THE LIKE
74	11.2.0	ACCOMMODATION SERVICES
75	12.1.1	HAIRDRESSING SALONS AND PERSONAL GROOMING ESTABLISHMENTS

In summary, prices are collected by the Belgian authorities who then calculate the HICP and the Brussels component of the CPI. These are aggregated by Eurostat to obtain 78 basic indices (the complete basket less the two housing indices).

3. Staff Housing Survey and the housing indices

The Staff Housing Survey (SHS) is carried out every year in Brussels and every 5 to 7 years in the other duty stations.

For Brussels the survey has two main purposes:

- to calculate the Brussels housing indices (for the BII);
- to obtain the housing-type pattern (for the housing parities).

For other duty stations, only the second purpose is relevant. Rents come from the Estate Agencies Surveys which are described in chapter IV of this document.

The questionnaire - sent to the EC staff in all the EU duty stations - asks for:

- the type, the size in square metres and other characteristics of dwellings;
- monthly rent for the current and previous year;

[3] For the whole list of basic headings see annex D.

[4] Classification Of Individual COnsumption by Purpose (COICOP) adapted to the needs of HICPs.

A copy of the questionnaire used in the Brussels SHS is annexed (see annex A). Participation in the survey is not compulsory.

The indices for the basic headings for accommodation costs for tenants (BH 20: actual rentals paid by tenants) and for owner-occupiers (BH 21: imputed rentals) are calculated on the basis of the Brussels results of the SHS.

An easy way to calculate this change would consist of a comparison - based on tenants only - of the average rent per square metre derived from two consecutive SHS. However the information recorded allows a better procedure, taking into account:

i) the variability of housing costs depending on certain characteristics and

ii) both tenants and owner-occupiers.

First of all the sample is stratified using the following variables connected with housing:

- Type of housing (Studio, One-bedroom apartment, etc.)
- Size in square metres
- Garage

This enables stratification based on the following classes:

1 Studio
2 One-bedroom apartment, with garage
3 One-bedroom apartment, without garage
4 Two-bedroom apartment, with garage
5 Two-bedroom apartment, without garage
6 Three (or more)-bedroom apartment, <120 m2
7 Three (or more)-bedroom apartment, >=120 m2
8 House, terraced or semi-detached, <140 m2
9 House, terraced or semi-detached, >=140 m2
10 House, detached, <190 m2
11 House, detached, >=190 m2

The next step is to calculate - for each of these eleven classes - an average rent (June t) and to impute it to all the dwellings in the same class for owner-occupiers. At this stage a total expenditure (tenants + owner-occupiers) is calculated for each class. The proportion which each class of expenditure bears to the overall housing expenditure - using all the questionnaires - gives the weight of that class (June t).

Accommodation costs for June of year t are then compared with those of June (t-1). An example is given in table 2.

Table 2: Calculation of the housing index for year t

Housing classes	Average rent t-1	Average rent t	Weights t-1	Weights t	Price ratio t/(t-1)	1 / pr. rat. (t-1)/t
	1 = p_{i0}	**2 = p_{i1}**	**3 = w_{i0}**	**4 = w_{i1}**	**5 = 2/1**	**6 = 1/2**
1	18 982	19 572	0,2	0,2	1,0311	0,9698
2	26 214	26 832	1,1	1,5	1,0236	0,9769
3	22 795	22 787	0,4	2,7	0,9996	1,0004
4	31 042	31 409	8,5	11,1	1,0118	0,9883
5	28 000	28 803	3,4	8,4	1,0287	0,9721
6	33 359	34 788	2,4	3,3	1,0428	0,9589
7	44 323	44 061	9,7	12,5	0,9941	1,0060
8	38 098	36 843	7,0	5,3	0,9671	1,0341
9	51 835	51 962	26,5	25,4	1,0025	0,9976
10	43 605	44 070	18,0	11,4	1,0107	0,9895
11	62 245	62 798	23,0	18,3	1,0089	0,9912

The global change in accommodation costs is a function of the 11 average rents by class (p) and of the associated weights (w). Both rents and weights are observed in two different time-points, thus we have p_{i0} and w_{i0}, which refers to June (t-1) and p_{i1} and w_{i1}, which refers to June (t) (i = 1, 2... 11).

Various formulae are available to measure changes in prices. The most common of these are the Laspeyres, Paasche and Fisher indices. These indices do not differ very much as long as the consumption weights do not differ significantly.

Eurostat, in line with many other organisations, uses the Fisher index, which is the geometric average of the Laspeyres and Paasche indices.

(a) Laspeyres is the weighted arithmetic average of the rent ratios, using the weightings of the base period (0):

$$I_L = \frac{\sum_{i=1}^{11} \frac{p_{i1}}{p_{i0}} \times w_{i0}}{\sum_{i=1}^{11} w_{i0}}$$

(b) Paasche is the weighted harmonic average of the inverse of the rent ratios, using the weights of the later period (1):

$$I_P = \frac{\sum_{i=1}^{11} w_{i1}}{\sum_{i=1}^{11} \frac{p_{i0}}{p_{i1}} \times w_{i1}}$$

(c) Fisher is the geometric average of the Laspeyres and Paasche indices:

$$I_F = \sqrt{I_L \times I_P}$$

Using the data in table 1:

- **Laspeyres** index, using the June (t-1) weights:

$$\Sigma \text{ col.5 x col.3 / } \Sigma \text{ col.3} = 1.0050$$

- **Paasche** index, using the June (t) weights:

$$\Sigma \text{ col.4 / } \Sigma \text{ col.6 x col.4} = 1.0063$$

- **Fisher** index:

$$\sqrt{1.0050 \text{x} 1.0063} = 1.0056$$

this rounds to an increase of 0.6%. This is applied to the level of the two housing indices - basic headings 20 (actual rents) and 21 (imputed rents).

For the intermediate adjustment the June housing indices are updated using the increase - between June and December - of the Belgian HICP for housing.

4. Family Budget Survey and the weights relating to detailed expenditure headings

In order to calculate the overall change in the cost of living for EC officials in Brussels, weights have to be applied to each of the 80 basic indices according to their relative importance in the consumption basket. These weights are calculated directly from the results of the special survey conducted about every five years among European and international civil servants living in Brussels. The resulting structure reflects the consumption of the average international civil servant in Brussels. The treatment given to the housing weights is consistent with the housing indices described in section 3. For details about Family Budget Surveys see chapter VI.

5. Application of the Brussels International Index

a) Annual adjustment

With the information on prices and weights Eurostat calculates the Brussels International Index (BII) as a measure on the changes in the cost of living for officials of the Communities in Brussels.

Table 3 gives the expenditure pattern of EC staff (weights) as well as price indices for 12 main expenditure groups for June (t-1) and June (t). The price indices for rents are derived from the Staff Housing Survey. The variations of the price indices over 12 months are also illustrated in the table.

The BII for June 2004 is 124.8 and 127.6 for June 2005, which means an increase of 2.2% in the cost of living during the period June 2004 to June 2005.

Table 3: Brussels International Index - June 2005

Main Expenditure Group		WEIGHTS	INDICES June 2004	INDICES June 2005	VARIATION 12 MONTHS
1	FOOD AND NON-ALCOHOLIC BEVERAGES	90.9	115.7	118.0	102.0
2	ALCOHOLIC BEVERAGES AND TOBACCO	21.2	120.7	123.4	102.2
3	CLOTHING AND FOOTWEAR	54.6	107.9	108.5	100.5
4	HOUSING. WATER. ELECTRICITY. GAS AND OTHER FUELS	260.7	160.7	165.4	102.9
5	FURNISHINGS. HOUSEHOLD EQUIPMENT AND MAINTENANCE OF HOUSE	103.7	111.2	112.3	101.0
6	HEALTH	17.2	110.0	112.0	101.8
7	TRANSPORT	160.9	115.2	120.0	104.2
8	COMMUNICATIONS	23.3	92.0	91.8	99.8
9	RECREATION AND CULTURE	115.5	103.3	102.8	99.5
10	EDUCATION	13.1	107.4	109.9	102.3
11	HOTELS. CAFES AND RESTAURANTS	65.0	124.5	128.0	102.8
12	MISCELLANEOUS GOODS AND SERVICES	73.9	114.0	115.8	101.6
	TOTAL	1000	124.8	127.6	**102.2**
	Of which: *RENTS*	225.4	167.1	171.0	102.3
	TOTAL WITHOUT RENTS	774.6	112.5	114.9	102.1

b) Intermediate adjustment

The intermediate adjustment is made only if there is a substantial change, above the sensitive threshold, in the cost of living in Brussels or one of the other duty stations.

The elements of the intermediate adjustment are as follows:

- Forecast, in March (t), of changes in the purchasing power of remuneration in the central administration of Member States, July (t-1) to July (t);
- Change in the cost of living for Brussels - measured by the BII for the reference period, June (t-1) - December (t-1).
- Change in the cost of living for other duty stations - measured by the *implicit indices* (the implicit indices are the BII multiplied by the change in the economic parity) for the reference period, June (t-1) – December (t-1).

The adjustment is applied to all places when the sensitivity threshold of 3.5% is reached in Brussels (change in the BII ≥ 3.5%); otherwise it is applied only in places the implicit indices exceeds the threshold[5].

[5] This interpretation of the sensitive threshold for the intermediate adjustment was decided in the meeting of the Article 64 Working Group held on 27th April 2005.

III – THE EUROPEAN COMPARISON PROGRAMME (ECP) PRICE SURVEYS

1. Introduction

The price surveys, together with the rent surveys, form the basis of the calculations of the intra-EU correction coefficients (CC). The surveys are an essential part of the 'European Comparison Program' (ECP) and as such the preparation is crucial if any comparison between all participating countries is to take place. In short the results produced have to be comparable and therefore, the goods and services chosen for comparison need to be of similar standards.

The prices used for the capitals are derived from the price surveys carried out by NSIs in the framework of the ECP, the coordination being ensured by Eurostat. For the other duty-stations similar surveys are carried out by Eurostat, usually assisted by the NSI.

Price surveys used for the purpose of calculating the correction coefficient can, therefore, be divided in:

- Price surveys conducted in the capitals as part of the ECP programme

  The NSIs are responsible for the price collections in their countries. Furthermore it is their duty to ensure that the consumption pattern of the country is well represented among the products for which prices are collected. This means that an adequate number of representative consumer goods should be included in each product group. The price surveys are co-ordinated by Eurostat and the group leader countries (see section 3).

- Price surveys conducted in other EU duty-stations outside the capitals

  This point concerns the surveys conducted in Varese, Bonn, Karlsruhe and Munich. These surveys are the responsibility of Eurostat; but usually the NSIs assist and help Eurostat to validate the results.

The latter surveys are used only for the calculation of CCs; the methodology applied, the product definition and the timing is the same as for the surveys conducted in the capitals.

2. The surveys and the pre-survey work

Since the collection of prices is time-consuming and expensive, the pricing of the full list of products is conducted in a 3-year cycle, with two surveys every year, each covering a broad category. The price surveys for the calculation of CC's are representative of most of the goods and services consumed by EU-officials' households. There are six product groups, with two surveys each year. They are:

- **Food, drinks and tobacco:** food; non-alcoholic beverages; alcoholic beverages; tobacco.

- **Personal appearance:** clothing; footwear; goods and services for personal care, personal effects.

- **House and garden:** materials for the maintenance and repair of the dwelling; household appliances; glassware, tableware and household utensils; tools and equipment for house and garden; goods for routine household maintenance; audio-visual, photographic and information processing equipment; games, toys, hobbies, gardens, plants, flowers and pets; newspapers, books and stationery.

- **Transport, restaurants and hotels:** personal transport equipment; spare parts and accessories; fuels and lubricants for the operation of personal transport equipment; equipment for sport, camping and open-air recreation; catering services; accommodation services.

- **Services:** Cleaning, repair and hire of clothing and footwear; maintenance and repair services for the dwelling; water supply and miscellaneous services relating to the dwelling; electricity. gas and other fuels; domestic and household services; maintenance and repair services for personal transport equipment; transport services; postal services; telephone and telefax services; maintenance and repair services for major durables; veterinary and other services for pets; recreational and cultural services; education services; financial and other services not elsewhere specified.

- **Furniture and health:** Furniture, furnishings, carpets and other floor coverings; household textiles; medical products, appliances and equipment; out-patient services.

One of the biggest problems encountered when trying to conduct a European wide price survey is the problem of product definition. Not only are the definitions difficult to establish for practical reasons, but the cultural and linguistic differences that exist between the countries participating in the price surveys exacerbate this problem. More specifically potential problems concern products or services not being available in certain countries or regions and of misunderstandings in the definition guidelines used by the price collectors.

In order to address some of these problems the **pre-survey work** has been altered to accommodate the great variety of consumption patterns that exist among the European countries in question. Effective pre-survey work has a favourable impact on the quality of the results, including:

- Improved comparability of the survey results
- Reduced bias as a consequence of a better representation of the consumer pattern of each country
- Improved coverage of basic headings
- Guarantees of an adequate number of price quotations per item

3. Organisational aspects of price surveys

The countries currently included in the price surveys have for practical reasons been divided into four regional groups[6], each with a ‘Group Leader’. The ‘Group Leaders’ are **Finland, Austria, Portugal** and **Slovenia.**

- Northern Group:
  Belgium, Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Netherlands, Norway, Sweden, United Kingdom.
- Central Group:
  Austria, Croatia, Czech Republic, Germany, Hungary, Luxembourg, Poland, Slovak Republic, Slovenia, Switzerland, Former Yugoslav Republic of Macedonia.
- Southern Group:
  Bulgaria, Cyprus, France, Greece, Italy, Malta, Portugal, Romania, Spain, Turkey.
- Western Balkan Group:
  Albania, Bosnia-Herzegovina, Serbia-Montenegro.

To simplify the rather complex procedure of preparing the definitions of the products and services, the process is carried out in the regional groups. This is done, as there is a greater likelihood of countries in the same regional group having similar selections of products and services available. As a result, it is potentially less complicated to determine common product specifications.

The four groups meet twice a year to produce their regional group’s final survey list. Following these meetings, the regional group leaders meet to discuss the content of their respective survey lists. This process is important since it is necessary to have a certain degree of product overlap between the four groups. If it is not the case the leaders return to their groups to discuss any necessary additions to the list.

At least two of the groups must have a product or service represented in each basic heading in order to be able to carry out the comparison. However, it is not necessary for a product or service to be represented in all three regional groups simultaneously. The only requirement is that the three groups have an overlap of products or services in all 80 basic headings (cf. examples of product specifications in section 5).

---

[6] Up to 2006 the group composition was. **Northern Group**: Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, United Kingdom. **Central Group**: Austria, Belgium Czech Republic, Germany, Hungary, Luxembourg, Netherlands Poland, Slovak Republic, Slovenia, Switzerland. **Southern Group**: Bulgaria, Cyprus, France, Greece, Italy, Malta, Portugal, Romania, Spain, Turkey.

4. The price collection

When conducting the price surveys several outlets are visited to establish an average price. During the pre-survey work each NSI determines the approximate importance of the areas where they want to carry out the price collection. Prices are collected in those outlets likely to be most frequented by the general public as reflected by the share of their sales in the total consumption. For instance, in some countries a few supermarket chains account for the majority of food sales. Therefore, to obtain an average price, the prices of the dominant supermarkets should be weighted higher than those of food shops with smaller turnover of the products in question.

In most countries the outlets are selected by the NSI and a list of the selected shops is given to each price collector. If, for some reason the outlets cannot be selected by the NSI, the price collectors themselves will have to make the selection in the field. The selection must in such cases strictly adhere to the detailed instructions provided by the NSI. Such instructions should specify:

- The type of outlet (department store. supermarket. market. etc)
- The part of the city the outlet should be located (centre. off-centre. suburb)
- The type of city area (residential. shopping. industrial)
- The price/quality profile of shops.

5. Product specifications

The product specifications used in the European Comparison Programme (ECP) are either "*brand and model specific*" or "*generic*". A "*brand and model*" specification designates the particular brand or model to be priced. A "*generic*" specification lists only the relevant technical parameters of the product to be priced; it does not identify any brand. A "*brand and model*" specification has a tight definition; countries pricing a specification stipulating a specific brand and model are, in principle, pricing identical products. A *generic* specification has a looser definition; countries pricing a generic specification are, in principle, pricing comparable products. It is of the higher importance that product specifications, particularly *generic* specifications, are sufficiently detailed to ensure that participating countries price products of the same quality.

Table 4: Examples of product specifications

Product	Technical parameters
11.01.11.5 Spaghetti	*Brand*: Buitoni. Barilla. Panzani *Made from*: hard wheat (durum) *With eggs*: no *Length*: approximately 30 cm *Cooking time*: approximately 11 minutes *Quantity*: 500 g +/- 100 g *Specify*: brand(s) *Reference quantity*: 500 g
11.01.12.4 Chicken for roasting	*Fresh or frozen*: fresh *Free range*: yes *With head and feet*: no *With heart. liver and gizzard*: yes *Weight*: 1.1 kg +/- 0.1 kg *Reference quantity*: 1 kg
11.03.12.2 Women's trousers	*Brand*: upper cluster of well-known brands *Type*: jeans *Composition*: 95% cotton and 5% elasthane *Style*: low waisted; straight leg. bootcut or flared; no tucks or pleats; with belt loops *Colour*: single *Lining*: no *Fastener*: buttons in front *Pockets*: three front pockets. two back pockets *Finishing*: well-finished button holes and seams *Specify*: brand(s) *Reference quantity*: one pair
11.04.32.1 Plumber	*Service*: replacement of two old taps by two new taps (one for hot water. the other for cold water) in a wash basin of a bathroom by a qualified worker; no changes to existing pipes required *Time*: during the working day *Include*: any travel cost charge. 30 minutes each way *Exclude*: cost of materials *Specify*: price for the complete service and travel costs *Reference quantity*: one service
11.05.11.1 Kitchen chair	*Brand*: well-known brand *Type*: straight back chair. backrest with slats *Made from*: solid pine. lacquered *Dimensions (H x W x D)*: approximately 90 x 45 x 40 cm *With*: struts *Without*: arms and upholstery *Specify*: brand or shop (see guidelines) *Reference quantity*: one chair
11.05.31.1 Cooker	*Brand*: lower cluster of well-known brands *Energy source*: gas *Cooking surface*: four burners with safety system *Covering hood*: yes *Oven heating*: conventional *Grill in the oven*: no *Dimensions (H x W x D)*: 85 x 50-60 x 60 cm *Pull-out system*: conventional *Easy to clean*: no *Timer*: no *Colour*: white *Specify*: brand(s). model. parameters and energy efficiency if available *Reference quantity*: one cooker

6. Data processing

After the data collection is completed by the NSIs and they have checked their own results, the data are revised by the respective group leaders to minimise any inconsistencies. If there are results that seem to be very different for one country the group leader will request a verification or correction of the result. If the result is wrong, due to for instance mistaken reference quantity or translation problems, the country will have to undertake a new price survey for that particular product or service.

The control and verification of the end results in Brussels is very important as a mistake in a Brussels price will affect all other countries through the miscalculation of bilateral parities. For the purpose of identifying unexpected price variations, suspicious-looking price levels and other inconsistencies an analytical table, the Quaranta table, is used. This table provides the main diagnostic tool for the checking and approval of the survey results. It works by providing information about both the Basic Headings and the specific items in the Basic Headings. The examples of Quaranta tables below are followed by a brief description of how to read them correctly.

Table 5: An example of a Quaranta table

EUROSTAT- PPP: QUARANTA TABLES **SURVEY:** 2003-I Central group (final version) **Date:** 08.01.2004 **Page:** 1

[1] **11.01.11.1 Rice** *[2]* **Av. Weight:** 59 *[3]* **No. of it.:** 8

[4] EKS method; Selected options: limits for XR-. PPP-indices = 80%. 125%. with *. without L/P limits *[5]* **Var. Coef. (%):** 19.7

[6]	[7] XR 'NC/EURO'	[8] PPP 'NC/CUP'	[9] PLI (%) PPP/XR	[10] Weight/ 100000	[11] No. of Items	[12] Var. Coef.	[6]	[7] XR 'NC/EURO'	[8] PPP 'NC/CUP'	[9] PLI (%) PPP/XR	[10] Weight/ 100000	[11] No. of Items	[12] Var. Coef.
OS	1.00000	1.01637	101.6	23.8	7: *4	13.8	LUX	1.00000	1.29062	129.1	74.0	6: *3	22.3
BE	1.00000	1.40005	140.0	34.6	8: *6	22.7	NL	1.00000	1.04821	104.8	40.6	7: *4	24.5
CH	1.54110	1.64876	107.0	58.3	5: *5	16.9	PL	4.35350	2.63721	60.6	47.5	5: *3	13.7
CZE	31.3910	18.9608	60.4	63.9	7: *4	25.7	SVK	41.0920	24.8722	60.5	149.5	7: *5	18.3
DE	1.00000	1.68260	168.3	13.8	7: *7	19.3	SVN	232.959	230.491	98.9	95.3	7: *3	13.4
HUN	245.180	199.895	81.5	91.1	7: *3	21.5	DE2	1.00000	1.61527	161.5	13.8	7: *7	16.3

1 *[13]* **11.01.11.1aa = CNS – Rice. long grain. 500 – 1000 g. specified brand. (reference quantity = 1000 g)** *[14]* **Var. Co.:** 16.6

[15]	[16] NC-price	[17] *	[18] Qts.	[19] Var. Co.	[20] Wn	[21] EURO-pr.	[22] EURO-In.	[23] Wn	[24] CUP-price	[25] CUP-In.	[26] Wn
					[27] GM=> 2.74			[28] GM=> 2.64			
OS	3.04	*	4	5.1		3.04	111		2.99	114	
BE	3.01	*	13	16.8		3.01	110		2.15	82	
CH	4.58	*	9	21.2		2.97	109		2.78	106	
CZE	52.80		5	4.4		1.84	67	<	3.05	116	
DE	3.18	*	12	14.2		3.18	116		1.89	72	<
HUN	533.20		5	8.6		2.17	79	<	2.67	102	
LUX	3.46	*	5	9.1		3.46	126	>	2.68	102	
NL	2.63	*	9	14.2		2.63	96		2.51	96	
SVK	82.08		10	7.7		2.00	73	<	3.30	126	>
SVN	720.08		5	7.5		3.09	113		3.12	119	
DE2	3.33	*	8	8.9		3.33	122		2.06	79	<

2 *[13]* **11.01.11.1ac = CN – Rice. long grain. 500 – 1000 g. well known brand. (reference quantity = 1000 g)** *[14]* **Var. Co.:** 15.0

[15]	[16] NC-price	[17] *	[18] Qts.	[19] Var. Co.	[20] Wn	[21] EURO-pr.	[22] EURO-In.	[23] Wn	[24] CUP-price	[25] CUP-In.	[26] Wn
					[27] GM=> 1.69			[28] GM=> 1.71			
OS	1.76	*	3	2.7		1.76	104		1.73	101	
BE	2.75	*	9	12.4		2.75	162	>	1.96	115	
CZE	24.53	*	4	14.6		0.78	46	<	1.29	76	<
DE	3.39	*	7	19.1		3.39	200	>	2.02	118	
HUN	318.50	*	2	25.0		1.30	77	<	1.59	93	
LUX	1.66	*	8	35.9	>	1.66	98		1.29	76	<
NL	1.86		5	30.1		1.86	110		1.77	104	
PL	4.63	*	6	15.3		1.06	63	<	1.76	103	
SVK	50.10	*	7	10.4		1.22	72	<	2.01	118	
SVN	356.67	*	14	24.7		1.53	90		1.55	91	
DE2	3.25	*	10	10.2		3.25	192	>	2.01	118	

Note: In Germany, both the present capital, Berlin, and the former capital, Bonn. are surveyed. DE is Berlin and DE2 is Bonn. Their prices are validated separately and then combined as unweighted arithmetic means. The asterisks from Berlin determine representativity.

Table 5: Reading the Quaranta table

	Basic heading table
[1]	The basic heading covered by the table.
[2]	**Av. Weight** or average weight: The average expenditure weight for the group of countries covered by the Quaranta table. The unweighted arithmetic mean of the national weights in column *[10]*. Like the national weights it is scaled to 100.000.
[3]	**No. of It.** or number of items: The number of products specified for the basic heading. The number of product tables comprising the Quaranta table.
[4]	Identifies the options selected when preparing the Quaranta table – namely: the method used to calculate the PPPs for the basic heading PPPs in column *[8]*; and the range in which the EURO-indices in column *[22]* and the CUP-indices in column *[25]* should lie if they are not to be flagged as outliers in column *[23]* or column *[26]*. In this case, the EKS method, with representativity (*), without limits on the Paasche-Laspeyres spread, has been used to calculate the PPPs; and the range in which the EURO-indices and CUP-indices should lie is 80 to 125. Selected options can be changed as required.
[5]	**Var. Coef.** or variation coefficient: The unweighted arithmetic mean of the variation coefficients of the products at *[14]*. The average variation of the standardised price ratios of the products priced for the basic heading.
[6]	Abbreviated names of the countries covered by the Quaranta table.
[7]	**XR 'NC/EURO'**: The market exchange rates (XR) of the countries expressed as the number of units of national currency (NC) per euro. The exchange rate is 1.00000 for countries in the Euro area.
[8]	**PPP 'NC/CUP'**: The PPPs for the basic heading calculated as specified in *[4]* – that is, the EKS method - and expressed as the number of units of national currency (NC) per conventional unit for expressing parities (CUP). The CUP is obtained by first standardising the EKS PPPs and then multiplying them by a coefficient to scale them to the euro. The scaling coefficient is defined as the unweighted geometric mean of the NC/EURO exchange rates in column *[7]*. The prices used to calculate the PPPs are the average survey prices in national currencies that countries report for the products they priced for the basic heading – that is, the NC-prices in column *[16]*.
[9]	**PLI (%) PPP/XR** or price level indices. The PPPs in column *[8]* expressed as a percentage of the exchange rates in column *[7]*.
[10]	**Weight/100000**: National expenditure weights scaled to 100.000. That part of a country's household individual consumption expenditure that is spent on the basic heading when both expenditures are expressed in national currency and valued at national price levels. Household individual consumption expenditure is defined by the domestic concept, before adjusting for net purchases abroad.
[11]	**No. of items**: Number of products that are priced by each country and the number of products priced by each country that are representative – that is, the number of products assigned an asterisk (*).
[12]	**Var. Coef.** or variation coefficient: The standard deviation expressed as a percentage of the arithmetic mean of the indices of PPP converted prices – that is, the CUP-indices in column *[25]* - for all products priced by the country irrespective of whether they are representative or unrepresentative. CUP-indices of products priced by only one country are not included.
	Product table
[13]	Code, name and summary definition of the product covered in the subsequent product table.
[14]	**Var. Co.** or variation coefficient: The standard deviation expressed as a percentage of the arithmetic mean of the indices of PPP converted prices for a product – that is, the CUP-indices in column *[25]*.
[15]	Abbreviated names of the countries pricing the product.
[16]	**NC-price**: Average survey price in national currency (NC).
[17]	Representativity indicator. Generally, representativity is marked by an asterisk (*), but in the case of rents numerical weights (percentages) are shown.
[18]	**Qts.** or quotations: The number of price observations on which the average survey prices - the NC-prices - in column *[16]* are based.
[19]	**Var. Co.** or variation coefficient: The standard deviation expressed as a percentage of the arithmetic mean of the price observations underlying the average survey price in column *[16]*.
[20]	**Wn** or warning: Variation coefficients in column *[19]* that have a value which is greater than the selected crucial value of 33 per cent are flagged by **>**.
[21]	**EURO-pr.** or EURO-prices: The prices in national currency – the NC-prices – in column *[16]* converted to euros with the exchange rates in column *[7]*.
[22]	**EURO-In.** or EURO-indices: Indices based on the exchange rate converted prices – the EURO-prices – in column *[21]*. The EURO-prices expressed as a percentage of their geometric mean at *[27]*. Referred to in the text as "standardised price ratios based on exchange rate converted prices".
[23]	**Wn** or warning: Flags the indices of exchange rate converted prices – the EURO-indices – in column *[22]* that have a value which falls outside the selected range of 80 to 125 *[4]*. Values that are below 80 are flagged by **<**, values above 125 are flagged by >.
[24]	**CUP-price**(s): The prices in national currency – the NC-prices – in column *[16]* converted to the conventional unit in which to express parities (CUP) with the PPPs in column *[8]*.
[25]	**CUP-In.** or CUP-indices: Indices based on the PPP converted prices – the CUP-prices – in column *[24]*. The CUP-prices expressed as a percentage of their geometric mean at *[28]*. Referred to in the text as "standardised price ratios based on PPP converted prices".
[26]	**Wn** or warning: Flags the indices of PPP converted prices – the CUP-indices – in column *[25]* that have a value which falls outside the selected range of 80 to 125 *[4]*. Values that are below 80 are flagged by **<**, values above 125 are flagged by >.
[27]	**GM** or geometric mean of the exchange rate converted prices – the EURO-prices – in column *[21]*. The use of a geometric here and in *[28]* insures invariance with respect to choice of numeraire.
[28]	**GM** or geometric mean of the PPP converted prices – the CUP-prices – in column *[24]*. It will be the same as *[27]* when all countries covered by the Quaranta table have priced the product.

IV - ESTATE AGENCIES RENT SURVEYS

1. General remarks

Correction coefficients are used to ensure equality of purchasing power of salaries of EU officials in the different duty stations. The rent paid for an apartment or house, due to its high weight in the total expenditure structure, plays a significant role in determining the overall correction coefficient. The rent parities are based on market rents obtained from special surveys of estate agencies. The scope of these surveys is to compare the average market rent for some specific kinds of dwellings in some pre-specified representative areas of Brussels with similar dwellings in similar (representative and comparable) areas in other EU capitals and duty stations. In practice it is very difficult to identify types of dwellings and districts of residence that are comparable to those selected for Brussels. The current methodology has arisen over many years of discussion and refinement.

Because of dwellings' uniqueness, housing cannot be dealt in such a precise way as other products, for which Eurostat draws up detailed specifications (often even with brand and model). However, Eurostat tries to obtain the best possible comparison, given the various constraints involved. The present method of calculating rent parities was introduced with effect from the 1990 quinquennial review of remuneration and is currently used for the annual reviews since 1991. It is mainly based on two elements:

- an objective annual survey of estate agencies conducted jointly by Eurostat, the Inter-Organisation section (IOS) of the Coordinated organisations[7] and national statistical institutes (NSI) in each duty station, including Brussels. and

- a moving average model representing the occupancy length over a six-year period.

This chapter is concerned only with the rent surveys themselves. Chapter V deals with the moving average model.

2. The survey

In each place the survey is usually conducted the second quarter of the year (between end of March and end of June) by a team of normally 2 surveyors (from the NSI and either from Eurostat or IOS). The surveyors visit a certain number of experienced estate agents in order to obtain a good estimate of current rental values for pre-defined types of accommodation in some pre-selected neighbourhoods. At least ten agencies are visited in the larger cities, while in the smaller places it is possible to cover the market adequately with a smaller number. However six agencies are regarded as the absolute minimum. Agents are asked for current rents for dwellings in the middle-to-upper range of quality (i.e. above average but not luxury) and they are asked to give figures based on properties currently or very recently on offer.

[7] The Co-ordinated Organisations are the NATO, the European Space Agency, the OECD, the Council of Europe, the Western European Union and the European Centre for Medium-range Weather Forecasts

Overall average rents by type of dwelling are calculated aggregating all the agencies' results and discarding extreme values.

The quality of the rent parities depends on the quality of the rent surveys. Poor estimates of the rent levels will not lead to good parities even if highly sophisticated methods are applied. Close attention is therefore paid to the organisation and conduct of rent surveys. Here the NSIs play a vital role. The surveyors are provided with guidelines, which are revised by Eurostat and approved by the Article 64 Working Group.

The selection of dwelling types used in the survey is similar to the method used for all other products. A set of carefully specified dwelling types (currently 13) is established. All 13 are included in the Brussels survey, while in other places a selection is made which corresponds to locally representative dwelling types.

Table 5 shows the 13 possible specifications used at present and the kind of information collected in each place. So, for example, the 3-bedroom flats comparison between Paris and Brussels is based on the 110-130 m^2 flats, while the 140-160 m^2 flats are used to compare Athens to Brussels and the 80-100 m^2 flats to compare London to Brussels.

3. The questionnaire

A copy of the London questionnaire, as representative of all the other places is annexed (see annex B). The following instructions are followed by surveyors to fill the questionnaire.

Location: The areas are described as “good quality” residential areas favoured by expatriates and professional people such as civil servants, university staff, doctors, managers, etc. The quality should be good to very good, but not luxurious.

Characteristics of accommodation: These are specified in the questionnaire. Living area includes cellars and attics if habitable.

Accommodation types: At present there are a total of 6 broad categories of dwelling:

- Detached house
- Non-detached house (i.e. terraced or semi-detached)
- 3-bedroom flat
- 2-bedroom flat
- l-bedroom flat
- Studio flat

Within each of these types, there are different sizes for total living space, depending on the styles commonly found in different places (e.g. UK and Ireland are generally smaller overall). The questionnaires are pre-printed with the sizes, which have already been established as being most commonly found in each place. In total there are 13 different combinations of dwelling type and size, but it is only in Brussels that all 13 are priced. In other places it is just one size-band for each dwelling type.

Table 6: Estate agencies rent survey - information collected in each place

	studio	3-bedroom flat			2-bedroom flat		1-bedroom flat		non-detached house			detached house		
	(30-40m²)	(140-160m²)	(110-130m²)	(80-100m²)	(80-100m²)	(60-80m²)	(60-80m²)	(40-60m²)	(140-160m²)	(110-130m²)	(80-100m²)	(190-220m²)	(150-180m²)	(110-140m²)
Brussels (BE)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prague (CZ)			✓		✓		✓			✓			✓	
Copenhagen (DK)			✓			✓		✓		✓			✓	
Berlin (DE)			✓		✓		✓			✓			✓	
Bonn (DE)			✓		✓		✓			✓			✓	
Karlsruhe (DE)			✓		✓		✓			✓			✓	
Munich (DE)			✓		✓		✓			✓			✓	
Tallinn (EE)				✓		✓		✓		✓			✓	
Athens (EL)		✓			✓		✓		✗			✗		
Madrid (ES)			✓			✓		✓	✗			✗		
Paris (FR)	✗		✓		✓			✓		✗			✗	
Dublin (IE)			✓			✓		✓			✓			✓
Rome (IT)	✗		✓		✓		✓			✓		✗		
Varese (IT)			✓		✓		✓			✓		✓		
Nicosia (CY)			✓		✓		✓		✓			✓		
Riga (LV)			✓		✓		✓		✓			✓		
Vilnius (LT)				✓		✓		✓		✓			✓	
Budapest (HU)			✓			✓		✓	✓			✓		

✓ data collected and used for calculating rent parities

✗ data collected but not used by Eurostat for calculating rent parities

Table 6: Estate agencies rent survey - information collected in each place (cont.)

City (Country)	studio	3-bedroom flat			2-bedroom flat		1-bedroom flat		non-detached house			detached house		
	(30-40m²)	(140-160m²)	(110-130m²)	(80-100m²)	(80-100m²)	(60-80m²)	(60-80m²)	(40-60m²)	(140-160m²)	(110-130m²)	(80-100m²)	(190-220m²)	(150-180m²)	(110-140m²)
Brussels (BE)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Valetta (MT)			✓		✓			✓		✓		✓		
Den Haag (NL)			✓		✓		✓			✓			✘	
Vienna (AT)	✘		✓		✓		✓			✓			✓	
Warsaw (PL)			✓		✓			✓		✓		✓		
Lisbon (PT)		✓			✓		✓		✓				✓	
Ljubljana (SI)			✓		✓			✓		✓			✓	
Bratislava (SK)			✓		✓		✓			✓			✓	
Helsinki (FI)				✓		✓		✓		✓			✓	
Stockholm (SE)			✓		✓		✓			✓			✓	
London (UK)	✘			✓		✓		✓			✓			✘
Culham (UK)				✓		✓		✓			✓			✓
Sofia (BG)			✓		✓		✓					✓		
Bucharest (RO)			✓		✓			✓					✓	

✓ data collected and used for calculating rent parities

✘ data collected but not used by Eurostat for calculating rent parities

Monthly rent: This is the actual rent currently payable for the various types of dwelling, whether payable partly in cash or not. Thus, if the asking rent normally has to be supplemented by separate cash payment (as happens in some places) it is the total rent that is considered. The figure excludes deposits, key money and similar one-off payments. Surveyors are instructed to ask for **real** rents (including any "under the counter" part). This can be particularly important in certain places.

Generally the information obtained for each of the specified dwelling types is a range of rentals within which most recent contracts have fallen (excluding the luxury end of the market). Sometimes agents prefer to give just an average value. It is clearly mentioned in the questionnaire, that accommodation rented by the employer must be excluded.

Charges made for general services (concierge. common cleaning. lighting of common parts. central heating. lift. etc.) are excluded as well as charges for gas, electricity, water etc., which are covered elsewhere in the correction coefficient calculation.

4. Management of the survey

a) Selection of appropriate districts

The selection criteria for the areas to be surveyed are of great importance. Dwellings and districts cannot be compared by physical characteristics alone as the duty stations vary enormously in both size and desirability. The rent survey covers those districts where professional people such as doctors, professors, lawyers, managers, etc., who pay the rents from their own pocket, actually live. Areas presently covered by the survey in Brussels as well in all other duty stations are reviewed and agreed bilaterally with respective NSIs before the start of each annual round of surveys to take into account the city-specific circumstances.

b) Quality of data: checking and controls

The main problems are extreme values (outliers) and the fact that the estate agent often has no difficulty in estimating the lower value of a range, but the upper value can be open-ended because there is hardly any limit to what can be charged for a dwelling of great luxury.

Eurostat tries to tackle this problem in the following way:

- rent surveyors and local NSI representatives are responsible for the quality of data; they make effort to appreciate in the field whether extreme values are genuine cases or incorrect figures. They report their opinions to Eurostat.

- on the basis of the surveyors' reports. Eurostat decides, case by case, whether extreme values are to be eliminated or not.

All the survey results and the surveyors’ reports are stored in Eurostat and analysed, taking also into account all the information contained in the surveyors’ reports. Before starting the process of the data (discussed in the next chapter), the NSI’s agreement to the final results is requested.

An example of a survey result (Munich 2005) is annexed (see annex C).

V - CALCULATION OF RENT PARITIES

1. Introduction

Housing cost is covered by two basic headings: 20 (tenants' rents) and 21 (imputed rents of owner-occupiers). The **weights** for heading 20 are obtained directly from the Family Budget Surveys (FBS), while those for heading 21 are obtained by imputing average rents by housing type, also from the FBS. The **parities** for heading 20 are calculated from ratios of rents as reported from the Estate Agency Rent Surveys. These parities are then imputed to heading 21.

In the economic parity calculation, housing is a special case, which is treated in a slightly different way than the other elementary parities. As for any other elementary parity, four stages are needed for housing cost measurement:

(1) the items that will represent the basic heading have to be chosen and defined;
(2) the items have to be priced in the duty station and in Brussels;
(3) the price ratios have to be calculated for each item;
(4) a mean has to be chosen to aggregate the different price ratios into one elementary parity.

Housing cost measurement has some specific features concerning how items are priced and how price ratios are aggregated (stages 2 and 4).

2. Moving average model

Estate agency rent surveys are conducted annually in each place of employment for which an intra-EU correction coefficient is required. The purpose is to obtain a good estimate of current rental values for properties recently rented.

For each place a rents table with *n* columns and *i* rows is obtained, where *n* is the number of agencies participating at the survey in that place and *i* is the number of items (dwelling types) priced. These results are then aggregated by type of dwelling, discarding only those values, which appear to be extreme outliers. So finally *i* average prices are obtained.

At this stage a specific procedure (not used for any other basic heading) is applied: In fact the *i* average prices obtained through rent survey relate to new tenancies only. In reality most of the staff have not moved just in the year of the survey, but have lived in a dwelling for some time and their rents may have increased since the original lease began. This problem is overcome by using a moving average based on a set of agency survey results over a period of years. According to the procedure used currently, weighted average of rent data for the last six years and for each dwelling type is calculated taking a fixed pattern of occupancy length.

Table 7 shows the weights used in the six years moving average model. These weights were derived from the results of the annual Staff Housing Survey (SHS) in Brussels and in the other main duty stations. It shows that the current year has a weight of 25% and the two most recent years a combined weight of 48%.

Table 7 Weights used in the six-year model

Year	Current (t)	t-1	t-2	t-3	t-4	t-5
Weight (%)	25	23	17	13	12	10

Before calculating the moving averages, all rent data used in the model is updated to the current year using the most appropriate price index. The index which is usually considered in a lease contract for updating rents is taken for this purpose. They are provided by the NSIs. The indices currently used are shown in table 8.

Table 8: Indices for updating rents

Country	Place	Index
BE	Brussels	Séries Indice santé/Gezondheidsindex
CZ	Prague	CPI
DK	Copenhagen	Index of net retail price
DE	Berlin Bonn Karlsruhe Munich	COICOP 4.1+4.4 COICOP 4.1+4.4 COICOP 4.1+4.4 COICOP 4.1+4.4
EE	Tallinn	CPI
EL	Athens	CPI
ES	Madrid	CPI
FR	Paris	Séries coût de la construction
IE	Dublin	Sub-index rents from CPI
IT	Rome Varese	CPI - famiglie di operai e impiegati esclusi tabacchi CPI - famiglie di operai e impiegati esclusi tabacchi
CY	Nicosia	CPI
LV	Riga	CPI
LT	Vilnius	CPI
HU	Budapest	CPI
MT	Valletta	CPI
NL	The Hague	CPI
AT	Vienna	CPI
PL	Warsaw	CPI
PT	Lisbon	CPI
SI	Ljubljana	CPI
SK	Bratislava	CPI
FI	Helsinki	CPI
SE	Stockholm	CPI
UK	London Culham	CPI sub-index for private renters CPI sub-index for private renters

Examples of 6-year results in Brussels and in Munich are shown in table 9

Table 9: Examples of results from surveys

a) Brussels

	3 bedroom flat			2 bedroom flat		1 bedroom flat	
	(140-160m²)	(110-130m²)	(80-100m²)	(80-100m²)	(60-80m²)	(60-80m²)	(40-60m²)
t-5	1,376	1,011	758	780	588	574	459
t-4	1,501	1,115	834	839	656	618	482
t-3	1,656	1,225	953	901	704	669	535
t-2	1,495	1,102	859	861	684	645	514
t-1	1,468	1,151	876	871	699	647	508
t	1,537	1,177	910	880	710	674	526

	Non-detached houses			Detached houses			Weights (in %)	Price Indices
	(140-160m²)	(110-130m²)	(80-100m²)	(190-220m²)	(150-180m²)	(110-140m²)		
t-5	1,507	1,073	854	2,339	1,724	1,316	10	105.4
t-4	1,644	1,230	953	2,523	1,862	1,391	12	108.8
t-3	1,675	1,229	962	2,680	2,024	1,430	13	110.1
t-2	1,609	1,167	914	2,343	1,759	1,260	17	111.9
t-1	1,570	1,191	963	2,298	1,732	1,294	23	113.7
t	1,644	1,264	1,008	2,331	1,775	1,374	25	116.3

b) Munich

	3 bedroom flat (110-130 m²)	2 bedroom flat (80-100m²)	1 bedroom flat (60-80m²)	Non-detached house (110-130 m²)	Detached house (150-180 m²)	Weights (in %)	Price Indices
t-5	1,331	999	795	1,448	2,030	10	100.0
t-4	1,608	1,196	938	1,685	2,326	12	101.1
t-3	1,620	1,215	931	1,703	2,345	13	102.6
t-2	1,524	1,134	868	1,645	2,259	17	103.8
t-1	1,380	1,026	798	1,528	2,130	23	104.8
t	1,332	990	770	1,530	2,120	25	105.8

The price indices in table 9 are used to update the rent data to the price level of the year t. The resulting rent data are presented in Table 10. The last row of table 10 (average rents) is obtained as a weighted average of the figures in each column, where the weights are those in table 9b. Thus, for example, a typical contemporary rent of a detached house in Munich in year (t-5) (2,030 EUR) would have risen by the year t to 2,148 EUR using the ratio of the price indices 105.8/100.0.

Table 10: Updated rents from table 8b (Munich)

	3 bedroom flat (110-130 m²)	2 bedroom flat (80-100m²)	1 bedroom flat (60-80m²)	Non-detached house (110-130 m²)	Detached house (150-180 m²)
t-5	1,408	1,057	841	1,532	2,148
t-4	1,683	1,252	982	1,763	2,434
t-3	1,671	1,253	960	1,756	2,418
t-2	1,553	1,156	885	1,677	2,303
t-1	1,393	1,036	806	1,543	2,150
t	1,332	990	770	1,530	2,120
Average rents	**1,477**	**1,101**	**855**	**1,615**	**2,237**

3. Rent ratios

The average adjusted rents for each of the *i* dwelling types are divided by the corresponding data for Brussels, giving *i* rent ratios.

An example of how rent ratios are calculated (in the case of Munich) is shown in table 11.

Table 11: Rent ratios for Munich

	3 bedroom flat (110-130 m²)	2 bedroom flat (80-100m²)	1 bedroom flat (60-80m²)	Non-detached house (110-130 m²)	Detached house (150-180 m²)
Munich Average rents	1,477	1,101	855	1,615	2,237
Brussels Average rents	1,183	894	669	1,247	1,869
Rent ratios	1.249365	1.230913	1.277595	1.295114	1.197011

4 Aggregation of rent ratios

The rent ratios for each of the dwelling types are aggregated by using a housing weighting structure. Eurostat differentiates two different weighting structures:

a) Weights based on both tenants and owners

As the rent parity (basic heading 20) is also imputed to basic heading 21 (imputed rents of owner-occupiers) the housing-type weights should take into account both tenants and owners.

Table 12 shows how weights are calculated from the SHS for each duty station.

Table 12 Information from the Staff Housing Survey

Kind of dwelling	TENANTS		OWNER-OCCUPIERS		TENANTS+OWNERS
	Number	Global expenditure	Number	Global expenditure (Imputed rent)	Global expenditure (rents + imputed rents)
[1]	[2]	[3]	[4]	[5]	[6]
1 bedroom	tn_1	tx_1	on_1	$ox_1 = on_1*tx_1/tn_1$	tx_1+ox_1
2 bedrooms	tn_2	tx_2	on_2	$ox_2 = on_2*tx_2/tn_2$	tx_2+ox_2
3 bedrooms	tn_3	tx_3	on_3	$ox_3 = on_3*tx_3/tn_3$	tx_3+ox_3
detached houses	tn_4	tx_4	on_4	$ox_4 = on_4*tx_4/tn_4$	tx_4+ox_4
non-det. houses	tn_5	tx_5	on_5	$ox_5 = on_5*tx_5/tn_5$	tx_5+ox_5
TOTAL	TN	TX	ON	OX	TX+OX

Number of tenants (tn_i) and owners (on_i) by type of dwelling, as well as global expenditure of tenants by type of dwelling (tx_i) are available from the SHS. Imputed global expenditure of owners by kind of dwelling (ox_i) can be calculated as shown in column [5] and global expenditures for tenants and owners is obtained in column [6].

Housing-type weights (w_i) are the ratios between the global expenditure (tenants + owners) by kind of dwelling and the total expenditure:

$$\boxed{w_i = \frac{tx_i + ox_i}{TX + OX}}$$

b) Weights based only on tenants

There are duty stations where a weight-pattern based only on tenants seems more appropriate than one based on both tenants and owners. This happens because there is a relationship between certain characteristics of the reference population and the corresponding housing pattern. In particular there are differences between patterns for “permanent” staff (officials staying for long periods in the duty station) and for “temporary” staff.

The fact of staying permanently or temporarily in a place has at least two effects on housing-type patterns:

i) A small flat can be enough for a person working on the basis of a short posting, which may not involve the family and which may need just a minimum standard of comfort. But in places like Brussels or Varese, where most officials stay for quite long periods, people tend to look for a permanent dwelling. This often means a bigger and more comfortable family house or apartment.

ii) In those places with a large number of permanent officials a high percentage are owners. The dwelling in this case is more frequently a house than a flat. Moreover, owners tend to have bigger houses than tenants do. Generally it is the case that for permanent and temporary staff there are different **proportions** of houses and flats.

In conclusion, a weighting pattern based only on tenants seems more appropriate for places with mainly temporary staff.

c) Imputed weights for places with insufficient information

There are places for which a correction coefficient has to be calculated, but too few officials are present to obtain specific housing-type weights. In such a case a European pool tenants' pattern is applied.

Table 13 shows the kind of weighting pattern used for each place in the 2005 annual review.

Table 13: Housing patterns used for rent parities calculation in the 2005 annual review

Country / Place of employment		Basis of weighting pattern
BE	Brussels	Brussels tenants + owners (2000 survey)
CZ	Prague	European pool tenants' pattern (2000 data)
DK	Copenhagen	Copenhagen tenants (1999&2000 survey)
DE	Berlin	European pool tenants' pattern (2000 data)
	Bonn	European pool tenants' pattern (2000 data)
	Karlsruhe	Karlsruhe tenants + owners (2003 survey)
	Munich	Munich tenants (1998&1999 OECD staff-housing-survey)
EE	Tallinn	European pool tenants' pattern (2000 data)
EL	Athens	European pool tenants' pattern (2000 data)
ES	Madrid	European pool tenants' pattern (2000 data)
FR	Paris	Paris tenants (1999&2000 OECD staff-housing-survey)
IE	Dublin	Dublin tenants + owners (2003 survey)
IT	Rome	European pool tenants' pattern (2000 data)
	Varese	Varese tenants + owners (2005 survey)
CY	Nicosia	European pool tenants' pattern (2000 data)
LV	Riga	European pool tenants' pattern (2000 data)
LT	Vilnius	European pool tenants' pattern (2000 data)
HU	Budapest	European pool tenants' pattern (2000 data)
MT	Valletta	European pool tenants' pattern (2000 data)
NL	The Hague	The Hague tenants (2000 data)
AT	Vienna	European pool tenants' pattern (2000 data)
PL	Warsaw	European pool tenants' pattern (2000 data)
PT	Lisbon	Lisbon tenants (1999-2000 survey)
SI	Ljubljana	European pool tenants' pattern (2000 data)
SK	Bratislava	European pool tenants' pattern (2000 data)
FI	Helsinki	European pool tenants' pattern (2000 data)
SE	Stockholm	European pool tenants' pattern (2000 data)
UK	London	London tenants + owners (2005 survey)
	Culham	European pool tenants' pattern (2000 data)

d) The Fisher formula

Various formulae have been developed to aggregate price ratios in order to measure the change between two situations (Brussels and a place *x*).

The most common of these are the Laspeyres, Paasche and Fisher indices. A description of these indices can be found in chapter II. Eurostat uses the last index type (Fisher), which is the geometric average of the Laspeyres and Paasche indices.

An example of rent parity calculation is shown in table 14.

Table 14: rent parity for Munich

	3 bedroom flat (110-130 m²)	2 bedroom flat (80-100m²)	1 bedroom flat (60-80m²)	Non-detached house (110-130 m²)	Detached house (150-180 m²)	Totals
Munich Average rents	**1,477**	**1,101**	**855**	**1,615**	**2,237**	
Weights	19.6	28.9	22.7	21.4	7.4	100
Brussels Average rents	**1,183**	**894**	**669**	**1,247**	**1,869**	
Weights	14.0	17.6	3.9	29.5	35.0	100
Price ratios	1.249365	1.230913	1.277595	1.295114	1.197011	

Laspeyres index = 1.24236 (using Brussels weights)

Paasche index = 1.25565 (using duty station weights)

Fisher index = 1.249

5. Checks and analyses

As shown in previous paragraphs, several variables influence the final result of the rent parity. The rent parities for the year t are affected by the following factors:

- introduction of rent data for the year t.
- deletion of the rent data for t-6 from the 6-year moving average model
- price indices used for updating the rents for (t-5) to (t-1) to the price level of year t. and
- new dwelling-type weights based on staff housing surveys.

All these effects as well as the total change in rent parities are shown in table 15.

Table 15: Change in rent parities from 2004 to 2005 - decomposition of effects (in %)

Places of employment		Deletion of survey 1999	Introduction of survey 2005	Price index 2005	Dwelling structure	Total change
CZ	Prague	-2.3	-1.2	-0.3	0.0	-3.8
DK	Copenhage n	0.3	-1.3	-0.2	0.0	-1.2
DE	Berlin	-2.4	-0.3	-1.0	0.0	-3.7
	Bonn	2.2	-1.3	-1.0	0.0	-0.2
	Karlsruhe	1.7	-1.7	-1.0	0.0	-1.1
	Munich	-0.7	-1.2	-1.0	0.0	-2.9
EE	Tallinn	0.8	-1.8	0.6	0.0	-0.4
EL	Athens	1.0	-1.2	0.8	0.0	0.6
ES	Madrid	2.4	0.9	0.6	0.0	4.0
FR	Paris	-0.1	-0.7	1.9	0.0	1.2
IE	Dublin	-4.1	-1.3	0.0	0.0	-5.3
IT	Rome	4.2	-0.1	-0.5	0.0	3.6
	Varese	4.5	-9.6	-0.5	-0.2	-6.4
CY	Nicosia	3.3	-0.6	-0.4	0.0	2.2
LV	Riga	-0.7	2.6	2.7	0.0	4.6
LT	Vilnius	-0.2	-2.5	-0.2	0.0	-2.8
HU	Budapest	-5.6	1.1	1.4	0.0	-3.2
MT	Valletta	-0.4	-0.5	0.5	0.0	-0.5
NL	The Hague	0.3	1.1	-0.6	0.0	0.7
AT	Vienna	0.4	0.6	0.0	0.0	1.0
PL	Warsaw	-0.4	2.6	-0.7	0.0	1.5
PT	Lisbon	-1.5	-0.5	-0.5	0.0	-2.5
SI	Ljubljana	1.0	-2.2	-0.2	0.0	-1.5
SK	Bratislava	-1.4	-2.6	0.2	0.0	-3.8
FI	Helsinki	-0.7	-1.4	-0.8	0.0	-2.9
SE	Stockholm	-0.5	-1.0	-1.3	0.0	-2.8
UK	London	-4.1	3.7	-0.1	0.2	-0.4
	Culham	0.4	-1.1	0.0	0.0	-0.7

VI - CONSUMPTION WEIGHTS – THE FAMILY BUDGET SURVEY (FBS)

1. Introduction

The calculation of the overall economic parities used for salary adjustment in places of employment other than Brussels, requires the aggregation of the 80 elementary parities by means of consumption weights. With the methodology in use, each overall economic parity is calculated as a Fisher parity (for details. see chapter II). Consumption weights are thus needed not only for Brussels but for all the duty stations for which correction coefficients are calculated.

For each place the weights are estimated for each of the 80 basic headings and are expressed as percentages of total expenditure, according to their relative importance in the consumption basket. The weights reflect the expenditure pattern of the average EC official. To use the weighting pattern of the average national household could give a different and quite inappropriate result in the calculation of the overall parities although the information required calculating such weights would certainly be simpler to obtain.

To estimate expenditure patterns for the EC officials, every five to seven years Eurostat carries out Family Budget Surveys (FBS) in the different duty stations among the staff serving at that time; the average result is established as the consumption pattern of the duty station until the next survey. The purpose of these FBS is to determine the relative amounts of expenditure on different items of consumption. To obtain the data, respondents are asked to state their actual expenditure on various items. The overall relative amounts are then calculated on the basis of replies received.

Although the principles above are applicable to all the FBS conducted among EU officials, some specific situations are distinguished:

a) Family Budget Surveys in Brussels

As Brussels is the reference city for all correction coefficients, and because of the large number of staff there, FBS in Brussels are special in the sense that the questionnaire is designed on the assumption that large number of responses will be achieved, and reliable weights can be calculated. The survey is carried out every five years in two phases covering each one a period of six months.

b) Family Budget Surveys for other places

Places other than Brussels have far fewer staff. With the exception of Ispra, the number of people on duty rarely is over one hundred (Karlsruhe. Thessaloniki. Dublin) and in most cases, particularly in the capital cities, much more limited. Even with a high response rate the number of answers finally available is likely to be small. This is an important issue to be considered when the questionnaire is designed.

In extreme cases, like places with few officials (i.e.: capital cities) the reduced sample does not permit to estimate reliable consumption weights and a common structure, pooling all the questionnaires from these places, is derived.

2. The Brussels Family Budget Survey

a) Main features of the Brussels questionnaire

The questionnaire is divided into five parts:

Part 1 Consists of some general information about the status, household composition and accommodation. The information given in this section is essential to validate the survey results and to extend these to the total population of EU officials in Brussels**.**

Part 2 This section concerns the main regular bills such as telephone, electricity, water, local and housing taxes, etc. The usual, or average, amount which is currently paid, together with the frequency, is shown in this section.

Part 3 This section records day by day during 2 consecutive weeks, all expenditure on food and food-related articles - such as restaurants and staff canteens.

Part 4 is a section in which items not already included in the previous parts are recorded. Total expenditure during a six-month period in those items is recorded. In case of small or frequent expenditures (e.g. newspapers. flowers. cinema tickets) a monthly average instead of a total can be given.

Part 5 is a section in which the respondent records the expenditure outside Belgium. This information is not used in the calculation of the purchasing power parities and correction coefficients, but it is of analytical help.

See in annex E the model used in the 2005 Brussels survey.

b) The method to impute rents for owner occupied dwellings

The method followed to impute rents declared in the Brussels FBS to owner-occupiers is to associate the average rents of each dwelling class to all owner-occupiers of the same dwelling class. This procedure is in line with the Commission Decision of 18.7.1995 (JO L186. 5.8.1995) on imputed rents estimation, recommending the use of stratification characteristics closely connected with housing and based on real rents.

The FBS questionnaire records the following variables connected with housing:

- Type of dwelling (detached house, semi or non-detached house, flat);
- Number of bedrooms;
- Total area of living space

Given the sample size constraints, not all the possible classes are used but only those likely to have significantly different average rents. The following classes are defined:

1 Studio

2 Apartment 1 bedroom, <60m2

3 Apartment 1 bedroom, >60m2

4 Apartment 2 bedroom, <80m2

5 Apartment 2 bedroom, >80m2

6 Apartment >2 bedroom, <120 m2

7 Apartment >2 bedroom, >120 m2

8 House terraced or semi-detached <140 m2

9 House terraced or semi-detached >=140 m2

10 House detached <190 m2

11 House detached >=190 m2

3. FBS for places of employment other than Brussels

a) Preliminary remarks

For places other than Brussels different considerations apply. In the places where there are large centres (e.g. Ispra. Dublin. Thessaloniki etc.) there exists the possibility of obtaining reasonably large numbers of FBS respondents - though not on the same scale as in Brussels. In some places the combined number of officials (including staff of the European Parliament, European Schools, and other EU institutions, as well as international staff belonging to the co-ordinated organisations) is large enough to provide a reasonably reliable estimate of average consumption patterns.

However in those places (mainly capital cities) where there are relatively few officials, there are problems in obtaining enough completed FBS questionnaires to be statistically viable, even if a 100% response were obtained (estimates from small samples will not necessarily represent the target average).

The two cases mentioned above need to be treated differently when estimating consumption weights.

Particular problems in the estimation of consumption weights exist for those countries with more than one place of employment and where a separate correction coefficient is applied.

All these issues are treated in detail in the following sections.

b) FBS in places with sufficient staff population to estimate reliable weights.

For these places, basically those with research centres or with a sufficiently large combined population (staff of the European Parliament, European Schools, other EU institutions, etc) the Brussels questionnaire is used. The only difference is the reference period, which is extended to one year. Those places are Athens, Paris, Dublin, Lisbon and The Hague. For countries with more than one place of employment (UK, DE and IT) see point d below.

c) Consumption weights for places with few officials

The method now being applied to estimate consumption weights for places with few officials was approved by the Article 64 Working Party in February 1995 and is based on the average of weighting patterns from all places, except Brussels, as they are considered to have similar characteristics. This method treats housing separately from other items of expenditure.

Considering non-housing items list, the method starts from the fact that no basis exists for calculating detailed weights specific to each place: there is no possibility of a special FBS amongst international staff, and the national weights are not relevant. A proxy is therefore sought. Available FBS data show that there is a reasonable degree of similarity amongst the consumption patterns of international officials (at least at a high level of aggregation) regardless of their place of employment. Therefore, a set of average weights at the level of 12 main consumption groups is calculated. These weights are then disaggregated down to the 80-heading level, excluding housing, using national weighting patterns.

Housing weights are calculated based on the Brussels weight, corrected by the housing correction coefficient for each duty station. After introduction of the housing weights, the 80 basic headings are re-scaled to 1000.

The places used for the average weighting are those where FBSs have been conducted - a sort of European pool excluding Brussels (given that Brussels represents about 90% of the population, its inclusion would dominate a weighted average, reflecting the numbers of officials in each place of employment). Furthermore since the purpose of the exercise is to construct a proxy for a Paasche-type “local” weighting, it would have not been logical to include Brussels as, of course, the Laspeyres part of the final Fisher index is wholly Brussels based. Thus the solution retained is to calculate an average set of weights based only on FBSs from places other than Brussels.

d) Consumption weights for countries with more than one place of employment

The estimation of consumption weights, although based where possible on local FBSs, presents particular problems for those countries with more than one place of employment and where a separate correction coefficient is applied: Germany, Italy and the UK. Current practices differ according to the country taking into account the size of the population and the response rate to the survey. At present the situation is:

- In the UK the same weighting pattern is used for Culham and London.
- In Germany, the same weighting pattern is used in all four places of employment (Berlin, Bonn, Karlsruhe and Munich).
- In Italy. Ispra has its own FBS-based weighting pattern, while Rome has a separate one based on FBSs from Rome and certain other places in Italy where there are staff of the Co-ordinated Organisations.

VII Correction Coefficients for officials

1. Introduction

The basic principle behind the application of correction coefficients is that when officials are serving in posts outside Brussels or Luxembourg, they should not have to suffer financially because of higher living costs in their duty station. Equally, if the cost of living at a particular duty station is lower than in Brussels, officials should not gain an unfair advantage over their counterparts in Brussels. For this reason, salary adjustment of EU officials outside Brussels and Luxembourg requires to compare relative living costs between Brussels and the places where these officials are on duty. The technique is to compare the price of a "basket" of goods and services purchased by the average EC official in Brussels with the price of the same basket in each of the other places of employment.

The full range of goods and services, which comprise the total expenditure of an average EC official is divided into 80 groups, called "Basic Headings" (such as footwear, local public transport, bread and cereals, tobacco etc). Within these "Basic Headings", the products are selected and specified in enough detail to allow prices in a reasonably narrow range to be collected. The choice of products is agreed at regular meetings between national statistical institutes (NSI) under the supervision of Eurostat. The potential list is endless, but the selection made must be reasonably small for practical purposes. The overall list contains more than 3000 items.

Between each duty station and Brussels a parity is obtained for each of the 80 "Basic Headings". Each elementary parity is calculated as the geometric mean of the price ratios for the items within the basic heading, which have been priced in Brussels and in the duty station. In order to calculate these elementary parities, prices of as many as possible of the items are collected by NSIs in each duty-station through special surveys carried out periodically (see chapter III). Several price quotations for each item are obtained and averaged.

The calculation of a global economic parity requires the aggregation of the 80 elementary parities using consumption weights (see chapter VI). Each overall economic parity is calculated as a Fisher parity (geometric mean of Laspeyres and Paasche parities). Thus average prices and consumption weights are needed not only for Brussels but also for all the duty stations for which salaries are adjusted (for details see the following sections).

2. From price surveys to elementary parities

Chapter III gives a detailed description of all activities concerning price surveys. The overall list of products and services priced contains about 3000 items. The items are classified according to the classification system COICOP. COICOP (Classification of Individual COnsumption by Purpose) has been adopted as a national accounts classification for consumer expenditure applying to all national accounts as from 1999. Following the European System of Accounts 1995 (ESA95) a move to a COICOP-based structure was imperative for Purchasing Power Parities (PPP). Meanwhile, a Council Regulation has fixed also for the Harmonised Consumer Price Indices a COICOP-based structure. These implied that a similar change for correction coefficients was essential to guarantee coherence between international classifications. After detailed discussions in 1997 and 1998 the Working Party on Article 64 in its meeting in March 1999 agreed to introduce a COICOP-based structure for the calculation of Correction Coefficients from 1999 onwards.

According to COICOP, all products and services are first broken down into 12 main groups:

(1) Food, and non-alcoholic beverages

(2) Alcoholic beverages and tobacco

(3) Clothing and footwear

(4) Housing, water, electricity, gas and other fuels

(5) Furnishings, household equipment and maintenance of house

(6) Health

(7) Transport

(8) Communication

(9) Recreation and culture

(10) Education

(11) Hotels. cafes and restaurants

(12) Miscellaneous goods and services

Each of the 12 groups is then broken down into sub-groups, which in turn are further broken down into more detailed groups. This operation continues until the most detailed level of the classification for which elementary parities are calculated. This level refers to as so called "basic heading". An exhaustive classification for the correction coefficients calculation comprises 80 basic headings (see annex D). The basic headings have a dual role:

- first of all, they constitute the most detailed level for which realistic expenditure data (weights) can be obtained by the Family Budget Surveys regularly conducted among the staff serving in the different EU duty stations (see chapter VI).

- secondly, they match reasonably homogeneous groups of products from which a number of products are selected for price surveys (see chapter III).

As mentioned above, average prices for each product and place are calculated at the time of the survey. Price ratios between the duty station and Brussels for each product are then calculated. The geometric mean of these price ratios for the products belonging to the same basic heading is called elementary parity. So, there are in total 80 elementary parities for each duty stations reflecting the relative price levels in these duty stations comparing to those in Brussels.

Once a new price survey is conducted and the elementary parities for the basic headings concerned are calculated, they replace the existing elementary parities (derived from the previous survey and updated using harmonised price indices – HICP, see section 4). All elementary parities are then updated to the month of June of the current year for the purpose of annual review (to December, for the purpose of intermediate review).

The 80 elementary parities are then aggregated to one global parity using the consumption weights derived from the Family Budget Surveys (see chapter VI).

3. Calculation of the global parity

Using the 80 basic parities and the specific weights the overall parity is calculated in two ways: the first uses the consumption pattern for the reference city (Brussels) (this is a type of Laspeyres index); the second uses the consumption pattern for the duty station (this is a type of Paasche index). In accordance with standard practice for international comparisons both types of index are calculated and the geometric mean of the results (a Fisher index) is the one actually used.

First step is the calculation of the basic parities, which are obtained as geometric means of the price ratios for all the common items between place X and Brussels:

$$_{X}PPA_{B}^{j} = \sqrt[k]{\prod_{i=1}^{k} \frac{P_{iX}}{P_{iB}}}$$

where:

j	=	*Basic heading 1 to 80*
i	=	*Item i*
k	=	*Number of items priced both in Brussels and in place X* $(k \leq i)$
P_{iX}	=	*Average price of item i in place X*
P_{iB}	=	*Average price of item i in Brussels*

A first possible aggregation of these basic parities can be obtained using the Brussels pattern of consumption in the following formula:

$$_{X}PPA_{B}^{L} = \frac{\sum_{j=1}^{80} PPA_{j} \times W_{Bj}}{\sum_{j=1}^{80} W_{Bj}}$$

where:

PPA_j	=	*Basic parity j for place X*
W_{Bj}	=	*Weight of heading j in the Brussels consumption structure*
L	=	*Laspeyres type index*

Another aggregation can be obtained using place X consumption structure:

$$_{X}PPA_{B}^{P} = \frac{\sum_{j=1}^{80} W_{Xj}}{\sum_{j=1}^{80} \left(\frac{1}{PPA_{j}} \times W_{Xj} \right)}$$

where:

W_{Xj}	=	*Weight of heading j in the place X consumption structure*
P	=	*Paasche type index*

The geometric mean of the two aggregated indices gives a Fisher type overall parity:

$$ {}_{X}PPA_{B}^{F} = \sqrt{\left({}_{X}PPA_{B}^{L} \times {}_{X}PPA_{B}^{P} \right)} $$

Finally, for the non-Euro zone countries it is necessary to take the ratio between the Fisher overall parity and the exchange rate between Euro and the national currency for calculating the Correction coefficient.

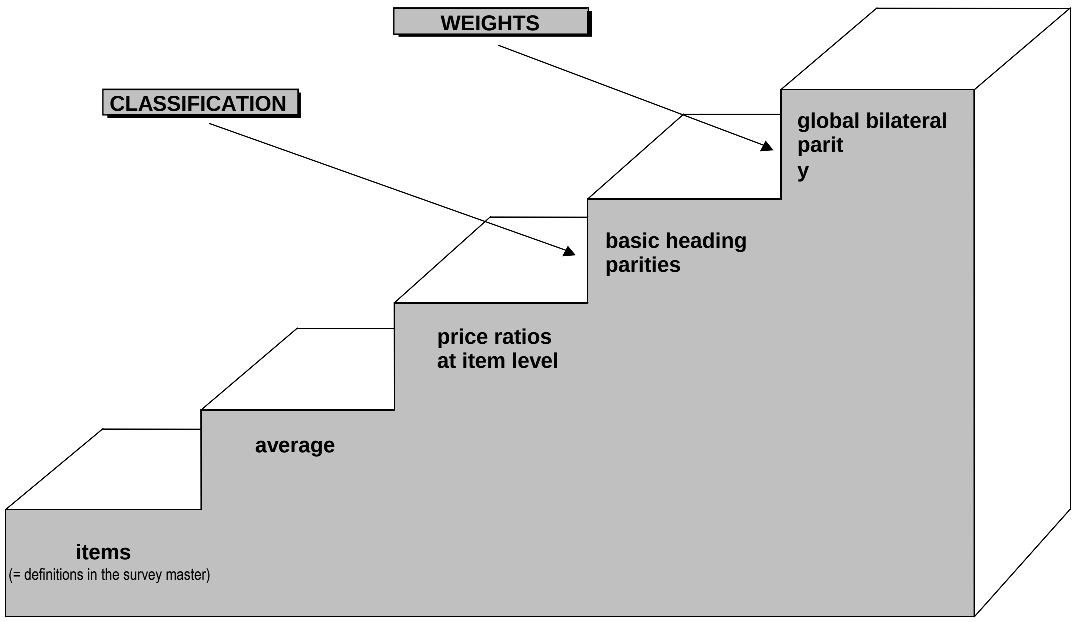
$$ {}_{X}CC_{B} = \frac{{}_{X}PPA_{B}^{F}}{T_{X/B}} $$

where:

$T_{X/B}$ = *Remuneration exchange rate, i.e. the rate used for EU budget, fixed at 1st July each year (for non-Euro zone countries).*

Diagram 1 schematises the different steps to follow in order to build up a global parity starting from item prices, i.e. from the results of price surveys. This diagram also mentions some tools needed to go up some steps: the classification and the weights. The last step leads to the global bilateral parity, which gives the correction.

Diagram 1: Different steps in calculating global parity



4. Yearly update of the parities

Another element to be considered in the calculation is the temporal dimension since not all the prices are surveyed at the same time. This requires updating with consumer price indices.

The Staff Regulations require each basic parity to be checked by direct survey at least once every five years. In practice checks are carried out at shorter intervals as part of the European Comparison Programme (ECP). At each annual salary review around one third of the basic price parities are replaced by new parities produced by the latest price survey. For instance, for the 2005 annual review, new parities obtained from price surveys were integrated for the following groups:

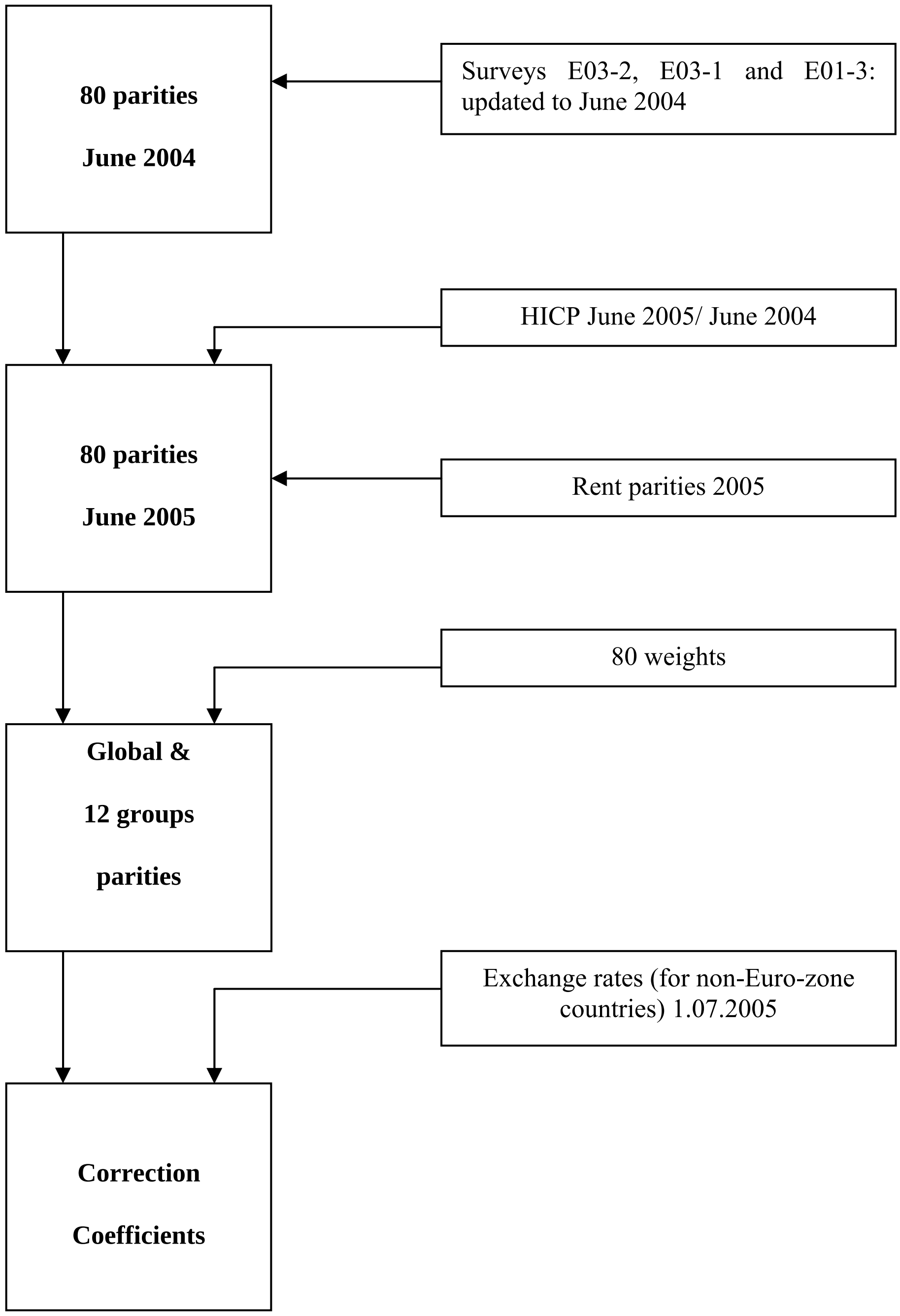
- Food, beverages and tobacco (survey spring 2003);
- Personal appearance (survey autumn 2003);
- Health (third survey 2001)

The 80 basic parities are then updated using the price index ratio between the place of employment and Brussels. For this purpose the Harmonised Indices of Consumer Prices (HICP) are used.

As required by Council Regulation (EC) no. 2494/95 and with the co-operation of Member States HICPs for each Member State are produced and published monthly. The calculations of HICPs in all Member States are carried out according to the same methodology. They have a common reference base and a common classification. The coverage of the HICPs is defined by the above mentioned COICOP. HICPs are considered by the Commission and the European Central Bank as the best measures of international comparison of consumer price inflation. As the correction coefficients lead to international comparison, the parities are updated using the HICPs.

The following schema shows, as an example, the 2005 yearly update.

Diagram 2: Procedures leading to 2005 annual salary review



VIII – Correction coefficients for pensioners

The correction coefficients for pensioners should refer to the country and not to the capital. They are calculated on the basis of the following information:

- Parities for all goods and services, except for rents, as used for the calculation of the correction coefficients for active staff. These parities are based on bilateral comparison of prices of about 3000 goods and services between different capital cities and Brussels (for more details see chapter III). The underlying hypothesis is that capital price ratio between the different capital cities and Brussels are equal to the corresponding country ratios.
- Rent parities. The hypothesis applied for goods and services parities on the equivalence between capital and country ratios is not likely to be true for rents, thus rent parities are estimated according to the following procedure: a spatial adjustment factor in the form of national/capital ratio of market rents is derived from an official database like, for instance, the CPI, household budget survey, housing register etc. With the help of this adjustment factor the capital city rent parity from Article 64 estate agency rent surveys is transformed into the country rent parity. The following exceptions to this general rule were agreed with the respective NSIs:
    1. Netherlands: No such adjustment factors were available for Netherlands. Average country rents were compared directly with the average rents in Belgium (all derived from ECP-PPP rent surveys).
    2. Germany: As information on rents for four German cities (Berlin, Bonn, Karlsruhe and Munich) is available, the ratio between the average of those cities and Berlin is used.
    3. Denmark: Due to the specificities of the rental market in Copenhagen, which is completely different from the market in the rest of the country, an estimate of the Copenhagen rent parity, different from the one for staff, is used as basis for the spatial adjustment factor. The new estimate is obtained averaging the staff rent parity with a rent ratio for the general population obtained from the NSI.
    4. Malta and Estonia: As no reliable information on the adjustment factors were available for Malta and Estonia, a ratio equal to 1 was used.

    Each National Statistical Institute is required each year to check and, if possible, to update their spatial adjustment factor.
- Consumption weights for the pensioners are calculated on the basis of a wide scale family budget survey (FBS). The last FBS among pensioners was carried out in 2002.

With the previous information a method similar to that of officials is applied for the estimation of the country economic parities for pensioners.

The correction coefficients applicable to the EC pensioners are determined on the basis of the relationships between the economic parities and the exchange rates fixed by the Commission and specified in the Staff Regulations for the relevant countries. The correction coefficient operates as a percentage adjustment to pensions to take account of the cost of living differences between Belgium and the other Member States, except Luxembourg where, according to the Staff Regulations, a correction coefficient of 100% is applied.

ANNEXES

ANNEX A: QUESTIONNAIRE FOR THE BRUSSELS STAFF HOUSING SURVEY

STAFF HOUSING SURVEY

BRUSSELS - 2005

1 Are you an expatriate? (according to staff regulations) — 1 ☐ Yes 2 ☐ No

2 Status of occupier: — 1 ☐ Tenant 2 ☐ Owner 3 ☐ Other

3 Total estimated area of living space: (excluding garage, balcony, cellar, etc.) — ________ m2

4 Year you moved in — ________

5 When you moved into your dwelling was it: — 1 ☐ Unfurnished 2 ☐ Furnished

6 Postal Code — B - ________

7 Type of dwelling:
- 1 ☐ Studio flat
- 2 ☐ 1 bedroom flat
- 3 ☐ 2 bedroom flat
- 4 ☐ 3 or more bedroom flat
- 5 ☐ non-detached house
- 6 ☐ detached house
- 7 ☐ other (hotel, room etc.)

8 Garage/parking space (covered / closed) — 1 ☐ Yes 2 ☐ No

IF TENANT : MONTHLY RENT

(all included: rent, charges, taxes, garage or parking space)

9 June 2004: ________ €

10 June 2005: ________ €

11 Do the answers 9 and 10 relate to the same dwelling? — ☐ Yes ☐ No

---

IF OWNER : MONTHLY MORTGAGE

(if any)

12 June 2005 : ________ €

Thank you for your participation

ANNEX B: QUESTIONNAIRE FOR THE ESTATE AGENCY RENT SURVEY IN LONDON

eurostat

INTER-ORGANISATIONS STUDY SECTION ON SALARIES AND PRICES

LONDON

Agency: ___________________ **n.** _____

Agent name: __________________________

RENTS SURVEY 2005

For the various types of accommodation described below, you are asked to provide the monthly rent.

GENERAL CHARACTERISTICS OF THE ACCOMMODATION

Property:	**Unfurnished**.
Location:	**Residential areas of good quality** where professional people live (e.g. doctors, managers, lawyers, etc.).
Year of construction:	Recently built or modernised (e.g. within last 10 years).
Situation / Outlook:	Middle floor. In good, well-lit position.
Finish:	Floor, walls, sanitary fittings, doors, etc. of good quality.
Living area:	Total interior habitable area; exclude garage and terrace.
Price data requested:	**Monthly rent excluding charges** (duration of the contract of at least one year). Rent **paid by tenant** (rent paid by employer must be excluded).

Districts covered

Islington & Highbury, Westminster, Fulham, Putney, Docklands, Greenwich & Blackheath, Southgate, Pimlico, Clapham.

Kind of accommodation		Price range / Typical rent
I 3 bedroom flat 3 bedrooms, living room, kitchen, 1 or 2 bathrooms	**80-100 m²** *(850-1100 sq. feet)*	
II. 2 bedroom flat 2 bedrooms, living room, kitchen, 1 bathroom	**60-80 m²** *(650-850 sq. feet)*	
III. 1 bedroom flat 1 bedroom, living room, kitchen, 1 bathroom	**40-60 m²** *(450-650 sq. feet)*	
IV. Studio flat 1 room, kitchen area, 1 bathroom	**30-40 m²** *(350-450 sq. feet)*	
V. Non-detached house **(e.g. terraced or semi-detached)** 3 bedrooms, living room, kitchen, 1 or 2 bathrooms	**80-100 m²** *(850-1100 sq. feet)*	
VI.…Detached house 4 bedrooms, living room, kitchen, 1 or 2 bathrooms	**110-140 m²** *(1200-1500 sq. feet)*	

ANNEX C: RESULTS OF THE ESTATE AGENCY RENT SURVEY IN MUNICH. MARCH 2005

MUNICH **March 2005** **EUR/Month (Flats: EUR/m²)**

Agencies	3 bedroom flat (100 -130 m²)			2 bedroom flat (80-100 m²)			1 bedroom flat (60-80 m²)			Non-detached house (110-130 m²)			Detached house (150-180 m²)		
	AVG	min	max	AVG	min	max	AVG	min	max	AVG	min	max	AVG	min	max
2	9.50	9.0	10.0	9.50	9.0	10.0	9.50	9.0	10.0	1,650	1,500	1,800	2,100	2,000	2,200
3	11.25	10.0	12.5	12.10	10.6	13.6	12.80	11.6	14.0	1,403	1,265	1,540	2,115	2,025	2,205
4	10.50	10.0	11.0	9.50	9.0	10.0	9.50	9.0	10.0	1,750	1,500	2,000	2,250	2,000	2,500
7	10.00	9.5	10.5	9.75	9.0	10.5	11.75	11.0	12.5	1,500	1,400	1,600	2,400	2,300	2,500
9	10.50	9.5	11.5	11.00	9.5	12.5	11.00	9.5	12.5	1,300	1,200	1,400	1,600	1,200	2,000
14	13.25	12.0	14.5	12.05	11.6	12.5	11.25	10.0	12.5	1,650	1,400	1,900	2,150	1,900	2,400
15	10.50	9.0	12.0	10.75	10.0	11.5	11.25	10.0	12.5	1,650	1,500	1,800	2,250	2,000	2,500
19	12.75	12.0	13.5	12.75	12.0	13.5	12.25	11.0	13.5	1,500	1,400	1,600	2,150	2,000	2,300
20	11.50	11.0	12.0	11.50	11.0	12.0	11.00	10.0	12.0	1,800	1,600	2,000	2,200	1,900	2,500
21	11.50	11.0	12.0	11.50	11.0	12.0	10.25	9.0	11.5	1,325	1,250	1,400	2,100	2,000	2,200
22	10.50	10.0	11.0	10.50	10.0	11.0	10.50	10.0	11.0	1,300	1,100	1,500	2,000	1,700	2,300
RENT 2005	**1 332**			**990**			**770**			**1 530**			**2 120**		
2005 / m²	11.10			11.00			11.00			12.80			12.80		
Rent 2004	1 380			1 026			798			1 528			2 130		
2005/2004	-3.5%			-3.5%			-3.5%			0.1%			-0.5%		

ANNEX D: LIST OF 80 BASIC HEADINGS

BH	COICOP	Basic Headings	Group
1	01.1.1	Bread and cereals	1
2	01.1.2	Meat	1
3	01.1.3	Fish	1
4	01.1.4	Milk, cheese and eggs	1
5	01.1.5	Oils and fats	1
6	01.1.6	Fruit	1
7	01.1.7	Vegetables including potatoes and other tubers	1
8	01.1.8	Sugar, jam, honey. chocolate and confectionery	1
9	01.1.9	Food products n.e.c	1
10	01.2.1	Coffee, tea and cocoa	1
11	01.2.2	Mineral waters, soft drinks, fruit and vegetable juices	1
12	02.1.1	Spirits	2
13	02.1.2	Wine	2
14	02.1.3	Beer	2
15	02.2.0	Tobacco	2
16	03.1.2	Garments	3
17	03.1.1/3	Other articles of clothing, clothing accessories and clothing materials	3
18	03.1.4	Dry cleaning, repair and hire of clothing	3
19	03.2.1/2	Footwear including repairs and hire	3
20	04.1.1/2	Actual rentals paid by tenants and other actual rentals	4
21		*Imputed rentals (not in HICP)*	4
22	04.3.1	Products for the regular maintenance and repair of the dwelling	4
23	04.3.2	Services for the regular maintenance and repair of the dwelling	4
24	04.4.1	Water supply	4
25	04.4.2/3/4	Refuse and sewerage collection. other services related to the dwelling n.e.c.	4
26	04.5.1	Electricity	4
27	04.5.2	Gas	4
28	04.5.3/4/5	Solid and liquid fuels; heat energy	4
29	05.1.1	Furniture and furnishings	5
30	05.1.2	Carpets and other floor coverings	5
31	05.1.3	Repair of furniture, furnishings and floor coverings	5
32	05.2.0	Household textiles	5
33	05.3.1/2	Major household appliances whether electric or not and small electric household appliances	5
34	05.3.3	Repair of household appliances	5
35	05.4.0	Glassware, tableware and household utensils	5
36	05.5.1/2	Tools and equipment for house and garden	5
37	05.6.1	Non-durable household goods	5
38	05.6.2	Domestic services and home care services	5
39	06.	Health	6
40	07.1.1	Motor cars	7
41	07.1.2/3/4	Motor cycles and bicycles	7
42	07.2.1	Spare parts and accessories for personal transport equipment	7
43	07.2.2	Fuels and lubricants for personal transport equipment	7
44	07.2.3	Maintenance and repair of personal transport equipment	7
45	07.2.4	Other services in respect of personal transport equipment	7
46	07.3.1	Passenger transport by railway	7
47	07.3.2	Passenger transport by road	7
48	07.3.3	Passenger transport by air	7
49	07.3.4	Passenger transport by sea and inland waterway	7
50	07.3.5	Combined passenger transport	7
51	07.3.6	Other purchased transport services	7

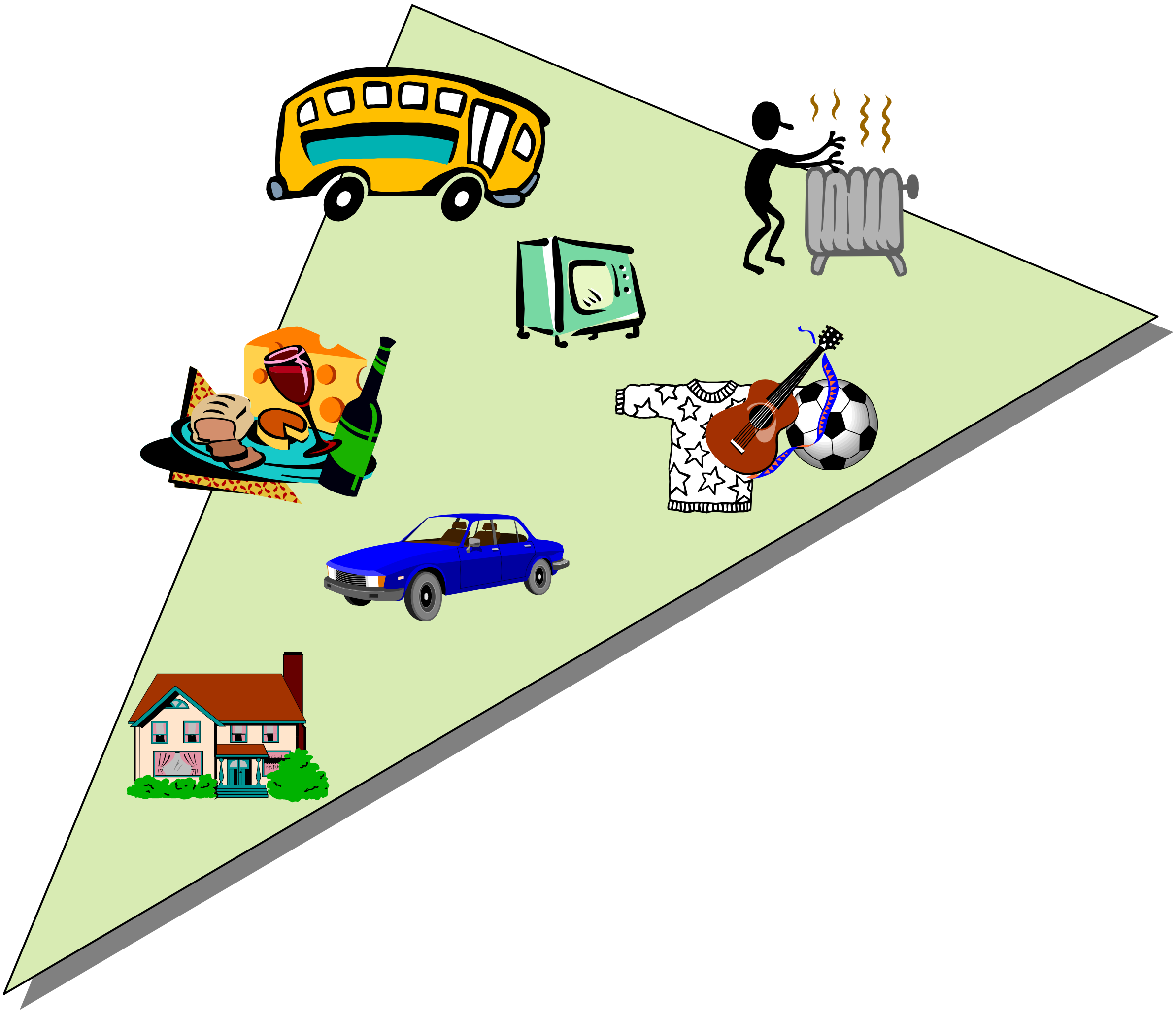
new BH	COICOP	Basic Headings	Group
52	08.1.0	Postal services	8
53	08.2.0/3.0	Telephone and telefax equipment and services	8
54	09.1.1	Equipment for the reception, recording and reproduction of sound and pictures	9
55	09.1.2	Photographic and cinematographic equipment and optical instruments	9
56	09.1.3	Information processing equipment	9
57	09.1.4	Recording media	9
58	09.1.5	Repair of audio-visual. photographic and information processing equipment	9
59	09.2.1/2	Major durables for indoor and outdoor recreation including musical instruments	9
60	09.2.3	Maintenance and repair of other major durables for recreation and culture	9
61	09.3.1	Games, toys and hobbies	9
62	09.3.2	Equipment for sport, camping and open-air recreation	9
63	09.3.3	Gardens. plants and flowers	9
64	09.3.4/5	Pets and related products	9
65	09.4.1	Recreational and sporting services	9
66	09.4.2	Cultural services	9
67	09.5.1	Books	9
68	09.5.2	Newspapers and periodicals	9
69	09.5.3/4	Miscellaneous	9
70	09.6.0	Package holidays	9
71	10.	Education - paid by consumers	10
72	11.1.1	Restaurants. cafes and the like	11
73	11.1.2	Canteens	11
74	11.2.0	Accommodation services	11
75	12.1.1	Hairdressing salons and personal grooming establishments	12
76	12.1.2/3	Appliances. articles and products for personal care	12
77	12.3.1	Jewellery. clocks and watches	12
78	12.3.2	Other personal effects n.e.c.	12
79	12.5	Insurance	12
80	12.6.2/7.0	Other services. including financial services n.e.c.	12

ANNEX E: 2005 BRUSSELS FBS QUESTIONNAIRE

BRUSSELS 2005

FAMILY BUDGET SURVEY

AMONG STAFF OF EUROPEAN UNION INSTITUTIONS



eurostat

[Mod I]

INTRODUCTORY NOTE

This survey is being conducted by Eurostat (the Statistical Office of the European Communities). Its **purpose** is to collect information in order to **estimate an average expenditure pattern** of EU staff working in **Brussels and living in Belgium**.

The resulting pattern is an essential element in the calculation of purchasing power parities (PPP) and the correction coefficient applicable to the salaries of European Union officials.

Thus, **the results of this survey will affect your salaries**, and you therefore have a direct interest. Only you have the necessary information to evaluate your household expenditure which is the object of the survey. Please note that in order to obtain statistically reliable results, **a large number of replies is vital**.

The purpose of the survey is not to know what you spend but how you spend. This means that the pattern of your expenditure will allow us to give adequate importance to different items in a basket of goods and services at the time of calculating the PPP.

Please note that the information you give will remain **completely anonymous**. Its origin cannot be traced since there is no name or number on the questionnaire. No basic data from the questionnaire will be communicated to unauthorised persons.

The information you give will be combined with that of other officials in order to calculate the average consumption structure of EU staff in Brussels.

Before each section of the questionnaire, you will find detailed instructions on how to complete that part. **Please read them carefully before you begin to fill it in.**

If you have any questions, please contact Eurostat as indicated on the back cover.

Please send the completed questionnaire to the address shown in the last page.

LAYOUT OF THE QUESTIONNAIRE

PART 1 Consists of some **general information** about your status, household composition and your accommodation.

PART 2 Is a page on which you should note your **regular bills** – often monthly ones, such as bills for gas, electricity, telephone, etc.

PART 3 Here you should record some of your **daily expenditure** (mainly on food and beverages) **<u>over a period of 14 consecutive days</u>**, between Monday 23 May and Sunday 26 June.

PART 4 Is a section in which you should note your expenditure on **items and services purchased** during the **last 6 months (December 2004 to May 2005) <u>or</u> an average month of this period**.

PART 5 Is a section in which you record your **expenditure outside Belgium**.

Please take the necessary time to complete parts 1-4 of the questionnaire. Remember that **an incomplete questionnaire is not likely to be usable, and your efforts will be wasted.** However, if you forget to record the purchase of a bus ticket or a newspaper, this will have little impact on the overall quality of the results.

If you cannot find an item of your expenditure in one of the boxes provided:

- ✓ **Consult the glossary annexed to this questionnaire**, indicating under which position some selected items are classified, or
- ✓ **Use the boxes "OTHER EXPENSES"**, specifying as much as possible the nature and the amount of your expenditure.

Notes on part 1: PERSONAL INFORMATION

The information given in this section is essential to validate the survey results and to gross up these to the total population of international officials in Bruxelles.

Housing

The information concerning housing relates **solely to your main residence** in Belgium.

As the accommodation cost is a very important element in the calculation of correction coefficients, it is essential that all related questions are answered and that the total area of living space be filled in accurately.

- ✓ If you are a **tenant**, please record your current <u>monthly rent excluding charges for utilities and other services</u> such as common lighting, elevator, etc.
- ✓ Exclude any payment for garage, unless this is an integral part of your rent. Service and utility charges are shown in part 2 (regular bills) of the questionnaire.
- ✓ If you are **owner** of your accommodation and if you have bought it on a mortgage or any other loan, please state your current monthly payment (capital plus interest) but excluding any life insurance.

Part 1 PERSONAL INFORMATION

Country of residence: Belgium ☐

Elsewhere ☐ → **end of survey**

Category (grade) :

Expatriate: ☐ yes ☐ no

NUMBER OF PERSONS IN YOUR HOUSEHOLD

Adults (including yourself): Staying in Belgium

Staying elsewhere

Dependent Children: Staying in Belgium

(according to staff regulations) Staying elsewhere

TIME SPENT PER YEAR OUTSIDE BELGIUM

Average number of days **on holiday**:

Average number of days **on official mission**:

HOUSING (main residence in Belgium)

☐ Tenant → Monthly rent (excluding charges)

☐ Owner → Monthly loan reimbursement:
(including interest)

Type of dwelling:

☐ Detached house

☐ Semi or non-detached house

☐ Flat

Number of bedrooms: ☐ 1 ☐ 2 ☐ 3 ☐ 4+

Total area of living space (excluding garage, balcony, cellar, etc.) m²

Notes on part 2: REGULAR BILLS

This section concerns your main regular bills such as telephone, electricity, etc. We will estimate the average annual amounts of these bills; therefore you are asked to record the usual, or average, amount which you currently pay, together with the frequency.

Please make sure you note the **frequency** (e.g. M = monthly), otherwise it will not be possible to calculate the annual figure.

FREQUENCY

- **W** = weekly
- **M** = monthly
- **B** = bi-monthly
- **Q** = quarterly
- **Y** = yearly

(other frequency to be mentioned in the box)

- ✓ Regular bills should relate to your dwelling(s) in Belgium.
- ✓ If you own a second home for investment purposes in Belgium (i.e. if usually rented out), this should not be recorded in this survey.
- ✓ If you own or rent a second home outside Belgium you may record related expenditure in part 5 *(expenditure outside Belgium)*.

☝ If you cannot find an item of your expenditure in the boxes provided, or if in Belgium there exists any other regular expenditure not mentioned, please mark them in box 10 **(OTHER REGULAR BILLS)**.

Part 2 - HOUSEHOLD RELATED REGULAR BILLS

		Amount (normal or average)	Frequency
1	Charges for dwelling(s) (including refuse and sewerage collection)		
2	Water supply (if not included in charges for dwelling)		
3	Electricity		
4	Gas (town and natural gas, including meter charges)		
5	Solid and liquid fuel for domestic heating and other types of heating energy		
6	Garage (for main residence use)		
7	Telephone and internet bills (excluding purchase of equipment)		
8	TV taxes and subscription fees for cable/satellite TV		
9	Local and housing taxes		

OTHER REGULAR BILLS (please specify)

10			

Notes on part 3: DAILY EXPENSES

In this section you are asked to record day by day **during 2 weeks**, between Monday 23 May and Sunday 26 June, your expenditure on food and food-related items such as restaurants and canteens. You have a separate row for each of the 14 consecutive days.

Please complete each day's expenditure at the end of the day by recording the total expenditure in each relevant box.

The box "**restaurants, cafes, bars, take-away**" refers to the expenditure on food, beverages, ice creams, etc. made in any of these places, or when delivered to your home/office.

The purpose of the survey is to estimate average annual expenditure of households in Belgium. For this reason, **if you are absent from Belgium during the 2-week period**, the remaining members of your household should continue to record any expenditure in Belgium. Any expenditure in an other country should be recorded in part 5 *(expenditure outside Belgium)*.

Part 3 - DAILY EXPENSES (over 14 consecutive days)

	Food	Non-alcoholic beverages (soft drinks, coffee, mineral water, etc.)	Alcoholic beverages (beer, wine, spirits, etc.)	Tobacco (cigarettes cigars, etc.)	Restaurants, cafes, bars, take-away	Canteens (at workplace and school)
	11	12	13	14	15	16
Day 1						
Day 2						
Day 3						
Day 4						
Day 5						
Day 6						
Day 7						
Day 8						
Day 9						
Day 10						
Day 11						
Day 12						
Day 13						
Day 14						

Notes on part 4: EXPENSES IN LAST 6 MONTHS (DECEMBER 2004 – MAY 2005)

The consumption pattern will be calculated on the basis of annual expenditure.

Therefore, in this section you are requested to record your expenditure **preferably for the last 6 months (December 2004 – May 2005).** However, in case of small or frequent expenditures (e.g. newspapers, flowers, cinema ticket), if you find it easier, you may note **your usual expenses for an average month of that period**.

Cars

We are looking for the **net expenditure** on vehicles. Thus, if you have purchased cars (new or second-hand) during the **last 5 years (June 2000-May 2005):**

- ✓ record in box 25a the **actual price you paid for all cars** during that period (exclude loan interests if you bought any vehicle on credit), and
- ✓ record in box 25b (**sale price**) the sale price of the car(s) you sold during the same period.

Holidays

Record **only the expenditure actually made in Belgium**. For example, air tickets purchased in **Belgium** should be recorded in box 21 (**planes**) and a package holiday purchased at travel agencies within **Belgium** should be recorded in full in box 70 (**package holidays**). But a hotel bill paid in a foreign country goes to part 5 (*expenditure outside Belgium*).

Health

Record **only the expenses for which you will NOT receive reimbursement** from your basic medical insurance.

Purchases via Internet

All purchases made via Internet are considered as expenses made in Belgium, provided the purchased good is delivered to Belgium.

☝ If you cannot find an item of your expenditure in one of the boxes provided, mark it in box 83 **(OTHER EXPENSES)**.

Part 4 - EXPENSES 1 DECEMBER 2004 – 31 MAY 2005

PUBLIC TRANSPORT (excluding reimbursed, official travel)	expenditure in last 6 months	OR	expenditure in average month
17 Local public transport (metro, bus, tram, local train)			
18 Taxi			
19 Trains (excluding local train)			
20 Coaches			
21 Planes			
22 Ferries			
23 Combined Passenger transport (by two or more modes of transport e.g. "fly and drive", etc.)			
24 Other purchased transport services (cable car, removal and storage services, left luggage, etc.)			

CARS (purchased during last 5 years) -(June 2000 to May 2005)	total amount during last 5 years
25a Price paid for all cars purchased	
25b Sale price in case you sold cars during the same period	

OTHER EXPENSES ON PRIVATE TRANSPORT	expenditure in last 6 months	OR	expenditure in average month
26 Motorcycles, scooters and bicycles			
27 Tyres, spare parts, accessories and articles for cleaning			
28 Fuel			
29 Maintenance and repair of personal transport equipment			
30 Hire of vehicles, driving school, tolls and public parking			

INDIVIDUAL EXPENDITURE FOR MAIN RESIDENCE(S) IN BELGIUM			
31 Major transformations			
32 Products and services for minor repairs and maintenance			
33 Home alarm (Installation, maintenance and surveillance fees)			

Part 4 - EXPENSES 1 DECEMBER 2004 – 31 MAY 2005

FURNITURE AND OTHER HOUSEHOLD PRODUCTS		expenditure in **last 6 months**	OR	expenditure in **average month**
34	Furniture and furnishings (beds, tables, lighting equipment, pictures, etc.)			
35	Carpets and other floor covering			
36	Household textiles (curtain material, pillows, futons, blankets, towels, etc.)			
37	Glassware, tableware, household utensils			
38	Non-durable household products (detergents, cleaning products, etc.)			

ELECTRICAL APPLIANCES AND ELECTRONIC EQUIPMENT

39	Household appliances (refrigerator, toaster, air conditioner, vacuum cleaner, sewing machine, etc.)			
40	Audiovisual equipment (tv, CD player, radio, video recorder, DVD player, etc.)			
41	Photographic and cinematographic equipment (still cameras, camcorders, film projectors, etc.)			
42	Information processing equipment (computer, typewriter, etc.)			
43	Telephones, answering and fax machines			

LEISURE - SPORTS - RECREATION - CULTURE

44	Cinema, theatre, concerts, dancing, museum, zoo			
45	Recreation and sporting services (sport clubs, sport events, sport and dance lessons, etc.)			
46	Recording media (DVD, CD, video-cassettes, CD-roms, diskettes, films)			
47	Photographic services (film development, enlarging, wedding photography, etc.)			
48	Musical instruments			
49	Durables for indoor and outdoor recreation (camper vans, boats, horses & related equipment, ping-pong tables, etc.)			
50	Equipment for sport, camping and open-air recreation (balls, nets, rackets, skis, fishing rods, tents, sleeping bags, etc.)			
51	Tools and equipment for house and garden (electric drills, shovels , door fittings, small electric accessories, etc.)			
52	Toys, games			

Part 4 - EXPENSES 1 DECEMBER 2004 – 31 MAY 2005

	expenditure in **last 6 months**	OR	expenditure in **average month**
53 Gardens, flowers, plants			
54 Pets, pet food and related products and services			

CLOTHING AND FOOTWEAR

55 Clothing for men, women, children and infants (excluding accessories)			
56 Clothing accessories (gloves, ties, scarves, hats, belts, etc.)			
57 Footwear for men, women and children, including repair			

PERSONAL CARE AND MISCELLANEOUS GOODS

58 Hairdressing, beauty care for men and women (solarium, sauna, etc.)			
59 Appliances, articles and products for personal care (perfumes, make-up, beauty creams, soaps, combs, razors, hairdryers, etc.)			
60 Jewellery, clocks and watches			
61 Travel Goods (suitcases, handbags, travel goods, push-chairs, etc.)			

BOOKS- NEWSPAPERS - MAGAZINES

62 Books			
63 Newspapers, magazines and periodicals			
64 Miscellaneous printed matter and stationery			

EDUCATION (non-reimbursed expenses)

65 Educational fees (in your country of employment)			
66 Creche, playschool, kindergarten			
67 Music and language courses			

HEALTH EXPENSES (expenses non-reimbursed by your basic medical insurance)

68 Medical, dental and paramedical services (hospital and out-patient)			
69 Medicines, medical products, appliances and equipment			

Part 4 - EXPENSES 1 DECEMBER 2004 – 31 MAY 2005

HOLIDAY SERVICES	expenditure in **last 6 months**	OR	expenditure in **average month**
70 Package holidays			
71 Hotels, motels, camping			

DOMESTIC SERVICES - DRY CLEANING			
72 Domestic services (cleaner, gardener, baby-sitter, etc.)			
73 Dry cleaning and laundry of clothing, including repair			

REPAIRS (related to furniture and household items)			
74 Repair of furniture, furnishings and carpets			
75 Repair of household appliances and electronic equipment			
76 Maintenance/repair of musical instruments and recreation durables			

INSURANCE AND OTHER SERVICES			
77 Car insurance			
78 House/ flat insurance			
79 Health and accident insurance (complementary to basic medical insurance)			
80 Postal services, stamps, parcels			
81 Financial services (bank charges, money transfer fees, etc.)			
82 Other services (expenditure on passports, fees for legal services, etc.)			

OTHER EXPENSES (please specify)			
83			

Notes on part 5: EXPENDITURE OUTSIDE BELGIUM (DECEMBER 2004 – MAY 2005)

The information you put in this section will not be used directly in the calculations. Nevertheless, the data will be useful for research work on international expenditure.

Part 5 – EXPENDITURE OUTSIDE BELGIUM 1 DECEMBER 2004 – 31 MAY 2005

		Amount	Currency
84	Food, beverages, tobacco		
85	Clothing and footwear		
86	Housing and household services		
87	Furniture, household equipment, and routine maintenance of any second house		
88	Health		
89	Transport		
90	Communications		
91	Leisure, entertainment, culture		
92	Education		
93	Hotel, cafes, restaurants		
94	Miscellaneous goods and services		

1. COMMENTS

Please use this space to record your own comments. Any additional information or comments on the questionnaire or its contents, as well as your comments on general availability and other aspects of shopping at the duty station, will be helpful.

Thank you for your participation, and please send the completed questionnaire to the address shown in the last page.

IntraEU - EN v.Brux 05-Mod I

For any further information, please contact:

Eurostat

Telephone:	(352) 4301 35065
Fax:	(352) 4301 33989
Email:	estat-c5-fbs@cec.eu.int

Address:

European Commission

Eurostat C5

BECH B3/314

L-2920 LUXEMBOURG